$\begin{array}{llllll}\mathbf{M} & \mathbf{E} & \mathbf{M} & \mathbf{O} & \mathbf{I} & \mathbf{R}\end{array}$ OFA

# MAP of HINDOOSTAN; 

ORTHE
M O G U L E M P I R E:
With an INTRODUCTION, illuftrative of the Geography and Present Division of that Country:

And a MAP of the Countries fituated between the Head of the Indus, and the Caspian Sea.

By JAMES RENNELL, F.R.S.
Late Major of Engineers, and Surveyor General in Bengal.
——_The flow'r and choice
Oi many Provinces from bound to bound, From Arachosia, from Candaor eaft, And Margiana, to the Hyrcanian. Cliffs Of Caucasus
From Samarchand by Oxus, Temir's Throne,
To Agra and Lahor of Great Mogul,
Down to the Golden Chersonese -
And utmoft Indian Ille Taprobane.
Mileton.

TO WHICHISADDED,
An Appendix, containing an Account of the Ganges and Burrampooter Rivers.

LONDON:
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R 1930 L

## T 0

# Sir JOSEPH BANKS, Bart. PRESIDENT of the ROYAL SOCIETY, \&c. \&cc. 

THIS ATTEMPT<br>TO IMPROVE THE GEOGRAPHY OF INDIA, AND THE NEIGHBOURING COUNTRIES,

IS INSCRIBED,<br>BY HIS MUCH OBLIGED, AND<br>FAITHFUL FRIEND AND SERVANT,

London, 1 At March, 1788.
J. RENNELL.

1

## $\begin{array}{lllllll}\mathbf{P} & \mathbf{R} & \mathrm{E} & \mathrm{F} & \mathbf{A} & \mathbf{C} & \mathbf{E} .\end{array}$

AS almoft every particular relating to Hindoostan is become an object of popular curiofity, it can hardly be deemed fuperfluous to lay before the public an improved Syftem of its Geography. Indeed, the flattering reception that was given to my former work, on the fame fubject, has, in a manner, made that arr object of duty, which was originally an object of choice: for the public having condefcended to receive the imperfect information afforded them in 1782 , I felt an indifpenfible obligation on me, to render that information more perfeet, whenever I might poffefs the means of accomplifhing it. I hefitated only at the meafure of fubjecting. them to an additional tax ${ }_{2}$, fo recently after the payment of the former one.

A large collection of materials of various kinds, having. been added to my former flock, 1 have been enabled toproduce a work of a more perfect kind than the former; and have therefore drawn it on a larger fcale: the furface of the prefent map, exceeding that of the former one, in the proportion of 2 and a quarter to. 1 . The fcale of this map, is one inch and a half to an equatorial degree :
and the quantity of land reprefented in it, is about equal to one half of Europe. It is contained in four large fheets, which may either be joined together for the purpofe of bringing the whole into one point of view, or bound up feparately, in an Atlas; as may fuit the fancy or convenience of the purchafer.

By the aid of a feries of obfervations of latitude and longitude, taken by Capt. Huddart, along the Malabar coaft, or weftern coaft of India, the form of the peninfula, $\& c$. is now brought very near to the truth: and the eaftern coaft, by the obfervations of Col. Pearfe, is much improved, in the diftribution of its parts, although its general form has undergone but little alteration. A meafured line has alfo been drawn from the Bengal provinces to Nagpour, in the very centre of India: which has not only eftablifhed an important geographical point, in a part where it was moft wanted; but has been the means of furnifhing a great deal of matter, towards filling up the vacant intervals on three fides of that point. Laftly, the war with Hyder Ally and Tippoo Sultan, his fucceffor, has produced much new geographical matter, in various parts of the peninfula, by the marches of the different armies, and their detachments; particularly that of Col. Fullarton, in the fouthern provinces and Coimbettore. Thefe ate the moft material acquifitions to the prefent map, as they, in effect regulate a confiderable
fiderable part of the general outline, and determine the proportions of fome of the principal members of it. But of the kind of materials, which without affecting the general proportions of the map, ferve the purpofe of filling up the void fpaces in it, there will be found very great abundance. In particular, Guzerat, and the Rajpoot provinces, have undergone very confiderable improvement; as well as the Panjab country and Sindy. The upper part of the courfe of the Ganges, to the cow's mourh, or cavern through which the Ganges paffes ; and the courfe of the Gogra river to its fountains; are both inferted from the work of M. Bernoulli. In fhort, additions and corrections are diffeminated over the whole map: and in general, if we except the fouth part of Berar, the weftern part of the peninfula, and the countries bordering on the river Indus, and the Panjab, the mapis filled up in fuch a degree, as to have no confiderable blanks in it.

As Mr. Forfter's route from India to Ruffia furnifhed fome new ideas, and elucidated many former paffages, I judged it proper to exprefs his route to the Cafpian fea, on a feparate map; and at the fame time to add to it; the countries contiguous to Hindooftan on the north and north-weft; fo as to include Samarcand, and the marches. of Alexander from the borders of the Cafpian fea to the: tiver Iaxartes (the modern Sirr).

In the divifion of Hindoostan into foubahs, \&c. I have followed the mode adopted by the Emperor Acbar, as it appears to me to be the moft permanent one: for the ideas of the boundaries are not only impreffed on the minds of the natives by tradition, but are alfo afcertained in the Ayin Acbaree; a regifter of the higheft authority. But for the lower parts of the Drccan, and the peninfula in general, this' ftandard being wanting, I had recourfe to the beft information I could get, which was not, indeed, of the moft perfect kind: and therefore I directed my attention principally to the flate of the modern divifions in thofe quarters, the impreffing a clear idea of which, is one principal aim of the work.

It mult be obferved, that fince the empire has been difmembered, a new divifion of its provinces has alfo taken place ; by which means, fome foubahs now form a part of the dominions of three or more Princes; and very few are preferved entire. Thefe modern divifions are not only diftinguifhed in the map by the names of the prefent poffeffors; but the colouring alfo is entirely employed in facilitating the diftinctions between them. So that the modern divifions appear, as it were, in the fore ground; and the ancient ones in the back graund; one illuftrating and explaining the other.

Confidering the vaft extent of India, and how little its interior parts have been vifited by Europeans, till the
latter part of the laft century, it ought rather to furprife us that fo much geographical matter fhould be collected during fo fhort a period; efpecially where fo little has: been contributed towards it by the natives themfelves, as in the prefent cafe. Indeed, we mult not go much farther back than thirty-five years, for the matter that forms the bafis of this Map. And it muft not be forgotten, that: the Eaft India Company have caufed a mathematical furvey to be made, at their own expence, of a tract equal in extent to ${ }^{\circ}$ France and England taken together; befides. tracing the outline of near 2000 miles of fea coaft, and.a. chain of illands in extent 500 miles more *.

In general, I have acknowledged in the courfe of the: Memoir, the affiftance that I have received from the different Gentlemen ${ }_{2}$ who have obligingly furnihhed me

[^0]with the materials, therein difcuffed. But there were other kinds of affiftance afforded, for which no opportunities for acknowledgement occurred; fuch as the furnifhing of ufeful hints, and correcting of errors, into which I had unavoidably fallen, through ignorance of local circumftances, or hiftorical facts. The Gentlemen to whom I ftand particularly indebted on this fcore, are, Mr. Francis Ruffell, Mr. David Anderfon, and Mr. James Anderfon*; Capt. Jonathan Scott, Mr. Wilkins, Mr. Middleton, Col. Popham, and the late Col. Camac ; all of the Bengal eftablifhment : Mr. Benfley, and Mr. Inglis, both of the Eaft India Direction: Mr. Join Sulivan of the Madras eftablifhment, and Mr. Callander late of Bombay.

To Lord Mulgrave I am indebted for a copy of Mr. Forfter's route from Jummoo to the Cafpian fea: as well as for his Lordhip's very ready communication of every fpecies of information that could be of fervice to the work in quedion.

The routes of Mr. Smith, and of General Goddard, acrofs the continent, from the Jumna river to Poonah and Surat, contain much ufeful matter; and have been the means of determining a number of geographical points.

[^1]A. MS. account of the country of the Rajpoots, and other provinces, on the fouth, and S.W of Agra; together with a map, both of thern by P. Wendell *; were of very great ufe in defcribing the geography of thofe parts. And to render the MS. mare valuable, there has beep added to it, Mr. James Anderfon's account of the changes that have taken place fince that period, in confequence of Sindia's attacks, and negociations. The former was communicated by Col. Popham, and the latter by the Right Hon. Charles Greville.

Mr. Dalrymple, to whom I made my acknowledgments for the affiftance afforded me, in the courfe of my former work, has, on the prefent occafion, not only procured for me every new material that fell under his notice, but inftructed me how to procure others, and to draw information from various fources, that I was before ignorant of. To his valuable, and perhaps unequalled, collection of MS. charts, and of voyages and travels, I have alfo had accefs, on all occafions: and I wifh to be underftood to fpeak with the utmoft fincerity, when I fay, that without this affiftance, my performance mult have been extremely imperfect: or in other words, that Mr. Dalrymple is intitled to the thanks of the public, in a pofitive degree; although my thare of thofe thanks, may be only comparative.

- Ther were compofed in the year 1779 .
$\therefore 1$
b 2
Althoughi

Although the new tranflation of the Ayin Acbaree may have in part fuperfeded the value of the extracts furnithed me on the former occafion by Mr. Boughton Roufe, as the tranllation contains the whole fubject in a connected form ; and was alfo a tafk which none but a perfon who devoted his whole time to it, could effect; yet I am by no means unmindful of my former obligations to this Gentleman.

I have borrowed largely from M. D'Apres' New $N_{\text {ep }}$ tune Orientale, for the fea coafts and iflands: and alfo, though in a fmaller degree, from M. D'Anville's maps of Afia and India publifhed in $175^{1}$ and 1752 .. When it is confidered that this excellent Geographer had fcarcely any materials to work on for the inland parts of India, but fome vague itineraries, and books of travels, one is really aftonifhed to find them fo well defcribed as they are. It is with regret that I find myfelf obliged to differ in opinion from him concerning fome pofitions in ancient Geography : I mean, that of Palibothra, in particular ; and fome few others. I have generally avoided all difquifitions of this kind, from a conviction of the general obfcurity of the fubject; and which even an intimate knowledge of the Indian languages would not enable me to clear up: for the fimilitude betwcen ancient and modern names, is very fallacious, unlefs ftrongly corroborated by fituation. But we cannot well refufe our affent to the opinion that Ptole-
my meant the Suttuluz, or Setlege by the Zaradrus; the Rauvee by the Rbuadis, or Adaris; and the Jenaub, or Cbunaub by the Sandabalis: becaufe not only the names; but the pofitions have an affinity to each other. And yet this is a part of Ptolemy, which M. D'Anville difcredits the moft: but the reafon was, that he was not himfelf acquainted with the true names of the rivers.
M. Buffy's marches in the Deccan afford data for fixing the pofitions of many capital places there; particularly Hydrabad, Aurungabad, Bifnagur, and Sanore. But ftill there are plans of fome of his marches wanting, which, could they be procured, would throw much light on the geography of the peninfula, and the Deccan : fuch as that from Pondicherry to Cuddapah, Adoni, and Hydrabad; that from Aurungabad to Nagpour ; and the campaign towards Poonah. There are alfo exifting, itineraries kept by very intelligent people, who have travelled from Pondicherry, direct to Delhi ; but I know not how to fet :about procuring them. The public records at Goa, I am informed, contain a vaft fund of geographical knowledge; and yet we are more in the dark, concerning the country on that fide of the peninfula; than we are with refpect to the centre of the Deccan.

Could the whole mafs of geographical matter that refpects India (much of which, is probably in the hands of people who are ignorant of its value) be collected, I make
no doubt but that very complete maps of the feveral pro' vinces of it, might be conftructed, on fcales large enough for any ordinary purpofe.

It is intended by this Memoir to particularize the feveral authorities from whence the pofitions in the map are drawn; together with the manner of comparing them, in cales where they difagreed : as alfo, the manner of combining them, when more than one circumftance was required to eftablifh a pofition. By this means, the authority for each particular, may be known to thofe who have curiofity enough to enquire after it : and the defective parts being thus pointed out, 'fome future Geographer may be ftimulated to feek for better materials. It may alfo tempt thofe who are already in poffeffion of fuch materials, when they are apprized of their ufe, to contribute them to the public fock. Any communications of the kind will be thankfully received; and a proper ufe made of them.

There will be found, at the end of the work, two diftinct Indexes; the one referring to the matter of the Memoir, the other to the names of countries and places in the map. The great wafte of time occafioned by fearching after particular fituations, in maps of any extent, renders an index as neceffary an appendage to a large map; as to a large book. For an index will in the firft inftance inform the reader whether the place fought after, be in the map, or not. If in the map, he is directed to
it. with as much facility, as to a paffage in a book, from an ordinary index. And if it be not there, although he may, indeed, blame the map for its deficiency, he muft allow that it does not rob him of his time, by encouraging fruitlefs refearches. There are alfo added, Tables of diftances between the principal cities and towns of Hindooltan; and a fmall map, whick brings into one view the refpective politions of all the places mentioned in the tables.

As there does not exift at prefent, under any form whatfoever, a connected abftract of Indian hiftory, it is a very difficult talk for any reader, although pofieffed of inclination and leifure, to make himfelf acquainted with the principal events that form the groundwork of the hiftory of that country : and particularly thofe which laid the foundation of the Britih power there. The many yaluable tracts on this fubject, that have appeared at different times, are fo disjointed in point of chronology, that no idea of general hiftory can be obtained from them : nor can the chafms be readily filled up. I have therefore been tempted to compile a fort of chronological table of events, from the æra of the firft Mahomedan conqueft, to the final diffolution of the Mogul empire: and wih the reader to underfand, that what is offered to his perufal under that form, is intended as a mere Iketch; and that, chiefly with a view to render fo dry and fo unentertaining a fubject as the geography of a country, fome-
fomewhat more interefting, by accompanying it with an account of the principal events and revolutions, to which the country has given birth. I am but too confcious of the deficiency of this part of my performance. Befides, many of the events are related fo differently by different people, who pretend to an equal knowledge of the circumftances of them, that it will be no matter of furprife if I am found (by thofe whofe knowledge of eaftern languages has gained them accefs to authentic records) to be often miftaken. In whatfoever cafe this may happen, I make no doubt but that I hall experience the exercife of their candour, as to the motives by which I was actuated, when I adopted any particular opinion, or mode of relation. The prefent difputes concerning fome recent hiftorical facts in this and the neighbouring countries, fhew how extremely difficult it is to come at the truth, even when the refearches after it, are made under every favourable circumftance that can poffibly attend them.

## $\begin{array}{llllllll}\mathbf{C} & \mathbf{O} & \mathbf{N} & \mathbf{T} & \mathrm{E} & \mathbf{N} & \mathrm{T} & \mathbf{S} .\end{array}$

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## Explanation of the Colouring of the MAP.

> The Colours are ufed to point out the Boundaries of the principal States now exifting in Hindooftan, and thefe are divided into fix Claffes, (viz.)
Class I. The British Possessions; or thofe of the East India Company, diftinguihed by - - Red.
II. The Powers in Alliance with the Company, by Yellow.
III. The Mahratta States, byGrien.
IV. The Nizam's Territories, by Orangr.
V. Tippoo Sultan's, by Purple.
VI. The Seiks, by Blue.

The following are the Territories comprifed in each Clafs.
I. British Possessions.——Rid.

1 Bengal and Bahar, with the Zemindary of Benares.
2 Northern Circars.
3 Jaghire in the Carnatic.
4 Bombay, Salfette, \&c.
II. British Allifs.-Yellow.

1 Azuph Dowlah. Oude.
2 Mahomed Ally. Carnatic.

## [ xvii ]

III. Mahratta States.-Green.

## Light Graen.



1 Malwa.
2 Candeifh.
3 Part of Amednagur or Dowlatabad.
4 Vifiapour.
5 Part of Guzerat.
Agra.
Agimere.
8 Allahabad.

I Rajah of Jyenagur.
2 - Joodpour.
3 - Oudipour.
4.—— Narwah.

5 -Gohud.
6 Part of Bundelcund.
7 Mahomed Hyat. Bopaltol.
8 Futty Sing. Amedabad.
9 Gurry Mundella, \&rc. \&cc.


1 Berar.
2 Oriffa.
IV. Nizam-Ally, Soubah of the Deccan.-Orange.

Golconda, Aurungabad, Beder, part of Berar, Adoni, Rachore, \&cc.
V. Tippoo Sultan.-Purple. Myfore, Bednore, Canara, Cuddapah, \&c. \&rc.
VI. Seiks.-Blue.

Lahore, Moultan, and the weftern parts of Delhi.
Small Statrs, not diftinguifhed by Colours.
I Zabeda Cawn, now Golam Cawdir. Sehaurunpour.
2 Jats.
3 Pattan Rohillas. Furruckabad.
4 Adjid Sing. Kewah, \&c.
5 Bundelcund, or Bundela.
6 Little Ballogittan.
7 Corhin.
8 Travancore.

For the Errata, fee the taf Pages of tbe Book.


HINDOOSTAN, has by the people of modern' Europes, been anderfood to mean the tract fituated botween the rivers. Ganges and Indus, on the eaft and weft; the Thibetian pard Tart tarian mountains; on the north; and the on on the fouthe liBut ftuicty fpeaking, the extent: of Hindofian is muth moteciretmi Seribed, than ithere limits convey, an idea of $:$ and the name ought to be applied only to that part of the above tract, whieh ties the the morth of the parallels of $21^{\circ}$ or $22^{\circ}$. The Nerbudda river! is indeed;.
 the Bduthern frontiers of Bengal and Bahar, compore the remaindet of ft. The countries on the fouth of this tine, accotding to the Indian geographers, go under the gendial hame of Decteandiand condprife rearly one half of the tract generafly thown bry the rimest of the Mogul empire. But as the term Hindodstan has bectil applied in a lax fenfe to this whole region, it may be neceffary' to dillinguifh the northern part of it, by the name of Hindooftan proper. This tract has indeed the Indus, and the mountains of Thibet and Tartary, for its weftern and northern boundaries: but the: Ganges was improperly applied as an eaftern boundary; as it interfects in its courfe, fome of the richeft provinces of the empire: while the Burrampooter, which is much nearer the mark, as an eaftern boundary, was utterly unknown. In this circumferibed. ftate, the extent of Hindooftan proper, is about equal to France,. Germany, Bohemia, Hungary, Switzerland, Italy, and the Low. Countries, collectively: and the Deccan and peninfula, are d. about
about equal to the Britin Iflands, Spain, and Turkey in Europe. I have here called the tract which lies on the fouth of the Kifna river, the peninfula; in conformity to general practice; although its form does by no means warrant it. The term Deccan, which fignifies the sourt, is applied (as before-sfid) in its moft extenfive fignification, to the whole region that lies on the fouth of Hindooftan proper: I apprehend, however, that in its proper and limited fenfe, it means only the countries fituated between Hindooftan proper; the Carnatic, the weftern fea, and Oriffa: shat is, the provinces of Candeih, Dowlatabed, Vifiapour, Goleonda, and the weftern part of Berar.

- The term India, by which this country, as far as it was known, is diftinguifhed in the earlieft Grecian hiftories, appears to be :derived from Hind, the name given it, by the anicieat Perfiaps: thirough whom, doubtlef日, the knowledge both of the country: and its name,' were- tranfmitted to the Greeks. We have the iArengert affurances from Mr. Wittins, that no fuch words as Hisiooo, or Hidioostan, are to be found in the Sanferit Dictionary. It appearsfitiat the people among whom the Sanicrit language was: verdacular, Ayled the country Bharata*; a name, which is, I believe, quite novil to the ears of the learned in Europe. It is probable then, that the word Hind furnighed that of India, to the Greeks : and the termination stan, fignifying country in the Perfic, is of more modern date : for we find it joined to many of the ancient Perfian names of countries; as to Dahæ, whence Dahertan:

[^2]and Tapuri,"is:Taberi-ftan: ; Corduane; Candi-Apan :r together.with many others: It has happened' in' the application of thais $s_{5}$.namq, Indix; as on fimidat occaifons; that is to fay, it has been applied, not only to the country originally dofigned by it, but to ophers adjacent tos, and beyond it *: : for the oounatrigs petween Hiadooftem and China, came to be called the furtber Indid; or India:extre Gangenria whereas, Hind, ot India, properly belonged onfz to the country: of the people called Hindoos; or thofe of India intra Gangitn. . The mame is as ancient as the earlieft profane hiflory extant:wid this may; ferve among many other inftances, to prove the high, antiquity of the Perfian language.
Mrdia has in all ages excited thetatention of the curigus; is almoft crersy wadk of life. Its rare products and manufactures, engagedithat of: the merchants; while the mild and inoffenfixe reli-gionk (ificrama, and the manners inculcated by its artracted tho nerice of philofophers. The ftructure of its. language 100 , is pemarkable; and has a claim to originality. It drad been bappy forthe Indians, if they had not attracted the notice of a clafs of men. more inimical to the happinefs of mankind: forthe,foftaefs andicffetuipacy indaced by the climate, and the yiedding nature of the foil, which produces almoft fpontaneoun y , invited the attacks of, their more bardy neighbours; and rendered them ans eafy prey to every foreign invader. Hence we. find them fucoefively :conquared by: the Perfians, Patans, and Moguls: and it is probable, that, like the Chinefe, they have feldom had a dynafiy of kings, from:among their own countrymen. The accounts of 22 centuries ago; reprefent the Indians as a peopte who ftood very high: in point of civilization: but to judge from their ancient monuments, they had not:

[^3]d. 2
carried:

## [ yxii ]

garried the imitative arts to amy thirig like the degree of perfoction attained by the Grecks zod iRomanss: or evea by the Egyptians. Both the Hindoos and Chinefe appear to bave caicied the arts joft to the point requifite for ufeful purpofes; but nevet to have approached the fummit of perfection, as it refpoets tafte, or boldmefs of defign.
$\therefore$ The principal mioniumients of Hindao fopertition are found in the peninfula, a Some have concluded from this, and from other circumelances, that the originad feat of the Hindoo. religion, was there. Others, perhaps with more appearance; of probability, fuppofe it to have originated on the banks of the Gangesw: Monuments ef a fuperftition, apparenthy anferibr, ito the Hindoas, exif in the caves of Salfette and Elephanta, two illands on the wettern coart of India : thefe confint of apartinents of exienfive diritenfionds excavated. from the live rock,! and decorated with figures amed-colhmuss)" - India, was but little knouen toithe Greekís untill Aideranderi's expedition, about 3 ig. yeats before Chrift. Heromet des whot wrote
 anyt bht the weeffern ;part of it; and that only, bylits !being tribartricy' to Pertia. ., He informe us (BBook.IV.) that Datrius':Hyftafpes had: difpatched Soylax of Cazyinudta: to explore the Induas; about 508 years before Chrift 3 itand : thati He departed fiom Caffatyrus and Pactyas: which were fiturted nean the head of the Indow. Heroldtus continive' to fay, that the Indians who inhabit towards the north, and border on thefe berritories of Cafpatyrus and Pactya; resequble, she Bactrians, (that is, their theighbours): in manners :arid lade the moft valiant people of all India. :The eartern part of ladid, fays bex: is rendered defers by. fands a. which defcription applies only to the country lying eaft of the Indus, and fouth of the Pamjab:*: and this hews pretty evidently, that Hesodetus's knowfifge of India, as to particulars, extended no further, than to the above tract: 'and a collateral proof; is, that he does not mention

[^4]the Ganges, which became fo famous, a century afterwards. Indeed, he tells us very plainly, that this fandy defert, was the extreme point of his knowledge eaftward.

With refpect to Scylax's difcoveries, this is Herodotus's account. " Darius being defirous to know in what part, the Indus (which is the fecond river that produces crocodiles) runs into the fea, fent Scylax of Caryandra, with others of approved fidelity, to make the difcovery. They departed in divers hips from Cafpatyrus, and the territories of Pactya*; failed down the river, eaftward to the fea; and then, altering their courfe to the weft, arrived in the 30 oth month, at that place, where the King of Egypt (Nechao) had caufed the Phenicians I mentioned before, to embark in order to furround the coaft of Lybia (Africa). After this voyage, Darius fubdued the Indians, and became mafter of that fea." Herod. Book IV. In anather place, in the fame book, he takes notice of fome Indian nations, fituated to the fouthward, very remote from. the Perfian conquefts; and whofe complexions were as black as Ethiopians : thefe ought to be the people of the peninfula. He had alfo learned that they killed no animals, but contented themfelves with the produce of the earth : that they expofed thofe whom they deemed too ill to recover; lived chiefly upon rice; had horfes of a fmaller breed than their weftern neighbours; and that they manufactured their fine cotton wool in cloathing.

Now, after the abowe account of Scylax's expedition, can we give credit to the ftory of Alexander's: fuppofing that he had difcovered the head of the Nile, when he was at the Indus? Are we to fuppore that Ariftotle concealed the books of Herodotus from bis pupit ? Or, on the contrary, ought we not rather to believe,, that the matter of them was on his mind : and that the difcoveries. of Scylax made within 180 years of his own time, and of a kind.

[^5]that particularly interefted him ; were detailed to him; when we find them given incidentally in Herodotus?

The fory of Alexander's furprife at feeing the tides in the Indus, appears to me equally improbable; feeing that the fame Herodotus (Book II.) fpeaks very particularly of the tides in the Red fea; and defcribes them as being not only ftrong, but ebbing and flowing every day. (That moft intelligent and ingenious traveller, M. Volney, informs us, that the tide ebbs and flows three, feet and a half at Suez)." Arrian takes no notice of the tides until Alexander's fleet had arrived near the mouth of the river. It is trne, that the tide in the Indus does not go up fo high, as in other rivers of equal bulk, and that run on fo finall a defcent; but neverthelefs, as the tide is perceptible at ' 50 or 60 miles above the river's mouth*, we may conclude that it could hardly efcape the notice of Alexander and his people, in their voyage from Pattala to the fea: fuppofing they had not been apprized of the circumftance. Befides, Arrian's account of the coming in of the tide, which did io much mifchief to the fleet, is defcriptive of the BORE, ior fudden influx of the tide, in a body of water, elevated above the comintor furface of the fea; fuch as oćcurs in the Ganges, \&c.? : He fays, thofe hips that lay upon the fand, were fwept away by the fury of the tide; while thofe that $A u c k$ in the mud, were fet afloat again without damage. To the generality of readers, no reafon will appear, why the circumftances of the Mhips chould be different, in the mud, and on the fand: the fact is, that the bottoms of channels, in great rivers, are muddy; while their challows are formed of fand and it is the nature of the bore; to take the Chortelt cut up a river'; inftead of following the windings of the channel : confequently, 'it' muft crofs the fand banks it meets in its way ; and will alfo prove nobe deftructive to whatever it meets with aground, than what is afloat.

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It appears aloo from Herodotus (Book III.) that the parts of India bordering on the Indus, were fubjected to regular tribute, if not totally reduced, under the Perfian Government: for in enumerating the 20 Satrapies of Perfia (under Darius Hyftafpes) India is reckoned as one of them, and is rated the higheft: it being affeffed in the proportion of 4680 Eubean talents of filver, out of 14,560 a the whole annual revenue. To explain this, the author informs us, that the Indians were very numerous; and that the tribute charged upon them, was proportionably great. It is worthy of cemark, that this tribute was paid in gold, whereas that of the other Satrapies was paid in filver. Much light is thrown on this circumftance, by the intelligence furnifhed by the Ayin Aobaree; namely, that the eaftern branches of the Indus, as well as fome other ftreams, that defcend from the northern mount taips, yield gold duft. (See page 108 of the Memoir.) We are told on the fame occafion, by Herodotus, that gold was eftimated about that time, at the value of 13 times its weight in filver.

Alexander's expedition furniChed the Greeks with a more extenfive knowledge of India : although he traverfed only the countries mentioned by Herodotus: that is, the tract watered by the Indus, and its various branches, and adjunct rivers. But the fpirit of enin quiry was now gone forth : and the long refidence of Megathenes, the ambaflador of Seleucus, at Palibotbra, the capital of the Prasir, furnikhed the Grecians with the principal part of the accounts of India, that are to be found in Strabo, Pliny, and Arrian.: for Megafthenes kept a journal, and alfo wrote a very particular account of what he had feen and heard, refpecting India in general, during feveral years refidence : which account exifted in Arrian's time. His embafly was about 300 years before our æra.

The communication by land, between the Syrian empire and India, was dropt very early : for Bactria foon became independant : and by that means, the link of the chain that.connected India:mitlix Syria, was broken. The Indian trade was about the fame time

 province;' and wis continoed on a mower extrenfive foule uander the Romans themedves: nor did it forfake thexandria, undll tive rea difcossery. of the paflige by the Cape der cood Hope. I thall take oocafion.to litealo more futly condcerning the partieumes of the navigation froin the' Red fera to India, hereafter.
: This traffick.opened to the Egyptians and Ronmist a tavollodge of the coafts and papducts of Indias as ache find by varient notices! in the abovementioped: arthurs; and in Ptotemy in particular! But confidering how prich the detail of the coafts was known to kim' as is evident by bis map ('Tabs'X. Afic) it is very extraortipary that the general formio of 'ity; ' Hould wei fo fat fromithe wouth': for. he makes the coants berweess the Indua and Ganges; to project only in a Mightourve; whereas, thoy are known to form the fides of:2 triangle, whofe perqendicular almoft equals itt befe: ${ }^{1}$ Cape Comorin, being elee aperic of it.' Whoover conipares lithe proportional dimenfions of Lidia; found in Diodorus Sicalus, Priny, and Arrian, will find them tolerably juft: and:will be inclined wothink that the worlf fet of rancient mape of India, hias trivelied abwn to us2. and that Ptolemy, in conRructing his map of that part; did not exprefs the ideas of well informed people of his twrn time, on that fubject. Pliny was about bo years before Prolemy; and Arriap about 20 yearsafter Prolemy : their accounts of the dimenfions. of Indip, were:taken from Eratofbenes and Afegafibenes.

Diodorus. fays that India if 32,000 ftadia from north to fouth; and 28,000 from caft to weft: that is, the breadth is feven-eighths of the leongth.

Asrian gives the meafares collected by Eratoftrenes and Megafthenes: and fays that "India is bounded on the weft by the Iedur; on the north, by a centiniation of Mount! Tauras; cafled in different parts, Pero-pamifus, Emodus, and Himauts; and on the
fouth; by the ocean, which alfo thuts up the eaftern parts of it *. Few authors (fays he) have given us any account of the people, that inhabit towards the moutbs of the Ganges, zobere Palibothra: is fituated."

From the mountains at the head of the Indus, to its mouth, according to Eratofthenes, is 13,000 ftadia; and from the faid ${ }^{\text {d }}$ mountains, to the eaftern fea, the extent is fomewhat lefs: but as a huge tract of land rume out 4,000 ftadia into the fea (meaning the peninfula) it may be reckoned 16,000 ftadia. From Palibothra to the weftern extreme of India, meafured along the great road, is 10,000 ftadia: and the whole length (that is, from eaft to weft) is 20,000 Aadia. Arrian likewife gives the meafures according to Megafthenes, who reckoned India 22,300 ftadia from north to fouth; and 16,000 broad, from eaft to weft; making that the breadth, which Eratofthenes reckons the length. We may obferve, that Megarthenes's proportion, is, on the whole, the trueft': for' India is about 28 degrees of a great circle, in length, from north to fouth; or from the Indian Caucafus, to Cape Comorin : and about 20 in breadth, from the Indus to the mouth of the Ganges : and if we reckon from the moft diftant mouth of each river, it will be' 22 degrees in breadth. This thews that Arrian had as juift an idea of the propostional dimenfions of India, as we had; 40 years ago: for we then reckoned it narrower than the truth, by at leaft two degrees. It is impoffible to tell what length Megaithenes meant to exprefs by a ftade, as there appears to be fo comiderable a variation in the length of this itinerary meafure, at different times: but by proportioning the number of ftades, to the number of degrees, included in the above meafures of India, by Megarthenes';

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there flould be 800 ftades in a degree of a great circle. M. D'Anville has at different times reckoped 1050 , and 1100 . I conceive it probable that Megathenes. gave the meafures according to the road diftance, from one extreme of the country to the other; and not according to the horizontal diftance, or actual length. and breadth of the country. Part of the apparent differences, in the length of the ftade, may arife from thefe different methods of reckoning diftances.

Pliny gives the meafures along the coafts between the mouth of the Ganges, and Pattala (or Tatta) in the mouth of the Indus, at 3320 miles (Roman miles I fuppofe, of 1000 paces.) The true meafure of thefe coafts, rejecting the finuofities, and attending only to the general form of it, is 40 degrees of a great circle. M. D'Anville allows 75 Roman miles to a degree; and by this rule, the above number of miles, will come out 44 degrees, inftead of 40, the true meafure. But if the pace be reckoned at 4 foet, 10,02 inches, Englifh, there ought to be $78 \frac{1}{\text { ² }}$ Roman miles to a degree; and by this calculation, the $33^{20}$ Roman miles, will be $42^{\circ}$; or within g'r part of the truth. Whichfoever of the two calculations $^{2}$ may be adopted, if is clear that Pliny knew nearly the form of the peninfula; and that Ptolemy, who living at Alexandria, might be fuppofed to be in the way of obtaining the belt information on the fubject, iwas in truth, ignorant of the general form of it, although he knew fo much concerning the particulars.

Arrian's Indian hiftory, which is extremely curious, and merits more notice than it commonly meets with, thews us how very little change, the Hindoos have undergone in about 21 centuries, allowaniges being made for the effect of foreign conquefts; which, how: ever, have produced fewer changes here, than they could have done, any where elfe: for euftoms which in every country, acquire 2 degrec of veneration, are here rendered facred, by their connexion with religion: the rites of which, are interwoven with the ordinary occurrences of life, To this, and to the feclufion from the

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reft-of mankind, inculcated by the braminical religion, we are to afcribe the long duration of the Hindoo' religion and cuttoms; which are only to be extirpated, together with the very people, among whom they prevail : and which have been proof againft the enthufiafm and cruelty of the Mahomedañ conquerors; nay more; have taught a leffon of moderation to thofe cönquerors ; who at latt faw no danger arifing to the ftate, from a religion that admitted no profelytes.

We are at the firft view furprifed to find that' Arrian, who profeffes to treat of India, Should confine himfelf to the defcription of a particular part only; while he had authors before him, who had treated the fubject at large. It may, however, be accounted for; in this manner, that he chofe to follow thofe only, who had been eye-witneffes to what they wrote; not compilers: and it is pretty clear that his account of India, is meant chiefly to ifluftrate the hiftory of his hero. The following particulars, felected from among others, will hew to thofe who are converfant with India, how nearly the ancient inhabitants, refembled the prefent. I. The flender make of their bodies. 2. Their living on vegetable food. 3. Diftibution; into fects and claffes: and the perpetuation of trades in famiffes.' 4 . Marriages at feven years of age : and prohibition of marriages between different claffes. 5. The men wearing ear-rings; parti-coloured fhoes; and veils, covering the head; and great part of the fhoulders. 6. Daubing their faces with colours. 7. Only the principal people having umbrellas carried over them. 8. Two-handed fwords: and bows, 'drawn by the feet. 9. Manner of taking elephants; the fame as in the prefent age. 10. Manufactures of cotton, of extraordinary whitenefs. i1. Monftrous ants: by which the Termites, or white ants are meant; though exaggerated. (Herodotus Book III, alfo mentions the ants : and his account is more extravagant than Arrian's.) 12. Wooden houfes, on the banks of large rivers; to be occafionally removed, as the river changed its courfe. 13. The Tala tree, or

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Tal:y a kind: of palm. 14. The Banian (or Burr treo) and the Indian :devotees fieting under them.

We may perceive, however, on a reference to Arrian, that in many of the above particulars, he had either been indiftinctly informed, :or elfe; mif-infowned; as in the cafe of the Tal tree; the white ants (which be difcredits, at the time he relates it).aid the mamper in which the people daub their faces. The wooden howeses, are, as far as I know; peculiar to the fide of the Indus; and are remarked to be fo, in the Ayin Acbaree. Arrian informs us, that he took his account of India from Nearchus . and :Megathenes. In the account of the wooden houfes, it may be perceived chat the followed Nearchus; who feeing them on the fide of the Indus, concluded they were in ure, every where elfe. As to Megafthenes, Arrian thought he had not travelled far over India; although farther than Alexander's followers. This opinion may. ferve partly to explain, why Arrian did not preferve the journal of Megafthenes, by inferting it in his hiftory of Alexander; or in his account of India.

His geography of India relates chiefly to the northern parts, or thofe feen by Alexander and Megathenes. And his catalogue of rivers, moft of which are alfo to be found in Pliny, and among which we can trace many of the modern names, contain only thofe that difcharge themfelves into the Ganges or Indus : fuch as Cainas, the Cane; Cofloanus, Cofa, or Cofas Sonus, Soane; Condocbates, Gunduck; Sambus, Sumbul, or Chumbul: Agoramis, Gogra; Commenafes, Caramnaffa, \&c. \&c.

Of the different hiftories of Alexander that have travelled down to us, that by Arrian appears to be the moft confiftent ; and efpe-' cially in the geography of Alexander's marches, and voyage in the Panjab; which country; by the nature of its rivers, and by their mode of confluence, is particularly favourable to the talk of tracing At wrogrefs. Diodorus and Curtius, had, or ought to have had, the fame materials before them, as Arrian : that is, the journals or relations

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relations : of Ptolemy and Ariftobulus; who as friends and companions of Alexander, had opportunities of being well informed. We may conclude alfo, that there were among the followets of Alexander, journalifts of a very different ftamp; and indeed, the experionce of our own days, furnifhes rew with examples enough of that kind, to make it probable : and there are alfo to be found, compilers, who according: to their taftes and difpolitions, prefor the relation of the marvellous, to thofe of the fober and rational kind. Such as thefe, we may conceive Diodorus and Quintius Curtius to be; the latter particularly, under whofe hand, every incident grows into a miracle or wonder. Arrian too, relates his wonders; but in fuoh a manner, as not to commit himfelf: or, as if he meant rather not to withhold what he thought himfelf bound to communicate, than as if he believed them himfelf, or wibhed to inculcate a belief of them, in others.

It is to be regretted that Arrian did not preferve the journal of Megafthenes, as well as that of Nearchus. The lofs of Baton's, or Biton's book, which contained the geography of Alexander's marches, is alfo to be regretted. It exifted in the time of Pliny, who quotes him : but I think, if Arrian had feen it, he would have been more particular in his geography, in certain places; as he ordinarily, ftudies to be. Certainly, Arrian had not read Herodotus attentively : otherwife he would not have paffed over in filence, the voyage of Scylax, down the Indus; nor reprefented his hero, as being ignorant of fo curious a fact as the tides mut have appeared, to thofe who read the fame book. But that he had read part of Herodotus, is evident by his quoting his opinion, refpecting the delta of the Nile; and by an allufion to his account of the aftis that dug up gold, in India, \&c.

There is no reafon to doubt that the Hindoo or Braminical religion was univerfal over Hindgoflan and the Deccan, before the time
 rodotus and Arrian. Nor is it more extraordinary that one religion

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fhould prewail bgier Ihdiay, Ahthough comppofed of ditinct governi-
 traên in Euppe ; yor, the Mahomedap ovor Ruill larger tract in Eurpper, Afin, and Africa: -Bur althenghithere' might be an uni-
 dijfinct, langurges :rand hifory, both anoient and modern, gives'ns the mpolt pofitive :aflurances, that India! was divided into a noumber of kingdoms or fates, from the time of Herodotuls down to that of, Acpar, Not only Herodotus, Diodorus, Pliny, and Arrian, are pofitive, as to this point; but even Abul Fazil, whocompofed a hiftory of the Ipdian provinces; in the reign of Aeban; in the 1 , 6 th century . It is probable, that the almoft univerfality iof refligiopm and the, union of fo large a portion of this vaftregion, under' the family $\mathrm{Af}, \mathrm{T}$ Tamerlane, (particularly under Aurungebere) has occafigmed an idea though , a, pery, erroneoua: one' that the AMogul empixeny for called from the Mogul (or Mongul) dynafly; or that of Tamerlages vpasalways under one head.
But whaterer kind of divifion may have taken place in the reft of Hindooftan $n_{9}$ there appeare to have been, generally, ia lerge empire forstingdom, which occupied the principal past of that iimmenfe valley ph plain through which the Ganges takes its courfe: the capital of which has fluyctuated between Delhi and Patma,"as the limits of the empire have varied. That fuch a one does not exift at prefent, is probably owing to Bengal provinces being in the hands of foreigners : 8 but if we confider the union of interefts between Bengat and Oude, the cafe is not effentially aftered. Leave: matters to their natural courfe, the whole valley will form one ftate again:, The kingdom I feeak of was that of the Prasir and Gangaridebe, in the times of Alexander and Megafthenes: and which was very powerful, as appears by the ftrength of its armies, and the number of elephants trained to war. It feems to have extended weftward to the Panjab country: and if Palibotbra ftood on the fite of Patna, as late accounts feem to render probable (fee page

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50 of the Memoir) we may fuppofe that it incheded at leaft; part of Bengal. In effect, the kingdom of the Prafi could not well be of lefo dimenfions than France : and the fate of it (according to Arrian) was sich, the inhabitants good huibandmen, and excellent' soldiers; governed by nobility, and living peaceably ; their ralers impofing nothing harf, or unjuit, upor thems Thofe who are fonder of contemplating the filent happinefs of a whole people, than of tracing the fteps of a conqueror, will be gratified on refleaing that Alexander flopt fhort, on the borders of the country above defcribed.

The trade from the weftiern world to India, which has ever enriched thofe who have carried it on, has often changed hands, and boen tureed into different chännels. A paffion for Imcian manna factures and products, has acturated the people of every age, in lower Afia, as well as in the civilized parts arf Europe! the deficate and umimalled, as well as the coartir and thone ufeful, fabricks of cotton, of that country, particelarly fatimg the inhabitants of the temperate regions, along the Mediterranean and Eusine feas. To this trade, the Perfian and Arabian gulfs; opened tin eafy paflage; the latter particularly: as the land carriage between wit Red fea and the Nile; and between the Red fea and the Mefiterraneat, took ap only a few days. It is highly probable, and tradition in India, warrants the bellef of it, that there was'from time 'immemorial, an insercourfe between Egypt and Hindoottan; 'at leaft, the maritime part of it : Amilaxity of cuftoms in many initances (ass related of the ancient Egyptians, by Herodotus; and whetely can hardly be referred to phyfical caufes) exifting in the two coiuntties: The intercourfe, we may concluda, was carried un, by fear if ifiwe confider the natare of the intervening coontries; and the feat of the manufactures : and it might, moveover, be expeoted, that a nation' fo enterprifing as to undertaike the circummavigation of Africa' (as there can be no doubt, the Egyptians did, under the Phariohs) would fcarcely leare unexplored, the coarts of a fea, fo much

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macers and which, from the regulasity of the pertodital: :wintaly. wasi fo: caify of medefat: ' Whiteher Sotomon's profzable traffictitind claded that of India, there art, I bolieve, no neats of determining; butit appears highly probable that it did : as alfo that the voyides of therse yours; mado by hamips that arrived at Tarkhifh (Tarfus,'in' Cilicia). were to the semote parts of Africa. 'We muft carry inlours minds, this fact, that Solomon's fletets were difpatched from the ports of the Red fea, ais well as from thofe of thosMediterranetwh David's conqueft of Idunea (Edom) giving him poffeffon iof tho ports in the north-eaftern branch of the Red fea: that is, Ezion'gaber, \& \&c.; Tyre was founded about two centeries and: 2 -half, before this: period: and from the very flourifhing fate fherwith; under Hirana, the cotemporary of Solomon, it may be concluded that her merchants poffeffed the greateft part of the! trade of the knorn world; at that time; and the trade of the eatt among the reft; im all probability. Commerce being fo ifeady a way to theties, it is nomondar that fo enlightesed a Prince at Solomon, frould ptofit by the example of. his neightours: and avail hinfent of his gituation, from the enlarged ftate of his kingdom, which extended from the Euphratas to the Red fea; and to: the bordert of Egypt (1 Kings, chap. 4. ver. 24 : and 1 Chron. chap. 18: ver. 13 ) ind which opened to him, two of the great avenues to the eaf, by way of the Red fea, and the Perfian gulf. M. Volney's idea, refpecting: the object that Solomon had in view, whon he took poffefion of Tadmour, or Palmyra, is, in my opinion, no keft probable, than ingenious: mamely; to ufe it as an emporium of the Eaft India trade, .. by way of the Rerfian gulf, and the courle of the Eaphrates: Thbis was about 1000 years before our æra. But Solomon's trade, notwrithftanding, was merely, temporary : and reminds us of fome feeble efforts, imade in our: own days, by an inland Prince, who (in this refpect, like Solomon) poffeffes two ports fituated in oppofite shores of the continent; and who is conftrained to borrow the mariners of the modern Tyre, as Solomon did thofe of the ancient. Whether

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Whatier the Indian trade was tayried da atothe fanso tibre, byxthe Tyyinasiand Egyptians; as well as by the Fuedeans" "cainnot" notw be afcertained; but I think it probabse that it might'; ahd that; boalu by: the route of the Perfian gulf, and the Red fen; as we 'haved fetnist, in' our days. But whatever mightee the'mercantile ftate of is Iyrecs in the days of Solomon, we find it about a century after;' Cobliblaing a colony at Carthage; and about thitee "centuries after thata: its greatnofs was proverbial. I mean, about the date of Etckiol's prophecy concerning it.
When Tyre fell inco the hands of Alexander (Befbre Chrift 332in athe :abont :260 'after: the time of Ezekiel) that city was' in full pofferion of the Iadian commerce. The ronte of their trade from India, : wos the Red fea to Eziongaber; and thence 'acrófs the' daferts to Rdisacoruras a town on the Mediterranean, whid: on the commenf frontiers of Paleftine and Egypt: both of which countries weresthen in the hands of the Perfians. From Rhinocoruria, the goods werescurried by fea to Tyre, and circtulated from thence: The deitrudion of Tyre by Alexander, and the confequent foundation of Alexandria, turned the trade into a new channiel !' or rather perhape; returned it into its ancient one, Egypt. The Pfölemies, - into whare hands Egypt fell, on the dfvifion of Alexander's anpinge, beftowed a foftering care on the new emporium, which also became the capital of the kingdom. Ptolemy Philadelphus comptrucited a canal from Arfinoe (near the prefent Suez) to the Pelufiga manch of the Nile:: and afterwards, poffibly becaufe of the tedious and dangerous navigation of the upper part of the Red fea, founded the city of Berenice on the weftern fide of that fea, and nearly under the tropic (that is, 450 miles below Suez) from whenca the merchandife was tranfported acrofs the defert of Thebeiss to, Ceptus on the Nile; and thence, down the fream of that rixper, to the neighbourhood of Alexandria; which thus became the centre of trade between the eaftern and weftern world; and, of: courfe, ane of the moft opulent cities in either. It would appear,
that under the Ptolemies, the Egyptians extended their navigution to the extreme point of the Indian continent, and even failed up the Ganges to Palibothra.

Alexandria held its rank as an emporium, even after Egypt became a. Roman province: and preferved it in a confiderable degiee, during the various revolutions that happened in the eaft." ; until the re-dijcovery of the paffage round the fouth point of Africa, aboust 300 years ago, turned the bulk of the Indian trade into an eqtiso new channel; and from which it is not likely ever to be diverted. .

Berenice continued to be the port of outfit for the Roman Eaft India trade in the time of Pliny (A.D.79) who details, in his fixth book, the account of the navigation to India; with many curious particulars relating to it: and among other matters, we may gather, that it was a complaint even in his time, that the trade to India, drained Europe of its riches. Pliny fays, that it coft 50 millions of fefterces every year (at 18. $3^{\text {d }} \frac{1}{3}, 3,275,0001$ ) and yet the trade is not defcribed as being extended to every part of India. I thould apprehend a miftake in this ftatement : as the prime coft of the cargoes brought into England, from India and China, in any one year, has been little above three millions, freight included: and one would not expect that the value of the goods imported by the Romans, was equal to that, imported from China and IIindooftan, into England.

From Berenice it was reckoned 30 days navigation, down the Red fea, to Ocelis (Gella) juft within the frait of Bab-el-mandel: Another port was Muza (Mocha) but Ocelis was reckoned the beft, and moft commodious for departure. From thence to $M u t$ ziris, the firft port of merchandife in India, was 40 days fail: fo that, as they left Berenice about midfummer, they might arrive in India in the latter end of Auguft, when the violence of the $8 . \mathrm{W}$ monfoon was abated; and the coasting navigation, fafe and eafy:

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Pling does not forget to mention that they departed with the weft wind: mnd thefe 40 days failing, would be about 15 days run, for an European fhip, in the modern ftyle of navigating : being about 1750 marine (the fame as geographical) miles, on a ftraight courfe.

We are told that the firft of thefe voyages were made by coafting the Arabian Chore to the promontory Syagrus (Cape Rafalgate) and thence along the coaft of Perfia to the mouth of the Indus, \&c. In the next age, a chorter and fafer courfe was difcovered: for from Cape Rafalgate, the fhips made a diret courfe to Zizerus, a port in India; fituated, as would appear by circumftances, on the zorthern part of the Malabar coaft. After this, a direct courfe wras made from the outlet of the Red fea to Muziris, as above retated. It is probable, after all, that they coafted a great part of the Arabian coaft, in order to reduce the length of that part of their courfe, that lay out of the fight of land: unlefs the habit of depending on the compafs, has, in my idea, increafed the difficulty of flaping a courfe without one.

Muziris is faid by Pliny to have been an incommodious place of merchandife, becaufe the Challownefs of the port, or river's mouth, made it neceffary to difcharge or take in the cargo in fmall boats, at a diftance from the emporium : and befides, there was danger from the pirates, at Nitria. Another port, more commodious and better ftored with merchandife, was named Barace (or Becare) in the country of the Niconidians; and as the pepper of Cottonara was brought to this place in fmall boats, it may be concluded that Barace was within, or near to, the country of Canara; which produces the beft pepper in thofe parts, at the prefent day. After mach ftudy and inveftigation, I cannot apply to any particular fpot, thefe ports of Muziris and Barace: for the Malabar coaft abounds with ports of the above defeription: and it muft be confidered, too, that: a thallow port for one of the Roman traders, which, in all probability, were fmaller than ours, would be reckoned; in the prefent times, no port at all. The circumftances of the pirate
coaff, and pepper country, however, confino us within oertaín kmits: for, in the courfe to Muziris, the traders pafled near the pirate's flations; and as thefe, by the lights which I have received from Pliny and Ptolemy, were nearly the fame as the prefent (that is, between Bombay and Goa) I conceive the trading ports meant by Pliny, were fituated between Goa and Tellicherry. The Peripld of the Indian fea, and the geography of Ptolemy, throw fome fridt light on the fubject:

Ptolemy's ideas are thefe: Tyndis (going fouthward) fucceeds Nitria; then Muziris; Becare (which is one of the readings of Barace) Melcynda, or Nelcynda; Cottiara; and then Comaria; or Cape Comorin; whofe proper name is Komrin or Komry. And the Periple (my information is from M. D'Anville) enumerates in the fame order, Tyndis, Muziris, and Barace: allowing 500 Aadia between each, refpectively. No three places appear more convenient to this relative difpofition, and to the circumftances of the pirate coaft and pepper country, than Gea, Meerzaw (vulgarly, Merjee) and Barcelore, or Baffinore. The firf, namely, Goa, is juft clear of the pirate coaft : having Newtya, poffibly the Nitrias of Pliny and Ptolemy (near which the pirates cruifed on the Roman veffels in their way to Muziris) on the north of it. The fecond place, Meerzaw, or Merjee, has even fome affinity in found, with Muziris; and is fituated on a river, and at fome diftance from the fca. And Barcelore, or Baffinore, which may poffibly be Barace, is one of the principal pepper factories, at prefent: and therefore anfwers fo far to Barace. Nelcynda, I take to be Nelifuram : and do not, with M. D'Anville, fuppofe Barace to be the port of Nelcynda, but a diftinct place. It is faid by Pliny, to be fituated within the kingdom of Pandion; which is pretty well underfood to be Madura: or to be comprifed, at leaf, within the fouthern part of the peninfula: and therefore, the farther fouth we go for Nelcynda, the lefs we are likely to err. But even all this' is con: jecture, as far as relates to particular pofitions: :nor is it of much
confequence : for we are clear that the ports of merchandife, muft be fituated, in or near to the country of Canara, the Cottonara, or pepper country of Pliny: that is, between Gua and Tellicherry ; as before obferved.

The hips returned from the coaft of India, about the month of December, with the north-eaft monfoon: and when entered into the Red fea, they had a fouth, or fouth-weft wind : fo fays Pliny. The voyage was made much within the compars of a year: and the profits are fated to be immenfe: but the particulars of the cargoes are not recorded.

There are no notices in Pliny (as far as I know) concerning any voyages of the Romans, to the gulf of Bengal, or to the peninfula of Malay (the golden Cherfonefe) although it is clear fiven Strabo, who wrote before Pliny, that the Ganges had then been failed up, as high as Palibothra. Ptolemy's geography, faid to be compofed about 60 years after Pliny, contains evident proofs that both of the Indian peninfulas had been explored: fuch is the mention of the pearl fifhery, between Ceylon and the continent; the diamonds found on the banks of the Sumbulpour river; and the point from whence mips that traded to the Maky coaft, took their departure (fuppofed to be Point Gordeware:) befides many pames, that can hardly be mifunderftood in the application of them; as Arcati, the capital of the Sora (or Sora-mandaluin, from whenee corruptly Cboromandel) Mefolia, the diftrict which contains Maftlipatam; the river Cauvery, under the name of Chaboris; ; \&c. The peninfula beyond the Ganges is alfo defcribed in Ptolemy; as far as Cochin China, or perhaps, to the borders of China, ot Since. (See M. D'Anville's Antiquité Geograpbrique de L' Inde.) We may here obferve alfo, by the way, that the illands fcattered over the gulf of Bengal, in Ptolemy, and probably meant for the Andaman and Nicobar illands; are mont of them: faid ; to be inj babited by Antbropopbagi: ànd this idea has allo been adopteded by the modern navigators. Other iflands, which may be meanie e thet

## [. 7 ] ]

 tended along the weftern fide of it, ane alfa branded with the farme character: and we find by Mr. Marfden. that it is generally belived, that man-eaters exift in Sumatra, even at thio days I xefer the Bona, Fortume ifland to the Great Andarnation and the $10 \mathrm{Ma}-$ niole, to the northern Nicobars; beipg juft the number of them: the 5 Barafles, and 3 Sindre illands, together with the 3 Sabo-dibrer are the illands I allude to, as being either parts of Sumatra; or iflands neap it.

Sketches of the Hifory of Hindoostan, fince the Commencement of. the Mahombdan Coneursts.

Thiere is no known hiftory of Hindooftan (that refts on the foundation of Hindoo materials or records) extant, before the period of, the Mahomedan conquefts: for either the Hindoos kept no regular hiftories; or they were all deftroyed, or fecluded from common eyes by the Pundits. We may judge of their traditions, by that exifting, concerning Alexander's expedition: which is, that pe fought a great battle with the Emperor of Hindooftan, near Delfi : and though victorious, retised to Perfia, acrofs the northern mpupdaine: fo that the remarkable circumftance of his failing down the Indus, in which he employed many months, is funk alm wogether. - Andiyett perhaps, few exents of ancient times, reft on lettor foupdations, than this part of the hiftory of Alexander (fee Segion HIN. of the Memoir) as appears by its being fo highly celebrated, got only by his cotrmaporaries, but by feveral of the moft celebrated authors, for fome centuries. foHowing. As for the nosict abave referred to, in Herodotus, Pliny, and Arrian, \&ec.

## [ * k ]

 with a general accoant of manners and cuftoms ; than a hiftory. Not but that thefe acoounte are infinitely more pleafing and latisfactory, than 2 hitocy would have been, if it contained nothing mone than that of the Mahomedar conqueft: that is, an account of, battles and maffacres: an account of the fubverfion of (appareatly) : one of the mildeft, and moft regular governments in the world, by the vilet and mof unworthy of ath conquerors: for fuch the Mahomedans undoubtedly were, confidered either in respect to their intolerant principles; contempt of learning; and
 to whofe lot, in civilifed focieties, it chiefly falls, to form the minds of the rifing generation of both fexes ; as far as early leffons of virtue and morality may be fuppofed to influence them.

The travels of Cofmas in the 6th century, and of the two Mahomedan travellers in the 9 th, afford fef materials for hiftory : and but little can be gleaned from Marco Paulo, who crofled the peninfula, and went ap the weftetn fide of it, to Guzerat, in the $13^{\text {th }}$ century. Indeed, it is exceeding diffictult to refer ariy incidept related in this laft author, to any particulat couiftry'; as the geography of his travels is an enigma, for the moft prart!

It is chiefly to Perfian pens that we are indebted for that portion of Indian hiftory, which we poffefs. The celebrated Mahomed Ferifhta, early in the 17 th century, compiled a hiftory of Hindobe", ftan, from tarious materials; moft of which, irr the dea of tol. Dow (who gave a tranflation of this hiftory to the woifd, dBout 20..years ago) were collected from Perfian tuttors. "Ple Nhahabarut, an hiforical poem of high antiquity; and whictit underind ftand, Mr. Wilkins is now sranlating' fromt the orightil' Santitht (as he bas already done an epifode of if, under thè title of Bhaguatí Geeta) is suppofed to contain a karge pottion of intereftitg Hiftoficiat ${ }^{\prime}$ matter : but if the father of Grecian poetry made fo total a change' in the ftory of Helen, in order to give a full foope to Hls lmatinand:

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tion; what fecurity have we that another poet may not mifead us in matters of fact; that is, in all that is valuable in hiftory, confidered as fuch? Mr. Dow was far from fuppofing that the Hindoos were deftitute of genuine hiftories of their own.country: he was not indeed acquainted with the Sanfcrit language, in which they muft be written, if at all : but founded his belief on the information of people on the fpot. If the fpecimens of early Hindoo hiftory given in the Ayin Acbaree, are akin to thofe which Mr. Dow had in contemplation, I confefs I can place no dependance on them. The moft valuable part of Ferifhta's hiftory, he allows to be that, pofterior to the firft Mahomedan conquefts, about the year 1000: and the following abftract of it is offered to the reader's notice, in order to fix in his mind, an idea of the fucceffive changes in the ftate of the empire of Hindooftan; which from a pure Hindoo government, became a Mahomedan one; and continued to be fo, under various dynafties of Monarchs, from Perfia; Afghaniftan, and Tartary ; until the beginning of the prefent century : thefe Princes, moreover, adding to the original country of Hindooftan, all the other provinces fituated within the Ganges. This unweildy ftate then dropping to pieces, arlarchy fucceeded; which in moft parts of it, is fcarcely compofed at prefent: and which had nearly given rife to a new Hindoo empire, under the Mahrattas : but the intervention of foreign powers, prevented it. Laflly, one of thofe foreign powers feizing on the faireft provinces, and taking the lead in the empire, although removed from it, the diftance of an actual route of fifteen thoufand miles *!

Ewen after the commencement of the Mahomedan conquefts, we figd little more in Feribta, fave the hiftories of the empire of Ghizni (or Gazna) and Delhi; until the fubjection of all Hindooftan, by the Patan Emperors in the beginning of the $13^{\text {th }}$ century: for Hindooftan continued to be divided into a number of feparate

[^9]king-


#### Abstract

[ xliii ] kingdams; each of which, required a particular hiftory: and of which we know only fuch parts of it, as were interwoven with the biftory of the conquering country. Many of thefe old Hindoo kingdoms, bore the fame names as the prefent foubahs (or viceroyalties) do ; and had, probably, nearly the fame limits. The hittory of the Deccan, is yet more obicure than that of HindooAan: being brought into view later, as the Mahomedan conquefts extended thither : and which began to encroach on it about the year 1300, although the entire conqueft of it, was not made until late in the 17 th century. It may be obferved that the firf Mahomedan conqueror who made any eftablifhments; that is, Mahmood, found little lefs' difficulty in fubduing the country, than the latter conquerors did'; when fo many kingdoms were united under the Patan Emperors: for thefe kingdoms, now become provinces, were too extenfive, and compofed of materials too difcordant to unite properly: not to mention; that they were never long enough united, to produce the happy effects refulting from a long period of intercourfe under one common head, and which affimilates the whole into one mafs, "like the French or Britifh provinces. And this muft ever be the cafe, in very extenfive empires, where a delegation of great powers; and diftant fituation, prepares the provinces for independency, whenever the fupreme government happens to be placed in weak hands. Hence, Hindooftan, even under the Moguls, may be confidered only as a collection of tributary kingdoms; each accuftomed to look no farther than to its. own particular Viceroy; and, of courfe, ever in a fate to rebel, when the imbecility of the Emperor, and the ambition of the Viceroy, formed a favourable conjuncture. . Tb: this muft be attributed the little refiftance that was made: to the arms of Tamerlane, Baber, Humaioon, and Nadir Shah; als: though fo many provinces were at thofe times united, under one' Prince.


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The'ffflt Mahomedan conquefts that led to permanent eftablifhments in Hindortats, were thofe of the beforementioned Mahmood, Emperor of Ghizini ir'for I make a diftinction between thefe, and the firft irruptions!6f the Mahomedans; which left fuch night traces behind them, as to be fcarcely apparent. Among others, was that of the' Caliph Valid in the firt century of Mahomedanifm. The empire of Ghizni was founded by Abiftagi, Governor of Korafan (A. D. 960) who revolted from the King of Bucharia; whofe anceftor, in his turn, had arifen to power, on the ruins of the Caliphat empire, about 87 years before. Ghizni confifted chiefly of the tract, which compofed the kingdom of Bactria, after the divifion of Alexander's empire : that is, the countries lying between Parthia and the Indus; and fouth of the Oxus*. Ghizni (or Gazna) a city placed among the weftern fources of the Indus, and not far from the Indian Caucafus, was the reputed capital; though Balk or Balich claimed this honour, likewife.

Mahmood (commonly fyled Sultan) was the third in fucceffion from Abiftagi: and was himfelf the fon of Subuctagi, who appears to have meditated the conqueft of the weftern part of India; and, like Philip, left his projects, as well as his kingdom, to his fon. Subuctagi had carried his arms acrofs the Indus, and ravaged the Panjab; but made no eftablifhments: for we find, that at the time of his fon Mahmood's invafion, a Prince of the Bramin race, or religion, named Jeipal, poffeffed the whole country, along the eaft fide of the Indus, to Cafhmere; and that he had the Kings of Delhi, Agimere, Canoge, and Callinger, for allies : fo that it may be concluded, from the circumftance of the frontier provinces being under a Hindoo government; and from the ftate of the Hindoo religion, throughout the fcene of Mahmood's conquefts; that the Mahomedans, whatever ravages they might have committed, previous to this time, had not, as we have before obferved,

[^10]formed any eftablifhment in Hindooftan : but that the whole country was perfectly Hindoo, at the time of Mahmood's conqueft. It muft be obferved, that I do not class the country of Cabul, or any of the provinces on the weft of the Indus, as belonging to Hindooftan proper. *

Before Mahmood began his firf expedition into India, which was only three years after his acceffion, he extended his empire northward, by reducing Bucharia; from whofe king, his anceftor had revolted, as has been obferved above.
In A. D. 1000, he entered Hindooftan: but in the courfe of eight years, he made no further progrefs than Moultan. The people of Moultan, who were the Malli, and Catberi (that is; the Kuttry or Rajpoot tribe) of Alexander, muft have preferved their ancient fpirit, to be able to oppofe, for fo long a time, fuch formidable armies, headed by fo furious an enthufiaft. In 1008, we find all the Hindoo Princes, from the weft of the Ganges to the river Nerbudda, united againft him, for the common defence of their religion; the extirpation of which, was to Mahmood, an object equal to that of the acquifition of territory, or fubjects. It may be doubted whether the acquifition of fubjects, the rational end of conquert, ever enters into the minds of barbarous conquerors; fuch as this Mahmood, Tamerlane, or Nadir Shah. One would rather fuppofe the contrary ; or, at leaft, that they: were totally indifferent about $i t$, by their maflacres and exterminations. The confederate Hindoos were defeated: and Mahmood's firft effay towards effecting the downfall of their religion, was the deftruction of the famous temple of Nagracut, in the mountains bordering on the Panjab country. His next expedition, being the fixth, was in 10.11; when Tannafar, a more celebrated place of Hindoo worfhip, on the weft of Delhi, experienced, a like fate with Nagracut ; and the city of Delhi itfelf, was taken at the fame time. In 1018, he took Canoge, and alfo deftroyed the temples of Matra, or Matura, (the Metbora of Pliny): a city of high anti-

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quity, and no lefs an object of religious veneration, near Agra. After this, turning his arms againft the Rajpoots of Agimere, he found either thern, or their country, which is full of mountains and faftneffes, too ftrong for him.

His twelfth expedition, in 1024, was fatal to the celebrated temple of Sumnaut, in the peninfula of Guzerat, adjoining to the town of Puttan, on the fea coaft; and not far from the illand of Diu, now in the hands of the Portuguefe. His route was by Moultan and Agimere, the citadel of which he was compelled to leave in the hands of the enemy: and in croffing the defert, between it and Moultan, he hazarded the lofs of his army, for want of water. The deltruction of Hindoo temples, with their Priefts and votaries, appears to have afforded this monfter the higheft delight. Nothing offends our feelings more, than the progrefs of deftruction urged by religious zeal: as it allows men to fuppofe themfelves agents of the Divinity; thereby removing thofe checks which interfere with the perpetration of ordinary villiany; and thus makes confcience a party, where the was meant to be a judge. Such alfo was Tamerlane : but to the alleviation of the misfortunes of the Hindoos, the enthufiafm of Mahomedanifin had loft its edge, before the invafion of Nadir Shah. Had this predominated in his favage nature, the whole fcene of his conquefts, muft have remained a folitary defert.

The city of Nehrwalla, the ancient capital of Guzerat, together with that whole peninfula, fell into the hands of Mahmood; who died four years afterwards ( 1028 ) poffeffed of the eattern, and by much the largett part of Perfia; as well as, nominally, of all the Indian provinces from the weftern part of the Ganges, to the peninfula of Guzerat ; and from the Indus, to the mountains of Agimere: but the Panjab was the only part of it, that was fubjected to regular government, under the Mahomedans; as being in the vicinity of the Ghiznian empire. As for the Rajpoots of Agimere, they ftill preferved their independance, among their rugged mountains,
tains, and clofe vallies; and not only them, but in a great meafure, down to the prefent time: being in refpect of Hindooftan, what the country of Switzerland, is to Europe; but much more extenfive, and populous. From Mahmood to Aurungzebe, the Indian conquerors were contented with the nominal fubjection of thofe hardy tribes: among whom, military enthufiafm, grafted on religious principles, is added to ftrength and agility of body; and this race is diffeminated over a tract equal to half the extent of France. It goes under, the germeral name of Rajpootana: and is the original country of the Mahrattashtewho about 30 years ago, afpired at univerfal empire in Hindooftan.

The Ghiznian empire, fubject to the fame caufes of decay, with other unweildy fates of rapid growth, was in II 5 8, forcibly divided : the weftern and largeft part, and which till retained the ancient name of the empire, being feized on by the family of the Gaurides (fo denominated from Gaur, or Ghor, a province and city, lying beyond the Indian Caucafus) while the provinces contiguous to both fhores of the Indus, remained to Chufero, or Cufroe, who fixed his refidence at Lahore *. And even his pofterity, were in 1184 , driven out of their kingdom, by the Gaurides. The Mahomedans, thus become nearer neighbours to the Hindoos, by fixing their refidence at Lahore, extended, as might be expected, their empire eaftward; Mahomed Gori, in 1194, perpetrating, inthe city of Benares, the fame fcenes as Mahmood had before done, at Nagracut and Sumnaut. Benares was regarded as the principal univerfity of Braminical learning; and we may conclude that about this period, the Sanfrrit language, which was before the current language of Hindooftan, began to decline in its purity, by the admixture of words from that of the conquerors; until the language of Hindooftan became what it now is: the original Sanfcrit, pre-1 ferved in their ancient writings, becoming a dead language. Such

[^11]
## [ xiviii ]

mutations have taken place in every country, where the conquerors have been numerous enough to effect it : the Saxon language was at the fame period fuffering from the Norman conqueft, what the Sanfrit did from the Ghiznian. Mahomed Gori alfo carried his arms to the fouth of the river Jumna, and took the fortrefs of Gwalior ; which then gave name to a kingdom, that has fince compofed nearly the foubah of Agra : he alfo reduced the eaftern. part of Agimere.

The death of this Emperor, in 1205, occafioned a new divifion of the Ghiznian empire, the Perfian part, remaining to Eldoze, and the Indian part to Cuttub, who founded the Patan or Afghan dynafly in Hindooftan. The Afghans originally inhabited the mountainous tract lying between India and Perfia, or the ancient Paropamifus. Before the elevation of Cuttub, to the throne, he had carried his arms, under Mahomed Gori, into Agimere and Guzerat. Lahore was his capital, originally : but the neceffity of fixing the imperial refidence, nearer to the centre of the new conquefts, occafioned him to remove to Delhi. It may be obferved of the capitals of ftates, in general, that fuch as are neither emporiums of trade, nor meant as citadels in the laft refort, are (as it were). attracted towards the quarter, from whence hoftility is either intended, or expected.

The Emperor Altumfh, who fucceeded to the Patan throne, in 1210 , completed the conqueft of the greateft part of Hindooftan proper. He appears to be the firf Mahomedan that made a conqueft of Bengal; the government of which was from this time beftowed on one of the reigning Emperor's fons. It was during this reign (1221) that Gengiz Cawn, among his extenfive conquefts (perhaps the moft fo, of any conqueror in hiftory) accomplifhed that of the empire of Ghizni ; putting an end to the dynafty of Charafm, which then occupied that throne: and driving before him, the unfortunate Gelali, fon of the reigning Emperor ; who fwam the Indus to avoid his fury. Gengiz, however, left Hindooftan undifturbed.

## [. xlix ]

About A. D. 1242, the Moguls, or Munguls, fuccefiors of Gengiz, who poffeffed, or rather over-run, the countries on the north-weft of Hindooftan, made feveral irruptions into it: and Turmechirin Khan, is reported by Sherefeddin (the hiftorian of Timur) to have carried his arms into the Dooab; but without making any eftablifhment. Ferihta takes no notice of the progrefs of this defultory conqueror, but only defcribes the inroads of the Moguls into the Panjab; which now frequently happened: although it was not till more than 150 years afterwards, that, under Timur, or Tamerlane, they penetrated to the centre of India. Ferifhta defcribes alfo an irruption of Moguls into Bengal, by way of Cbitta and Thibet, in 1244.

I have before obferved, that the provinces of Hindooftan were held rather as tributary kingdoms, than as provinces of the fame empire : and that they feldom failed to revolt, when a favourable opportunity offered. In 1265 , Malwa regained its entire independance from the crown of Delhi; having gradually thaken off the yoke, laid on it by Cuttub, in 1205 : and the Rajpoots were on every occafion, notwithftanding their comparative vicinity to the capital, afferting their independency likewife. Of the fate of the internal government of Hindooftan, a judgment may be formed, by the punifhment inflicted on the Mewatti, or the Banditti tribe, which inhabit the hilly tract, within $\delta \theta^{25}$ miles of Delhi. In $1265,100,000$ of thefe wretches, were put to the fword; and a line of forts was conftructed, along the foot of their hills. Rebellions, maffacres, and barbarous conquefts, make up the hiftory of this fair country, which to an ordinary obferver, feems deftined to be the paradife of the world: the immediate effect of the mad ambition of conquering more than can be governed by one man : the whole empire being portioned out to rapacious Governors, who domineering over the governed, until their fpirits were fufficiently debafed; were at laft able to perfuade them, that their common intereft lay in taking up arms, to render thefe Governors indeperi-
dant:

## [ 1 ]

dant: and indeed, had it brought them nearer to the point of baving a regulat, permanent, government, this might be true: but, in fact, it only fubjected them to a new conqueror ; or to the punifhinent of rebellion from the former one. It wiould appear as if the wann climates, and more efpecially the open countries, fituated within them, were deftined to be the feats of defpotifin: for that the climate creating few wants, and the foil being productive without any great exertion; the inhabitants of it do not poffers thofe energies, that in a cooler climate prompt mankind to inveftigate their natural rights, and to affert them. This, however, is a point that I hall not venture to decide on; although I believe it is a fact not to be difputed, that throughout the known parts of the world, defpotifm prevails moft in the warm climates. The Patan, Mogul, and Tartarian conquerors, in Hindooftan and China, however hardy at firft, have in a courfe of ages, funk into the fame flate of effeminacy with their fubjects: and, in their turn, have, with them, received a new mafter. Let thofe who are in the habit of complaining of the feverity of northern climates, reflect, that whatever phyfical evils it may produce, it matures the great qualities or the mind; and renders its inhabitants pre-eminent among their fpecies: while a flowery puet, or a more flowery hiftorian, is the moft eminent production of the tropical regions.

While the Kings of Delhi were profecuting their conquefts in the eaft and fouth of Hindooftan, the provinces on the weft of the Indus, were, of courfe, neglected; although not avowedly relinquifhed. It might have been expected, that fo excellent a barrier as the upper part of the Indus, and the deferts beyond Agimere; would have induced an Emperor of Hindooftan, to giva up, of choice, all the provinces that lay on the weft of this frontier: and the neglect of fo prudent a conduct, occafioned the peace of the empire to be often difturbed; and ended in their being forcibly taken away at laft, by the Moguls : who, not contented with their new acquifitions on the weft of the Indus, croffed that river and invaded
$\left[\begin{array}{ll}\text { li }\end{array}\right]$
invaded the Panjab : and fo formidable did they appear to Ferofe II. that fome tribes of them were permitted to fettle in that country (A. D. 1292.) The reader will not forget the fimilar conduct of the Roman Emperor Valens, with refpect to the Goths, who were permitted to crofs the Danube, and fettle in Thrace : and the fimilitude is the more ftriking, in that the Hindooftan empire was afterwards conquered by the affiftance of the defcendants of thofe Moguls. This Ferofe II. was of the tribe of Chilligi or Killigi (from Killige, near the mountains of Gaur) but is, neverthelefs, included in the Patan dynafty : the name Patan, or Pitan, being applied rather in a loofe manner, to all the tribes bordering on the common frontiers of India, Perfia, and the province of Balk: that is, the ancient province of Paropamifus.

In 1293 this Emperor gave into the fcheme of attacking the Deccan; which, at this period, muft be underfood to mean the country lying generally to the fouth of the Nerbudda and Mahanada. (or Cattack) rivers: a tract nearly equal in extent to what he already poffeffed in Hindooflan; and which extended from the thores of the Indus, to the mouth of the Ganges; and from the northern mountains, to Cattack, Sirong, and Agimere: the greateft part of Malwa, with Guzerat, and Sindi, being then independant. The riches of the King of Deogire (now Dowlatabad) one of the. principalities or ftates of the Deccan, gave birth to this project; and the projector was Alla, Governor of Gurrah, which nearly bordered on the devoted country. The covetoufnefs of the Emperor made him embrace a propofal, which eventually involved in it, his own ruin; for Alla afterwards depofed him, by means of that. very plunder.

Alla's firft expedition was attended with the capture of Deogire: (or Deogur) and with it, an incredible quantity of treafure andjewels : with which, having increafed his army, he depofed and murdered the Emperor. We cannot help acknowledging the juftice of this punifhment ; when we recollect the motives, on which. h

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the expedition to the Decian, wif undertaken : and that moreover,' the Emperor'had beter bribed by Alia, witth part of the plunder, taken in'a fotmér predatory expedition to Bilfah.

When Alla (who was the firt of the name) had poffeffion of the thitone, in 1295 , he began his plan of conqueft, by the reduction of Guzerat ; which, while it continued independant, was, by its local fituation, a ftrong obftacle to his defigns on the Deccan. Next, he reduced Rantampour, and Cheitore, two of the ftrongeft helds of the Rajpoots, in Agimere. This was the firft time that Cheitore had fallen to the Mahromedans. In 1303 , he alfo reduced Warangote, the capital of Tellingana, another principality of the Deecan; and comprehending nearly the prefent country of Golconda. This, as well as Cheitore, was a city and fortrefs of valt extent, and population. But in the midft of thefe conquefts, and probably the effect of them, the watchful and reftlefs Moguls, from the oppofite quarter, penetrated even to Delhi; and plundered the faburbs of it.
In the following year, the remainder of Malwa, was conquered: and in 1306, the conquent of the Deccan was refumed, under Cafoor, the Gethetel of Alla; who proceeded to the Deogur country, by the route of Baglana, which he, reduced in his way: and which Ferithta:* calls the country of the Mahrattas. Cafoor not only carried his arms into Deogur (Dowlatabad) and from thence into Telffigana, but into the Carnatic likewife, in 1310. By the Carnatic, is here meant the peninfula in general, lying on the fouth of the Kifina river: It is not known, how far he penetrated,' fonthward, but he was directed by Alla, to redace Maber, which we underftand to comprehend the fouthern part of the peninfula. His expedition appears to be rather predatory, than otherwife; atroeable to the genius of bis mafter, Alla. The quantity of trealure:

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amaffed, exceeds all belief. It was; faid thet giner was fyuph topa cumberfome for the foldiery; gold being in fuch plénty. Thebiftorian obferves on this occation, as well as on the taking of Deogur, that the Princes of the Deccan had been for a great number of ages, amafling this treafure : fo that their country had probably continued undifurbed all that time.

In 1.312 Cafoor ravaged the northern part of the Deccan again; and laid Tellingana and the Carnatic under a tribute: but the entire conqueft of thofe countries was not effected until about three centuries afterwards, undet the latter Princes of the houfe of Timur. Alla died in 1316. At this period all Hindooftan proper was comprehended in the Patan empire (fo called from the dyantoyn in poffeffion of the throne) : and the interior policy is faid to be fo well regulated, that ftrangers might travel throughout the empire, in perfect fecurity.

Rebellions breaking out in Tellingana, in 1322, and 1326, it was again fubjected : and the whole Carnatic ravaged from fea to fea. But under a fucceeding Emperor, Mahomed III. the Princes of the Deccan affumed courage, and headed by Belaldeo, King of the Carnatic, they drove the Mabomedans entirely out of thofe countries; nothing remaining to them, 能e the fortrefs of Dowlatabad (or Deogur). About the fame time (1344) the city of Bijimagur, corruptly called Bifnagar, was founded by the fame Belaldeo. Mahomed, who appears to have been a weak Prince, loft much territory, alfo, by rebellions in Bengal, Guzerat, and the: Panjab : mean while, he was occupied in attempting the conquef of China, but was repulfed on the frontier. It is probable, from. circumftances, that he went by way of Affam. This Emperoe: alfo planned the abfurd fcheme of transferring the feat of government, from Delhi to. Dowlatabad : and attempted it twice, but without fuccefa.

Ferofe III. who fucceeded in 1351, appeared more definous of: improving the remains of the empire, after the defection.of Bengal. h. 2 ands

## 〔hiv 〕

anditue Dedean, see than of extendring it, By arths. Canalls, and public'works, for the improventent of agricalture, and of "the inlemed! mavigation, were his favouifite objects, during a reign of 37 years. : (See the Memoir; page 72.) The Moguls made another irruption in 1357 , and the time now approached, when a more ferious one was to take place under Timur, or Tametlane." After the death of Ferofe, in 1388 , rebellion and civil war, during a courfe of feveral years, prepared the empire for foreign fubjeettion: and a minority, in the perfon of Mahmood III. who fucceeded in 1393, brought matters to a crifis. During the confufions atteridant on the ftate of a minority, in an empire which could with difficulty be held together, by a veteran defpot, the hiftorian remarks an unufual circumftance: two Emperors in arms againft each other, refiding within the fame capital. In this fate of things, Timur, who had already extended his empire over all the weftern Afia and Tartary, turned his arms towards Hindooftan in 1398. In the preceding year, he had fent his grandfon Peer Mahomed, to reduce the Panjab, and Moultan; and in October, crofled the Indus: himfelf $;$ and joining his grandfon near Moultan, his army proceeded in different divifions to Delhi, which fubmitted, without what may be properly termed, a battle. This inhuman morifter, who had credit enough with a poet of the prefent century, to be brought on the ftage, as a hero, poffeffing great and amiable qualities,: obtained in Hindooftan, the title of " the deftroying Prince \&' and was' truely worthy of it, from the numerous maflicres and exterminations executed under his immediate direction. Timur Staid in Delhi only 15 days : and then appears to have been on his return to the feat of his empire, when, hearing of a fortrefs in the Dooab, that had refifted the arms of a former Mogul invader (Turmecherin Khan) he marched towards it and took it. From thence he proceeded to the place where the Ganges iffues out of the mountains, and where the Hindoos refort at certain feafons, in vaft numbers, to pay their adorations to, and to purify themfelves in that facred
facred fream．His object was the externipation of thefe inoffisn five people s and he partly fucceeded．．From thiia placey turping torthe north－weft，along the foot of Mount Sewalick，he cominued his maflacres，though not without oppofition，until he arrived on the frontiers of Caifmere．He fpent little more than five months between the time of his croffing and recroffing the Indus：and appeass to have paid moce attention to feafons than Alexander did：is Timar chofe the fair feafon for his expedition，whereas Alexander was in the field in the Panjab，during a whole rainy feafon（fee Me－ moif page tol）．Timur，however，may be faid rather to over－run． than to fubjeft，or conquer ：for he did not difturb the order of fucceffion in Hindooftan，but left Mahmood on the throne ：referv－ ing ta himfelf the poffeffion of the Papjab country only；and this， his fucceffors did not retain long．His views were at this time； directed towards the Turkih empire；and this made him negledt India；which did not promife fo plentiful an harvert of glory；as the other．During his life，which ended in 1405，he was prayed for in the mofques of Hindooftan，and the coin was ftruck in his name ：，but this might be more the effect of policy in the uffrpers of Mahmood＇s throne，than the act of Timur．It does not appear． from Feriflta，any more than from Sherefeddin，that this Prinee carried much treafure，out of Hindooftan，with him．But Nadir Shah＇s acquifition of the precious，metals，at a later poriod，was great，；heyond all ideas of aocumulation，in Europe ：and is only to be accounted for，by the influx of thofe metals from Aniericia， during that interval．

For the geography of Timur＇s marches，the reader is referredi to the third fection of the Memoir；and to the map．
．．．If Hindooftan was in confufion before this invafion，it may th expected that on Timur＇s departure，mateers became inuch worfe．＇ The death of Mahmood happened in 1413 ；and with him ended the Patan dynally，founded．by Cuttub in 1205：The throne was then filled by Chizer，a Seid pthat is，one of the race of the pro－ ．．．n．⿻⿱口⿰口口：．．．．．．．phet

Rhet Mabomed) whore, pefterity continued in: it, until. $\mathbf{4 5 0}$ : when Bealloli, an. Afghan, of the tribe of Lo dit, took paliefion of fit, on the abdication of Ally II under whom. all Hindoatan fell into Separate. governments; and 2 potentate, styled King of the Ens; where refidence was, at Jionpour, in the province of Allahabad, became the mont formidable, among them: while the, King of Delhi, bad but the shadow of authority remaining to him. ...The fan of Belloli recovered a considerable part of the empire; and in 1591, made Agra the royal refidence. It was during this reign, that, the Portuguese firth accomplished the paflage to India, ty the Cape of Good Hope: but as their connexions were entirely with the maritime parts of the Deccan; and a part of it that had ever been independent of Delhi, no notice of this event, is taken by Ferihta. The empire fell again into utter confusion, under lIbrahim II. in 1516; and this paved the way for the conquer of Hindooftan, by Sultan Baber, a defendant of Tamerlane and of Gengif Kan; who reigned over a kingdom composed generally of the provinces fituated between the Indus and Samarcand. Being difpoffeffed of the northern parts of his dominions, by the Uthecs; he determined to try his. fortune in Hindooftan, whole diffracted fittatin flattered his hopes of conqueft. His refidence at this time wat at Cabul, from whence he undertook his frt expedition across the Indus, in 1518 . After this, he made four ochers: and in the fifth (A, D. 1525) he defeated the Emperor of Delhi, and thus put ap end to the dynafty of Lodi. It is fid that Baber croffed the Indus, this lat time, with only 10,000 chofen horde; the enemy's Generals, by their revolts, furnishing him with the reft of his. army. In this, we have a fresh inflance of the fall dependance that the Hindooflan Emperors could have, on their Viceroys and Generals, Baber reigned only five years in Hindooftan; during which, his chief employment was the reduction of the eatern prowinces. Nor did be relinquish his Perfian provinces, by crofting the Indus. His font, Humaioon, fucceeded him in 5530 ; but $x$ That int ores in his history o/ Hevidoten: for in thatotithe Deccan, ha seat wary poly the


## 〔 lvii 〕

the Thort reign of Baber, did not allow time enough to compore the difitrattions that had fo long prevailed; or to exterminate the feeds of rebellion: for the intrigues of his brothers, and the open rebellion of Sheer Kan, drove Humaioon, although a Prince of confiderable abifities, and great virtues, from his empire, in $1541^{\circ}$. Fis ffight towards the Indus, and his fojourn among the Rajpoot Princes'of Agimere, furnithes a ftriking picture of royal diftrefs. During his ftay there, his fon Acbar was born, whom we may reckon among the greateft of the Sovereigns of Hindooftan: The provinces on the weft of the Indus were held by a brother of Hu-' thaioon. The ufurper Sheer, did not long furvive his new dignity ; being killed at the fiege of Cheitore in 1545 : and was buried at Saftram in Bahar, his original eftate; in a magnificent maufoleum, which he had ordered to be conftructed, during his life time : and of which, a drawing has lately been exhibited in this couhtry,' by Mr. Hodges. Sheer Kan was of Afghan origin; and held the foubahfhip of Bahar, when he rebefled : and at his death, his em-, pire extended from the Indus to Bengal. He left his throre to hisfon Selim, but fo very anfettled was the flate of Hindooftan, that no lefs than five Sovereigns appeared on its throme, in the courfe of 9 years. In effect, there could not exift in the minds of the people, any idea of regular government, or regular fucceffion : for there had fcarcely ever been 12 years together, during the laft, or the prefent century, without furnifhing fome example of fuccersful rebellion. This induced a ftrong party in Hindooftan, to invite Humaioon back; and accordingly, in 1554, he returned, and met with but little refiftance: but died in confequence of an accident, the following year. He was celebrated for the mildnefs and benevolence of his nature : and his return, notwithftanding the fhortnefs of his reign, was a public bleffing; as it was the means of feating his fon Acbar quietly on the throne. When he was driven from his empire; by Sheer, he refided with Shah Tamatp, of Perfa,

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whanaded him ip the reçovery of it : and in: the early part of his exile, he; recovered ponieflion of the provinces beyond the Indus.

Acbar was about 14 ,; when his father died, in $1555^{\circ}$ :The reign of this Prince has been celebrated by the pen of the fapoous Abpl. Fazil, in a book called the Acbar-namma, or hiftory of Acbar. The bufinefs of this fketch, being rather to give a fort of chronological table of events, than to aim at a circumitantial hiftory, I fhall not attempt to particularize the great events of this long and bufy reign: of 51 yeaps: but refer the reader to the hiftory of Hindooftan, by Çol. Dow. a in which, not only a full aecount of Acbar, but alfo of his defcendants, down to Aurungzebe, will be found. As in: the perfon of Baber, the line of Tamerlane firlt mounted the throne. of Hipdooftan: fo in that of Acbar, the grandfon of Baber, it may: be faid to be effablifhed. The conqueft of their anceftor, about at chntury and a , half before, had no hare in effecting the prefent. fettlement. Baber, was in reality the founder of the Mogul dy natily; and from this event, Hindooftan came to be called the Mogula empire**

The furl years of Acbar's reign were employed in the reduction, of the revolted provinces: from Agimere to Bengal ; in which the great Byram, who had a thare in recovering the empire for Hu maioon, was a principal actor. Thefe conquefts were fecured in a manner very different from thofe, atchieved by former Emperors : that is, by a proper choice of Governors; by wife regulations; by. an $\mu$ nlimited toleration in religious matters; and by a proper attention to the propenfities of the people: to all which, a long and vigorous reign, was peculiarly favourable. The Hindoos fill formed the bulk of the people; even in thofe provinces, that, from their vicinity to the country of the conquerors, had been the moft.

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## $[$ lix ]

frequently over-run : and experience had taught the Mahomedam conquerors, that the paffive religion and temper of the Hindoos, would, if left to themfetves, never difturb the eftablighed government. But the Deccan was a fumbling block to the Mogul Emperors. . In 1585 , Acbar refolved on the attack of it, and foon after carried the war into Berar, while another army was reducing Cafhmere, in an oppofite corner of the empire. The Deccan appears at this time, to have been divided into the kingdoms or fates. of Candeifh, Amednagur (or Dowlatabad) Golconda (or Bagnagur) and Vifiapour. Berar and the Carnatic, each of which included. feveral diftinct governments, are not fpecified by the hiftorian, as members of the Deccan : by which it would appear that they do not, in ftrictnefs, appertain to it. In the popular language of the times, there were reckoned to be four principalities in the Deccan: that is tofay, the four firf mentioned, above. Moft, if not all of thefe, were at this time goxerned by Mahomedan Princes; although we are not in poffeffion of any hiftory of the conquefts or revolutions, that transferred them from the Hindoos to the Mahomedans. At the time of Acbar's death, in 1605 , no farther progrefs was made in the reduction of the Deccan, and the adjoining countries, than the taking poffeffion of the weftern part of Berar, Candeif, Tellingana (a divifion of Golconda) and the northern part of Amednagur; the capital of which, bearing the fame name, was taken in 1601, after a long and bloody fiege, and an unfuccefsful attempt to relieve it, by the confederated Princes of the Deccan.

Acbar was the glory of the houfe of Timuc. Hindooftan proper, had never, at any period fince the firf Mahomedan conqueft, experienced fo much tranquillity, as during the latter part of his reign : but this tranquillity would hardly be deemed fuch, in any other quarter of the world; and muft therefore be underfood to mean a ftate, fhort of actual rebellion, or at leaft, commotion. Prince Danial ${ }_{2}$ his eldeft fon, died juft before him; and Selim,

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the foxt; it righte of ifrimogethitare, facteeded under the title of Jehanguire: is

- Whanguife veigned rabout 22 yeats. Under him; the conquelt 10 f the Detcan was notiloft fight of, though but faidtly purfued. What mate inade on :the Rafpoots, and the Ranay or chief Prince, Weoughe to tertis. :The rebellions of the Emperor's for, \$hah Johahy enittered the tatter part of his reign; and the influence of Whate miftrefs -Noor fehan, rendered his couricils weak, and con' Arfinte hio government: However, the protinces having beet hold eggether for near 70 years, the empire had acquired a degfee of emiffitdation; and was not fo liable to be fhaken,' as it wouth handeen at ferme former periods, under the operdtion of fimilar avente. J Th was: in this reign, and in the year 16 r 5 ; that "ft Thiomat Moderwat fent as the firf Englifh Atribaflador to the EmpeHer : if indoortan: " The Portugueft, had by this time, acquifet etenfiderable Aetlemente in Bengal and Guzerat; but only thofe in Wuratht, "where they affoipollefed fome extent of territory;' attracted the ithet of the court: :arth it is curious to obferve what the author of athe Ayin Aebarce faýs of them, about the year 1560. Speaking \$f. Ahe "findis of Gutzerat, he fays, "By the neglect of the King's Cowernibsc, ${ }^{7}$ feveral of thefe tiftriets are in the hands of Europeans."
 atedr Drysr fays that it was 'fituated in the difricts,' that were fubject : teathel ceiddolitiers of Europe:" -
Stikh Jehan fucceeded his father in 1628 . The coniqueft of the Deccan was purfued with more vigour in this reign: and the pataders ard deviftations perpetrited there; 'occafioned itioft, of all of ftes Puhtes, to make fábmifion, and acknowledge the Empertr, ford patithbint. 'Golconda was' in part', aetuafly taketh pofferlion Ef: but Vifiapour and the Carnatic, togettier with the Yegions of the Gauts, remained in the hatrids of thefr ancient poffefors. $x^{*}$ :......

Catidahar, a fortrefs'fituated on the comition boundary of Peifita, and of the Mogul provinces beyond the Indus, was, hethie time,

## [ 1xi ]

as Eupjectiof contepation; betwern the swo Monarghe of: Perfa und Hindooftan. The firft ferious quarrel between the ${ }^{\text {B Burapearls }}$ (Pentuguefe) and Moguls, happened during this reign, 1633: when, the Portuguefe werg expelled frour Hoogly, in the Ganges In a 0.5 .8 , the civil wars commenced betupen the Euperor and his fons; as well as between the fons themfelves: which ended in the devation of Aurungzobe, the youmgot; after ha had depofod his fathens, and murdered or expelied his three brothers. Theiaccount of thef maniafions may be feca at large, in' Bernier dnat Dow: and is a viry ourious piece of hiftory. In 1660 , Aurengrebe f who took the name' or title of Allumgire and was the firf :of that nameł was : in peacredele poffefion of the throne: and from that period, wntil the year 4678; there provailed, throughont Hiadooftar in general. the! ment profound peace that had ever, pertaps, theen' ?kmann : hat che remainder of the Deccan; was ditll a, dofoteratanis. and, Aurangzebe difdained, to have any other boundaty, on the fonth, than the: orean. Accordingly; the conqueft of the ramose part of the Decoan employed a:very conikderable part of his sheifure diuting the latter' part of his peign: when the whole of that migibn, together with the peninfula, a few mountainous and inaccolible textsionly excepted, were either entirely fubjecteds: or renderged tri baxacy to the throne' of :Delhi. :What migtit appear Auruagzebe to temder this iftep : of fubcuing the Deccans, necreflanty, uras; the determined firit and growing power of Sevagoc; the foundar of she Mahratta ftate; who, by his conquefts in Vifiapour;' appeared almoft in the character of a rival to Aurungrebe. ..:
$\because$ rebellion of the. Patais beyond the Indus, in $\mathbf{x} 678$, catled for the prefence of Aurungzebe, there : which was no fooner quelted, than his perfecution of the Hindoos Risted up the Rajpoot, tribes in Agimere. He undertook this war ,alfo, in perfon: but was hemmed in prith his whole army,. betwcen the mountains, apd the Emprefs heifelf, was taken prifoner: fhe was afterwards, hoswever. parmittod, to efcape, as well as the Emperor. This did not dif-
conarage, him from garyying the wro into the Rajpoot coulty againt in 1681: when he took and deftroyed Cheitore, the famous capital of the Rana; as well as all the objects of Hiadoo worlhip found there., The fpirits of thofe gallant people, were, however, fill upfubduad: and Aurunguebe was, neceffitated to grant (themin peace *.

Sevagee died in -1680 , and left his rifingiftate of Mahratias; to hin (fon Sambajee; who was afterwards betrayed into the hands of Aurungzebe, and barbaroully put to death. . Still bewerer; the mountainons, parts of Baglana were anfubdued; andialthbugh: atie kingdom of Vifiapour was reduced in 1686, and Goleothda; in the following year, yet he found great difficulty in profereuting his conquefts on the weft : as appears by his camp being fixed: on athe Kiftna river, about; 200 miles to the north reaftwand of God; in
 of, any later pariod, than the 1oth year of Aurungzebe: that is . to the year 1670; when Mr. Dow's hiftory finihhes: all the events that aro fubfequent to this date, are from other authorities.

Io is faid that, Aurungzebe was employed in the Deccan from the year 1678 , to the sime of his death, and was actually in the fred, during the greateft part of the laft 15 years of his life. This dereliction of his original empire and capital for nearly 30 years, pcafipned various diforders in them : and laid the foumataion of many more : among others, the fecond rebellion of the Rajpoots in Agimere; that of the Patans towards the Indus; and of the Jats, or Jates, in the province of Agra. This was the firft time that the Jats appeared, otherwife than as banditti: fince which, they grew

[^14] deration, in the politics of upper Mindobtan!:

Aurumgzebe died in 1707, in the goth year of his age, at Athedi. nagur; in the Deccan; which he had fixed on for his refidenct,' when in whiter quarters. Under his reign, the empire attainited its full meafure of extent. His authority reached from the toth to the 3 年h degree of tatitude; and nearly as much in longitude: and his reverne exceted 32 millions of pounds ftering, in a country where tho produets of the earth are about four tines as cheap as in England. But- fo weighty a fceptre coutd only be wielded by'a hand like Autungzebe's : and we accordingly find, that in a courfe of 50 yeanc after his death, a fucceffion of weak Princes and wicked Mininiteess, seduced this aftonithing empire to nothing.

- Anirungzcese obivioully forefaw the contefts that woutd arile bel tween hititions, for the empire: and it has therefore Deen' aftetted, that he made a partition of it, among them. 'This atcount, howover, is not warranted by the memoirs of a nobleman of Aurung zebe's Court, lotely pablihed, in this country'*; nor by the beft liwing authorities that I have been able to confflt: Two letiters, written by Aurungzebe to two of his fons, a feev tays béfore : Mis death, indicate no intention of dividing the empire; but exprefs in doubtful terms, his apprehenfions of a civil war $\dagger$. Helcft behind him, fowr fans: Mauzum, afterwards Eniperor, under the title of

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 the empire with their, eldere, grother; and Acbary whpi 30 . weus before had been engaged in rebellion and Alad to Perfia. The:death of their father, was the fignal of ihotility berween Mauanum, and Azemp; the former approached from $\mathrm{Cabul}_{2}$ and the latterefrometho Deccen, and difputed the poffeffion of the wholo enpiese: (for Artuat had propofed a partition ${ }_{11}$ of it) with armies of about 309, 0 mot each: Near Agra, it was decided by a battle, 'and the doath oh Azem; and Mauzum took the titlemof Babader Shat before his acceffion, was Shah Aulum, by which name ha isicoul


Bahader Shah reigned about five years, and was: Prince: of conim fiderable ability, and great attention to bufinefs : but ther convilf fions with which his elevation had been attended (notwithotanding his pretenfings, as eldeft fon of the late Emperor) added to the varipus diforders, that had taken root during Aurungzebe's lang abfence in the Deccan, had reduced the government to fuwh a sawo of weaknefsmas required not only the exertion of the beft talents; but alfo much time, to reftore, : The rebellion of his brother Kaum Bukn, foon after hiq accerfion, called him into the Deccan; and this being quelled by the death!of Kaum Bukin, and the, total difperfon of his followers, he wifely quitted this fcene of his fan ther's miftaken apmbition; although the Deccan was far frowe being in a fettled ftate. He had in contemplation to reduce the Rajpoot Princes of Agimere, who had, formed a very ftrong confederacy; to which the long abfence of Aurungzebe had been too favourable; and they appeared to aet with much confidence and fecurity. However, an evil of a more prefing nature, drew the Emperor's attention to another quarter. The Seiks, a new fect of eligionifis, appeared in arms in the Lahore province; and ravaged the whale country from thence to the banks of the Jumna river. The Seiks had filently eftablifhed themfelves, along the foot of the eattern mountains, during the reign of Shah Jehan. They differ from moft

## [ $\tan$

mode religionits,' in that, 'He the rymoos; they the perfethy tolerant in matters of faith; "and require only a boiformity in cef tain figns and ceremonies: but unfike the Hindoos,' they admit procelytes; although thole from among the Mahomedans, arie' the leaft efteemed. They are ndw become one " of the "mof potent fates in Hindooftan. Thefe, the Emperor marched againt in perfon, and after much trouble and delay, reduced them; but their Chief efcaped.' The Emperor then took up his refidénce at Lahoré, and feems to have continued there a very long time:' probably, to cheek the refinant of the party of the Seiks; and to tettle the affairs of the province, in general. 'Here he died, after a hort illnefs, in 1 y12: and, it would appear, that he never had an op portunity of vifiting Agra, or Delhi, durịing his reigni.
He alfo, left four fons: among iwhom, 'a watit for the fuccefion, commenced on the fpot. The fecond fon, Azem Oonlawh,' took pofferfion of the treafures; but was oppofed by his thire brothers. tho agreed to divide the empire anong them." A batte," in which Azein twas kiffed,'decided matters in thér favoùur"'chicfly by the ad trefs and bravery of the youngeft; Jefiaur Slath;' who tencd ref rolved to abide by the "ggreenent, to divide the empires; and as a proof of his intenton, directed the tráafures to be divided giyt Esboffecar-Khan! an Omah in high rruft, intrigued to prevent hi Smending to raffe to the fhrond, Jehaunder Shah, whio was the bel bitted for his purpores. A fecond battle was fatal to "ythat 'Sliah' and left hist two remaining brothers to difpute the empire, by a third battle; which left Jehaunder; who was originally the eldef, in poffefion: He did not long enjoy his dignity: for at the end of rife'months, he was dethronea by Ferckfere, (or Furrockere) fon of the deceafed Azem Oothawn ; and, of couffe, great grandion of Anrungzebe.- The weaknefs and meaninéf of Jehainder,' is aluinot without parallel, in the annals of Kings *: and gtwe pccafion to the
 $1: \%$

## [ lxwi ]

Syeds (or \$eids) Houffein Ali Kbans, and Abdoolla Khan, two brothers, atad Omrahs of great power, to fet up Ferokfere Having been poffeffed of governments in the eaftern provinces, their influence enabled them to colleet ap army, with which they defeated that of Jehaunder, near Agra, in the fame year, 1712.

The Seiks appeared again in arms, during the following year: and in $1716_{2}$ they were grown fo formidable, that it appeared neceffary to march the grand army againft them, with the Emperor at its head ; but we are ignorant of the particulars of the campaign.

It was in this reign that the Englih Eaft-India-Company, obtained the famqus Firman or grant, by which their goods of export and import, were exempted from duties, or cuftoms; and this was regarded as the Company's Commercial Cuarter in India, while they Atood in need of protection, from the Princes of the country.

In the year 1717 ; Ferokfere was depofed' and blinded by the Seids : who raifed to the throne Ruffich-ul-Dirjat, a fon of Bahader Shah. Both this Emperor and his brother, Ruffich-al-Dowlat, were, in the courfe of a year, raifed to the throne; and afterwards depofed and put to death by the Seids; who had now the difpofal of the empire and all its concerns. Thus, in 11 years from the death of Aurungzebe, five Princes of his line, who had mounted the throne, and fix others who bad been competitors for it, had been difpoled of: and the degraded ftate of the regal authority, during this period, had introduced an incurable anarchy, and a difpofition in all the Governors of provinces, to Chake off their dependency on the head of the empire. From this time, affairs declined very rapidly : and the empire, which had acquired fome degree of confiltency under the houfe of Timur, was now about to be difmembered, in a degree beyond what it had experienced, even before the æra of the Mahomedan conquefts.

Mahomed Shah, grandfon of Bahader Shah, was placed on the throne by the Seids, in 1718 . This Prince, warned by the fate of

## [ lkvii ]:

his predeceftions, and having very early in his reign acquired power: fufficient for the purpofe, got rid of the Seids: but not without a: : rebellion and a battle.

Nizam-al-Muluck, Viceroy of the Deccan, had for fome tinne been: rifing into power; and the times being favourable, he meditated independency. He had received fome affronts from the Seids, which furniphed him with an excufe for withdrawing to his government: from whence, in 1722, he was invited to Court, and offered the poft of Vizier. This offer, however, he declined, as not fuiting his iprojects: which had for their object, fovereignty, inftead of minituy; in the Deccan, at leaf. The Mahrattas too;: whofe power had progreflively increafed, and who even held their ground againft fo martial and perfevering a Prince as Aurungzebe, were, as might be expected under a fuçeeffion of weak ones, grown truely formidable to the reft of the empire : and their vicinity to the Nizam, afforded him a complete pretence for increafing his army. When the Princes of the houfe of Timur were fo eagerly purfuing the conqueft of the Deccan, it feems to have efcaped their penetration, that this region, which poffeffed ample refources within itfelf, and ipnumerable local advantages in point of fecurity frome ? an enemy without, was alfo fituated at fuch a diftance from the capital, as to hold out to its Viceroy, the temptation of indopetidence, whenever a favourable opportunity might offer. Perhaps, !' if the Deccan had been originally left to itfelf, the pofterity of! Timur might ftill have fwayed the feeptre of Hindooftan. ;

While the Nizam continued fo formidable in the fouth, the Mahrattas directed their attacks againft the middle and nothern provinces. Malwa and the open parts of Agimere were over-run by them : and their detachments infulted even the capital iof the empire. The weak Mahomed, had, in the early part of his reign, "' endeavoured to fatisfy their demands, by paying them a tribute.: amounting to one fouth of the net revenue of the invaded provinces: but this, as might have. been expected, only increafed! $k$

## [ swifif ]

their infolineof andirended in thetr feiziag on the provinces them-felvesii:-

In 1738 , the Nizam, confident of his intereft with a powerful faction at Court, caune thither; attended by a large body of armed fodtowers. Dowram the commandey in olfieff of the army of the cmpite, was at the head of the Coutt party; which the Nizam Ginding tor ftrong, to be eafly difpoffeffed of their places, he invised Nadir Shab, whei ufurper of the Petfian throne; and whb was then engaged in sbe fiege of Candahar, to invade Hindooftan: bopiag that he and his faction might get rid of Dowsan ; or at any sate; that thtery might profit by the confufion it wotria oeeafion. Many thought that the Nizam's wiews extadedi to thte empire itfelf. Accordingly, in the following yeas, Nadir Shah entered Findooiftan, and advanced to the plains of Carnaw, where Dowran had affembled the army, but was foon aftes killod in a frutruifiris So undertain wwis the fave of things even at this times that Nadir Shath officedt to exacuate the tmpite fot fiffoy lacks of rupees (Irialf a million). But the iamigues of the Nizamand his party; occafioned the weaktemperor to shrow himcelf on the clemeney of the invader; woo:entered Deflii, and demanded $3^{\circ}$ millitione ferling, by way of ranfom. Tumulasy: maftacres, and shmine, were the refult: 1000000 of uthe inhabitants were mafficretd, and 62 mithions of pluaders. werse frid to be collected. Nadin maxried his fon to a grand daughtex af: Aurungicebe, reftoned Mahomed Shah to his throne, and retorned to Perfia, after obtaining the ceftion of all the. cordetries fubyidet to Hindooftion, lying on the weft of the Indus:
fintiodepartore left the Njzam in poffeffon of the whole remaining power of the empise: : ated which the facrificed to his own views: in thealDotcan, where he eftablimed an independant kingdom for himelf. :cThe Mahratta zevafions of the Carnatic is " 7740 and 17.41, and particularly: the dafeat and death of Doaft Ally (Nabob) of Arcot) by their aums, callea the Nizam toone s: after delegating his power at Court to his etcelt fon Gazi o'diens

The Nixam, on his arrival, fettled the Carnatic for the preferins; by placing Anwar o'dien, father of the prefent Mahomed Ally, is the government, or Naboblhip of Arcot; which was therr underAood to comprehend nesely the prefent Carnatic.

Bengal became independant of Delbi a little before this time (1738) under Aliverdy Cawn; and not lang after, :a vaft aemy of Mahrattas, both from Poonah and Berar. (for they were now divided into two ftates). invaded it, uader the fanction of the Emperor's name, who being at a koff to. fatisfy theic repeated demands, fene them to collenis for shementives, the arreans: of revenue, finot the defection of Aliverdy. About the fame time the Roarillac, $z$ tribe from the mountaiss that lie between India asd Peria, erected an independant Anata on the caft of the Ganges, and within 80 miles of Delhí, :V 4 ry ftoming fymptoms of: the univeradrdiffolvaian: of tho empire: 'apppered, at this, tima.

Nadir Stah diad in 1747: and in: the confurion that followed; Abdalla, of his Cenerals, (ceizad on the eaftern part of Perfia, and on the botdering provincter of India, that wese coded by Mahomed Shah to Nedirs, amd thefe he formed intoria keingdorn; known 3t prefent by that of Candatiar: or enore familiarly by that:of the shdilli. It comprifes nearly the aneingt cmpire of Ghioni.

Mahomed Shah died the fame yoar, having reighed 29 years y 3 long peripd, ponfidering the fate of his imemediatespredeceffors;
 dogtan:

Ahuped Shah, for of Mahomed, fucceeded his father. In his reign, which lafted about 6 years, the entire divifion of the semainder of the eppopire toek place: pothing remaining to the houre of Timys, fue a fmallisearieny roand Dethi, together, with (the city ittelf (now no loager a capital) expofod to:repeated depredations, mafferes, and famines, by the conteft of. invadorss: The lat army that might be reckoned imperial, was defeated by the Rohillas, in 1749 ; by which their independency was firmly eftablifhed in the k 2
eaftera

## [ bx ]

 doo tribesumder! Soorage-Mull, eftablibhed themelves, and foumdert a ftate in the province of Agra. The Deccan and Bengal we have already feen, ufurped by their Viceroys, the Nizam and Aliverdy: Oude was feized on by Seifdar Iung (father to the late Snjah Dow: lah, and grandfather to the reigning "Nabob of Oudes" Aztiph Dowlah) : "Allababad by Mahomed Kooli: Malwa was divided between the Poonqh Mahrattas, and feveral native Princes, and Zemindars: Agimere reverted of courfe, to its ancient lords, thit Rajpoot Princes : and the Mahrattas, who had of late been making large ftrides towards univerfal plunder, if not to univerfal empire; poffefled, in addition to their Chare of Malwa, the groatoet part of Guzerat, Berar, and Oriffa; befides their ancient domanns in the Deccan: and were alternately courted and employed by different parties, and were become the Swifs of Indiar ; with this elamition from the cuftom of the European Swifs, thatixthay unwallyfijipid themfelves, inftead of being paid by their employers: Abdalla, has juft been, faid, having eftablifhed his new kingdom:very eanly in this reign, entered Lahore and Moultan (or the Panjab) withity New to thie conqueft of them. The whole country of IFindoottanproper, was in edmmotion from one extreme to the other? wikh party fearing the machinations or attacks of the other; fo that all regular government was at an end, and viliand was practifed int eygry form. Perbaps, in the annals of the world, it 样: foldoth happened thats the bonds of government were fo fuddenly diffolveiz; avera portion of country, containing at leart 60 millions of inhabitants.
The Nimane died, at a very advanced age.*, in 1 1748; and was' fygceeded by has fon Nozirjung, in prepadice to the rights of his eldeft fon, Gazi, Vizier to the nominat Emperar: inthe eonteltsthat followed, foan: after, between Nazirfungi and fris nephew

[^16] milly (the prefert Coubah of the Deccan, and the only furvivor) and Bazaler Jung:

## [ lixxi ]

Muzzufier Jung, for the throne of the Decean othad betheefithe families of Anwar o'dien and Ctrunda Saheb; for the Nibobfhip of Arcot, one of its provinces; occafioned the French and Englifh to engage as auxiliaries in the wars that happened in confequence of them. In the firf, the French alone interfered: in the latter; both natidas!; the Englin erpoufing the caufe of the family of Anwar e'dien. "Thefe wars tafted till the year if54; and ended,: after much bloodfhed by battle and affafination, in fixing Mahomed Ally, :fecond fon of Anwar o'dien, in the government: of Arcots and Salabidjung, fon of the late Nizam-al-Mulack; in the dowabilhip of the Deccan; the original difputants being eithet aflaffumted; or kitled in battle. By this refult, the Englifh gainee the rpoint of eftablidhing their fecurity and their influence in the: Granndic ; anid the French, in addition to the folid attvantage of gettiug poffefion of the northern circars*; valued at halfra million: ourling, of annual revenue, gaired the: fplendid but uncertain priwilege of influencing the councils of the Nizam, by attending: his perfon with their army, commanded by the celebrated $\mathrm{M}_{\text {: }}$ Buffyn

The :Mogul empire was now become metely nominaly and the: Emperork muft in future be regarded as of no political coirfequenté, otherwife than as their names and perfons were made ure of, by different partions, to forward their own wiews.! That the name and月erfg of the Emperor were of ufe, as.retiainingia confiderable de:gree of yeneration among the bulk. of the people in, Hindooftan and: the Dẹccans: is evident, from the application made at different times, for gfants of territory, forcibly acquired by the.grantée, but: which required; the fanction of the lord paramount, in order to sconcile the tranfaction to the popukar, at perhaps, !vulfar opinion. Thus every ufutper has endeavoured to fanctify his ufurpation, by. either a real: or pretendod grant from the Emperotr: and others; Dy:

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## [ ixxii ]

oftuming podfefion or his perfon, have endearoupel to arikerthelo 2cts pafs for his. Another remarkable inftance of the effect:in podpular opiniorn, is, that the coin throughont the whole tratt, know bye the name of the Mogul empire, is to this day, fruck in the name tof the nonimal Emperor.
(In 1753 , the Eniperor Ahmed was depofed by Cazi*, after baving reigned about 6 years. In the preceding year, the Mahrat 1 tas had been called in, to affift in reducing the Jate; who were itr poffeffion of Agra; and bocome troublefome neighbouts: to thod Emperons and in the prefent year, the Berar Mahrateas eftablified themfilves in Orifa, by ceffion from Aliverdy, Nabob of Bengal : tho was alfo compelled, for a flort time, to pay them a tributo for Bengil and Babaif, amounting to one fourth of the clear revenue: This; together with the Mogul's former perniffion to colloct the' arrears of tevenue due to him, is the foundation of their claims: on Bergat and Bahar; and which they have never relinquilhed, althrough the time's may hive boen unfavourable to their afferting: them:

Allumguire II. grandion of Bahader Shah, was placed on the riom aidil thone Gy Gitf;' whe concurrence of Nidjib Dowkh,
 hat, was at his time in poffeffipn of Lahore, and threateried Dethi. Hinurig6, the emperor, to get rid of Gazi, invited Abdalla to Bethis whe accordingly carnic, and laia thut unfortuate city ander heavy contributions; not even -sparing the fepulchree of theidead: buttudng bifled in his affempt on Agra (helit by the Jats) he
 it58. T THe: Bhperor and his family were now reduced to the


[^18]
## [ Ixxiii ]

of Abdaym, and of the Matirattas; and as musch int dreed anfothefis allies, as of their enemies.

In 1760, Allumgine was depofed and murdered by Gazio Hiis fon; the prefent Emperor; who took dre title of Shah Aulam, wiad then engaged in a fruitlefs attempt to pedube the Dengal provincesi He had :fuccefively thrown himfelf, on the Mahrațas, Nidjib Dawlah; shd Sujah Dowitahs for protection and affiftance; but vithour fuceefs. Mahomed Kuli of Allababad, however, received him 2 and it was by means of an army furnifhed by that Clieft sundiby Bulwanting, Zemindar of Benares, that he was enabled ta entern:the Bengad provinces, where he was joined by fome: refrackoriy Zemindars of Bahar, and made up altogether a force of, about O0,000 mes: but notwithitanding his numbers, they were ill murited; that he ended his expedition (in 1761) by furrendering himfelf to the Britith, who had taken the field allies te, the Neqbots of Hengat and who, having at that time no indacement ta gopo noth their fortunes with his, he applied with more fuccefs to Syigets Dowlah, who, in Mahomed Kuli's abfence, had feized on fllye; habad.

Abldefta, had vifited Hindooftan no lefs thand 6 times deyring thes late reign:; and appeared to have mach more influence in che:empire than Allumgire had. His fixth vifit, was in 1759 and 1760 \% when Delhi was again plundered and almoit depopelated, although dating the time of Aurungzebe it was fugpofed to contain ang millions of faters.
The Mahrattas in the midd of thefe confufions aped rexplutionsed daity gathered ftrength. We find them engaged infeevery frene of politice and warfare from Guzerat to Bengaly anch frap Latore to the Carnatic. Poffeffed of fuot extenifive domainsiandr yaft armies, they thought of nothing lefs than driving out Abdalla, and reftoring the Hindoo government, throughout the empise. Thus the principal powers of Hindootan were arranged in two parties; the Frindoos and Mahomedans : for the Jats joined the Mahrattas; and.

## [ lxxiv ]

and Suiah Dowlah, with the Rohilltsp, and other Mahopectap Chiefs of lefs note, joined Abdalla: and a battle enfued in the old feene of wapfare, the plains of Caraawl and Panniput. There were faid to be $1.50,000$ Mahomedans, and no lefs than 200,000 Mahrattas, whofe cqure-the Jats deferted, before the battle. Thiswas the moft important ftruggle that had taken place, fince the contefts between Aurungzebe's Cons, in 1707. Victory deoluned for Abdalla, after a battle more obftinate and bloody than any $\boldsymbol{m}_{i}$ that the records of Hindooftan can probably fhew : the carnagh of. the day, and the number of Mahratta prifoners taken, were almofe incredible; and great deeds of valour were performed on both fides. This battle was decifive of the pretenfions of the Mabratposs: to. univerfal empire in Hindooftan. They foft the Apwer of their army, together with their beft Generals: and from that, 1 period (1761) their pawer has been fenfibly on the decline.

Abdalla's influence at Delhi, was now unlimited; and he invited, Shah Aulum thither (then engaged in Bahar, as aboyefaid) prormifing to feat him on the throne of his anceftors. He, howewer, did not venture to truft himfelf in the hands of Abdalla: whe therefore, as his prefence was required in Lahore, where the Seiks were on the point of overpowering his garrifons, fet up Jewan Bucht, the fon of Shah Aulum for Emperor, under the tuition and protection of Nidjib Dowlah; from whom he exacted an: anpual tribute. Thus, in fact Abdalla became Emperor of Delhi: "and if his inclinations had led him to eftablifh himfelf in Hindoo. ftan, it is probable that he might have began a new dynafty of Emperors, in his own perfon. He meant, probably, at fome future time, to purfue his defigns, whatever they were, either for himfelf or for the heir of tha houfe of Timur, to which he had allied himfelf by a match with one of the Princeffes. His fon; and

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suceeffot, the prefent Timar shah; matritd another Princers of the fame line.

After the departure of Abdalla, it appears that all the territory remaining to Nidjib Dowlah, for himelf and the young Emperor, was the northern part of the province of Delhi. In the following year, 1762, both the Jats and Mahrattas prefed hard "on "Nidjib Dowlah, but he either baffled them, or bought them off; and held this ground during his life time : and then tranfmitted his country, which is chiefly fituated between the Ganges and Jumna, to his fon Zabeta Cawn, therprefent poffeffor.

Shah Allum the legal Emperor (whore fon we have juft reen in the character of his father's reprefentative) was without territory, und without friends, fave only a few Omrahs who were attached to this: fimily; and were, like him, difpoffeffed of their property and station. The expulfion of the Nabob of Bengal, Coffim Ally, by the Englifh, in ${ }^{1763}$, by drawing Sujah Dowlah into the quarrel, Whe the means, once more, of bringing the wandering Emperor into notice. But he had more to hope from the fuccefs of the Britifh arms, than thofe of his patron, Sujah Dowlah: and the mixtertupted fuccefs that attended them in ${ }^{-1} 763,64$, and 65 , by the difjerfion of the armies of Coffim Ally, and of Sujah Dowlah, and by the entire conqueft of Oude and Allahabad; left both the \#mperor and Sujah Dowlah, no hopes, but from the moderation of the vietors. Lord Clive, who affumed the government of Bengal, in $\mathbf{y} \mathbf{6} 5$, reftored to Sujah, all that had been conquered from him, except the provinces of Corah and Allahabad; which were kept as part of an eftablifhment for the Emperor: at the fame time he obtained from the fame Emperor, a grant of the provinces of Bengal, Bahar and Oriffa, together with the northern circars; on coniUition of paying the Emperor 26 lacks of rupees' ( 260,0001 .) per annum, by way of tribute, or quit rent. The Corah provinces were valued at 30 lacks more. Thus was a provifion made for the Eniperor; and a grod bargain fruck for the Englifh: for Bengal

## [ Lxwxi ]

and the circare might beerefiopated at a million and thalf net oresen after the charges of the civil and military eftablifments, were paids. The Emperor wat to refide at the city of Allabebods; and wis, in effect, under the protection of the Eqglif o to wham he owed all that he pofiefied. A treaty qfientive and defemfive wat entered iatos with Sujah Dowlat, Nabob of Oude: and his tertiteries being fituated fo as to form a barrier to ourb, a competent force fationed within them, ferved to guard both, at the fame time; and it was convenient to the poffeffor of Oude, to pay the expence of it, as if it had been retained for his fervice only.

It was, however, the misfortune of the Emperor, that he could not accommodate his mind to the ftandard of his circumattances; although thefe were far more favourable now, than at any other period of his life. But being the lineal defcendant of the houre of Timur, he axpired to poffers the capital city of his anceftors: and in grafping at this thadow, he loft the fubftance of what he alresady polieffed. For after about 6 years quiet refidence at Altahabad, he put himfelf into the hands of the Mahrattas, who promifed to feat him on the throne of Delhi: thofe very Mahrattas, who had wrefted the faireft of his provinces from his family; and whole object was to get poffeffion of the reft: and who intended to ufe his perfon and name, as one of the means of accompliihing it. A ceffion of the Corah provinces to the Mahrattas, was the immediate: confequence of thisconnexion : and had not the Englih interpofed, the Mahrattas would have eftablifhed themfelves in that important angle of the Dooab, which commands the navigation of the upper part of the river Ganges, and the whole courfe of the Jumna; and which would have brought them almoft clofe to our: doors: befides the evil of extending their influence and power; and of feeding their hopes of extending them ftill further. The principle on which the Britih Government acted, was this: they confidered the Corah, \&c. provinces, which by right of conqueft were originally theirs, as having reverted again to them, when they were

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were aliehated from the purpofes; for which they had been origiaally granted to the Emperor ; and applied to the parpore of aggrandizing a power, which was inimical to them and to their allies. They therefore took poffeflion of thofe provinces again, and immediately ceded them to the Nabob of Oude, for a valuable confideration. Indeed, it was 2 miftake originally, not to reflore the poffeffion of them to Sujah Dowlah, in common with the reft of his territories : and to fettle a certain fipend in lieu of them, to the Emperor : for they, forming the frontier towards the Mahrattas and Jats, Thould have been placed in hands, that were better able to defend them.

The Mogul, however, went to Delhi ; thereby lofing all that he had acquired from the Britifh; and has ever fince been a kind of fate prifoner : living on the produce of a trifling domain, which he holds by a tenure of fufferance; allowed him partly out of veneration for his anceftors, and partly for the ufe of his name. It muft be allowed, that the Princes of Hindooftan, have generally thewn a due regard to the diftreffes of fallen royalty (when life has been fpared) by granting Jaghires, or pénfions. Ragobah's, is a cafe in point. The private diftreffes of Shah Allum (it is almont mockery to call him the Great Mogul, or Emperor) were, however, fo preffing, during Mr. Haftings's laft journcy to Oude (1784) that his fon Jewan Bucht came to folicit affiftance from the Englih. Since the peace of 1782 , Madajee Sindia, a Mahratta Chief, and the poffeffor of the principal part of Malwa, has taken the lead at Delhi; and has reduced feveral places fituated within the diftritts formerly poffeffed by the Jats, Nudjuff Cawn, and the Rajah of Joinagur : and it may be concluded that Sindia has in view to extend his conquefts on the fide of Agimere: and to eftablifh for himfelf, a confiderable ftate, or kingdom.

It might be expected that the Rajpoots of Agimere, \&c, would be lefs averfe to receiving a Sovereign of their own religion, than they were to fubmit to the Mahomedan Emperors: and, more:

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over, that it would be more for the intereft of their people, to be fubjects, than tributaries, of the Mahrattas; thefe being mild as. Governors, although the moft unfeeling. as collectors of tribute, or as enemies: yet it appears, that they entertain the greateft jealoufy of Sindia's defigns; the accomplifhment of which would make their Princes fink into a Rate of greater infignificance, than they are at prefent.

In a country fo fruitful of revolutions, it is difficult to forefee the event of Sindia's prefent meafures; but they point ftrongly. towards raifing him to the head of the weftern Mahratta ftate, or to that of a new empire founded on its ruins. The provinces of Agra and Delhi, and that whole ineighbourhood, are in the moft wretched fate that can be conceived. Having been the feát of continual wars for near 50 years, the country is almof depopulated, and moft of the lands, of courfe, are lying wafte': the wretched inhabitants not daring to provide more than the bate zneans of fubfiftence, for fear of attracting the notice of thofé; whofe trade is pirlage. Nothing but the natural fertility of the foil, and the mildnefs of the climate, could have kept up any degree of population; and rendered the fovereignty of it, at this day ${ }_{r}$ worth contending for.: So that a tract of country, which poffeffes every advantage that can be derived from nature, contains the mort miferable of inhabitants : fo dearly do mankind pay for the ambition of their fuperiors; who, mif-calculating their powers, think they. can govern as much as they can conquer. In the Mogul empire'; many parts of it were 1000 miles diftant from the feat of govern ment : and accordingly its hiftory is one continued leffon to Kings not to grafp at too much dominion; and to mankind, to circumfcribe the undertakings of their rulers.

It is highly improbable that the house of Timur will ever rife again, or be of any confequence in the politics of Hindooftan. It It was in 1525 that the dynafty of Great Moguls, began: fo that seckoning to the prefent time, it has lafted 2.62 years : a long period. for that country.

## Sketch of the Mahratta Hifory.

W E have frequently had occafion, in the courfe of the above: f.ich, to mention the Mahrattas: and as the rife and progrefs o. that ftate, is of much importance to the general hiftory of the ducine of the Mogul empire; and fo remarkable in itfelf, from the fudegngefs of its growth; it may not be improper to give a fhort. hiftory of it, in an uninterrupted narrative; although fome part of the former one may be repeated.

The origin and fignification of the word Mahratta (or Morattoe) has of late been very nuch the fubject of enquiry and difcuflion, in India: and various fanciful conjectures have been made, concerning it. We learn, however, from Ferilhta *, that Marhat was the name of a province in the Deccan; and that it comprehended Baglana (or, Bogilana) and other diftricts, which at

[^20]prefent form the mont central part of the Mahratta dominions. The original meaning of the term Marhat, like that of moft other proper names, is unknown; but that the name of the nation in queftion, is a derivative from it, cannot be doubted : for the teftimony of Ferihta may be received without the fmalleft fufpicion of error, or of defign to eftablifh a favourite opinion, when it is confidered that he wrote, at a period, when the inhabitants of the province of Marhat did not exift as an independant nation; but were blended with the other fubjected Hindoos of the Deccan. Befides the teftimony of Ferifhta, there is that alfo of Nizam-ul-Deon*; an author who wrote at an earlier period; and who relates, in his: general hiftory of Hindooftan, that one of the Kings of Delhi', made an excurfion from Deogur (Dowlatabad) into the neigbbeuring province of Mareat $\dagger$.

Sevajee may be confidered as the founder of the Mahratita Empire. His anceftry is not very clearly afcertained; but the moft commonly received opinion, is, that his grandfather was an illegitimate fon of a Rana of Oudipour, the chief of the Rajpobe Princes; the antiquity of whofe houfe may be inferred from Ptolemy. (See the Memoir, page 153.) The mother of this illegitimate fon is faid to have been an obfcure perfon, of a tribe hamed Banfole (fometimes written Bouncello, and Boonfla) which name was affumed by her fon, and continued to be the family name of his defcendants, the Rajahs of Sattarah, and Berar. After the death of his father (the Rana of Oudipour) he having fuffered fome indignities from his brothers, on the fcore of his birth, he retired in difguft to the Deccan, and entered into the fervice of the King of Bejapour (vulgarly Vifiapour). The reputation of his family, added to his own perfonal merit, foon obtained for him a diftin-

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grifhed rank in the aronies of the King of Vfflapotr'; Tin wiefl fiei was fuccoeded by his fon. But his grandfon, Sevajee, who was born in 1628, difdaining the condition of a fubject, embraced ans early opportunity (which the diftractions then exifting in the Vifiapour paonarchy, afforded him) of becoming independant.' So rapid was the progref6 of his conquefts, that he was grown formidable to' the armies of the Mogul empire, before Aurungzebe's acceffion to power:- having before that period, feized on the principal part of the mountainous province of Baglana; and the low country of Conean; fated between it and the weftern fea. He had alfio acquimed feom the kingdom of Vifiapourr, the important fortrefs of Pannela; which commanded an entrance into the heart of it, from the fide of Baglana; together with feveral other places of ftrength. In the Carnatic, he had poffeffion of Gingee, together with an extenfive diftrict round it *: and this perhaps may be confidered rather as an ufurpation of one of the Vifiapour conquefts, than as an acquifition made from the original Sovereign of the Carhatic: for the King of Viffiapous appears to have poffeffed the fouthern part of the Carnatic, including Tanjore + . Great part of the hiftory of Sevajee will be found in Mr. Orme's hiftorical fragments of the Mogal empire : and is well worth the reader's attention. At his death, which happened in 1680, his domains extended from the northern part of Baglana, near Surat, to the neighbouthood of the Partugnefe diftricts of Goa, along the fea coaft; but probably not very far inland, beyond the foot of the Gauts, and other ranges of mountains, which may be confidered as branches of them: for: Aurungzebe's army kept the field in Vifiapour, at that period, and neceffarily Itraitened Sevajee's quarters on that fide. Thefe con-

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que were the fruits of hardy and perfevering valour; partly, aequired in defpight of Aurungzebe, then in the zenith of his power. Sevajee had alfo plundered Surat and Golconda; and even attacked Goa, when the Portuguefe power was at its height. His fon Sambajee, though poffefled of confiderable ability both as a ftatefman and, a foldier, fell a facrifice to debauchery. In one of his leofe excurfions, he was treacherounly feized on, and cruelly put to death, by. Aurungzebe, in 1689. This, however, produced no fubmiffion on the part of the Mahrattas; who fill increafed in power, though not fo rapidly as before. The Roman ftate had fcarcely a hardier infancy: and the mountains of Gatte, which Shelter from the ftormy Monfoon, the countries that are fituated to the leeward of them, afforded alfo a chelter to this rifing fate.

Sahoo, or Sahojee (vulgarly,' Saow or Sow Rajah) fucceeded his father Sambajee, at a very early age ; and as he inherited the ability and vigour of mind of his immediate anceftors, and reigned more than 50 years; great part of it at a feafon, the moft favourable for the aggrandizement of a ftate, that was to rife on the ruins of another; the Mahratea; power grew up to the wonderful height that we have beheld it at. For the confufions occafioned by the difputed fuccefion among Aurungzebe's fons, and their defcendants, opened a wide field to all adventurers: and particularly to this hardy and enterprifing people, bred in the fchool of war and difcipline; and who had thewn themfelves able to contend even with Aurungzebe himfelf. The conquefts atchieved under Saboojec, are aftunilhing to thofe who do not know that Hindooftan is fo full of military adventurers, that an army is foon collected by an enterprifing Chief, who holds out to his followers a profpect of plunder; which the then diftracted ftate of the empire, afforded the mort ample means of realizing. At the time of Sahoojee's death, which happened in 1740, the Mahratta ftate or empire had fwallowed up the wlole tract from the weftern fea to Oriffa; and from Agra to

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the Carnatic: and almoft all the ref of Hirdoortan, Betigat: exoepted, had been over-run and plandered. They were engaged in almoft every feene of war and polltics throughout the whole country ; although it does not appear that they took any part in Atre' conteft between Nadir Shah and Mahomed, in 1738-9; except by availing themfolves of the abfence of Nizam-al-Muluck, to commit 'depredations on his territories in the Deccan. Probabły they , thought that more advantage would arife to them, from the diforders confequent on Nadir Shah's invafion, than by their affiting the Emperor in repelling him : we are alfo to confider the advanced agee of Sahoojec, at that time.
${ }^{3}$. It is difficult to trace the progrefs of the Mahratta conquefts, aecording; to the order of time, in which they were made. We find them taking part in the difputes between Aurungzebe's defendants at Delhi, as early as 17 18: but it was not till 1735, that they found themfelves frong enough to demand a tribute from the Emperor, Mahomed Shah. This demand terminated as we have before obferved, in the acquifition of the greateft part of the fine province of Malwa; and in a grant of a fourth part of the net revenues of the other provinces in general. This proportion being named in the language of Hindooftan, a Chovt, oectrioned the future demands of the Mahrattas to be denominated from it : alk: though they are by no means limited to that propostion, except:in cafes where an exprefs compact has taken: place: as in fome inftamces, between the Berar Mahrattas and the prefent Nizam of the. Deccan. They alfo, about the year 1736, took part in the difputes between the Nabobs of Arcot, in the Carnatic; within which diftrict, the priacipal European fettlements on the coaft of Chorom mandel, are fituated: which difputes eventually engaged the French and Englifh Eaft India Companies, in feenes of hoftility for fereral years, as has been before obferved.

The fucceffor of Sahoojee, Ram Rajah, who fucceeded in $1740^{\circ}$ was a weak Prince : and it happened in the Mahratta flate, as in

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all defpotic fates of rapid growth, and recent formation, that great part of what was gained by the ability of one derpot, was loft . ky the imbecility of another. The two principal officers of the ftate, the Paibswab, or Miniter, and the Bukßsi, or Commander in Chief, agreed to divide the dominions of their mafter: Bajirow, the Paichwah, affuming to himfelf the government of the wefternprovinces; and Ragojee, the Bukhi, the eaftern provinces: theformer continuing at Poonah, the ancient capital; the other fixing his refidence at Nagpour in Berar.

The Paifhwah is faid to have confined the Ram Rajah to the fortrefs of Sattarah (about 50 miles from Poonah) and then-admi-. niftered the government in his name. It is probable, from other accounts, that Sahoojee, during the latter part of his reign, had, by a long and unrevoked delegation of power to the Paihwah, prepared the minds of the people for this meafure; which, to them, hardly appeared to be a change: as Sahoojee, in a manner, fhut: himfelf up. in Sattarah, and feldom appeared in any act of gevernment. There is fome degree of analogy between this part of the hiftory of the Pailhwahs, and that of the Mayors of the palace, in France.

So violent a partition of the empire by its Minifters, encouraged, as might be expected, the ufurpations of others, according to the degree of power or opportunity, poffeffed by each : fo that in the courfe of a few years; the ftate became, from an abfolute monarchy, a mere confederacy of Chiefs; and the loofent example of feutal. government, in the world. The two Chiefs of the divided empire', purfued each their plans of conqueft, or negociation, feparately; on the general principle of refpecting each others rights. The local fituation of the Berar Chief, who was lefs powerful than the other, led him to a clofe connexion with the Nizam; though not profeffedly in oppofition to the Poonah Chief.

The invation of Bengal (of the caufes of which we have fpoken in page lxix) was undertaken by both the Mahratta fates in $1742^{\circ}$ : and

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and - 1743 ; with armies, faid to contain 80,000 horfemen each. The leaders of thefe armies' appearing each to act for himelf, the confequence was, that the wily Aliverdy found means to bribe one party, and to fow diffenfions between both : by which the confequences were lefs dreadful to the Bengallers, than they otherwife ruift have been. Still, however, they are remembered with horsor: and I have myfelf beheld many of the objects of their wanton barbarity, mutilated and defaced. As 160,000 horfemen were let loofe, over the level country on the weft of the Ganges; and the capital, Moorfhedabad, being 12 miles from that river, it was cut off from all fupplies of provifions and neceffaries*, until Äliverdy doubly intrenched the road leading from the city to the Ganges: and thus fupplies were conveyed in fafety to the city, which was inclofed by another intrenchment, or rampart, of about 18 miles in circumference. The Mahrattas, did not depart out of the provinces, until the year 1744; when they had collected a vaft mafs of plunder, and had eftablithed the claim of the Cbout: which, however, was never regularly paid. The Berar Mahrattas having, fome years afterwards obtained poffeffion of the Orifla province, partly by conqueft, partly by ceffion from Aliverdy, their proximity to Bengal, from which they were feparated only by a fhallow river, afforded them frequent opportunities of plundering its frontier provinces. And it was not till the year 1761, when Coffim Ally? Nabob of Bengal, ceded the provinces of Burdwan and Midnapour, to the Englifh, that the Mahrattas ceafed to plunder them. The demand of the chout, however, although made occafionally, previous to the ceffion of Bengal to the Englifh, had never been enforced: and during the war of 1780 , when almoft all the powers of Hindooftan were leagued together againft the Englih, it was very feebly, if at all, infifted on, although the Berar Rajah had an army at Cattack.

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The Iddininifteation bf Bajitow was as vigorous as could póffily be expected, conffidering how the reins of government had beth flackened. To the Mahratta empire, it was glorious: for he wrefted out of the hands of the Portuguefe, the fortrefs of Baffeen, affid the illand of Salfette, near Bombay; places that food in the nest'degree of importance, to Goa. He died in 1759, leaving the Paifhwalhip, which was now confidered as an hereditary eflablifhment, to his fon Ballajee.

At this period the Mahrattas pufhed their conquefts into the Panjab, and even to the banks of the Indus. But the titrie was approaching, when this fudden elevation (which feerns, in fome inftances at leaft, to operate in fates as in individuals) was to ferve only to make their downfall more confpicuous. They and Abdalla, had given each other mutual umbrage : and the wars that enfued between them, which ended with the famous battle of Panniput, of which we have already given an account, in page lxxiv,- was decifive of the pretenfions of the Mahrattas as Hindoos, to univerfal empire in Hindooflan; which they at that time (1761) found themielves ftrong enough to difpute with the Mahomedans.
Ballajee died foon after. To him fucceeded fiis fon Maderow, a youth. The Mahrattas had now abated of their ardour for dif= tant expeditions, and their quarrels were chiefly with their neighbour, the Nizatn ; whom they by degrees, Aripped of a confiderable portion of his territories on the north, and weft of Aurungabad. Maderow died in 1772; and was fucceeded by his fon Na rain Row, who was murdered the following year, by Ragobah, his uncle; and fon of Bajirow, the firt Pairhwah who affumed the fovereignty. The atrocity of this crime, made the author of it (who thad been a General of reputation in the war againft Hyder Ally, 'and the Nizam) detefted by the body of the people, and caballed againft by the chiefs : he befides, failed in the object of clearing his way to the Pailhwafhip: for the widow of Narain produced a boy, who was acknowledged Heir.

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Ragobah, who ftood in need of allies, had engaged the Goyqrument of, Bombay in his caufe; with whom a treaty, very adyago tageous to the Engliih, and indeed, embracing the principal ado vantages fo long defired by the Eaft,India Company, was entered into: and the fleet and army belonging to the Prefidency of Bambay, were accordingly put in motion, to fecond the views of Ragobah; and to fecure the advantages derived from the treaty. Hoftilities were commenced both by fea and land: and the inland of Salfette, feparated from Bombay only by a narrow channel of the rea, ., was -taken poffeffion of by the Englifh. This was a mont defireable acquifition; as the fettlement of Bombay poffeffed no ter: ritory, beyond the extent of the fmall illand in which it is fituated; and confequently depended on foreign fupplies for its fubdiftence.

About this time, the Council General of Bengal was ipvefted with a controlling power, over the other fettlements in India: and the Mahratta war not meeting their approbation, Col. Upton was fent to Poonah in 1776, to negociate a peace (fince known by the name of the treaty of Pooroondar) by which Ragobah was to renounce his pretenfions, and to receive a penfion : for life: and the Englifh were to retain poffeffion of Salfette. Bat in the end of 3.777, the Bombay Government again efpoufed the caufe of. Ragobahh; which meafure terminated in a difgraceful convention, by which the Bombay army retired to their fettlement; and Ragobah furrendered to his enemies. Being of Bramin race, his life was spared.
The war that followed between the Englifh and the Mahrattas, was purely defenfive on the part of the latter, after the arrival of a prigade of the Bengal army, under General Goddard: and was attended with the conqueft, on the part of the Englifh, of the fineft parts, of Guzerat, and the Concan ; including the important for. treffes of Baffeen and Amedabad; in Aort, of the whqle country from Amedabad to the river Penn ; and inland, to the foot of the Gauts.

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Catts. ©Andk:on the thide of Ourte, the province of Gohudy: and other diftricts, togethor with the celebrated fortrés' of Givalior, were reduced $s$ 'and' the war carried into the heart of Malwa. But the expences of a faccefsful' war, may be too grievous to be borne : and as a war with Hyder Ally had broke out in 1780, and fffll cotritimed, It was juffly utteméd a moft defirable advantage to effeet a peace with the Mahrattas; after detaching Sindia, the principal memHér of that ftate, from the confederacy. This peace was negociated in 1782 and $17^{8} 3$, by Mr. David Anderfon; whofe fervices on that memorable occafion, claim, as is faid in another place; the anited thanks of Great Britain and Hindooftan. All the acquifitions made durring the war, were given up, fave Salfette, and the friall ifands fithated within the gulf formed by Bombay, 8alfette, and thie continemt.
The government at Pdonah, during the minority, was flated among a jumto of Minifters : and it is probable that for long a mid nority, may yet make fome effential changes in the conftitution of a fate, fo accuftomed to revolutions in the fuperior departments of its government. The prefent Paifhwah, by name Madarow (fón of Narain Row, as beforementioned) was born in 1774.

The eaftern Mahratta State, or that of Berar, under Ragojee, kept itfelf more free from foreign quarrels, than the other: but had its fhare of inteftine wars. For Ragojee, dying, after a long reign, left four fons, Janojee, Sabajee, Modajee, and Bembajee. The firft fucceeded his father: but dying childlefs, in 1772, 2 civil war commenced between Sabajee and Modajee: the former of whom fell, in 1774; and the latter ftill holds the government of Berar, \&cc.: and Bembajee adminifters thofe of Ruttunpour and Sumbulpour, under him : though, I believe, with lefs reftraint from his fuperior, than is ordinarily impofed on Governors of provinces. Ragojee, the father of the prefent Rajah of Berar, being a defcendant of Sevajee, the original founder of the Mahratta ftate, the prefent Rajah is therefore by defcent, the lawful Sovereign of

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the whole Matratta frate; the Peofah brach being extindt *: $:$ :bo it appears that he wifely prefers the peaceable poffofion of his own territories, to rikking the lofs of them, where the object is no more than the nominal government of an cenpire, which oven manifefts fymptoms of fpeedy diffolution.

It is not likely that either of the Mahrata ftates will foom become formidable to the other powers of Hindooftan. The eaftern fuate has not refources for it: and as for the weftern, it cannot well happen there, until fome one of its Chiefs has gained fuch an afcendancy over the reft, as to re-unite that divided power, to which the. late copfufigns in their government, gave birth. It requires fome. length of time to reduce a feudal government to a fimple mom napahical one: and till then, the weftern Mahratta fate contor be formidable, to the Britifh power, at leaft. If Sindia proceeds: with. his conquefis to the north and weft, and eftablither a:mew empire in Malwa, ©ic. this Mahratta : fute (the weftern) muft be exw. tinguibhed; and fuch a new empire would, perthaps; prove more: formidable to Oude, and to the Britilh interefts, in comfequence, than any power we have beheld gince the firf eftblifhrsent of the Britilh influence in India.

[^24] Mogul Empire.

1. AMONGithe new powers' that arofe on the downiti zef the Mogul empine, we muft not forget to mention the Freach and Englifh. As for the Portuguefe, their power had paft its maritimat befone this period: befides, their views being (apparentiy) confined altogether 'to traffick, they wifely marde choice of infular fetentions ; fuoh as Goa, Bombay, Salfette, Diu, \&xc.; and never apis pear to have poffeffed any very confiderable extent of territory; althoagh they kept on foot 2 large army of Eutopodny. Ttit Dutch fyftem was nearly the fame: and thoir profperioy, in a 'giteit meafare, grewr out of the misfortunes of the Portuguefe; the having fallem under the dominion of Spain, became obnoxifious as well to the jealoufy of rivalhip, as to the revenge of the Holkanders.

The French power was but of Chort duration, but remarkably brilliant. It was a bright meteor, that dazzled at firft, but which foon" Burnt itfelf out, and left their Eaft India Company in utter darknefs. It commenced during the government of M. Dupleix at Pondicherry, in 1749. The French having affifted a Soubah of the Deccan in mounting the throne, attended his future fleps with an army, and eftablifhed an influence in his councils, that promifed to be permanent: but which vanimed very early, by the mere breath of Court intrigue: for while M. Buffy, at the head of the French army, was at Sanore, in the weftetn quarter of the peninfula (in 1756) a quarrel with the Minifter of the Soubah, effected the difriffion of the Prench. They were then compelled to retreat through an enemy's country for near 300 miles, until they reached Hydra-

Hydrabad; where they fortified themfelves, and waited for a reinforcement from Mafulipatam, their neareft fettlement ; which was upwards of 200 miles from Hydrabad. Great ability was difcovered by M. Buffy, on this memorable occafion : an account of which, as well as of M. Buffy's warfare and negociations in general, will be found at large, in Mr. Orme's invaluable hiftory of the military tranfactions of the Britifh nation, in Hindooftan. At Hydrabad, the quarrel was compromifed: and the following year (1757) and part of the next, was fpent by M. Bufly, in reducing the refractory Raiahs, or Zemindars, in the northern circars; and in affifing the Soubah in the execution of his own plans. But in the midat of there tranfactions, he was fuddenly recalled into the Carnatic, by M. Lally $;$ wha determined to collect the whole force of the French, within that quarter: fo that the Soubah was left at full liberty to afcede to the prapofals of the Engliih. Lally was alfo juflyy $40-$ cufed of being jealous of the fame of M. Bufly.

The circars, the fruits of M. Buff's wars and negociations in the Deccan (and which had been obtained in 1753) yet remained to the French: but Colonel Clive, who was at this time Governor of Bengal, with that promptitude and decifion which fo froagly marked his character, feized on them, with a force from Bengal, in 1759; although they were defended by a much fuperior one: and the French were deprived of refources to carry on the war in the Carnatic. So that Lally failed to accomplioh the purpofes for which the French intereft in the Deccan had been, relinquifhed; pamely, that of expelling the Englifh from the Carnatic: for, on the contrary, the French not only loft all their poffeffions in that quarter, but in every other part of India. Thus, their political exiftence may be fiid to beging in 1749 : and to end in 1761, by the capture of their principal fettle:ment Pondicherry. They appear to have been the firfe Euro. pean power, that trained the natives of India to regular difci-
pline*; as well as the firt who fet the example of acquiring terris torial poffeflions, of any great extent, in India : in which thay have beep fo fuccersfully followed by the Englifh.

THE expedition of the Britifh troops into Tanjore, in 1749, 'was the firft warfare in which they were engaged, againft the forces of an Indian Prince : and it proved unfuccersful, as to its main'objeet; which was, the reftoration of a depofed King, or rather Rajah, of Tanjore, who had applied for affifance to the Governot of Fort St. David. The price of this affiftance, was to be the fort and territory of Devieottah; fituated at the mouth of the Coleroon; or principal branch of the Tanjore river: and this fort, notwithftanding their want of fuccefs in the caufe of the depored Rajah, the Company's troops, aided by the fleet under Admiral Bofcawen, took poffeffion of, after a fhort fiege.' In the following year they were called on, by the circumftances of the times, to take part in the difputed fucceffion to the Nabob/hip of Arcot, in oppofition to the French : who (as has been before obferved) had taken the lead, both in the affairs of the Carnatic; and of the Deccan. We have alfo obreived, that Nizam-al-Mulock, Soubah of the Deccan, had placed Anwar o'dien in the Nabobfhip of Arcot, (in 1743): and that the death of the fame Nizam, in 1748, had occafioned a confiderable change in the politics of the Deccan; in which the French engaged fo deeply. Chunda Saib was the perfon whom the French wihhed to raife to the government of Arcot: and the expulfion of the family of Anwar o'dien, was a neceffary flep topwards it. 'Thefe contefts, which had been carried on with great credit to the Britifh arms, were put an end to, by the interference of the two Eaft India

[^25]Companies,

Companies, in Europe, in 1754 : and Mathomed Ally, fon of Anwar o'dien, (who had fallen in the courfe of the war,) was left in poffeffion of the Carnatic : or, at leaft, of that portion of it, which had been recovered to him, by the Britifh arms. The particulars of thefe wars, will be found in Mr. Orme's hiftory, volume the firf.

War breaking out in Europe, in r756, the truce was reduced to a very:fhort period. The firf object of the Britifh Councits, was to wreft the northern circars out of the hands of the French; as their pevenue furnifhed them with the means of paying their army. The ffeond wias to drive M. Buffy's force out of the Deccan, by means pfan alliance with the Nizam, or Soubah. Both of thefe projects were at this time defeated: the firft by the mifcarriage of difpatches to India: the fecond, by the capture of Calcutta, the chief Britifh fettlement in Bengal, in June 1756: and which induced the neceffaty reliaquining every plan of hoftility in the Deccan and Carnatic: in order that a force might be fpared, furficient to accomplifh the recovery of fo important a fettlement as Calcutta; on which the whole trade to Bengal depended.

Aliverdy Cawn, Nabob of Bengal, died in 1756; and was fucdeeded 'by his. grandfon Surajah Dowlah. This young man eirtier was, or pretended to be, irritated at the condurt of the Englifh; within his dominions; and was probably, jealous of the rifing power of Europeans in general, in other parts of India. He determined to expet the Engfifh (at leaft) from Bengal : and accordingly took their fort at Calcutta, and compelled thofe among them, who were not made prifoners, to retire. In the following year, an armament from Madras, under Admiral Wation and Colonel Clive, not only recovered the fettlement of Calcutta, but brought the Nabob to terms. The fword, however, being thas drawn, no permanent fecurity could be expected on the fide of the intruders, unlefs fapported by power: which could not be obtained, while a Nabob, inimical to their interefts, poffeffed the whole power of the kingdom. Sufpicions on both fides foon brought matters to a
xaiv ]
 तwithothe Alaboby we wegociated with, and, on condition of their raffifting him in his views towards the throne, engaged to be their finture. Ally and confederate: for, fo much wore matters changed by the later effay of thriin freergth, and by the genius and good fortune
 the Britifh. The fanous battle of Plaffey, fought in fune 1.757, and in which, Jafier aided the accomplifhment of their wishes; by A Annding meuter, lajd the foundation of the future power of ohe Bripigh nation in Bengal and Hindooftan. From that: time, thby. : Recame the arkiters of the fucceffion to the Nabohfrip of Bengat; which: fpeodily led to the poffeflion of the powers of governiment':
 likjig bis.fituation, refolved to hazard a change at all events; and this brought on a war, which ended in the expuliion of Coffina, and left: the Bengal provinces in the porfeflion of the Englib, who fertored Jafier to the Nabobohip. He had been depofed, on :a celange 9f: imbosility, in 1760 , and was reftored in 1763. Coffim retived tm\{ujah Dowlah, Nabob of Oude; and prevailed on him to

 foderabls Apreijin turning the fortune of the day, at the very moment when riery inetined towards the Mahrattas. Whether -hespeverarated his owna talents for war; or miftook the militiry chiche ferfiapd refournech of the Britich, he, however, engaged too rafhly ip the wift: and the confequences were, a total defeat of his forces, joined withreform Ally's, at Buxar, in 1764 : and this was followed bnt ahe defs of all his territories, during that and the followsingeyearisn
 conguefts. made on the Indians and Perfians, by the Grecian, Patan, and Meghl armies, may reconcile their doubts by attending to the events of their own days; in which a handful of Freneh troops, effected

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 anientive conqueft of Bengals Bahtary and Ouders inditele noto thin two campaigns. Each of thofe corquctors, both ancieftitind modern, after gaiging certain advantages, purwived then by means
 :rendersed the vanquifhed fubservient to the final yeduetion of thitir own country: This was even the cafe of Alexander, who fet out with 35,000 men, and left India, with 120,000 . Siveh meafurice could only be purfued in countries, where the habit of ehanging thicir Govemors, had rendered the governed indifftrent to the choice dethem:: Even the whole number of combatantts on the lide of the Brition, did not exceed 7000, at the batte of Bluxar: and: of there 2200 might be Buropeans. The battle of Plaffey was gained with an army of 'abont 3000 men ; of whom 900 only, 'twere 男urb-

 found maners in the fate I have reprefented. He raizudithestipportunity of taling poffeffion of the Bengal provinces; the Nebor jaffict Ally being juft dead; and obtainêd from the thointinal Meghei', Fhati Aulum (who, together with his nominat Vister; Sujail Deawlah, had, as before related, thrown themfelves on the generofity of the Britifh) ; 2 grant of the duanny, or adminiftestion wo the rivenues of Bengar, Bahar, and Orifla; on condition of paying the Moguliz6 tacks of rupees per annum (200, 0001 .). Thus e territorgy producing at that time, at leart a million ftetling, per athituhh, after every expence was defrayed, and containing at leal ten mithtions of inhabitants, was gained to the Company, on the fide of Bengal : together with the northern:circars, valued at aear half a million more, and for which a grant was alfo obtained. Sujak Dowlah had all his tecritories reftored to him, except the provinces of Corah and Allahabady which were retained for the: Miogurs; together with the forttefs of Allahabad, which was affigned to him, as a preper place' of refidence.
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Although
wriakhought the Engfith wete thus'finnfy and 'peaceably entabthined
 aged in: a very arduous contelt in the peninfuka, with Hydet Ally, the Soceteign of 'Myfort, leagucid with the Nizam or Soubah of the Docens:-Hyder's hiftory is now fo well known to the geximality of readets in Europe, by means of the feveral publifiations that have lately appeared *, that it will be unneceflaty to give any thing'moie than a hort abftract of it, here.
-. Hyyder Ally was a foldier of fortune, and the fọn brea perfon who ferved in quatity of Killadar, or Governor of a fmall ' fortrelfs', to one of the Kings of Myfore. He is faid to have acquired the rudimeats of war, in the French camps: and in the year ${ }^{1} 1753$, diftingaifhed kimfliff,' as their auxiliary, in the plains of Tritthinopely: About tan years afterwards, being then at the head bf the Mylore army, he dethroned his Sovereign, and governed under the tritle wf Regent. Soon after, he extended his' dominions on every fides the Cavnatic excepted: the fine province of' Bednore (or Bid! danone) the Patan Nabobflips of Cuddapah, Canoul, \&cc. befides fome Mabratta provinces towards the river Kiftna; and the ceunkry of the Nalfs; and other fmall fates on the Malabar coaft ; wepe added torfhis oridinal poffefions; until at laf he was at the hradh offa Bate, in extent equal to Great Britain, and prodicing a
 Lutions in the weftern Mabratta fate, particularly in latter tirines, allowrod Fydertò ag̀grandize himfolf at its expence; but he, hever? thedefo, roceivet fome fewero checks from that quarter. He was not ditiverid the theight' of 'his' power; when the war between Him
 s' tox allam 'lhis' neighbours, and a refolution was 'taken to attack him: The Mahrattac under Maderow, éntered Hyder's country on thbe futic towaids Wiffapour; and tho Nizam, joined by a de-

[^26]tachment
tachanent, of Britilh troaps, moved from fffydrabad towards the frontier of Myiore, foon after. . Hyder firt contrived to bay off: the Mahrattas.with a large fum of money, and the reftitution of fame of the places he bad taken from them. Next, he negociated with the Nizam, and had the addrefs, not only to detach himifrem the Englifh, but to draw him over to his parts: fo that the Euglinh detachment was compelled by neceffity to retire to the Carnatic; on the frontiers of which, their grand army was now affembling, Befides the whimfical character of the Nizam, feveral other circumstances might confpire towards the determining him to act in the manner he did. The grant of the northern circars, and the gman cipation of the Carnatic from any dependance on the Deccon, both of which were obtained from the Mogul, by the Englinh could not but:be verymortifying to the Nizan; as having the appearance of a forcible partition of his territories. The ciñcars $g_{n}$. howevar! came into their hands (as we have feen) by: conqueft from this French, to whom they were originally granted by a fommer Soubah of the Deccan: fo that the grant from the Mogul was merely no: minal ; befides, the Nizam had been presuailed on to acquaiefoe in the , meafure; by an offer on the part of the Englifh of five lacks of rupees ( 50,0001 .) per annum, by way of tribute or quit fent. As to his fuperiority in the Carnatic, it had ever been nominal; yet Hyder, who now meditated the conqueft of it, was glad to obtain from the Nizam, a grant, or Sunnud, for the Nabob@iiptof it: and from this time, at leaft, he confidered Mahomed Ahy as his rival. It is proper to obferve, that in the days of Mabpomed Ally's diftrefs, when he poffeffed only a fmall part of the Carnatic, he had engaged to cede, the fortrefs of . Triţchinopoly, a moft important poft in the fouthern divifion of it, to the King of Myfore, for affirtance then afforded him : but this engagement never being performed, Hyder, as might be expected, adopted the chims and refentmeats of the Prince, whofe throne he had taken poffeffion of s and pever loft fight of his Einle toitaitchinopolys: Had the

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orgagempat heep fulfilled, it would bewe had the efioe of faparas ting for eyer, from the Nabobthip of the Carnatic, the provisces of Tapiore, :Madura, and the reft of the fouthern provinces.

The whar that immediately fallowoil, was productive of fome fharp battles, on the comimon frontiers of the Carnatic and Myfore en befides which, a frong detachment of the Britin army feimed on Hyder's province of Coimbettore, a fertile difrict on the fouch of Myfore, and commanding the readieft way to Hyder's capital; Seringapatam. .This was the firf war in which the Brition arms had met with any fteady oppofition from a Prince of the country ; for in the affair of Tanjore, in 1749, their arms were triumphant in the end, by the taking of Devicottah, their proper object: . The war was continued with various fuccefs, during the years 1767 ; 1768, and part of 1769; when Hyder, with a ftrong detachment of chofen troops, chiefly horfe, giving the Britilh army the lips came within feyen miles of Madras, and dictated a peace to the Government of that place. This peace was difreputable to the Britiph Councils only; fince the hands of the commander in chief (Geperal Joreph Smith) were tied up, at the very moment, the moft favourableffor flpiking a blow ; and when Hyder, fearing the General's approach, could purchafe his fecurity no ather way than by inatimidating Government into the meafure of laying their commands on the General, not to advance; by which meafure he might poffibly have cut Hyder and his detachment to pieces.

The Nizam, very early in the war, had been detached from Hyder's alliance; chiefly by the ftrong meafure of fending a detachment from Bengal, into the heart of Golconda; which made him tremble for his capital, Hydrabad.

The peace left matters much in the fame ftate as before the war: and whatever credit Hyder might have gained by the concluaion of it, was done away by the total defeat which he f(ffered, in 1771 , from the Mahratta army, within a few miles of his capital ; into which he efcaped with great difficulty, with a fmall rempant of
his aqmy, and afterwards defied the attacks of bis numerous enemies, who poffeffed neither the fkill, nor the ordinary requifites for a fiege. Hyder waited in patienice, until the enemy by defblating the country, were compelled to leave it. A few years of peace not only reftored matters to their former ftate, but improved both his revenues and his army; to' a degree beyond probability; apd at the fame time, the diftractions that prevailed among the Mahrattas, enabled him to extend his territories at their expence. Such are the effects of firmnefs, perfeverance, and economy.

It may be afked, how the Mahrattas; who are reprefented as fo ieferior in point of difcipline to Hyder's troops, came to defeat him ? It is accounted for, by the vaft fuperiority in numbers of the Mahratta army (chiefly horfe) which furrounding Hyder's. troops, cut off their fupplies of provifions, and compelled them to retire towards their capital; through a level, open, country, the moft favourable to the attacks of cavalry. Hyder's army was formed into one vaft hollow fquare, and marched, clofely furrounded. by the Mahrattas; when the advanced front of the fquare making. too hafty: a ftep, feparated from the others; and the Mahrattas, puihing through: the openings thus made, threw Hyder's whole: army into irreparable difotder.

We: have fpoken before concerning the treaty made with the Na -. bob of Oude, and the mutual advantages derived to both parties; but particularly to the Britih, from the mode of defence adopted: for Oade; confidering it as a common frontier tep.both flates: as alfo, concerning the departure of the Mogul, in 1771 ; which threw. the Corah, \&cc. provinces, into the hands of Sujah Dowlah.

It may be fuppofed, that the oppofition made to the Mahrattas, when they attempted to take poffefion of thofe provinces in 1772, mult have created forie difguft. Indeed the Britifh Government. had long confidered the Mahrattas, in the general fcope of their defigns, as inimical to its interefts. In 1773, the Mahrattas croffed the Ganges to invade the Rohilla country. A brigade of the
 difeve the Nahrattag acrofe the river. For this protection, the Rolhilla Chiefs hide Alpalated to pay Sujah Dowlah forty tacks of rupees: (in muft bo obferved that the Brivilh anny moved, onty as his allies) but' when this efertial farviet was porfoumed; thec papment of the money;' vas everded. This breach of itresw bed to che itivarion and conqueft of the Rohilia country, the following yem; 1774. A confiderable tract of land in the Dooab wers affoconiquered from the Jats, and other adventarers; by whichuther bowisy dary of Oude was advanced weftward within 25 mefles of thatro north-weftward, to the upper part of the navigable coutfe the the Ganges: and fouth-weftward to the Jumora riker. In the follfori ing year (1775) on the death of Sujah Dowlah, and the roceffion of his fon Azuph, a new treaty was made with the Britim: Gowowh ment, by which the quantum of the fubidy for the af the btigade; was increafed, and the proviace of Benares, whieh prom ducted a clear revenue of 240,000 . per annum, was ceded to the Company:

The war with the Poonaht, or weftern Mahrattas, of whieli we have' already fpoken (in page lxxxvii) occafioned the march of in brigade acrofs the continent to the fide of Bombay and Sturat in 1778-9. This is, "perhap's, the moft brilliant epoch of the Britih military hiftory in India. The brigade, which confifted of lefs than 7000 men, all native troops. commanded by European officers; marched from the banks of the Jumna, to the weftem fea; in defpight of the Mahrattas; whofe empire they trwerfed almoft the whole way. The French wat breaking out at this time, arid Hyder Ally expecting a communion of interefts with the French, he, in the Autumn of 1780 , broke into the Carnatic with 100,000 troops ; and thofe; both of foot and horfe, the very beft of their kind that had ever been difciplined by a native of India. His fuccefs, in cutting to pieces Col. Baillie's detachment ; and the confequent retreat of the Carnatic army; occafioned the Britifli it-

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terefte in that quarter, to be given ar for lqAt, in the opiniph: of moft people in Europe. Happily, Mr. Haftings and Sir Eyfs Coote:thought cothowwifa: and there went from Rengal, to the sclief of the Carnatic, a brigade of about 7000 men : together with ample fiupplies of moneys and provifionss. Until the arrival of thefe areops and fupplies, the Britif poffeffed nothing more in the Care patic, the ground occupied by their camps and fortrefles. Under Sir Eyre Coote, Hyder. was fucceeffully combatted daring two campaigus; at the of which (Octaber 1782 ) he found the poffeflion of hie eljject, the Carnatic, at fo great a diftance, that he appensed torbe fincerely defirous of peace. So vaft an army as .he brought into the field, could not long be fupported in it, by the revenues of Myfore alone; and the Carnatic was quite exhaufted. Anticipation of revenue in Afiatic governments, has an immediate deftructive effect; and cannot of ten be repeated. Hyder therefore faw the neceffity of quitting his ambitious projects; and probably would never have purfued them, had be not expected a more early and effectual co-operation on the fide of the French; with whofe affiftance he hoped to effect our expulfion, in, a campaign or two. But he became, perhaps, more jealous of the French than of the Englifh; and had the peace of Paris left the Carnatic in his hands, inftead of Mahomed Ally's, the French would eventually have been on a worfe footing than they are now likely to be; for he certainly never intended that they ohould affiume any character in it. beyond that of merchants; although their object was the obtaining of a territorial revenue; without which, they well know, no European power can eafily effect any thing againft another, already: in poffeffion of one. In this difpofition of mind, Hyder died foon*

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- The character of the late Hyder Ally appearing to me to be but little underftood in this part of the world, I have ventured to attempt an outline of it. His.milizary fuccefs, founded on the improvement of difcipline; attention to merit of every kind; conciliation of the different tribes that ferved andes his banners ; contempt of fate and ceremony, except what naturally arofe from the dignity of his character ; and his confequent economy in perfonal expences (the differens habits of which, form the chief diftinetion of what is called Character among ordinary
 mined to profecuterthe wat. It was ifuppofed that an attack of Tippaois provinces; on ithe weft of India, would, by giving an immediate entry into the moft valuable part of his dominions, draw himplrom the Carnatic:: and although there could be little doubt of its producing this effect, yet that part of the plan, 'which regarted the retreat, or fecurity of the troops, afterwards; does not appeatr' to have been fo well concerted. The deplorable end of this detachment *, which was commanded by General Matthows, is too welli known. At laft, Tippoo finding that the Mahrattas, his nataral: ememies, wene at peace with the Englih, and confequently at liberty: to purfue their ancient enmities; and moreover' that theErench had left him; he condefcended, though reluctantly; to make peacer and matters were reftored nearly to the condition they: ware ini, before the commencement of hoftilities. This peace wady figged in March 1784, at Mangalore.

During the whele courfe of Sir Eyre Coote's warfare with Hyder Ally, it appeared, that nothing decifive could be accomplified; while, the lattes poffeffod fo large a body of excellent cavalry, togez ther with idraught cattle fo fuperior to ours, that his guns wete: always drawn off; and their retreat covered; although his army was beaten. The inconveniencies arifing from the want of a fufficient body of cavalry, may, perhaps, be incurable; but with early and proper attention, we might furely have our choice of draught cattle.

Princes): together with his minute attention to matters of finance, and the regular payment of his army ; all thefe together, raifed Hyder as far above the Princes of Hindooftan, as the great qualitie' of the late Proffian Monarch raifed him above the generality of European Princes: and hence I have ever confidered Hyder as the Fredsrick of the Eaft. Cruelty was the vice of Hyder: but we are to confider that Hyder's ideas of mercy were regulated by an Afiatic flandard ; and ix is not improbable that he might rate his own charafter for moderation and clemency, as far above thofe of Tamerlane, Nadir Shab, and Abdallah, as he rated his difcipline above theirs.

Sir Eyre Coote furvived Hyder only about five months. It is a remarkable circumflance that the Commanders in Chief of two armies, oppofed to each other, mould both die natural deaths, within fo fhort a fpace of time.

- In April 1783.
 of. Hindotoftan, againf the Britif:' The Nizam or Soubah of the Deccan, having taken difguit at the contuct of the Madras Government towands: him, in 1779, determined on: a vary deop weverige.
 dodttan and the:Deccan to join in'a confederacy, to expel the Briteth. The: Hoomah Mahrattas were already engaged, and Hyder preparing'; thene remained the Nizam himfelf, and the Berar Mahratta*. Each party, was to parfue a particular foheme of attack, 'fuitedito his tocal porition and means. Hyder was of courfe, to attack: "the' Carnatic: ©the Nizam, the circars: the Poonah Mahrattat wete to beep the Guzerat army under Goddard, employed ; mand the Berer Mahrattr was to: innade and lay wafte the Bengal and Bahar:proovinoesor It bas been the fate of moft of the graid confocderine that we:meet with in hiftory, that they haven terminated rathernith mutual blame, than mutual congratulation. . The truil \&s, 2 bim they are seldom, if ever, purfied with the fame annitytof ration, and energy, that are difplayed by fingle fastes. Sorwe mre more' deeply interefted than others: one fears that another will be too nuch aggrandized; and a third is compellet to takepabt, reontrary: to his wifhes. In the prefent cafe; the Poonah Mahratta and Hyder were each purfuing their proper, original plans, which hased no reference to the particular object: of the confederacy: the pto jector (the Nizam) had probably no intention ever tor act fat all:s and the Berar Mahratta, appeared to act on compulfion: for although the Berar army did march, it was contrived that it thould never arrive at the projected fcene of action. Be it :as: it will, it was an awful moment for the Britifh interefts in India.: The fpeedy pacification of the Nizam, and the money advanced to the Berar army at Cattack (call it by what denomination we may, fubfidy, of

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Indeed the whole conduct of the war was fuch as reffetiet thit highert 'hanouy on' that government:' and when we fuccentincly weve ander acquainted with the news of che caplabation of the

 anmy townerds Bengal in $17^{81}$ (which feemed to preciude adr polfibility of relieving the Carnatic by a brigade from Rengial) together with the grand confederacy: I fay, when the news of all the misfortones; and threatening appearances reached Burope; every one had made up his mind to the certain lofs of forme capital fettlement, to the mutiny of one of the grand armies, for i want of freys: add many perfons thought that they faw the total deftruituon of the Dritift influence and power in Iodia. How then were, we rurpoifed, to fund; hat notwithftanding all thefe mifeateinges; whe seere able, foon aftier, not only to face, but to foek the enciny'in every quarter : and to hear of victories gained by the Britilh armies, mationime expoeted that evers the very ground they fought on, had fornuabandoned to our enemies!
 bas ginen a tonilly different afpect to the political face of thit conntiy, from What it would have worn, had no. fuch powet ever cxifted. No one can doubt that the Mahrattas, had they been left to purfue their plans:of conqueft, would have acquired Corth and Adtahabadin:0772, as well as the Rohilla country in 1773 sind afterwards thoy might have over-run, at their leifure, the province of Onde, and its dependencies. The British interference preventod this: On the other hand, Hyder might have kept poffeffion of the Carnatic. Some may be tempted to afk whether Hyder might not be as good a Sovereign as Mabomed Ally; or the Mahrattac, "as Azuph Dowlah? Whatfoever may be the anfwers to thefe queftions, they have no reference to the Britifh politics; which require that Hyder or Tippoo, fhould not poffefs the Carnatic, in addition to Myfore :
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 Rohiloman.
Libelseive thene arre many, who think that , whe Britiga, might trays: extended their pofieflions in Hiadooftans; ad hibitum; howenon, we
 the Bongal prowinges and the cincars, together withe: moderate trate - of land roind Madras.*, and: the ifland of Safortes: mear Bont hatys utere: fullyy equal to the meafure of good policy, and to our powers of keaping poffefion. Nor have his succaflors. metediothorwifes for:-outi wars finge his time have not been wars of conqueft:
 war, int, India may oonvince fuch perfons, as require convidion:ont therfabjeft, that conquefts made either on Tippoo; or the Mahradfor tas, could (ipt he, preferved with fuch an amoy as the rowenms of: the conquered thacts, would fupport... We got patiofion: of seqgal and the: cirgars, under circumftanoes particularly faveurable: fuoch: af payy morer opcur again.

The Bengal provinges which have bieen in our actual perfafiom; near $23^{\circ}$ years, (that is, from the year 1765 , to the prefent time) have, during; that whole period, 'enjoyed a greator hare of tranequil-: lity, than any other part of India; or indeed, than thofe provinces hads oxer oxperiemeed, fince the days of Aurungzobe. Duringt the above, period of 23 years, no foreign enemy has made any incurfion idt any part of them, nor has any rebellion happened in any of the provimese (the very ipeonfiderable one of the Zemindar ofi:Jungleterry, in 1 i 784 , excepted + ). Previous to the eftablibhiment of our influences invalions were frequent, particulariy ; by the Maheattas: and one provibee ot other was evtr:in rehellion:; owing to a want

[^28]of energy in the ruling power; an ill paid, and mutinous army ; or an excefs of delegated power. Thofe who know what miferies are brought on a country by its being the feat of war, will khow how to appreciate the value of fuch a bleffing, as that of having thehorrors of war removed to a diftance from our habitations. , There are, doubtlefs, evils that are infeparable from the condition of a tributary ftate, where the fupreme ruling power, refides at the diftance of half the circumference of the globe: but thefe are $I$ hope, amply ballanced by the advantages of military protection : and it is a fact not to be controverted, that the Bengal provinces have a better goverament, and are in a better ftate, as to agriculture and manufactures, than any other of the Afiatic countries, China alone excepted. But this ftate is doubtlefs very fufceptible of improvement, even under a defpotic government : though it unfortunately happens that the grand object for which the Bengal provinces are held, militates againft the eafe and happinefs of their inhabitants: for there can be no inducement to increafe a national income for the purpofe of finally enriching another nation.
( The ftate into which Hindooftan has fallen fince the downfall of the Mogul empire, is materially different from what it was before it was. united under the Mahomedan conquerors. It was then parcelled out into feveral moderate kingdoms, which appear to have preferved a degree of balance among themfelves: but now, Hindooftan and the Deccan may be faid to confift of fix principal fates, which hold as tributaries, or feudatories, all the inferior ones; of which there are many. The reader will not be at a lofs to know that the two Mahratta fates, the Nizam, Tippoo, the Seiks, and the Britili, are thofe I mean : for whatever verbal difo tinctions may be made, a compulfive alliance is at leaft a dependant; if not in fact, 2 tribatary fituation.

I have ran over the events of the late war in India, with a brevity which may probably be deemed cenfurable, confidering their importance and variety. But I reflected that the accounts of thofe events

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events are in every body's hands; and that every day produces fome frefh matter, illuftrative of them. The hiftory of events that have happened, and that have alfo been recorded, in our own times, may be referred to, by the aid of memory; their connexion or dependency traced; ; and their chronology afcertained :' but it was neceffary to bring the events of a remoter period more within the view of the reader; the public records of thofe times being lefs copious, as the fcenes recorded, were lefs interefting to public curiofity.


## Geqgraphacal Division of Hindoostans into

Provinces or Státes,

THE following account is divided into two parts: the firf of which, contains the provincial divifion of the empire, under the Moguls, fo far as the particulars have come to my knowledge; the other contains the prefent divifion of it, into independant fates, of very unequal extent and power. It will not be expected that the redenues or military force, of thofe ftates, Mould be, in generad, well afcertained; or that the exact relation in which many:ofithe inferior provinces ftand, to the more powerful ones in their neighbourthod; lhould be correctly known : fince the knowledge requifite for fuch a detail, can only be collected from perfons who have hiduopportanities either of making the proper enquiries on the foot, or of confulting fuch documents, as have received the fanction of authority. In fome inftances, it has been found impofible to refort to authorities of this kind; as there are large tracts within this widely extended country, which no European of charucter (as en as: I have heard) has vifited, of late gears. To thit mady be added; that the changes are fo frequent, that the progre's of enquiry and information would fcarcely keep pace with them, throughout the whole region.

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## Acbar's Division of Hindoostan.

$\because$ SHÁEL not dtempt to trace the various flatantion's of boundary that took place in this empire ${ }_{\text {\% }}$ fince the ara of the Mahomedan conquefts, according as the feat of government was removed from Ghizni to Lahore, to Delhi, or to Agra, as fuited the politics of the times. $:$ It is fufficient for my purpofe that I have already impreffedion the mind of the reader, an idea that the proyinces of Hipdoroftan.proper have feldom continued under one head, durring a period of twenty fucceffive years, from the earlieft hiftory, down to the reign of Acbar in the 16 th century: and that Malwa, Agimere, Guzerat, Bengal, \&c. were, in turn independent; and that fometimes the empire of Delhi was confined within she proper limits of the province of that name.
$\therefore$ During the long reign of Acbar in the 16 th century the internal regulation of the empire was much attended to. Enquiries, wepre fet on foot, by which the revenue, population, produce, religionge arts,: and commerce of each individual diftrict, were afcerrtained, as well as its extent and relative pofition. Many of thefe ipterefting and ufeful particulars, were, by Abul Fazil, collected into a book called the * Ayin Acbaree, or Institutes of Acbar\& and which, to this day, forms an authentic regifier of, thefe matters. Acbar began by dividing Hindoost an proper into eleven foubahe $\$$ or provinces, fome of which were in, extent equal to large

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 Englinh axpes to there divifions, I thould Ayde them kingdouns (or ivice-royalties) counties, and hundrede.*. The names of the eleven foubahs were Lahore, Moultan (including Sindy), Agiterers Delhin Agrac Oude, Allahabad $\dagger$, Bahars, Bengat, Malwowind Guzerat $\ddagger$. A 12 th Goubah, that is, Cabul, was formed outhof the countries contiguous to the weftern fources of, the Indus, and included Candahar and Ghizni; and three new ones were erected put of the conquefts in the Deccan; vize, Berar, Candeib, and Amednagur; in all fifteen.

A llight infpection of the map will afford more information refpecting the relative pofitions of thefe foubahs to each other, and to the adjacent countries, than whole Sheets, of priting. It may be neceflary, however, to make a few remarks on the beunt daries of thofe foubahs that bordered on the Deccan, in order ta underftand the extent of the new conquefts.

Güzerat, then, extended fouthward to Damaun, where it touched ön the diftrict of Baglana, a divifion of Amednagur.
Mfalwa extended to the South of the Nerbudda river, and an angle of it touched on Baglana and Candeifh on the fouth-weft and fouth, and on Berar on the eaft. The Nerbudd formed the reft of the fouthern boundary of Malwa, and alfo of Allihabad: : The government of Bengal extended to Cattack $H$ and along the river Mabanuddy; but the foubah of. Oriffa appears not to have beep formed at that time.

Of the newly erected foubahs in the Deccan, Candeifh ${ }^{-} \dot{\text { the }}$ fmallaft of them, occupies the fpace between Malwe an. the north, Berar on the eatt, and Amednagur on the weft and fouth.

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## I 1


 liogane and Golconda on the fouth s and Orifia or the gifl : eppredend that only the welerr parts of Berar wbie wedtoced by Antanes
 and Malwa on the north; the Gatto, of Bulagat morindici on the wer, Bojipout (or Vifiapour) and. Tellingama onl the fouthr and Berav: on tho eaf. The limits of this foubab: (Asciedaagut) are abs

 were perpetually fluctuating.

Tellingana, which in the Ayin Acbaree is called a cincar rof
 Warangole $\uparrow$ was the capital, comprehended the traict lying wetweff the Kiftna and Godavery rivers, and eaft of Vifapouf : Tanfwerthig to the modern province of Golconday aff was probably in more early tiphes, an extenfive kungdom; as the Telliaga language is fadin to be if ufe, at prefent, from the river Peanar in the Oantice, to Oififa, along the coaft; and inland to a very confiderate diftudet:

Thus we have a flandard for the geographical divifion of Mrindooftan proper, in the time of Acbar; but for the Deccan in getteral, no authority on record has ever come to my knowledgar It
 the i 8th degiee of north latitude: and under his fucceftoram the' remainder of it, together with the peninfula, as we have already feen, was either entirely fubjected, or rendered tributary to the throne of Delhi (the mountainous tracts held by the Mahrattas, axcepred and formed into one government under the name of the

[^31]
## [czii ]

Deccain* which name, in its mof extenfive fignification, includes the whole peninfula fouth of Hindooftan proper. However, in its ordinary acceptation, it means only the countries fituated between Hindooftan proper, the Carnatic, and Oriffa; that is, the provinces of Cándeifh; Amednagur, Vifiapour, Golconda, and the weftern part of Berar. When the Mogul empire was exteriaed to its utmoft limits, by the addition of this vaft province, its aniuitit revenue exceeded 32 millions of pounds ferling $\dagger:$ and to endble the reader to make a juft eftimation of its abfolute valine, it is neeeffary to repeat, that the products of the earth are abot four tifnes ai cheap in Hindooftan, as in England.

[^32]Pregent Divigion of Hindoostan.
HAVING given this very general idea of the original divifion of India, I hall mext endeavour to convey an idea of, the prefent divifion of $i x$, as far as refpects the principal fates, or the powers that have appeared on the political theatre, fince the eftablifhonent of the Britifh influence.
athe Britichation poffers, in full fovereignty, the whole foubah of Bengal, and the greateft part of Bahar; I fay the greateff part, becaufe it appears that there are feveral purgunnahs on the fouth-weft of little Nagpour, that were formerly claffed as : helonging to Bahar, but are now in the poffeffion of the Mabrattas *. In Oriffa, they poffefs only the diltricts of Midmapour, the reft being entirely in the hands of the Mahrattas and their tijbutaries. Thefe poffeffions contain about 150,000 Square Britifh miles of land; to which, if we add the diftrict of Benares, the whole will be $162,000+$; that is, 30,000 more than are contained in Great Britain and Ireland : and near eleven millions of what

[^33]bitapts.' The thatat net revenue, including Benares, is at prefent about 28 lacke of ficca rupees, which may be reckoned equat to $3,050,000$.. In this caloulation, every branch of the revenue, is included; fuch as the profits arifing from falt and opium, the cuftoms, Scc.: and the amount of the charges attending the cellection of the revernees, and the ftipend to the Nabob if, Berigals, 8ce. ase deducted 2 the whole amount of the grofs rovenue being $3,790,0001$. The fubfidy from the Nabob of Oude if not takeni into this acccount *.

- The following is nearly the ftate of the Company's receipts and difourfements at thernere fert time;-reduced to fterking money : the Sicca rupee being valued at 25 .


1: Then matural fituation of Bengal is fingularlyi happy with refpect to fecurity from the attacks of foreign enemies. On the north and caft it has no warlike neighbours; and has; moreover, a formidable parrier of mountains, rivers; or extenfive waftes; towards thofe guarters, thould fuch an enomy fart up. On the fouth is: a feacoaft, guarded by fhallows and impenctrable moods, and with only oac port (and even that of difficult accefs) in an extent of three hundred miles. It is on the weft only, that any enemy is to be apprehended, and even there the natural barrier is Arong; and with its population and refources, aided by the ufual proportion of Britilh troops * in addition to the fepoy eftablifhment, Bengal might bid defiance to all that part of Hindooftan, which might find iefelf inclined to become its enemy. Even in cafe of invafions, the country beyond the Ganges would be exempt from the ravages of war, and furnihh fupplies for the general defence. But, with the whole revenue in our poffeffion, the feat of war will probably be left to our own choice.

The late Nabob of Oude, Sujah Dowlah, poffeffed, at the time when he firt became an Ally of the Eaft India Company, the whole foubah of Oude, and the greateft part of Allahabad; to which, in 1774, were added the eattern parts of Delhi and Agra, till that time pofferfed by a tribe of Afghan Rohillas, and by the Jats. The Zemindary of Benares, which includes alfo the circars of Gazypour and Chunar, conftituted a part of the ©dominions of

[^34]
## [ $\max$ )

 fourilactsx'(ince inpteqfod to forty) was transforred to the inglify, This Zemindary, whiela was latedy in the hands of Cheat Sing, occupies the prisoipal pat of the: Space bretween Bahar and Qude, fo that onky frall part of the territory of the latter, mouches
 *: The dominions af Oude lie on both fider of the Gangefs gaffer. prying (with the exception of Bizoola Cawn's:difriet of Rampownt) odl the flat conntry betwean that river and the nomhern mpuniainh
 Ganfes and. Juma, known byithe name of Doant:\% wo within forty intes of the city of Delhi. In fhort, the Rititifn: nation, With datin allies and tributaries, occupy the whole perigable: cqurfe.



The dimenforsi of Oule and its dependencies may: be weckoned 360 Britifh miles in length from eaft to weft, and in breadth frome yge to 180 n , and therir arctat is about one third part of that af the Bengal grovincesi, being to ach other in the proportion of 53 , 籼 162, Cenerally fpeaking, the whole territory is one continued plain; rated is a continuation of that extenfive level valley, through which the Ganges and its branches, take their courfe. It i6, monoover: the contral part of the ancient kingdom or empire of theirniastr: The eapital city is: Lucknow, frtuated on :隹e river Goomty: and about 650 miles from Calcutta.
.. The prefent Nabob of Oude, Azuph Dowlah, fucceeded his ferther, Sujah Dowlah, in 1775. He is in alliance with the Bri* inf power; and a brigade of the Bengal army is conftantly Pationed on his weftern fronties is thereby anfwering the plarpofes of covaring Oude as well as Bengal; and of keeping the weftern ftates in awe.

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## ( ax 水)

 pence of it is paid by the Nabob of Oude, by:a : mipulated from; under the name of a fubfidy. : (See no pagecsiv.)

The grofs revenues of the dominiors of Qude are ractioned to be tbout two millions and a half ftorling: of which the new acequif. tions of Rohilcund, Corah, and other parts of the Dooab; mermore thaid one milion. The military eftablifmment, inclading the treope employed in the collection of the ropernues, is from 50.50 .60 thouiand men: but very few indeed of thefe, deferve the name of Fegufar troops. ${ }^{14}$. . $\quad . \quad \therefore$.
Fizoofl Cawn, Rohilla Chief; poffefes the diftriot of Rami pout, fituated at the foot of the northern mountains: and adahough included is Rohilcund, yet this territory was fecurod to him, by the treaty of Loldong, in 1774. It is valued ar $3^{\circ}$ lacks of rupees.* per annum : but he is in effect tributary: vo Oude, by being bound to furnifh his quota towards an oftabliflment for the common defence.

Contiguous to the weftern bank of Ganges, and Gusrounded by the dominions of Oude, is a fmall diftritt belonging to a Chiff of the Patan Rohilla tribe. It is generally denqubinatod from :its capital town, Furruckabad : 'and is litte more thans 3 a miles ' in extent.

On the fouth-weft fide of the Jumna, and reparated from it by a narrow tract of low country, is the tentery named Bundela :or Bundelcund, inhabited by a tribe of Rajpoots, but doemed inferior - to their brethren of Agimere. Bundelcund is furrounded by the dominions of Oude, Benares, and the Mahrattas : and was fotmerly fubject to a Rajah of the mame of Hindooput : but is now chiefly divided amrong his fors, or theit defcendants. it is a mownthinotis trat, of mote than too mikes fquare: and: contains the

[^36] Atrong fortryfer; among which, Caltinger 'is the principal. It is fubject to the depredations'of the Mahrattas: and has of tate yeais

 yoned pha, opentcountry. The ancient limits of Bundelcund wete mach more extenfive than the prefent; extending mouch further towerds: the Nerteuddah river. Chatterpour, is reckoned the capital.
sThettentistories: of Adjidfing are contiguous sto Bundelcumd $s$ on the fieftry to the Mahraitas on the fouth, and fouth-weft $;$ und to the Benares territory on the eaft. Their whole extent, including fome tributary Zemindars on the fouth-eaft, may be abotat equal to Bundelcundes and; tike that, fubject to the occafional depredations
 lids an the great soad betweer Benares and Nagpour. We know but little concerning the geography of the remote parts of this triage tware the lboundaries well defined. The river Soane flows through it, in its couffe to the Bahar province.

Shath Alum, the nominat Emperor, or Great Mogair; of whom we have fully fpoken, in the hiftorical part of this Introduction, is now a mere penfioner in the hands of Madajee Sindia: who, notwithftandinge tippoints him a refidence at Delhi.
withe Jatsel Jake, tor/Jetes, were a tribe of Hindoos,' wotio long Gimce the daathe of Auringzebe, erected a fate in the provinces of Agratand Tolibhe: They at laft fixed their capital at the city of Afsa - and Appear to haye poffeffed a tract of country, along both fidas: ofithe Jumatives, nfeome acighbourhood of Gwalibr; ito
 Downs ie ypzo, eftimated their sevense (porhaps extravagantly) at 2Re lacks' of rupees; sad their force at 60 or 70,000 men:: inthis

[^37]mationis traced by P. Wendell fromil the countries lying betweet the 'S E' confines of Moultan, and Gehad. "IIt is cetrain that Tamerhne made war on a poople caked the Getes in his march from Batnir to Stemanah. Nudjuff Cawn, about 14 years ago; difpof= feffed the Japsi of all their country, fave the very confined tedritioty of. Bhartpour. 'Madajee Sindia, has, in turtr, Atripped Nadjuf Catrn's facceffors of thefe conquofts; which are now feareely worth poffefing, although 20 or 21 years ago, under Soorage Mutti, theys ranked among the moft flourihing provinees of Hindooftan. It:will bo perceived that the Jats no longer exift, as a nation: all that remains to Runjet Sing, the fon of Soorage Mull,' being the fort of Bhartpout or Atorraxpour, fituated about 45 miles on the weft of Agta wieh a fmall territory of 4 or 5 lacks of rapees. The Rajalh of. Gobhed is of the Jat tribe, but unconneted with Runjer Sing: 1. The date Nudjuff Cawn, whom we have juft mentioned, is: int inflance, 'among others, of the very fadden rife and fall of tho middern flates of Hindooftan. From the condition of a minor Jaghiredar, and the Commander in Chief of the inmperial army; after the return of the prefent Mogut; to Delhi, ink 177 F; be becamts in the courfe of 7 or 8 years, the poffeflor of a dornfin, yielding 150 tacks of rupees annually; and kept up an eftabihith ment of 80,000 troops of all denominations $s$ in which, were'included 23 regular battalions of fepoys. His conquefis wete on the Euss, the Rajah of Jyenagur, and the Rajah of Macherriy (which wet had reduced a confiderable part of the Mewat) and in 1774, ho becasse poffeffed of the city of Agra. No vefige of this greamefis his nemainod for feveral years patt. His empire, in a manner, died with him : and Madajee Siadia peffefes moft of in, at this timet This bringe us to the forbject of MewAr, which is the hilly and woodsy treat lying on the S.W of Delhi, and on the wofll of Agrats confining the low country along the weftern fide of the Pumna. river, to a (comparatively) narrow fip, and extending weftwards, aboutt 130 B. miles. In length from north to fouth, it may be 90 .

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 de heartionthe dmpied of Findoofta ; "that is,' withith 25 nites of its) foumer capitad; Delhi, itt inhabitants i, have ever been chariciterided sas the molt ravage and brutal : and their chief employment upbbengiand: plundéfug: We have mentioned in page xifxs the foveritice proxtiod dot them in' the isth century. At the prefent times. Mewat is. for fapnctis a nurfery for thieves and robbets, thet partiesporymeavatti are taken into pay by the Chiefs of upper FHits doaftan, for the parpose of diftreffing the cefontries which are rtade the: feat of 'warfare. i. In Acbar's divifion, this trate made a part o each of the soubahs of Delhi and Agra: but moft of it was ingluded in the latter. Mewat contains fome Arong fortrefles, on deep, orinacceffible hills; among which, is Alwar, or Alvar, the citadeli of the Macherry Rajah. It has changed mâters very offen, during the contefts between its native Rajahs (or Kanzadeh) änd the jats, the Rajah of Joinagur, Nudjuff Cawn, and Madajee Sindia; and between thefe powers, fucceffively. Sindia has made acomidierable: progrefs in the reduetion of it.
$\therefore$ Bordening on the north of Mewat, and approaching with' its catern himit widitin 24 miles of Delhi, is a track 80 or 90 miles in: leigth, and fram 3 e to 40 broad, named Little Ballogiftan: its arcient Hindoonname was Nardeck. Within the prefent century, aind paof probably fince the rapid decline of the Mogul empire", thisiterritery was. feized on by the Balloges, or Balloches;' whide psopen country adjoins to the weftern bank of the Indus, oppofite to Moultan. : Some tribes of them are alfo found in Makrant They ase soprefented ac : moft favage and crucl race; and appeat to be very proper incighbourg; for the Mewatí. Their territory is fult of mavines, and of courfe, difficult of accerf to invaders : it hity, bowneyor, undergone, the fate of its neighbours, and been fueceffivety tributary: to the Rohitla Chief, Nidjib Dowtah; to the Jats;"and Nudjuff Cawn. Weftward, it borders on the Seiks.

## [

 Rohilla: (whomiwe have formerly noticed, as gutandizn to the ydurg
 poffefion of his grandfon Golan Cawdirs; his fon ZathetaiCawn
 ockjupies, the head of the Dooab, or that part whith borders on: the semadick moumetains. It compofed chiefly the circas of SetiaurunEpplyt An Aebar's dipifion of the empire ; and does not exceed 100 B. miles in tongth, from eat to weft, by 75 in breadth. The originat peffeclions of Nidjib Dowlah comprehended alfo the country of Sirbind, on the weft of the Jumna river; ard alfo the difitriets found the city of Delhi: but the Seiks have not onty encrocached on the weft, and poffeffed that thone of the Jumna, but equhmit depredations in Sehaurunpour, apd ever to the banko of the Gainges. Sindia! having alfo encroached of the foith it is highly probable that this tract will not brig form a diftinct fate dt principality.

The Seiks may be reckoned the moft wefferr natior of ffindoos fath; for the King of Candahar poffeffes'but: ant inconfinderable exment af territory, on the eaft of the Induc. Their progitefis as an nation has been Iightly mentioned in pages lxiv and livi : and lince the complete downfall of the Mogil empire, they have aequired very extenfive domains. Bat their powet ought not to be eftimaned; in the exact proportion: to the extent of theiv podfeffionts, fince shey do not form one entise ftate; but a number of fmall orein indepondant of each other, in their internal govemment, and only connefted by a federal union. They have extended their territoties on the fouth-eaft, that is, into the pribvince of Delhis, very rapidly Qf late years; asd perhaps, the Zemindars of that country may have fouph it consenient toi phee themfelves under the protection of the Seiksi, in order to avoid the more opprefiwe government of their is.

- Nidjib Dowlah, who was an clevé of the famoys Gazi o'dien Cawn, died in the year 147.


## [ ккxii ]

former mathers. Certain it is that the eaftern boundary of the Seik's dominions, has been advanced to the banks of the Jumna river, above Delhi; and to the neighbourhood of that city : we have juft obferved, that the adjoining territory of Sehaurunpour, is fubject to their depredations, if not actually tributary to them: and that they make excurfions to the very fide of the Ganges. On the fouth, they. are bounded by the northern extreme of the fandy defert of Regiftan, and on the S W their boundary meets thm of Sindy, or Tatta, at the city of Behker, or Bhakor, on the Indus. On the weft, the Indus is their general boundary, as high up as the city of Attock'; near to which begin the territories of the King of Candahar: and their northern boundary is the chain of mountains that lie towards Thibet, and Cahmere. This being the cafe, they will be found to poffers the whole foubah or province of Lahore, the principal part of Moultan, and the weftern part of Delhi : the dimenfions of which traCt, are about 400 B . miles from N W to SE: and from 150 to 200 broad, in general : although in the part betwoen Attock and Behker (that is, along the Indus) the extent cannot be lefs than 32a. Their capital city is Lahore. We know but little concerning the ftate of their government and politics: but the former is reprefented as being mild. In their mode of making war they are unqueftionably favage and cruel. Their army confifts almoft entirely of horfe, of which they are faid to be able to bring at leaft 100,000 into the field. It is forturnate that the Oude dominions have the Ganges for a barrier between them and this army of plunderers. Abdalla was accuftomed to pafs through the country of the Seiks, during his vifits to Delhi, as late as the years 1760 and 1761 : and indeed meditated the conqueft of it: but it is probable, that with the prefent Arength of the Seiks, no King of Candahar will again attempt, either the one or the other. It was lately reported that the Seiks were in amity with Timur Shah of Candahar, and meant to allow his army 2 paffage through their territories. This, however, appears highly impro-

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bable: the progrefs of an Indian army effeatipg nearly hin mual degree of defolation, whether it enters a country on terms: of hoftility, or of amity.

Timur Shah (the fucceffor of Ahmed Abdalla; late King pf Gandar: har, Korafan, \&cc. who died about the year 1773) poffeffes in Hindooftans nothing more than the country of Cafhmere and fame inconfiderable diftricts contiguous to the eaftern bank of the Imdus, above. the oity of Attock. We have fpoken of the extent of the kingdom of Camdahar, in page 112 of the Memoir : and it may be proper to add, in this place, that the founder of that kingdom, the, abovementioned Ahmed Abdalla, was originally the Prince, or Chief, of an Afghan tribe named Abdal (whence the term Abdalm) and that he was ftripped of his country by Nadir Shah, and compelled; to join the Perfian army in 1739 . On the death of Nadir, he fudrl denly appeared among his former fubjects, and in a borth time il erected for himfelf a confiderable kingdom: in the eaftern part of, Perfia: adding to it, moft of the Indian prowinces ceded by the, Mogul to Nadir Shah. It has been afferted, that Abdalla had, arifen to a high command in the Perfiap army ; and that, his des: partment, of courfe, occafioning a large fum of money to centre ${ }_{1}$ with him ; he, on the death of Nadir Shąh, availed himifelf of the ufe of thefe treafures, to carry off a part of the army. Het, efta-! blifhed his capital at Cabul near the hither foot of the Indian Cau-: cafus : and it appears by the accounts of Mr: Fofter, who trats verfed the country of Timur Shah in 1783 , that his fabjects live; under an eafy government: that is, for an Afiatic oqne:. The rave-: nues and military force of Candahar, have not comet to my knowledge. The military eftablifhment byry been given it $200,000 \mathrm{men}$. Ahmed Abdalla had regular infantry, cloathed illike the Britifh fepoys: and; at one time, made ufe of the Britifh manufactures.for: that purpofe: the trade went by Sindy, and up the Indus and its. branches, to Cabul. This trade has long been at an end.

The province of Sindyy or that lying on both fideb of the bowet part of the river Indus *; is fubjoct to a Mahomedan Prince, who is tributary to the King of Candahar ; it being among the provinces: ceded to Nadir Shab, by Mahomed Shah, in 1739. Although it properly belongs to Hindooftan, it is fo detached from it by the great fandy defert, that it takes no part in its politics. This province is deferibed in page 28.5 , to which the reader is referred.

The province of Cutch, on the SE fide of Sindy, as well as the veftern parts of the peninfula of Guzerat, are governed by Rajahs of their own : and do not appear to have undergone much chiange, by the-late revolutions in Hindooftan. Cutch is not only a barren cointry, but-in its nature too ftrong to be eafily attacked. And the weftern part of Guzerat is mountainous and woody ; and inhabited by a wild, hardy, race: and therefore on both accounts, 'unfavourable to the progrefs of a Mahratta army.

The Mahrattas, as has been obferved before, form two diftinct emplites, or feates; that of Poonah, or the weftern: and Berar, the eaftern. There fatee coflectively, occupy all the fouthern part of Hindooftan proper; together with a large proportion of the Deccar. Malwa, Oriffa, Candeifh, and Vifiapour; the principal parts of Berar, Guzerat, and Agimere; and a fmall part of Dow-: latabad; Agra, and Allahabad, are comprifed within their extemfive empire; which extends from fea to fea, acrofs the wideft part of the peninfula; and from the confines of Agra northward, to the Kifina fouthward; forming a tract of about 1000 Britifh miles long, by 700 wide.
The weftern flate is divided among a number of Chiefs or - Pfinces," whofe obedience to the Paighwah, or Head, is, like that of

[^38]the German Princes to the Emperor; merely nominal at atiy time ${ }_{5}$ and, in fome cafes, an oppofition of interefts begets wats, not only between the members of the empire themfelves, but alfo between the members and the head. In fact, they are feldom confederated bit on occaions that would unite the moft difcordant ftates; that is, for their. mutual defence: for few occafions of foreign conquefts or plunder, are of magnitude enough to induce them to unite their armite.

Was I inclined, I want ability, to particularize the poffeffions and fituations of all the Chiefs that compofe this Mahratta ftate. 1 . hall therefore attempt only to mention the principal ones, commonly Ayled fagbiredars, or holders of fagbires*: their titles to their poffeffions, being nominally during their life time only; although they have long fince become hereditary.

The Paifhwah, or nominal head of the weftern empire, refides at Poonah, which is fituated at the fouth-weft extreme of the empire; and about 100 miles from Bombay. There are three principal Jaghiredars on the north of Poonah; and two on the fouth: the firft are, Madajee Sindia, Tuckajee. Holkar, and Futty Sing Gwicuar; and the latter, Purferam Bow, and Rattah, who is more commonly ftyled the Meritch Wallab (or Meritch Man) from his having eftabliched his capital at that city $\dagger$, previous to the con queft of it, by Hyder Ally. Before I proceed to particularize the

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Wifferfent pattelefs of niarers, in the reveral provinces, it will be feefliafy to bibferve that the Mahratta dominions have in fome places, been portioned out among the different Chiefs, after a method that appears the moft confufed and intricate, imaginable. For not only the Purgamabis', or grand divifions of provinces, are divided in fome inflances, among three different powers; but even the revenues of particular villages, are divided in like manner; and in confequence, diftinct officers are appointed, for the purpofe of collecting the refpective fhares*:
$\because$ The province or foubah of Malwa (to which this account particularly applies) one of the moft extenfive, and the moft elevated, and highly diverfified in Hindooftan, is divided among the Paifhwah, Sindia, and Holkar: as is alfo the fmall foubation Candeifit, adjoining to it, on the fouth; and which contains the fine city - of Buthanpour', in the poffefion of Sindia.

The province of Agimere, has only in part been poffeffed by thie Mahrattas; and that part is now entirely in Sindia's hands. What is here expreffed, relates only to what may be termed Agimete prioper ; and not to the whole foubah of that name, according to its geographical definition in the Ayin Acbaree: fince the three great Rajpoot principalities, Oudipour, Joodpour, and Joinagur, as well as Rantampour, are there, included in it. Thefe Rajpoots principalities (of which more will be faid hereafter) have long been held tributary to the Mahraftas ; and now, by the afcendancy of Sindia, andby virtue of -his local fitation, he converts the whole of the tribute to his owin ufe.

The largeft, as well as the fineft part of Guzerat, is divided between the Paihwah, and Futty Sing Gwicuar (or Gwicker) the latter holds his hare chiefly, in the northern part of it.

The provinces oh the fouth of Poonah, are divided between the Pailhwah, and the Faghiredars, Purferam Bow, and Raftah. So little is known in Europe concerning the Geography of this part

[^40]of the country, that the map of it, is almon a blank. I amiby no means certain where to place the common boundary of the Mahratta and Tippoo's countries, in this quarter. Hyder took pofferfion of Meritch (Meritz or Mirje) on the north bank of the Kiftna, in 1778 ; and, I apprehend, never relinquifhed it,

The Paifhwah, or his reprefentatives, poffefs alfo many other diftricts in the NE, and eaft, parts of Malwa, \&rc. for the Poonah territories, or thofe of its Jaghiredars, clofe on the river Jumna, oppofite to Calpy: and alfo extend along the northern bank of the Nerbudda river, almoft to its fource; and encroach deeply on the S.W fide of Bandelcund, according to its ancient limits. The diffricts of Sagur, and Mundella, are fituated in this quarter. Thus it appears, that the territories fubject to Poonab, are feparated, or rather infulated, in an extraordinary manner; and this circumfance alone, muft influence the domeftic as well as the foreign politics of this fate : fince any confiderable Jaghiredar may eafly withhold the government's hare of the revenues, and convert it to his own ufe.

From what has been faid, it will appear impoffible to difcriminate the poffefions of the Paihwah, any more than thofe of his Jaghiredars, on the map. All that can be done, is, to mark the body of each tract of land, in which the Paihwah and the particular Jaghiredars participate. It is underftood that the Paifhwah porfefles a larger fhare, in the weftern part of the Deccan, than elfewhere. This tract is naturally very Atrong, particularly on the weft fide towards the fea, where a fupendous wall of mountains, called the Gauts, rifes abruptly from the low country, called the Concan (or Cockun) fupporting, in the nature of a terrace, a vaft extent of fertile and populous plains, which are fo much elevated, as to render the air cool and pleafant. (See Memoir, pages 179 and 213.) This elevated tract, is continued not only through the Mahratta territories, but extends through the peninfula, to the fouthern extreme of Myfore; and is named Balla-Gaut, through-

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throughoul its whole extent: meaning literally, the fingher, of upper Gauts:. In the peninfula, it is applied in contradiriaction to Payen-Gaut, or the lower Gauts: but in the Deccan, it appears. to be ufed only as a proper name, and not as a correlative: we having never heard of the Deccan, Payen-Gaut.

Not is it lefs difficult to aftertain the fum of the revenue of this Mate, than to particularize the extent of the diftriets, from whence it is collected. The mot intelligent and beft informed perfons that I have confulted on the occafion, will not venture to give an opinion on it. One perfon (a native of India) has ftated the revenue at 12 erores of rupees, or 12 millions ferling: and the net receipts, Jaghires deducted, at five crores. The fame account makes the military eftablifhment in the field, to be 200,000 troops, foot and horfe; befites an equal number in garrifon. Another account of the revenue, by an European gentleman, reckons 7 crores for the net.revenire. If the rovinces poffeffed by this ftate, were to be rated in the fame proportion as in the time of Aurungzebe, the net revenue would bet about 8 crores of rupees, or 8 millions fterling.

Sindia is unqueftionably the mof powerful Jaghiredar within this ftate; and ought to be regarded as a fovereign Prince. Since the Mahratta Peace ( 1783 ) he has extended his frontier from Malwa towards the Jumna; fwallowing up moft of the petty fates that heretofore exifted there : and in particular, that of Gohud, including the celebrated fortrefs' of Gwalior (fee page 157 of the Memoir): He has alfo carried his arms northward to Delhi, and into the provinces of Mewat and Jyenagur ; reducing many fortreffes, and a confiderable tract of country, which were heretofore fucceffively poffeffod by the Jats, and Nudjuff Cawn. In fine, he poffeffes the perfon of the nominal Great Mogul, and all that can

[^41]be accomplifhed by virtue of his name. It would appeay that Sint dia's plans embrace too great a variety of objocts at one and the fame time : for, not long ago, his troops were compelled to retire from Bundelcund, in which they poffeffed moft of the open country, the fruits of a very recent conqueft. He feems beat on extending his conquefts, on the north and weft: but time alone can difcover whether he will fucceed in eftablighing a permanent empire, on that fide. The revenue of his paternal, or original dominions, in Malwa, \&zc. has been eftimated at one crore of rupees per annum. It is difficult to afcertain what the value of his new acquifitions are, in their prefent ftate : for thofe portions of Agra, Delhi, \&c. which he holds, having been fo long fubject to the depredations of contending armies, little benefit can be derived from them, at prefent *. Gohud, one of thefe acquifitions, is eftimated at 20 or 30 lacks per annum. Holkar is fuppofed to poflers 80 lacks per annum, in his hare of Malwa. qindia's capitat city is Ougein, near the ancient city of Mundu, the capital of the Chilligi Kings of Malwa : and Holkar's capital is Iadore, fituated about 30 miles on the weft of Ougein.

The Berar or Nagpour Rajah, Moodajee Boonlah (or Bomfota) poffefles the principal part of Berar, together with the provinct of Orifa $\dagger$. The remainder of Eerar is held by the Nizam; or Sotibaht of the Deccan, who' pays a chout, or fourth part of its clear revo nues to Moodajee. On the weft and fouth, the Berar dominions border on, or are intermixed with, thofe of the Nizam : on the NW and north, are the provinces of Bopal, Gurry-MundeHla, \&c. tributaries of Poonah; together with the territories of Adjid Sing.' On the eaft, the Nagpour territories thruft themfelves between the Britifh pofeffions in Bengal, and thofe in the northern circars; fod

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as to 9 gcupy near. 80 miles of the country adjacent to the feari modj of courfe, to break the continuity of their poffeffions on the foa coart. Moodajees dominions are very extenfive, being in length from eaft to weft 550 Britioh miles, and in fome places 200 from north to fouth. He does not poffers all this in full fovereignty; for Ruttunpour and Sumbulpour are little more than tribukary; and are governed by his brother Bembajee. We know lefs of the interior parts of Berar, than of moft other countries in Hindooflan ; but, by what we do know, it does not appear to be either poput lous or righ. ' (See Memoir page 144.) Nagpour is the prefent oarpital, and the refidence of Moodajee ; and it is fituated about mold+. way between Bengal and Bombay.

Cattack, or Cuttack, the capital of Oriffa, is a poft of comfer quence on the river Mahanuddy, as it lies in the only road between Bengal and the northern circars; and the poffeffion of this city and its dependencies, gives the Berar Rajah more confequence in the eyes of the Bengal government, than eyen his extenfive domaing and centrical pofition in Hindooftan.

Moodajee has been recognifed (pagelxxxviii) as a defcendant of the ociginal founder of the Mahratta empire, Sevajee. The fum of his re-venue, is varioully fated. Some have reckoned his part of Berar, at 84 lacks of rupees, per annum; and Cattack at 24 : while others have allowed only 60 , for his whole revenue. If we take it at the higheet calculation, 108 lacks, he ought not to be confidered in a formidable light, by the Britifh power. But placing the actual fum of his income out of the queftion, his dominions are too widely extended, in proportion to their value, to form a powerful ftate. Cattack is no lefs than 480 miles, from the capital Nagpour. It has been well obferved, that the ordipary caufe of jealoufy between neighbouring flates, is done away, in the cafe of Bengal and Berar, by the nature of that part of the Berar dominions, which borders on Bengal ; it being generally, woody and uninhabited: fo that the virtual-
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boundaries of both countries are removed to a ditatince foth eaciff other.

There are the principal of the cointries reduced into the form of governments, by the Mahratta Chiefs : but fo habituated are they to rapine and plunder, that few of the neighbouting ftates, but have; at one period or other, felt and acknowledged their power.' Bengal asd Bahar were, for a fhort time, fubjected to a regular tribute; and the Carnatic, Myfore, the Nizan's provinces, the Dooab, Bun'delcund, and the fouthern parts of Delhi, have been frequently ever-ran. Their predatory excurfions fometimes carried them 1200 sziles from their capital. But the lofs of the battle of Panniput in 1761, induced a degree of caution in their military enterprizes: and from that period, their power appears to have been on the declino. ebut out of Bengal, Oude, and the Carnatic, by the Britifh'arms'. and outiof Mufore by Hyder's, their field of action hat betn muich citcumforibed; and the late war with the Britilb power, difeovered their weaknefs to all Hindooftan.

I am not fufficiently informed on the fubject, to be able to particulacize all the different prowinoes, or diftriets, that are tributary to the Mahratta ftates. Some have been already mentioned; and among Qthers, :the Rajpoot principalities of the Soubah of Agimere : and which, from their former importance and weight, in the internal poditicd of the Mogul empire, deferve particular notice.

In the early past of the prefent century, thefe ftates, collectively, appeared fo formidable to the fucceffor of Aurungzebe, that he was conftrained to beave them in quiet poffeffion of their independency; during the fedition of the Seiks, in Lahore (See page lxiv). Vaft have been the changes fince that time: for what the difciplined armies of Aurungzebe and his fons, could not accomplifh, has been effected by the Mahratta freebooters: fo much eafier is it to ruin acountry, than to make a conqueft of it. The hiftory of the declineof the Rajpoot principalities, is foreign to the prefent work : it is? fufficient to obferve ${ }_{2}$, that they are reduced to their prefent low ftate,
meirely bythè depredations of Mahratta detachments; which being compofed of light horfe, and accuftomed to divide into innumerable fmall parties; they by their rapid and defultory movements, at once fpread defolation; and clude the attacks of the inhabitants. This muft be underftood to relate only to the open parts of Rajpoatana: the mountainou's parts being yet free from their incurfiones.

Rajpootana was divided into three great principalities, under the names of Oudipour, Joodpour, and Ambeer, (or Amere): now better known by that of Joinagur, or Jyenagur. Oudipour was alfo named Meywar, or Midwar; and Joodpour, Marwar. In-Acbar's divifion of the empire, thefe principalities were claffed as: belonging to the foubah of Agimere, which is fometimes called Marwar. It is not an eafy tafk, by means of the geagraphical matter extant, to affign the precife limits and dimenfions of thefe principalities; which occupy the fpace between the weftern confines of Agra, and the NE part of Guzerat ; and between the fandy defert (or Regiftan) and Malwa : that is an extent of 330 Britioh milos from N E to S W ; and 200 broad, in the wideft part. Their relative fituations, and comparative dimenfions, may be feen in the map; where Jyenagur or Jyepour, will be found to lie to the northeaft; Oudipour to the 5 W ; and Joodpour to the N W, borderiag, angularly, on the other two. Pere Wendell's MS. account of thofe ftates, from whence I have extracted many of the above particulars, ftates the revenues of Oudipour at io lacks of rupees, Marwar at 40, and Jyenagur at 40,' per annum, in the year 1779 *. The two former are very mountainous, with a fandy foil, in the valleys: the latter is the moft fertile, and was, about the middle of this cen- 1 tury, in a high fate of improvement, under the government of the celebrated Rajah Jyefing, or Jeffing; who founded the new capital of Jyepour, which has had the effect (not unufual in Hindooftan)

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of thanging the rame of the province toi ithat of the capitan P. Wendel reprefents Jyepour as a place of grout wealith and comb merce in 1779, befrig the entrepot of the principal part df: the goods, that are brought from every quarter of India. The Rajah built alfo an obfervatory in his capital, and invited. Pere Boudier to it, in 1734. It is feazed that the confufions that have fo long prevailed in this province, mutt have greatly reduced the wealth and importance of the capital. We have mentioned before, that Sindia receives the tribute of all the three Rajpoot provinnes, and converts it to his own ufe: and that he had made fome confiderable conquetts. in them, particularly in Jyenagur.

- It is probable that in early times, the whole Rajpootana conftir ruted one entire kingdom, or empire, under the Rana or Prince of Oudipour; who has in all. times, fince we had any knowledge of his kiftory, been confidered as the head of the Rajpoot Atates, A long eftabliched cuftom of homage to a temporal Prinee, from thoft, who do not acknowledge his fuperiority in any other way, feems to prove the exiftence of real power in the hands of his anceftots. In modern times the Rana of Oudipour feems to have been confidered fomewhat in the fame light as the general of the Amphyctions was in Grecoe. Cheitore was the ancient capital of the Rana, a place much celebrated for its ftrength, riches, and antiquity, when it was taken and defpoiled by Acbar in 1567: Oudipour is the prefent. capital.

The Rajpoots are not confined entirely to the tract abovementioned, or even to the foubah of Agimere: fince fome inferior tribes of them are fettled in Bundelcund, and in Gurry-Mundella. Others, according to Thevenot, are fettled in Moultan ; and indoed he reprefents Moultan as the original country of the Kuttries, from whom the Rajpoots fprung. (See page 93 of the Memoir.)

Of the countries of Nagore, Bickaneer ${ }_{2}$ Jaffelmere, and thofe bordering on the lower part of the courfe of the river Puddar, and on the fandy defert, we know little at prefent, except that they forn-

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z number of petty Rajeliphipss : and are underfood to be moftly ins hahited by Rejpoats.

The Rajpoots are ordiaarily divided into two tribes or claffers thofe off Rathore, and Chohan, or Seesodya. Marwar, or the $\mathbf{N}, W_{1}$ divifion of Agimere is the proper country of the former; and Meywary or Oudipgurs of the latter. The reader will be pleafod to obferve, that Cheitore is alfo fynonimous with Oudipout, or Meywar. The Rathore tribe were originally the moft numerous of the two. It has often been afferted, and by the late Col. Dow, mpong others, that the Mahratta Chiefs had their origin from the Rathore tribe : and to countenance this opinion, the etymology of the pame Mahratta, has been drawa from Rathore'; prefixing to it, Maha, or Great. We have feen, however, in page lxxix, that the fact is very different, and refts on the foundation of historic res cords.: the term. Mahratta being derived from:Marhat, or Martieyt, the name of the province in which Sevajee firft eftablifhed his in dependehcy : and this etynology appears to be perfectly nataral. And by the fame rule, Sevajee mult have boen of the Seefordya tritie, as drawing his lineaga from Oudipour ; and not of the Rathore tribe, as erroneoaly reprefented.

Of the five porthern circars, Cicacole, Rajamundry, Eilore, and Condapilly*, are in the poffeffion of the Englifh; and Gontoor is in the hands of the Nizam. The four firft occupy the ifea coaft from the Chilka lake on the confines of Cattack, to the northern bank of the Kiftna river; forming, comparatively, a long, sarrow nip of country, 350 miles long, and from 20 to 75 wide. The nature of the country is fach, as to be cafily defenfible againt an Indian enemy, it having a barrier of mountains and extenfive forets on one fide, and the fea on the other; the:extremities only being open. Its greateft defect is in point of relative fituation to Bengad

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 from the latter ; fo that the troops deftined to proted Yt, catiffet be reckoned on, for any preffing retvice that rfiay'urfe' at echer pacfidency. The circars, in point of ftriotnefs, appertann paitly to Golconda (or the Deccan) and partly to Oriffa; and are held of the Natasen on condition of payirg him a Atipulated quit rent. When the Erench took poffefion of the five circars, in 1753 , they were valued at aboat 43 lacks of rupees por annum. The Englifh never poffeffed Guntoor; which was eftimated at near 7 lacks of the above fum: fo that 36 lacks ( 360,0001 .) fhould be taken for the true value of the Englifh poffeffions in the circars. In 1784,' they'y were reckoned to produce about that fum. It would appear that the Nizam, by retaining Guntoor, has more than an equivalent for the pebcufb or tribute, which is 5 lacks per annum.
: The poffioflions of the Nizam, or Soubah of the Deccan (a younger fon of the famous Nizam al Muluck) comprife the provirice of Gokconda, that is, the ancient province of Tellingana; or Tilling, fituated between the lower parts of the courfes of the Kiftna and Godawary rivers, and the principal part of Dowlatabad; together with'the weftern part of Berar, fubject (as has been faid before) to a ${ }^{\text {a }}$ tribute of a chout, or fourth part of its net revemue, to the Berar Mahratta. The Nizam has the Pailhwah, or Poonah Mahratta on the tweft and north-welt; the Berar Mahratia on the north; the northerri' eircars on the caft ; and the Carnatic, and Hyder Ally on the fouth. I am not perfextly clear in my idea of his weftern boundary, which, during his wars with the Mahrattas, was fubject to continual muctuation : but I underftand generally that it extends more than 40 sniles beyond the city of Aurungabad, weftwards; and comes within 80 milas of the city of Poonah: and that on the $S W$ it goes confiderably beyond the river Beemah, and to the borders of Sanore-Bancapour. His capital is Hyderabad, or Bagnagur, fituated on the Mowali river, near the fanous fortrels of Golconda.! :

The dintuats of Adom and Rachore, which wefe in the hand ds of
 in the hande of the Nizam: The Sourapour, or Sollapour Rajah!; op the weft of the Beemahr river, 'together with fome' other Rajahs; ato his tributaries,

Probably the Nizam's dominions, including his tributárics und feudatortes, are no lefs than 430 miles in length, from $\mathbf{N}$ W: 46 S E, by 300 wide: Till he took poffeffion of the Guntobr citcar in 1780 , his dominions no where touched on the fea coaft.

The Guntoor circar (called alfo Mortizanagur and Condavir) occupies the fpace between Condapilly, the fouthinoft of our four circars, and the northern part of the Carnatic ; extending along the fea coalt of the bay of Bengal more than $30^{\circ}$ miles. The poffefion of this diftrict to the Englih, would have been extremely eligible, as well for the purpore of Chutting out the French nation from the Deccan, as to keep open a communication with the northern circars, and to preferve the continuity of our poffeffions, and thofe of our allies. Although the maritime parts of this circar are flat and open, yet the interior part of it contains fome very ftrong fortreffes, and pofts. The Nizam took poffeffion of it on the death of his brother Bazalet Jung, and ftill holds it.

It has not been' in my power to obtain, even a tolerably exact account of the fum of the Nizam's revenue; or of his military eftablihment : the latter, however, is far from being refpectable, on the fcore of difcipline. The former has been ever varying, and generally diminifhing; by reafon of the encroachments of $i$ the Poonah Mahrattas, and the Myforeans: it is faid to be redhced fo low as 130 lacks of rupees, annually. But befides this fum of actual revenue, it muft be taken into the account, that he has depending on him, many Jaghiredars, who hold their lands on the tenure of military fervice.

The:dominions of Mahomed Ally, Nabob of the Carnatic, and an Ally of the Eaft India Company, commence on the fouth of

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the Guatoor circar, and extend along the whole coaft of Coromandel to Cape Comorin. : It mult be undertood that I mean here to include:Tanjore;' Marawar, Tritchinopoly, Madura; and Tinevelly: all being appendages of the Carnatic. Under this' defcription, the Carnatic is not lels than 570 Britigh miles in length from north to fouth, but no. where more than 120 wide, and commonly no more than 75. Such a long; narrow, tract of country, bordered by an actipe and powerful enemy, whofe territories are, moreover; of a compact form, and his. force more readily collected, mult aheways be fubject to have its diftant provinces cut aff from its affiffance : or if it divides its force, for their reparate defence, the fafety of the whole will be endangered.

The Carnatic anciently comprifed all that part of the peninfula that fies fouth of the Gondegama and Tungebadra rivers; from the coaft of Cotomandel eaftward; to the Gaut mountains weftward, and was: divided-into Balla-Gaut and Payen-Gaut, or the upper and lower Gautp*, the former being the weftern part, and containing the diftrits "which now compofe the country of 'Tippoo; and the Jatter, the caftern part; or the Carnatic according to its prefent definition.

The revenue of the Nabob is ftated at about a million and a half ferling annum : out of which, he pays a fublidy of 160,0001 . to the Eaf India Company towards the expence of 'their military eftabdilhment.: The evils attendant on the improvident conduet of the Nabob, were feverely felt, during the late war, and ought to be cautioufly guarded againft, in future.

The Britifh poffeffions in the Carnatic are confined, chiefly, to the tract called the Jaghire, which extends along the coaft; about 108 B . miles, and 47 inland, in the wideft part. Its revenue is reckoned 150,0001 . Befides the Jaghire, there are lands dependant on Cuddalore, but the amount is not confiderable. The whote
amount of the land tevenua dependant on Madrats inchuctine tinn circars, has been fated, in page cxiv, at 725,0001 per annum.

The dominions of Tippoo Sultan, who ityles himfelf, Regent of Myfore, begin on the weft. of the ridge of mountains beyond Datpacherry; Saptgad, and Attore; and extend fouthward to Trayan, core and Madura; northward to Sconda and Vifiapour (inveloping Adoni, the territory of the late Bazalet Jung) north-eaftward ko Guntoor and Ongole; and weftward to the fea. They comprehend, generally, the provinces of Myfore, Bednore, Coimbettore, Canara and Dindigul; befides his late father's conquefts to the northward, which are Meritch, or Meritz, Soonda, Chitteldroog, Harponelly, Sanore-Bancapour, Roydröog, Gooty, Condanore, Canoul, and Cuddapah.

Tippoo's prefent territory exceeds very confiderably, both in pace tent and revenue, that of his rival the Nabob of Arcot: but probably it will, for fome time at leaft, require a Prince of confiderable talents, to prevent a ftate, compofed of fuch difcordant parts, frpm falling to . pieces. A defcendant of the Hindoo King of Myfore, whom Hyder dethroned, is living; and kept a fate prifoner at Seringapatam, 'Tippoo's capital. He is occafionally thewn to the, populace : and the circumftance of his being permitted to live, is a ftrong proof how much the popular prejudices prevail, in favour of, the family of their ancient Kings. It was part of the plan of operations of the fouthern army, under Colonel Fullarton, in 1783 , to march from Coimbettore to Seringapatam, in order to liberate this Prince, and encourage the people of Myfore to throw off their allegiance from Tippoo: and it was the opinion of many fober perfons that it might have fucceeded, if circumftances had permitted Col. Fullarton to undertake it. The general character of Tippoo, is that of a man of high ambition; with great abilities for war and finance; cruel, to an extreme degree; and obftinately attached to
his fchemes. He is unqueftionably, the moft powerful of all the native Princes of Hindooftan ; but the utter deteftation in which he is held by his own fubjects, renders it improbable that his reign will be long. His dominions are very extenfive; and although the imperfect ftate of the geography of the weftern part of the peninCula, does not permit me to mark their northern boundary, yet it is pretty' certain that it touches the river Kiftnah, on the fouth of the city of Visiapour: and therefore, the extent of Tippoo's territory, or kingdom, from the valley of Ootampaliam on the fouth, to the Kintnal on the north (or rather $\mathbf{N}^{\prime} \mathrm{N}^{\mathbf{N}} \mathrm{W}$ ) cannot be lefs than 550 Britifh miles. In breadth, it is very undequal : in the wideft place, that is, in the northern part of the peninfula, the breadth is at leaft 330 miles; but lefs than 150 in the parallel. of Tritchinopoly; and further fouthward, it ends in a point. In page 'xcvi, its area has been compared to that of Great Britain'; which is taken at $9,6,400$ fquare Britifh miles: and the country of Tippoo is fuppofed to contain 21 fquare degrees; which in the parallel of $14^{\circ}$, produce about $97,65^{\circ} \mathrm{B}$. miles. By the peace of 1782, Hyder was to relinquifh all, but his ancient pofefions: how far his fucceeffor has fulfilled the terms of the treaty, I am not informed : but the term, ancient poffefions, was too general, or rather too vague, to be underftood in any particular fenfé.

The revenue of Tippoo, has been flated at four crores of rupees, or as many mittions fterling. His military, eftablidhment is very great; bsing no lefs than 72,800 regukars, including 740 Europeans under the command of French officers: befide troops in the frontier garrifons, to the amount of 49,000 . The remainder of his force, confifts of ipregulars of various defcriptions, and amounts. to 33,000 and upwards: fo that the whole force of Tippoo, is reckoned 155,000; fohich,- near 73,000, are of a clafs much fuperior to any troops that have ever been raifeed and difciplined by

## [ cxl ]. .

a native of India*, His defire of extending his kingdom, will keep him at perpetual variance with the Poonah Mahrattas, or the Nizam, or both; as it is only on their fide, that any acquifitions can be made, without quarreling with the Englih. Hyder long meditated the conquef of the Travancore territory, fituated at the extreme of the peninfula; but was prevented by the Englith. Tippoo, is faid to have intentions of the fame kind. The reader may. eafily collect, from a curfory view of the map, how hurtful to the intereft of the Carnatic, fuch a revolution would prove : fince it implies alfo the transfer of the Cochin territories, and all the tract lying on the weft of the Gauts.

- I have been favoured with the following particulats, relating to Tippoo Sultan's military eftablilhment; and which may be depended on.


| Herie (lrregulars) | 10,300 |
| :--- | :--- |
| Peons | 13,000 |

Recapitulation.


Chronological Table of Emperors, who have reigned in Hindoostan, fince the Guiznian Conuest.

## Ghiznian Emperors.



Ghorian or Gaurian Emperor. Baber
$\underset{\text { Ghori }}{\text { Mahomed II, or Maliomed }\}}{ }^{1184}$
Patan or Afghan Emperors.

| Cuttub <br> Eldoze <br> Aram <br> Alcumnh or Iltumin | - | - | 1205 |
| :--- | :---: | :---: | :---: |
| E |  |  |  |

Ferofe I.
Sultana Rizia, Empref
Byram II.
Mufaood IV. - $\quad 1239$
$\begin{array}{ll}\text { Mahmood II. } & 1242 \\ & 1245\end{array}$

## Balin

Keikobad

| Alla I. | $-\quad-\quad 1295$ |
| :--- | :--- |


| Omar |  |  |
| :--- | :--- | :--- |
| Mubarick I. | - | 1295 |

## Tuglick

Mahomed III. - 132 I
$\begin{aligned} & \text { Baber } \\ & \text { Huma:oon }\end{aligned} \quad-\quad \begin{aligned} & 1525 \\ & 15 ; 0\end{aligned}$
Second Patan Dynafty.
Shere - - 1542

| Selim |  | 2 |
| :---: | :---: | :---: |
| Mahomed VI. |  | 1545 |
| Ibrahim III. |  |  |

Mogul Dynafty reftored.
Humaicon
1554
Acbar
1555
Jehanguire
1605
Shah Jehan -- $\quad 1605$
Aurungzebe, or Allumguire I. 1659
Bahader Shah
Jehaunder Shah
1707
Ferokfere
1712
Ruffieh-ul-Dirjat
1713
Ruffieh-ul-Dowlah
\} 1717
$\ddagger$ Mahomed Shah
1718
$\begin{array}{llllll}\text { Ferofe III. } & - & 1325 & \text { Ahmed Shah } & - & 1748 \\ \text { Tuglick II. } & - & 1351 & \text { Allumguire II. } & - & 1753\end{array}$
1388 Shah Aulum - $\quad 1763$

[^45]
# $\begin{array}{llllll}\mathbf{M} & \mathbf{E} & \mathbf{M} & \mathbf{O} & \mathbf{I} & \mathbf{R}\end{array}$ OFA 

## MAP of HINDOOSTAN, © ${ }^{\circ} \%$.

$$
\begin{aligned}
& \text { - } \\
& \begin{array}{cc}
\square & +\infty \\
!
\end{array}
\end{aligned}
$$

## M E M O I R

OFA

## MAP of HINDOOSTAN, G゚c.

CO great an extent of country is contained in this map, and the quality of the materials is fo various in different parts, that it became neceffary, in order to prevent confufion, to divide the account of its conftruction into feparate fections, agreeable to the natural divifion of the country; and, in fome meafure, to the nature of the materials. It is accordingly divided into feven fections:

The firt contains the fea coafts and iflands.
The fecond, the furveyed tract on the fide of Bengal ; of that occupied by the Ganges and its principal branches, as far weft as the city of Agra.

The third, the tract occupied by the Indus and its branches.
The fourth contains the tract between the Kiftna river and the countries traverfed by the Ganges and Indus; that is to fay, the middle parts of India.

The fifth contains the peninfula fouth of the Kiftna.
The fixth, the countries fituated between Hindooftan and China; namely, Thibet, Bootan, Affam, Pegu, Aracan, Ava, and part of Siam: and

The feventh, and laft, contains Tables of diftances between the principal cities, \&c.

But, before I proceed to the particulars of the conftruction of the map, it will be neceffary to explain the itinerary meafure adopted B 2
in

## [. 4 ]

in places where no furveys have beon taken. The ufual meafure of this kind in Hindooftan, is the cofs, or crores, commonly eftimated at two Britih fatute miles. I have not been able to get the true length of the cofs, as fixed by Acbar, and other Emperors; and, even if I had, it would be of no ufe in the prefent enquiry, as all my Hindooftanny itineraries and tables are in computed coffes.

It may reafonably be expected, that in a country of half the extent of Europe, the eftimated length of the itinerary meafures, although of the fame denomination, muft vary in different parts of it. It is no more than what happens in different provinces of the fame kingdom, in Europe. But as far as we have any data for making a juft comparifon, the cofs does not vary fo much as one-fixth part over the whole country; and between the northern and fouthern extreme of India, (that is, in an extent of about 1700 miles) the difference is not more than one-fixteenth part. The miles vary much more in their proportions, in the different parts of Europe.

Taking the medium of the cofs throughout Hindooftan, and the Deccan, there will be about 40 of them to a degree a great circle on the globe: that is, each cofs is about a geographical mile and half. But this is to be underfood of horizontal meafure; in which the windings and inflections of the roads are allowed: for the eftimated routes could not be applied to geographical purpofes, by any other rule. 'The cofs, in road meafure, is about one ftatute mile and nine-tenths; or at the rate of 190 Britifh miles to 100 coffes; one part in feven, being allowed for winding, when the line of diftance is extenfive. Or, feven miles of road meafure, are allowed to produce fix miles horizontally, or in a direct line.
$\therefore$ In Malwa and its neighbourhood, the coffes are larger than any where elfe, and are about 1,7 geographical miles, or 35 to a degree. And on the road from Baglana to Mafulipatam, they are fo fhort, that 46 are required to make a degree. But having only one example for the latter proportion, I fhall found no rule on it. The proportions that I have adopted for Hindooftan, Malwa, and the Carnatic,

Carnatic, from a great number of examples, are refpectively $1, \uparrow 3$; 1,71 ; and 1,6 of geographical miles to a horizontal cofs; or 42, 35 , and $37 \div$ to a degree of a great citcle. The cofs of Hindooftan proper, is therefore fhorter than any other, and prevails throughout the greateft extent of country. There is again in Nagpour (the ancient Goondwaneh) a Goondy cofs, which by the medium of all the accounts I could get, is about 2,76 geographical miles, reduced to horizontal diftance ; or 21,9 , or 22 to a degree. This meafure appears to be in ufe by the natives, throughout Mundilla and Boggilcund, as well as in Nagpour ; and fometimes occafions great confufion in the reports of the coffids, or couriers: however, they have a computation of Hindooftanny coffes alfo, in the fame country; and the proportions agree in general remarkably well with that fcale, between the Bengal Provinces and Aurungabad; and between Mundilla and Hydrabad.

Having mentioned the windings of the roads, it may not be improper to give the refult of my enquiries on this head, for the benefit of thofe who may have itineraries, kept in eftimated diftances, to work up. One in feven is allowed as above: and is what will be found to take place in large diftances, in fuch countries as are interfected by deep rivers, or watercourfes: or in fuch as have no artificial roads; and where thofe on the natural level, have ob̀ftacles to furmount. The degree of winding of roads, in different countries, is, (cateris paribus) according to the ftate of improvement, in which the roads are. In India, the roads are at beft, little better than paths, and whenever deep rivers, (which in that country are frequent, and without bridges) moraffes, chains of mountains, or other obftacles, oppofe themfelves to the line of direction of the road, it is carried round, fo as to effect the eafieft paffage; and for this reafon the roads there, have a degree of crookednefs, much beyond what we meet with in European countries, where bridges are laid over every confiderable watercourfe, and where hills are either levelled, or reduced to a convenient degree of acclivity; and after

## [ 6 ]

all, expences faved in many cafes, by the difference of labour between the fmoothing of the direct road, and the forming of a road on the natural level. But the proportions, muft of courfe vary with circumftances; and may be only one in ten, in a dry, open, country, and one that has a tolerably even furface: but this happens too rarely to found any general rule on. As the line of diftance increafes, a greater degree of winding will take place; or, a fhort diftance will always be on a ftraighter line than a long one: for in countries where the management of the roads is not arrived at a high degree of perfection, the road through a kingdom will be made up of portions, confifting of the particular roads leading from one city, or principal town, to another; although they may not lie in the general line of direction; and then there will be a general winding, added to the particular one : and the above proportion of i in 7 , is applied to this compound winding. And, added to this, in very long diftances, fome natural obftacle, will, very probably, oppofe itfelf: an arm of the fea; a river of difficult paffage; a morafs; or an impaffable ridge of mountains; and change totally the direction of the road: whilft the parts; on each fide of the obftacle, might have but an ordinary degree of winding: and it is feldom, but that one or other of thefe, occurs in the fpace of roa, or 150 miles. Probably 1 in $8 *$ may be a pretty juft general proportion for diftances of about a 100 miles: that is, 8 miles by the road, will be feven direct ; or what is commonly termed birdfigbt: and where the extent is from 200 to 300 miles, 1 in 7.

Meafured diftances in Hindooftan, do not often occur, where, at the fame time, the true horizontal diftance is given, except in Bengal : and that is a country too full of deep rivers, lakes, and moraffes, to ferve as a general ftandard. In the Carnatic, a dryer country, the medium of winding, in diftances of about 100 miles, is 1 in 9 . In England, as far as we can truft the maps (which may

[^46]
## [ 7 ]

be done, where the diftance confifts chiefly of difference of latitude) 1 in 11 is the proportion, in diftances of about 100 miles; and in very great diftances, fuch as Edinburgh, 1 in 7 .

It may happen that the direct route may lie through a defert or an ill-governed country; in which cafe, travellers will avoid the way, in which famine, or robbery, threatens them, and by thefe means be carried out of the true line of direction: but it is obvious that no rule can be given for fuch cafes. Upon the whole, the degree of winding, as far as depends on natural caufes, muft be eftimated by the compound ratio of the length of the line of diftance, and of the nature of the country, as to evennefs, drynefs, and opennefs. And of courfe, fome local knowledge of it will be required, in order to correct the diftances in a juft degree *.

The term cofs is of high antiquity ; and that of coffid, or courier, appears to be derived from it. It feems that the meafure of the cofs, eftablifhed by the different Emperors of Hindooftan, has varied confiderably at different times; and has always been longer than the computed one. That fixed by Acbar appears to have been about 2 Britih miles, and a fixteenth. But of this, I have no farther proof, than what refults from the comparifon of the different meafures of the road between Patna and Moorfhedabad; being a portion of the great road from Delhi to Bengal, meafured by order of one of the Emperors.
M. D'Anville concludes his enquiry † into the length of the cofs, by determining the number in a degree, on a medium, to be 37 ; but it muft be obferved, that he had no meafured lines with which he could compare his eftimated diftances. On the other hand, in the refpective diftances of Candahar, Cabul, and Attock, as defcribed by him, each degree contains 47 of Tavernier's coffes.

[^47]
## [ 8 ]

## SECTIONT.

## The Sea Coasts and Islands.

C
 being determined by feveral obfervations of longitude and latitude, "als from its having a meafured line of confiderable extent ftretching from it both to the eaft and weft. I fhall firft purfue the route weftward to the mouth of the Indus; and then return to Balafore, and go eaftward to the entrance of the ftrait of Malacca.

Calcutta, the capital of the Britih poffeffions in India, as being the refidence of the General Council, has its citadel placed in latitude $22^{\circ} 33^{\gamma}$ north; and in longitude, by a medium of the obfervations of four different gentlemen, $88^{\circ} 28^{\prime}$ eaft from Greenwich *.

Balafore, fituated about 101 geographical miles $\dagger$ from Calcutta, is the extreme point of the Bengal furvey on the S W ; or on the quarter towards Madras. Col. Pearfe's return from the Carnatic, after the termination of the late war, afforded an opportunity of carrying a meafured line from Madras to Balafore, which had long been a defideratum; as the exact pofitions of the intermediate fations of Mafulipatam, Vifagapatam, Ganjam, and Cattack, points on which many others eventually depended, were wanted : and although there might be no great reafon to fuppofe that Mafulipatam and

[^48]Vifagapatam were much out of place, in the former map, yet Ganjam and Cattack were doubtful. Col. Pearfe's induftry and attention have amply fupplied what was wanting, within this line. He directed the whole to be meafured with a perambulator, and corrected each day's work, or at leaft, every confiderable interval, by obfervations of the latitude; and the general courfe being little more than 3 points from the meridian, the differences of latitude, were applicable to the correction of the diftance thro' each particular interval: and for a check on the whole, we had already in our poffeffion, obfervations of longitude repeatedly taken at Calcutta and Madras. The whole extent of Col. Pearfe's meafured line, in road diftance, was near 900 Britih miles; a work of no fmall labour.

The longitude of Fort William, the citadel of Calcutta, as abovefaid, taken at $88^{\circ} 27^{\prime} 45^{\prime \prime *}$, from the medium of 4 obfervers; and that of Madras $80^{\circ} 24^{\prime} 40^{\prime \prime} \dagger$, from the medium of 3 obfervers, gives a difference of meridians of 8 degrees, 3 minutes. It remains then, to compare with this, the difference of longitude found by Col. Pearfe's meafured route, as communicated by Mr. Pringle in the map drawn by him, and fent to the Eaft India Houfe.

Balafore, by the furvey, is $1^{\circ} 26^{\prime} 30^{\prime \prime}$ weft of Fort William, and muft therefore be in $87^{\circ} 1^{\prime} 30^{\prime \prime}$. Col. Pearfe reckons it $1^{\prime} 15^{\prime \prime}$ more wefterly; but I adhere to the furvey. From Balafore to Ganjam, in lat. $19^{\circ} 22^{\prime}$, Col. Pearfe reckons 95 miles of wefting, or $1^{\circ} 41^{\prime} \mathbf{2 6 ^ { \prime \prime }}$. difference of longitude; which brings Ganjam in lon. $85^{\circ} 20^{\prime} 4^{\prime \prime} \ddagger$. And from Ganjam to Madras he made $5^{\circ} 2^{\prime} 18^{\prime \prime}$ weft: whence the

- Hon. Thomas Howe Rev. Mr. Smith Mr. Magee Capt. Ritchie $\left.\begin{array}{r}88 \bullet 33^{\prime} \\ -\quad 8328 \\ -\quad 8824 \\ 8826\end{array}\right\}$
To which may be added the French obfervation at Chyretty, which place is $1^{\prime}$ eat from Calcutta

$\ddagger$ Mr. Mears's obfervatioa was $85^{\circ} 17^{\circ}$ by $\odot$ and 8,1770 .


## [ 10 ]

longitude of Madras, would be $80^{\circ} 1,{ }^{\prime} 44^{\prime \prime}$. Here is found an excefs of about 7 minutes difference of longitude, more than the obfervations give. But in examining the map abovementioned, it appears that the difference of latitude between Ganjam and Madras by account, exceeded that by obfervation $8^{\prime} 30^{\prime \prime}$; and if this is to be imputed to excefs of diftance (which is highly probable) an excefs of longitude muft alfo have taken place; and this error will amount to about $6^{\prime} 48^{\prime \prime}$; or nearly the difference in queftion. This trifling error of 7 minutes in a difference of meridians of 6 degrees and a half, to whatever it may be owing; whether to overmeafurement by the wheel; variation of the compafs; defects in the inftruments; or errors in the obfervations of longitude; or partly to all thefe caufes; is very immaterial, to general geography. : The refult fhews, that we may confider the difference of meridians : between the two places, as determined near enough for the pur--pofes of mavigation, or general Geography.

- I murt not omit to mention that Capt. John Ritchie, by direction of the Bengal Government, in 1770 and 1771 , took the bearings. and diftances in a general way, from Madras to Balafore ; and his refult came within one minute of the longitude by obfervation. But fome of his intervals were not well proportioned. His pofition of Mafulipatam, indeed came.out only $1^{\prime}$ to the eaft of Col. Pearfe's; "but Vifagapatam was $7^{\prime}$, anid Ganjam $22^{\prime}$ more wefterly.

Alchough Col. Pearfe's route ferves to fix moft of the principal .plapes, on or near the coait, yet oftentimes it deviated confiderably, ciade for a length of fpace;; from the coaift; as between Balafore and Jagarnaut; and between Vifagapatam and Ongole. Thefe blanks are fupplied from the material's of Capt. Ritchie, Major Stevens, Major Polier, Mr. Cotsford, and others.
Firft, from mandore, Po Point Palmiras. This was done by Capt. Ritchie, by a feries, of of trangles, formed by three furveying. veffels; and corrected by obfervations of latitude. The refult, placed Point Palmiras, directly fouth of Balafore : that is, in lon.
$87^{\circ} 1^{\prime} 30^{\prime \prime}$; lat. $20^{\circ} 44^{\prime} . \begin{gathered}{[\text { Ii }]} \\ \text { From Point Palniras to Jagarnaut Pa- }\end{gathered}$ goda, the coaft was traced in a more curfory manner ; and accordingly, the bearing and diftance between Balafore and Jagarnaut is very differently given by Col. Pearfe and Capt. Ritchie: the account of the former being only $54^{\prime} 30^{\prime \prime}$ difference of longitude; and that of the latter, $1^{\circ} 16^{\prime}$. This very confiderable difference is too ftriking, not to be particularly noticed; and requires that fome obfervations fhould be made with time-keepers, to afcertain the relative pofitions of Jagarnaut, Point Palmiras, and Balafore. Wherever the miftake may lie, it is of great importance to have it rectified : for if Col. Pearfe's bearing be true (and there appears no reafon to doubt it) there muft be a very confiderable error in the courfe between Jagarnaut, and Bałafore road, in Capt. Ritchie's chart.

The longitude of Cattack is fcarcely altered from what it was in the former map of India; where it was placed on the authority of Capt. Campbell, in lon. $86^{\circ}$. It is now in $86^{\circ} 1^{\prime} 30^{\prime \prime}$; and its latitude ftands as before.

From Jagarnaut to Ganjam, the particulars of the coalt, are from Col. Pearfe's map, collated with thofe of Ritchie's and Campbell's. From Ganjam to Poondy, is taken from the map of the Itchapour diftrict ; and Col. Pearfe's route on it, which may be traced from Ganjam to Bindi (near Poondy) furnifles the means of correcting the compafs of that map, which was faulty in a very confiderable degree. Bindi ferves as a connecting point for the two maps; as Nauparah or Nowparah, a little farther to the S W. does for Pearfe's, and Cridland's map of the Tickley diftrict. . The coalt between Poondy and Bimlepatam is 1ketched from Lieut. Cridland's map, from Major Polier's journal, and other MSS. From Bimlepatam to Vifagapatam is from Col. Pearfe ; and from thence to Coringa from a MS. map, compiled during Col. Forde's expedition to Mafulipatam, in 1759 ; collated with Capt. Ritchie's map.

As there have been fome obfervations taken at Vifagapatam to afcertain the longitude, it is proper to take notice of them, and to compare the refult with the longitude deduced from Calcutta and Ganjam, by Col. Pearfe's line. This gives 107,I miles of wefting, or $1^{\circ} 52^{\prime} 54^{\prime \prime}$ difference of longitude, from Ganjam to Vifagapatam; from which if we deduct the proportion of the error in the diftance (fee page 10 ) the true difference of longitude will be $1^{\circ} 50^{\prime} 39^{\prime \prime}$; which taken from $85^{\circ} 20^{\prime} 4^{\prime \prime}$, the longitude of Ganjam, leaves $83^{\circ} 29^{\prime} 25^{\prime \prime}$ for that of Vifagapatam. But Col. Pearfe's obfervation was $84^{\circ} 23^{\prime} 30^{\prime \prime}$ and Mr. Ruffel's $83^{\circ} 21^{\prime} 30^{\prime \prime}$. Its latitude is $17^{\circ} 42^{\prime}$.

From Coringa to Mafulipatam, the figure of the coaft is from Major Stevens, as Col. Pearfe's route goes far inland, by way of Rajamundry, Ellore, \&cc. and does not again approach the coaft near onough to determine its pofition, till it comes to Vantipollam, near Ongole. Thefe maps of Major Stevens's and of Col. Pearfe's: join at the points of Siccacollum, on the bank of the Kiftnah; at Rajamundry, and at Samulcota. Thefe 2 maps differ confiderably: in the extent between Siccacollum and Samulcota; Major Steven's. giving $6 \frac{3}{4}$ miles lefs than the other (error of diftance allowed) but ${ }_{5}$ I? believe, Major Stevens's diftance was meafured only between Siccacollum and Narfapour.
Mafulipatan has its pofition very fatisfactorily determined, by: Major: Stevens's meafurement from Siccacollum, a place in Col. Pearfe's map. It is $17,4 \mathrm{G}$. miles eaft; and 3,3 fouth of it; and comes out $4^{\prime}$ of longitude, eaft of Madras, or corrected (fee again. page 10) $47^{\prime}$; its longitude being $81^{\circ} 12^{\prime}$; lat. $16^{\circ} 8^{\prime} 30^{\prime \prime}$.

From Mafulipatam to Madras, the figure of the coaft, is generally from Capt. Ritchie, correeted in certain points by the land furvey, of Col. Pearfe. For as the latter came clofe to the coaft at Vantipollam, Carwaree, and Rameeapatam, it appeared that: Capt. Ritchie's chart required correction in the great bay between. the latter place and Point Divy. I found it neceffary alfo to reduce:
the point at the mouth of the Pennar river, iand make is, lafs prominent; as the diftance from Nellore to the pearaft fea coaft, would atherwife bave beea much too great *. Indeed, it was not expected that a veffel, failing along a flat, ftraight without land-marks, could afcertain every fmall bending of the coaft. : ,
It is proper to remark, that the whole difference of longitude between Calcutta and Madras, in M. D'Anville's and D'Apres' maps, comes within a few miles of the truth, as they were in porfeffion of the abfervations taken at Ghyretty and Pondicherry:. but their maps are exceeding faulty in the detail.

The longitude of Madras, or Fort St. George, as was faid before, (page 9) is taken at $80^{\circ} 25^{\prime}$; and its latitude is $13^{\circ} 5^{\prime}$. Pondicherry, by a feries of triangles obtained by means of the Jaghire map; Wandiyrah Hill; Permacoil, the red hills, and the difference of latitudes. I make to be $25^{\prime}$ of longitude, weft of Madras; fo that Pondicherry will be in $80^{\circ}$ juft. The medium of the different ob, fervations taken there, is $79^{\circ} 55^{\prime} 40^{\prime \prime} \dagger$. Mr. Pringle, who meafured the routes of Sir Eyre Coote's army, during the late war, makes the difference of meridians the fame as I do to a fraction. Its latitude is $11^{\circ} 5^{\prime}$.

Cuddalore, in lat. $11^{\circ} 41^{\prime}$, and lon. $79^{\circ} 45^{\prime} 45^{\prime \prime}$, is the molt fouthern point, determined by Mr. Pringle's meafured routes: but the fame gentleman furnifhes us, with the bearing of Portonovo from that place; which, with its latitude $11^{\circ} 30^{\prime}$, allows us to place it, almoft to a certainty, in lon. $79^{\circ} 53^{\prime} 30^{\prime \prime}$.

The pofition of Chillumbrum Pagoda, in refpect of Portonovo, although fo confpicuous an object to the fight, is variouly reprefented. By the medium of, what appeared to me to be the beft authorities, I have placed South-weft $7^{\frac{1}{2}}$ G. miles from Por-

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## $\left[\begin{array}{ll}14\end{array}\right]$

tonovo. Mr. Barker determined podition with refpect to Devicotta, by a meafured bafe, to be W. $16^{\circ} 45^{\prime}$ N. 8 G. miles; which added to the former line from Portonovo, gives $79^{\circ} 55^{\prime}$ for the longitude of Devicotta. Its latitude appears to be $11^{\circ} 21^{\prime}$. Moft maps allow a much greater diftance between Portonovo and Devicotta, than what arifes from the above conffruction; which is 9 G. miles on a S S E. bearing : and the foundation of the error, appears to me to be the giving the bearing of Devicotta from Chillambrum, too great a degree of fouthing.

From Devicotta, fouthward to Negapatanj, my authorities are fome MS. maps; among which, is one, drawn by M. D'Anville, containing the principal pofitions between Madras and Tanjore; and feems intended for the bafis of a map of the fouth Carnatic. Had M. D'Anville's differed from the others, I fhould have been inclined to give the preference to the refult of his inveftigations; but it happens that all the different maps I have confulted, differ fo little among themfelves, that none make the difference of longitude between Devicotta and Negapatam more than $1^{\prime} 45^{\prime \prime}$; and the medium of the whole is $\mathbf{I}^{\prime} 15^{\prime \prime}$ eaft; fo that Negapatam may be taken at $79^{\circ} 5^{\prime} 35^{\prime \prime}$ lon. ; and latitude $10^{\circ} 46^{\prime}$.

Thus Negapatam appears to be $3^{\prime} 25^{\prime \prime}$ weft of Pondicherry, or ${ }^{1} 8^{\prime}{ }^{\prime} 25^{\prime \prime}$ from Madras; and whatever error there may be; múft arife chieffy between Devicotta and Negapatam. If there be any, the different geographers and map-makers have aft fallen into the fame kind of error. I obferve that the different maps made of late years, in India, have confidered Negapatam as being in lon. $79^{\circ} 53^{\prime}$ to $79^{\circ} 54^{\prime}$. I know not whence the idea is taken; but, whether founded or not, it differs but little from mine.

Negapatam is the fouthmoft point, on the eaftern fide of the peninfula, whofe pofition can be reckoned tolerably exact ; unlefs we except Point Calymere, whofe bearing being pretty well known from Negapatam, and its latitude determined with precifion; may be confidered as being nearly as well afcertained as

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Negapatam, on which it depends. Its latitude is $10^{\circ} 20^{\prime}$; and longitude $79^{\circ} 54^{\prime} 30^{\prime \prime}$.

No connected meafured line that can be depended on, has yet been carried acrofs the peninfula; Col. Fullarton's marches, meafured by Col. Kelly, extending only to Palicaudchery; that is, not within 50 G . miles of the coaft of Malabar: and thofe extended fouthward, through Madura and Tinevelly, ending at Cape Comorin. Fortunately, however, we have a feries of longitudes by a time-keeper, deduced from Bombay, by Capt. Huddart, and extended at intervals, along the whole coaft, to Anjenga; of which, more will be faid hereafter.

Col. Fullarton's march into the fouthern countries of the Carnatic, gave an opportunity of meafuring the diftances, and afcertaining the relative pofitions of Tanjore, Tritchinopoly, Madura, Coïmbettore, Palicaudcherry, \&c. in refpect of Negapatam, where the march commenced. The plan of thefe marches communicated to me from the Eaft India Houfe, bears the name of Col. Kelly; and is declared to be actually meafured, through the points abovementioned. We have to regret that the fame attention was not beftowed in the march from Calicut to Palicaudcherry; the intended point of junction of the Bombay detachment, with that of Col. Fullarton: for, in that cafe, the exact width of the peninfula, had been no longer a matter of enquiry.

Tritchinopoly comes out, by the above map of Col. Kelly's, to be $1^{\circ} 10^{\prime}$ of longitude weft from Negapatam; which taken from $75^{\circ} 56^{\prime} 35^{\prime \prime}$, leaves $78^{\circ} 46^{\prime} 35^{\prime \prime}$ for the longitude of Tritchinopoly *. The lavitude is $10^{\circ} 49^{\prime}$.

Madura, by the fame authority, is $34^{\prime}$ difference of longitude weft from Tritchinopoly; that is, in lon. $7^{\circ} 12^{\prime} 35^{\prime \prime}$. Here it muft be noted, that great difcordance arifes between the different

[^50]accounts of the bearing and diftance between Tritchinopoly and Madura, as given by Kelly, Montrefor, and others. The two former differ $1,6 \mathrm{G}$. miles only, in diftance; but Col. Kelly's bearing, gives $12,3 \mathrm{G}$. miles, more of wefting, than Montrefor's. And a third map, communicated by Mr. John Sulivan, has the fame bearing with Kelly's, but exceeds it, $3,7 \mathrm{G}$. miles, in diftance; thereby, increafing the wefting 1,3 G. miles; and of courfe, exceeding Montrefor's $1_{3}, 6 \mathrm{G}$. miles, or $14^{\prime} 15^{\prime \prime}$ of longitude.

The latitude of Madura, I have not yet learnt. Col. Call's map places it in $9^{\circ} 52^{\prime} 30^{\prime \prime}$; and Col. Kelly's difference of latitude from Tritchinopoly, $53^{\prime} 12^{\prime \prime}$, gives $9^{\circ} 55^{\prime} 4^{\prime \prime}$.

The authority for the remainder of this line, through Palamcotta (or Tinevelly) to Poolytopu on the fea coaft, weftward of Cape Comorin, is from the map of Madura and Tinevelly, made under the direction of Col. Call (then Chief Engineer at Madras) and from Mr. Pringle's road diftances; together with the latitudes of Palamcotta and Poolytopu. Firft, I find in Col. Call's map, $1^{\circ} 9^{\prime} 30^{\prime \prime}$ difference of latitude S. between Madura and Palamcotta; and $18^{\prime}$ of longitude, weft. This would place the latter in $8^{\circ} 43^{\prime}$ (Mr. Pringle informs us, that its latitude is $8^{\circ} 44^{\prime}$ ) and in lon. $77^{\circ} 54^{\prime} 35^{\prime \prime}$. Then, from Palamcotta to Cotate or Cotaur, on the weft of the Gauts, Mr. Call's map gives $29^{\prime} 12^{\prime \prime}$ difference of latitude S. ; and $22^{\prime}$ difference of longitude weft ; to which, if we add the deduction from Mr. Pringle's meafured diftance to Poolytopu, $5^{\prime} 30^{\prime \prime}$ difference of latitude S. ; and $6^{\prime}$ difference of longitude weft *; the whole difference of latitude will be $34^{\prime} 42^{\prime \prime} \mathrm{S}$. and difference of longitude $28^{\prime}$ weft; giving for the pofition of Poolytopu, lat. $8^{\circ} 9^{\prime}$ $18^{\prime \prime}$; lon. $77^{\circ} 26^{\prime} 35^{\prime \prime}$.

Poolytopu village appears to be fituated on the fea coaft, E N E. 4 G. miles from Cadiapatam Point ; which point, by Mr. Howe,

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is reckoned in lat. $8^{\circ} 7^{\prime}$; and Poolytopu being about $1^{\prime} 30^{\prime \prime \prime}$ to the N . of it, thould be in $8^{\circ} 8^{\prime} 30^{\prime \prime}$, according very nearly with the above calculation. It muft, I think, be acknowledged, that there is nothing in this deduction, that appears forced. Poolytopu, by the beft account I can get, (a French MS. map in Mr. Dalrymple's collection) is $16^{\prime}$ of longitude weft of Cape Comorin ; which Cape, by this account will be in don. $77^{\circ} 42^{\prime} 35^{\prime \prime}$.

We have fome further light thrown on this fubject by the meafurement of the road, by Mr. Pringle, from Tanjore to Poolytopu. His whole road diftancé is $25^{\frac{1}{2}} \mathrm{~B}$. miles; and allowing 1 in $9^{*}$ for the winding of the road, the horizontal diftance will be $223^{\frac{1}{2}} \mathrm{~B}$. miles, or r93.G. miles; which, on the fame bearing as the above deduction is founded on, ( $333^{\circ} 40^{\prime} \mathrm{W}$ ) gives difference of latitude $2^{\circ} 4^{\prime \prime} 18^{\prime \prime}$; and wefting 107,4 , or difference of longitude $1^{\circ} 49^{\prime}$. As Tanjore is in $10^{\circ} 46^{\prime} 30^{\prime \prime}$, the latitude of Poolytopu comes-out $8^{\circ} 5^{\prime} 12^{\prime \prime}$, and its lon. $77^{\circ} 23^{\prime} 5^{\prime \prime}$ (the longitude of Tanjore, by Col. Kelly's meafurement, being $79^{\circ} \cdot 12^{\prime} 15^{\prime \prime}$, deduced from Negapatam) and $16^{\prime}$ added to it, gives for the longitude of Cape Comorin $77^{\circ} 39^{\prime} 15^{\prime \prime}$; or $3^{\prime} 20^{\prime \prime}$ to the weft of the firft calculation.

Again, if the proportion of 1 in 8 be adopted for the winding of the road, (a more common one) it produces. 190 G . miles + of diftance; and the latitude of Poolytopu will be $8^{\circ} 8^{\prime}$; and its lon. $77^{\circ}: 20^{\prime} 50^{\prime \prime}$; and that of Cape Comorin $77^{\circ} 36^{\prime} 50^{\prime \prime}$.

This is all the fatisfaction that I have been able to obtain, concerning the longitude of Cape Comorin, as deduced from the eaftern fide of the peninfula. Something depends on the truth of the affumption, refpeeting the pofition of Negapatam; and fill more on

$\dagger$ The ditance ariing on the lines of Kelly and Call is 186,25 G. miles.

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the accuracy of the map of Tinevelly, the hiftory of which, I am unacquainted with : but, I think, the near coincidence of Mr. Pringle's meafurement, with it (for I reckon $3^{\prime} \mathbf{2 0 \prime \prime}$ but a trifte in general geography) is a prefumptive proof of its general truth. It is underftood that there is from 1 to 2 degrees of wefterly variation, between Negapatam and Cape Comorin: if this be allowed, it will remove the Cape $4^{\prime} 30^{\prime \prime}$ further to the weft; and place it, according to Kelly's and Call's lines in $77^{\circ} 3^{8^{\prime}} 5^{\prime \prime}$.

Let us now turn to the other coaft, and obferve how Capt. Huddart's and Capt. Dundas's, deductions of longitude, from the weft to Anjenga, accord with the reputed fpace, contained in the interval between Cape Comorin and Anjenga; which fpace, by Mr. Dalrymple's obfervation of the difference of longitude fhewn by his time-keeper, in 1777, was $52^{\prime} 30^{\prime \prime}$. This, taken from $77^{\circ} 3^{8^{\prime}} 5^{\prime \prime}$, leaves $76^{\circ} 45^{\prime} 35^{\prime \prime}$ for the longitude of Anjenga.

Capt. Huddart's longitude of Anjenga, deduced by time-keeper from Bombay, reckoned in $7 \mathbf{2 2}^{\circ} 40^{\prime}$ is - $76^{\circ} 39^{\prime}$
Capt. Dundas's - - $7^{6} 3^{\circ}$

Mr. Dalrymple's D - - $7^{6} \quad 38$
As Capt. Huddart's feries of longitudes commenced at Bombay in lat. $18^{\circ} 5^{\prime}$, and were continued to Anjenga in lat. $8^{\circ} 39^{\prime}$, and then back again to Bombay ; by which the error of his time-keeper was afcertained, and which was only as much as amounted to $2 \frac{1}{4}$ minutes of longitude; we have every reafon to be fatisfied with this feries, as far as refpects general pofitions: and indeed, geography is greatly indebted to the labours of this gentleman, who has prefented us with the longitudes of 16 places on this coaft, and by that means given the true general figure of it, which exhibits, to thofe who have been in the habit of contemplating it, a very different form, from what it ever did before.

I am of opinion that more dependance may be placed on Capt. Huddart's longitude of Anjenga, deduced from Bombay, in the manner abovementioned, than on any other account : but at the fame
fame time I have adopted Mr. Howe's obfervation of longitude at Bombay, as it appears the mof confiftent with other accounts. I do not mean by this, to determine on the merits of the different obfervations (of which indeed, I am incapable) but rather becaufe it accords with the obfervation taken at Goa, and with the routes acrofs from Negapatam to Tanore; and, as far as may be judged, with the deduction from Negapatam to Cape Comorin. It is true, that if Montrefor's pofition of Madura is admitted, it will place Cape Comorin 12' farther eaftward; and if the variation be not allowed, there will be $4^{\prime} 30^{\prime \prime}$ more to be added; in all $16^{\prime} 30^{\prime \prime}$, or the full difference between Capt. Howe's, and Capt. Huddart's obfervations; the one being $72^{\circ} 38^{\prime}$, the other $72^{\circ} 54^{\prime}$.

It now remains, after this inveftigation, to be fhewn, in what manner I have compounded the above differences ; that no diftortion of the intermediate parts fhould take place. Anjenga, I have placed in $76^{\circ} 40^{\prime}$, being the medium of all the different accounts, by oblervation; and by deduction from Negapatam. Mr. Dalrymple's difference of lon. $52^{\prime} 30^{\prime \prime}$ to Cape Comorin, is then adopted; which places the Cape in $77^{\circ} 32^{\prime} 30^{\prime \prime}$. Madura, is placed in $9^{\circ} 5^{\prime}$, the latitude, given by Call; and its longitude is determined by Col. Kelly's diftance from Tritchinopoly, with the addition of 3 miles to it; that is, in lon. $78^{\circ} 11^{\prime}$; and Palamcotta in lat. $8^{\circ} 42^{\prime}$, and lon. $77^{\circ} 49^{\prime} 15^{\prime \prime}$; according to the proportions furnifhed by Call and Pringle, between Madura and Poolytopu.

The form of the coart between Madras and Cape Comorin, is from various authorities. The furvey of the Company's lands (or Jaghire) extends beyond Alemparvé. From thence to Negapatan, is from a French MS. map, collated with D'Anville's map of pofitions (above fpoken of) and feveral particulars between Pondicherry and Portonovo, from Mr. Pringle's map of the marches. The thouth of the Coleroone is from an Engliih MS. map. From Negapatam to Tondi, is chiefly from Major Stevens's, and my own obfervations : from Tondi to Good-water Ifland, Major Stevens's

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alone :
alone : from thence to Tutacorin, Capt. Delafield's curfory furvey : and the remainder to Cape Comorin, is from Col. Call's map of Tinevelly; corrected occafionally by a printed chart, publifhed by Mr. Dalrymple. It is not pretended that any of thefe points beyond Cuddalore, are afcertained with precifion : but it is highly probable that Point Calymere cannot be out in its longitude, 4 minutes. Tondi has the bearing and difference of latitude from Point Calymere to correct its pofition; and there was alfo a line drawn from it to Tanjore. Ramanad is fixed by the interfection of two lines, from Madura and Tondi; and therefore mult partake of the errors incident to Tondi, and Point Calymere. The Point of Ramiferam is alfo dependant on Tondi. When I conftructed the map of India, in 1782 , I concluded that the refpective diftances between Tondi, Tritchinopoly, and Devicotta, had been meafured, and that I worked on fure ground: but I have fince been convinced of the contrary.

From Cape Comorin to Anjenga the particulars of the coaft, appear to be either little known to us, or very ill defcribed; as the reports of it are various and contradictory. Between Cape Comorin and Ruttera Point, I took the particulars from a French MS. chart, the fcale of which appears to be faulty; for it gives only 35 G. miles of diftance between Cape Comorin and Point Ruttera; and the difference of latitude only $13^{\prime} 4^{\prime \prime}$, by which the latter would be in $8^{\circ} 14^{\prime}$; whereas, it cannot well be under $8^{\circ} 20^{\prime}$, according to Mr. Howe's obfervation : and Mr. Dalrymple obferves that Ruttera Point is nearly 29 G. miles from that of Cadiapatam, which is about 19 from Cape Comorin. On thefe ideas, I have extended the diftance to $46 \frac{1}{2}$ miles; and ftill Ruttera is only $28^{\prime}$ from Cadiapatam. M. D'Apres' account of the bearings and diftances between Cape Comorin and Anjenga, gives $42^{\prime}$ difference of longitude ; but then his chart contradicts that account, and gives $44 \frac{1}{2}$; befides an abfolute difcordance in particulars. Mr. Pringle meafured only $49^{\frac{1}{2}} \mathrm{~B}$. miles of road diftance, between Poolytopu and Anjenga,

Anjenga, which cannot be more than $3^{8} \mathrm{G}$. miles of horizontal diftance; and falls fhort of my expectations, more than 9 miles. All that I could do, was to give the coaft fuch a form, as my mind had conceived of it, by perufing thefe different accounts: at the fame time, I confefs, none of them appear conclufive: and until we know the exact pofition of Poolytopu, in refpect of Cape Comorin, we cannot allow Mr. Pringle's meafurement, to difcredit in the leaft, Mr. Dalrymple's difference of longitude. We may here obferve, by the way, that coafts of fuch rotundity of figure, as the termination of this great peninfula, are feldom fo well determined, as thofe that embay, and where the fame point remains long in view, and is of eafy difcrimination. Here the projecting points fucceed each other too rapidly to allow a fufficient degree of precifion in calculating either the bearing, or the diftance. The latitude of Cape Comorin I have taken at 8 degrees.

Coylan or Quilon, a Dutch factory about 14 G. miles to the N N W or N W of Anjenga, is the next place, whofe longitude is noted by Capt. Huddart; but as it cannot be expected that places differing only a few minutes of longitude from each other, can be determined with precifion by this means; I thall pafs on to Porca, another Dutch factory, in lat. $9^{\circ} 15^{\prime}$, and longitude by Càpt. Huddart $76^{\circ} 10^{\prime}$. I can by no means reconcile this longitude with the Dutch MS. maps of this coaft; for as the difference of longitude between Cochin and Porca by Capt. Huddart is only $8^{\prime}$, the bearing ought to be $\mathrm{S} 10^{\circ} \mathrm{E}$; whereas in the map, it is $\mathrm{S} 2{ }_{5} \mathrm{E}$. In order not to do too much violence to either report, I have allowed ${ }^{16} 6^{\prime}$ difference of longitude, inftead of the $8^{\prime}$ of Capt. Huddart's, and the $10^{\prime}$ of Capt. Dundas. The Dutch MS. in queftion contains the whole coaft from Coylan in lat. $8^{\circ} 5 \mathrm{~s}^{\prime}$, to Cranganore in lat. $10^{\circ} 23^{\prime}$; together with that vaft affemblage of lakes, that extend in fome places 30 miles inland; and are the repofitories of the waters that fpring from the weft fide of the Gauts; the whole country hereabouts being very flat, marihy, and unwholfome. This

MS. map, which is alfo in Mr. Dalrymple's collection, contains'2 moft valuable addition to the geography of this part of the peninfula.

Cochin, the principal fettlement of the Dutch, on this coaft, is the next place in Capt. Huddart's table of longitudes: and is reckoned by him, in $76^{\circ} 2^{\prime}$; lat. $9^{\circ} 5^{\prime \prime}$. Capt. Dundas makes it $75^{\circ} 5^{8^{\prime}}$; and M. D'Apres, in his new Neptune Orientale, $76^{\circ} 3^{\prime \prime}$.

Capt. Huddart has not noted the longitude of any place between Cochin and Tellicherry, in lat. $11^{\circ} 4^{\prime}$ : and there being only a fingle obfervation at the latter, $I$ am inclined to pafs over the confideration of it; and proceed to the next point of obfervation, Mount Dilla (or Delly) where 3 obfervations were taken. Mount Dilla is a remarkable promontory fituated in lat. $12^{\circ} 1^{\prime}$; lon. $75^{\circ} 2^{\prime}$; or $\mathbf{I}^{\circ}$ wert of Cochin.

We have two accounts of the bearings of the coalt between thefe places; the one from M. D'Apres, the other has its particulars from different authorities. Neither of the two, differ effentially; and it is necefliary to examine them carefully, as the refult is to be ured in comparing the longitudes of Paniany and Tanore, deduced from Capt. Huddart's obrervations; with thone deduced from the marches of the Colonels Fullarton and Humberfone, acrofs the peninfula.
M. D’Apres account is as follows:

| Cochin to Cranganore | N by W | $25_{i}^{\prime} \text { G. miles }$ |
| :---: | :---: | :---: |
| - Paniany | $\mathrm{N} 7^{\circ}+5^{\prime} \mathrm{W}$ | 21 |
| Calicut | N NW | 42 |
| Mahé | N W by N | 30 |
| Mount Ditla | N W | 30 |

The whole, added together, gives a bearing of $\mathrm{N} 25^{\circ} 30^{\prime} \mathrm{W}$, diftance $144,5 \mathrm{G}$. miles; on which, the difference of latitude is $2^{\circ} 10^{\prime} 30^{\prime \prime}$, and wefting 10,62 . But as the true difference of latitude
tude is only $2^{\circ} 3^{\text {a }}$, there is an excefs of 7,5 in northing, and $3,6 \mathrm{im}$ wefting: and the corrected departure, 58,4 , gives the fame difference of longitude as fet forth in Capt. Huddart's table.

The fecond feries of bearings and diftances, are thefe:
Cochin to Cranganore (by the Dutch

| MS. map) | $\mathrm{N} 12^{\circ} \mathrm{W}$ | 24,9 G. mileṣ: |
| :---: | :---: | :---: |
| Paniany (by D'Apres) | $\mathrm{N} 7^{\circ}{ }^{\prime} 5^{\prime} \mathrm{W}$ | 21 |
| Tanore (by D'Auvergne) | $\mathrm{N} 20^{\circ} \mathrm{W}$ | 14,7 |
| Calicut (by Ditto) , | 1. $\mathrm{N} 19^{\circ} 15^{\prime} \mathrm{W}$ | 24,3 |
| Mahé (by D'Apres) | NW by N | 30 |
| Mt. Dilla (by De Funck) | ) NW by W | 28,4 |

This feries, corrected by the difference of latitude, gives about $2^{\prime}$ of longitude, more than that of D'Apres; a matter hardly worth confidering.

Paniany is much the fame in both accounts; and when corrected in pofition, by the proportion applied as above to D'Apres' feries, will be in lat. $10^{\circ} 41^{\prime} 45^{\prime \prime}$, lon. $75^{\circ} 55^{\prime}$; or $7^{\prime}$ weft of Cochin. And Tanore, by D'Auvergne's account of its pofition, in refpect of Paniany, will be in lat. $10^{\circ} 55^{\prime}$, and lon. $75^{\circ} 49^{\prime}$; or $13^{\prime}$ weft of Cochin.

It may be obferved that De Funck's bearing of Mount Dilla from Mahe is N W by W, while that of D'Apres' is N W, and 1,6 more in diftance. The fact is, that the compars in De Funck's plan is erroneous, the bearing of Mount Dilla being there W $22^{\circ}$ $45^{\prime} \mathrm{N}$. from Mahé; and $\mathrm{W} 23^{\circ} 30^{\prime} \mathrm{N}$. from Tellicherry; although the difference of latitude requires it to be almoft a point more northwardly. The true bearing is fill a defideratum, but I have obtained an approximation towards it, by means of bearings taken by two ohips is Tellicherry road. By the medium of thefe, the bearing

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of MounntDilla from Mahé, appears to be W $33^{\circ} 15^{\prime} \mathrm{N}$. * or heatly N W by W; and the diftance on De Funck's plan (which is underfood to be meafured) is $28,4 \mathrm{G}$. miles. This gives $24^{\prime} 30^{\prime \prime}$. difference of -longitude, or $75^{\circ} 26^{\prime} 30^{\prime \prime}$ for the longitude of Mahé; whofe latitude is $11^{\circ} 45^{\prime \prime} 18^{\prime \prime}$. And Tellicherry being by the fame plan $3^{\prime \prime} 30^{\prime \prime}$ " weft of Mahé, will be in $75^{\circ} 23^{\prime}$ lon. and lat. ${\text { I } 10^{\circ}}^{\circ} 48^{\prime}$. Capt. Huddart's Table gives only $\mathbf{1}^{6}$ difference of longitude between Mount Dilla and Tellicherry, although fated above to be ${ }_{2} \mathrm{l}^{\prime}$; but I have before obferved that thefe fort of obfervations are more to be depended on, in great differences of longitude than in fmall ones: not to mention that in the calculation of there differences, the actual place of obfervation (that is, on board the fhip at anchor in a road, or coatting along hore) is often adjufted to the place whofe longitude is to be recorded, and which may be fyled the nominial place of obfervation; by eftimated diftances.
Dediuing the longitude back again from Mount Dilla to Tanore, a difference of $2^{\prime}$ muft of courfe be expected, as the two feries, of bearings give that difference in the longitude; and Tanore, will of courfe be' $75^{\circ}{ }^{\circ}, 51^{\prime \prime}$, or $2^{\prime}$ more eafterly than the deduction from Cdchin in the laft page.
'And now it will be proper to examine how far the lines of bearing and diftance, drawn by Col. Kelly, and Lieut. D'Auvergne, acrofs the peninfula, in the parallels of Tritchinopoly and Tanore, agree with the refults drawn from Capt. Huddart's obfervations.
Col. Kelly's furvey of Col. Fullarton's march to Palicaudcherry, was, according to the paper accompanying it, in the Eaft India Houfe, meafured the whole way. The refult, according to the

[^52]map, gives $184,25 \mathrm{G}$. miles of wefting from Negapatam, or $3^{\circ} 7^{\prime}$ $48^{\prime \prime}$ difference of longitude ; placing Palicaud in $76^{\circ} 48^{\prime} 47^{\prime \prime}$; and in lat. $10^{\circ} 51^{\prime}$; that is, $5^{\prime}$ north of Negapatam. Of the route of Col. Humberftone from Tanore to Palicaud, I have feen no lefs than 5 different plans; fome of them differing $6^{\prime}$ in longitude (that is, in diftance) where the whole fpace did not exceed 57 miles. One alone among thefe had the author's name to it, and therefore demanded the preference: It was by Lieut. D'Auvergne. I am yet to learn, whether the diftance was meafured or not; but I fhould hope and expect it was, or a great part of it; for one of the copies; and which appears to have been tranfmitted duting the march, diftinguifhes between the meafured and eftimated parts * ; the former feeming to be the part marched over, and the latter, the part the detachment had yet to march. D'Auvergne's plan gives $56 \div$ G. miles of wefting between Tanore and Palicaud, or $5^{8} 15^{\prime \prime}$ difference of longitude; thereby placing Tanore in lon. $75^{\circ} 50^{\prime} 32^{\prime \prime}$, according to the abovementioned longitude of Palicaud, deduced from Negapatam. The copies of this route, inferted in the maps of Col. Kelly and of Baron Wefebe, give only $50 \frac{1}{2}$ G. miles, or $6 \div$ lefs of wefting than $D^{\prime}$ 'Auvergne's. Another map (communicated by Mr. J. Sulivan) and probably in this part, copied from D'Auvergne's, gives 57 miles; and a fifth, tranfmitted by an Officer in Col. Fullarton's army, precifely the fame as D'Auvergne's; that is $56{ }_{\frac{1}{7}}$.

If we adopt D'Auvergne's diftance, the longitude of Tanore, deduced from Negapatam, will be - - $75^{\circ} 50^{\prime} 33^{\prime \prime}$ Deduced from Capt. Huddart's obfervations at $\}$ Mount Dilla 7551
And from the fame at Cochin , - - 7549
Medium of all 755010

[^53]$\left[\begin{array}{lll}26 & ]\end{array}\right]$
Searge any didensfion of the front could be attended with 2 more fatisfactory refult : and I think it affords the ftrongeft prefumptive proofs of the truth of Capt. Howe's obfervations at Bombay.; from which, the longitudes Ahewn by Capt. Huddart's time-keeper, are deduced.

With refpect to my formor ideas of the breadth of the peninfula, adthough the extent in longitude between Bombay and Madras, mer maing nearly as before; yet by the fwelling out of the coats, on thalfouth of Bombay, I reckoned it too narrow by about 30 G . sulte in the parallet of Madras; and 27 in that of Pondicherry. : -I have now conchuded the difcuflion of the longitudes acrofs, and round the foutharn ;part of the peninfula ; and alfo an accoust of their application to the map: for a rigid adherence :to difference of longitude even by obfervations of the above kind, between/ places not funsmoved from each other, would in fome cafes, diftott the relative, pertify of the map beyond probability; and therefore, it was necoflaty, in fome imeafure, to accommodate the differences, when the swifting authorities appeared to carry more weight than the obfetvations, which, as we hawe obferved before, are fubject to error $r_{\text {: }}$ evemia the application : and they are no lofs fo, from a cafual pariation in the rate of! the time-keeper. A•feries of obfervations; fuch as :we have been confidering, muft in a general view, be regarded as decifive; buṭ it would be hazarding too much to adopt each particular longitude, when it was contrary to ewery other authority; 'Much leff can any abfolute dependance be placed on'lines. of bearing and diftance taken from maps, whofe hiftory and conftruction is not before ins. And where more authorities than one may occur, and thofe not agreeing; in fuch cafes, it muft be left for the judgment to determine, which appears the moft probable. Now; although there are ftrong prefumptive proofs of the general truth of the rdlative pofitions of the principal points between Caddalore and. Anjenga, yet they do not reft on the fame folid foundations, as the pofitions in the north part of the peninfula : and there-

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fore,' Cape Comorin is placed mose' with rotation to Anjerigas than te the: diftern coaft. Again; the refpective differetices: of longitude between Anjenga, Porca, and Cochin, do not well accord whith other authorities; and therefore as thefe differences of longitude are very fmall, I thought the Dutch MS. map, might be better authority for them, than the differences thewn by the timeKeeper. : Another particular is to be noted, concerning the lonigitudes on the fouth of the parallels of Cuddalore and tMahe : o(viviz:) that thiefe will 'be found fomewhat different in the' map from the $2-$ bove aceount ; for when the map was conftructed, I was not in pooffeftion of fome papers which throw an additional light on the fubjoct: but thefe differences are very trifling. Some few erfors alfo crept into the confruction; fo that upon the whole, this account contains rather what the map ought to be, than what it is: though, poffibly, the errore I am pointing out may be fo frall;' that' they twould have efcaped the notice of all but profeffed geographers:-
$:$ Tanore and Cochin are both placed 3 ' to the eaftward of the affigned longitude (page 23); and Negapatam $I^{\prime}$ to the weftwavd of what is given in page 14; by which double error the poninfula is made to be $4^{\prime}$ narrower than was intended, in that parallelw -was ignorint at that time, that there was a plan of tutumertone's mareh, which had the author's name to it; and therefore had takten the medium of all the others. We will now refume the qubject of the conftruction.

The latitude of Calient I have taken at $11^{\circ} \cdot 1^{\prime}$.. This' city is remarkable for being the firf Indian port vifited by Europeaf flipu ping: that is, by the Portuguefe, who landed there under:Vafco de Gama in 1498. It was then the moft flourifhing place on the MaAlabar coaft, the Zamorin or Emperor making it the capital of a very extenfive ftate. It appears to have fallen in its confequence foon iafter; the new power of the Portugnere occafioning a revolution throughout the maritime parts of the peninfula.

The form of the coift between 'Calicut and Mahé, is tilken from a fketch of Major Abingdon's. Chitwa is faid to be in lat. $10^{\circ} 3^{8^{\prime}}$, E 2
 parallel: a it cannot well be fo near to Paniany. I have placed it in $10^{\circ} 33^{\prime} 15^{\prime \prime}$.

- Mangalore is the next place to Mount Dilla, in Captr Huddert's twhle, and its longitude given is $74^{\circ} 44^{\prime}$; lat. $12^{\circ}$ gó.. For abopt $5^{\text {t }}$ leagues to the N W of Mount Dilla, the form of ;hercoaft is taken from a French map in Mr. Dalrymple's collection; the:t of the coaft; to Mangalore, and from thence to Coondapour (or Bar $\mathrm{F}_{4}$ felorec) in lat. i $13^{\circ}-36^{\prime}$, is little known as to particulars. A large riyer gamed Cangerecora, whofe courfe is from the north-eaft falla in about 4 miles to the north of Mount Dilk; previous to whicho itcicourfe: is parallel with the fea coaft for about it miles, beiageffon parated only by a fpit of fand. The forts of Nelifuram, Ramdily, and Matteloy are fituated on this river, which is joined hay fersepan other rivers, or ftreams, that defcend from the Gqut, Mgumains; which, in this payty approach within 22 miles of the craft, I cant, not helpranfidesing this Nelifuram, which is fituated about 14 miles up the niver; as the place meant by Nelcynda and Melcynda; by Pliny y Ptolemyis a place vifited by the Egyptian and Roman.

, Whe hape been lately brought acquainted with the particulars of the ceaft, botween Barcelore and Meerzaw (or Merjee) by, means Qfin map dawn by Lieut. Reynolds, during the war which termir nated fo unfortunately for the Britifh arms in 1783 , in the Bednoze country $s$ to which this part of the coaft is oppofite. This map is drawn in a moft mafterly Ayle, and contains near 60 G . miles of the coaft; and extends inland to the foot of the Gauts, which heres appreach in fame places within 6 miles of the fea, and are never more thant 20 from it. It includes the pofitions of Bednore and Bilghey within the Gauts; and alfo, Onore, Batcole, a and Coonnan tah on the coaft. We are furnihed with the means of joining thig portion of geography to the reft, by having the longitude of Pigeon Iland determined by Capt. Haddart ; and by the pofition of it in. rerpest
seffectof Portified Inand, thear Onore. : Pigeon ithandis weryifinath,
 is in lat. $14^{\circ} 1^{\prime}$. Its longitude is $74^{\circ} 6^{\prime} 30^{\prime \prime}$.

From Meerzaw, to Cape Ramas in the neighbourhood of Goa, we are but ill informed concening the particulars of the coaft: Between thefe, are iftuated the port' of Carwai, and the illands of An gedief; both of them better known to the Englifh in the early period of their India trade, and before they were in poffeffion of Bombay. Capt. Huddart fixed the longitude of Oifter Rock in the moith of Cirwar Buy, and alfo that of the Aguada Point and cafte, on whe forth fide of the entrance of Goa Bay, or road. : This he nakes to be in $72^{\circ} 34^{\prime} 30^{\prime \prime}$; and it is worthy of obfervation, that the eity of Gea, which is $11^{\prime}+5^{\prime \prime \prime}$ more to the eaftward; and confoquentily in $77^{\circ} 45^{\prime} 45^{\prime \prime}$ by the fame account, was placed in the frine poftion: within a fraction of a minute, by the obfervation hr? the Con. de Temps; and which, for want of being better informedt; 1 Pormefly diffeganded. The pofitions of Cape Ramas, Angedive; and: Cartwar Points, are corrected in refpeet of Aguada, by a fet of obfervations and bearings of the late Capt. Howe, whofe attention' to marine fcience, was equal to his gallantry, and knowledge of the pracfical part of his profeffion. I have had ocedfon'tepeatedly to aeknowledge the aids I have been furnithed with, by mean's of his colfection of Obfervations and Remarks, in the poffeffion of Mry Balrymplt:

The figure of the inland of Goa; and its environs, to the foot of the Gauts, is taken from a Portuguefe MS. map of Mr. Dalrymp ${ }^{\prime}$ '9: The latitude of Goa, and of the Aguada Caftle, is $15^{\circ} 28^{\prime} 20^{\prime \prime}$.

Goa, the capital of the Portuguefe fettlements in India, and the: feat of a Viceroy, is a very confiderable city. If was fiff 'takerf poffetrion of by Albuquerque in 510 ; and from a Prince of Saracen extractiont,' 'according to Jarric.
 riand SSE. Hog Intand bears from Pigeon Mand E $\frac{i}{2} S$ dilant about 7 miles.

The coaft petpyeen Gox and Bonabay, near 220 C. milest isuliates known to, us in detail, nor indeed was the general bearing. of it known, until Capt. Huddart furnighed us with his feries of longi-i tudes. . By his account it appears, that this coaft, although in'the neighbourhood of our principal marine fation and arfenal ir Indias. was defcribed in the, charts, with an error of very near a whole point of the compars, in bearing. Indeed the whole weftern coant of India has far too great an obliquity from the north towards the weft, in ald the former charts; my own notexcepted. Mr. Dalrymple accounted very rationally for it, by bringing to our recollection the great quantity of wefterly variation of the needle; that prevailed here, during the, time of our firl voyagers; and which is now treduced to lefs than 2 degrees. . It is well knbwn,that it was a dong time before the true porth was diferiminated in chartss and the orif ginal idea of the direction of this coaf, was trapmitted, down to our, days.

Perhaps there are few corafts fo much broken into fmall bays and harbpurs, and that at the fame time have fo Araight a generalloutline, This multitude of fmall ports, uninterrupted view along Ghore ; and eleyated coaf, favourable to diftant vifon, have fitted this coaft for the feat of piracy ; and the alternate land and fea breezes that prevail during a great part of the year, oblige veffels:to navigate sery near the thore. No wonder then, that Pliny ;hould notice them in his time as committing depredations on the Roman Eaft India trade; and although a temporary check has been given them, in the deftruction of Angria's fleets, Sxc. yet we may expeat that they will continue the practice while commerce lafts. They are protected by the fhallownefs of their ports, and the frength of the country within. As pirates, they have greater natural 'advan; tages than thofe of Barbary, who being compelled to roamifatifrym their coafts, have expenfive outfets; here the prizes come their own doors; and the cruifers may lie fecure in port, until the prey is difcovered.

## $\left[\begin{array}{ll}31\end{array}\right]$

The Vingorla Rocks in fat $15^{\circ} 52^{*} 30^{\text {m }}$ Capt. Hurdart took the longitude of, next to Goa, and made if $73^{\circ} 16^{\prime} 30^{14}$. There rocks lie about 6 or 7 miles off hore, of which we know but few particulars, farther than that it is poffeffed by a piratical tribe named Malwaans: The principal ports hereabouts are Melundy or Sunderdoo, a fortified illand about $1 a$ miles to the N 生 by N of Vingorla Racks, and reduced by Commodore James in $17^{6} 5$ : alfo Raíree, Vingorla, and Newtya: which laft I cannot help thinking; is the Nitrias of Pliny, near which the pirates craifed for the Roman chips.

A Dutch MS. chart affifted me in drawing the coaft between Melundry and Artigherrya, ah extent of about 70 G. miles. This chart was procured by Sir Jofeph Banks for Mr . Dalrymple: and the tract comprifed within it, contains the ports of Dewgur, Tamamah, Rajapour, Rampa, Antigherrya, and alfo Gheriah, latè the capital and principal port of Angria. This place was found by Capt. Huddart to be in lon $73^{\circ} 8^{1}$; and its latitude is $16^{\circ} 37^{\circ}$. Berween Antigherrya and Bonbay, are the ports a did illands of Zivagee, Dabul, Severndroog, Fort Victoria (or Bancoote) Sufferdam, Danda-Rajapour, Choule and Coothbba. "At victotia, the longitude meas foundi to be $72^{\circ} 54^{\circ}$ : latitude $17^{\circ} 59^{\circ}$. The latitudesi alone of ceveral of there places, helped me to fettle their pofitione, as the coaft'is nearly meridional; but $\mathbf{i}$ hartly ex pect to be freelfrom miftakes, in fixing fuch a number of places, within fo confined a fpace; and with fo few aids.

Bombay, the principal port and fettlement of the Englifh in this
 vation $7^{7} 0^{\circ} 3^{8} 8^{\prime} \quad 1$ have placed it in a $7^{\circ} .40^{\prime}$, or 2 minutes farther to the eaft, which was occafioned originally by a miftake, and which would have coft too much time to rectify, had I attempted it. Bombay is a fmall ifland, fcarcely more than 7 miles in length, and very narrow, containing a very ftrong and capacious fortrefs, a large city, and a dock-yard, and marine arfenal. It was ceded to the

Englias in 1662, by the Portuguefe, as part of the dower of the Queen of Charles II. On the NE it is reparated by a narrow Atrait, from Salfette, a fine illand of about 15 miles fquare, and an acquifition from the Marattas in 1773. Borrbay, Salfette, and the neighbouring fhores of the Continent, form a large found, in which are feveral other illands, particularly Caranjah and Elephanta, the latter famous for its fubterraneous temple, and both of thom acquifitions from the Marattas.

Salfette alfo has its fubterraneous temples, cut out of the live rock : all of which appear to be the monuments of a fuperftition anterior to that of the Hindoos *.

Baffeen, a city and fortrefs of note, is fituated on the point of the Continent oppofite to the north end of Salfette.: This place fell into the hands of the Englih, after a fmart fiege in 1780, but was reftored to the Marattas, together with all the other conquefts made on that fide of India, at the peace of 1783 , Salfette and the fmall illands excepted. Baffeen is fituated in lat. $1.9^{\circ} 19^{\prime}$, and under the fame meridian as Bombay, as appears by the maps of that ifland and Salfette.
From Bafleen to Surat, the furveyor with General Goddard's army, drew a meafured line (as I an informed) and the refult gave 9,5 G. miles of earting, or $10^{\prime}$ of longitude, for the difference between Baffeen and Surat; by which the latter hould be in lon. $72^{\circ} \cdot 50^{\prime}$. The difference of latitude N from Baffeen, was found to be $52^{\prime}$, which added to $19^{\circ} 19^{\prime}$, gives $21^{\circ} 11^{\prime}$ for that of Surat. It is placed in $21^{\circ} 10^{\prime} 30^{\prime \prime}$.

It is a great misfortune to geography that no one obfervation of longitude Chould have been taken, on the weft of Bombay: by which default, we are precluded from correcting an extent of 7 de grees of longitude, along a coaft that winds in fuch a variety of

[^54]direc-

## [-33]

directions, and whofe geography is compofed of materials of fo mifcellaneous a kind, that it can hardly be expected we thould Ateer clear of error in the confruction of it. The pofition of Surat is indeed checked by the meafured line of General Goddard's march from Burhanpour; where Mr. Smith had an obfervation of the longitude. . And we have allo a meafured line profeffedly taken with bearings on hhore, as far as Amedabad. But compaffes often differ; and the variation is as often neglected.

Mr. Smith's longitude of Burhanpour is $76^{\circ} 22^{\prime}$, (but I have taken it in my map at $76^{\circ} 19^{\prime}$, the reafon of which I hall fhew in its proper place) and it is taken notice of now, only with a view to. fhew, how far Surat, as it is placed here, agrees with the obfervation made on the ceaf of it.

By the furvey of Goddard's march from Burhanpour to Surat the difference of longitude between the two places appears to be $3^{\circ} 30^{\prime} 45^{\prime \prime \prime}$, which taken from $76^{\circ} 22^{\prime}$, leaves $72^{\circ} 51^{\prime} 15^{\prime \prime}$. for the longitude of Surat. I have before obferved, that its longitude deduced from Bombay is $72^{\circ} 50^{\prime}$ : but having taken Burhanpour at$76^{\circ} 19^{\prime}$, Surat will be in $72^{\circ} 48^{\prime} 15^{\prime \prime}$, and that is the longitude I have adopted for it; altering at the fame time Goddard's' difference of longitude from Baffeen, to $8^{\prime} 15^{\prime \prime}$, inftead of $10^{\prime}$. Howe's longitude of Bombay was altered from $72^{\circ} \cdot 3^{18 \prime}$ to $72^{\circ} \cdot 4^{\prime}$, it appears that Surat ftands as it would do by Mr. Howe's original: obdervations, and with Goddard's original difference, of longitude.

The materials under different authorities, for the form of the coaft between Baffeen and Surat, do by no means accord together; nor have I the means of determining which to prefer. From Baffeen to Arnaul, a fortified ifland, commanding the entrance of the • Angafsyah, or Mandavee river, I take from 'General Goddard'e' march, the only authority I can find. From Arnaul, to Nonfary, or Noflary, a few miles thort of Surat river, there is a chart by Lient. Ringrofe; and alfo a chart from St. John's Point, to Surat xiver by Lieut. Skynner: by which means, we have about 50 miles
of the rpace contained in Skynner's chart, included alfo in Ringrofe's; and an opportunity is given of comparing their bearings and diftances, as well as Goddard's, which includes nearly the fame fpace. Here, to our utter aftonifhment, we find two charts, profeffedly taken by authority, differ in degrees in bearing in an extent of 60 miles! for fo much more eaftwardly from the north, does Mr. Skynner make the bearing of Surat from Omergong, than Goddard's map does. As to the comparifon between Ringrofe and Skynner's charts, from St. John's Point to Noffary, Ringrofe makes the bearing $\mathrm{N}_{2}{ }^{\circ} \mathrm{W}$, and Skynner $\mathrm{N} 10^{\circ} \mathrm{E}$. Goddard's route coming clofe to the fea in the neighbourhood of St. John's, fhews, if we may rely on his map, that the truth lay between Ringrofe and Skynner; but that Ringrofe came the neareft to it.

Having taken Goddard's line for the general bearing, I have adapted the other charts to it, in the beft manner I could ; preferving all their particulars, in which they do not differ fo much as in generals. Such excellent furveying marks as Tarrapour and Valentine's Peaks, and Poneira Caftle, \&c. offer, might eafily afford data for a feries of triangles; and of courfe, for a general furvey of this coaft, in fkilful hands: and take away from us the reproach of remaining ignorant of the true courles between two of our principal faetories, Bombay and Surat. St. John's Point does not appear to project far from the general line of the coaft, either by Goddard's or Ringrofe's accounts, though deferibed in that manner in all former charts. The fhallownefs of the water near it, has probably kept navigators at too great a diftance to be informed of the truth. I apprehend that the hill called Segwah, in General Goddard's route, is what is called Valentine's Peak by navigators.

From Surat to Amedabad, through the city of Broach, there is a soute of. General Goddard's profeffed to be meafured, and taken mathematically. We had previounly maps or furveys of the country between Surat, and the river Myfie, extending inland to Brodera, Dubhoi, and Zinnore, on the Nerbudda; but none of them went beyond
beyond the Myhie. The following is the comparifon between the bearings and diftances of the different maps as far as they go. :

From Surat to Brodera, by Goddard $\mathrm{N}_{180} 55^{\prime} \mathrm{E} 69,95$ G.miles.


The differences here, are not great, confidering how much, compaffes and meafures often differ among themfelves. The medium of the 3 accounts differs fo little, in any refpect, from Goddard's, that we need not hefitate to adopt the reft of his line to Amedabad, which is fomething more than 50 miles to the north-weftward of Brodera. The mort remarkable difference in this quarter, is between Mr. Skynner's and others bearings and diftances between Surat and Cambay.

| Mr |  | N $22^{\circ} \mathrm{W}$ | 83, |
| :---: | :---: | :---: | :---: |
| Mr. Taylor's |  | $\mathrm{N} 9^{\circ} 5^{\prime} \mathrm{W}$ | 67,7 |
| r. Himming's |  | N 1030 W | 68,3 |

And it is remarkable that the deviation here, is from the north, sowards the wert; on the former occafion, it was from the fouth ${ }_{*}$ towards the weft. As Taylor's, Himming's, and Goddard's, agree fo nearly between Surat and Brodera, one cannot help giving the preference to their lines; or at leaft to the modium of both, between Surat and Cambay ; which is placed in lat. $22^{\circ} 16^{\prime} 45^{\prime \prime}$, lon. $72^{\circ} 3^{\prime} 45^{\prime \prime}$.

Having altered the bearing of the eaft fide of the gulf of Cambay, it became neceffary, in order to preferve a proper width to the gulf, to give the weft fide a direction mose oblique to the meridian, than appears in the original. At the fame time, as it appeared but reaconable that Groapnaught Point, Ihould preferve the parallel of lati-

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tede affigned it, in the original ; the length of the weftern coatt; muft neceffarily be augmented, which it is, by 3 miles. The width of the gulf, in the original, from Swalley to Groapnaught, is $52 \frac{1}{2}$ G. miles. I have allowed it $48 \frac{1}{\frac{1}{2}}$ only.

It may be obferved however that both D'Anville and D'Apres give even a more oblique direction to this coaft than I have done; at the fame time, that they give nearly the fame direction to the eaftern coaft, that Mr. Skynner does; and by this means, bring the head of the gulf, almoft to a point. D'Anville places Cambay $33^{\prime}$ of longitude, weft of Bombay, and D'Apres $25^{\prime}$. I have allowed only $7^{\prime} 15^{\prime \prime}$. And Groapnaught Point, placed as above defcribed, is in lon. $71^{\circ} 42^{\prime} 30^{\prime \prime} ;$ which is $4^{\prime} 30^{\prime \prime}$ more eaftwardly, than it would have been, had Mr. Skynner been followed throughout. It is unpleafant to reflect that one is left in a fate of uncertainty on a matter of confiderable importance; for fuch, the true bearing of the oppofite coafts of a deep and dangerous gulf, muft be regarded : and here we find a whole point in difpute.

From Groapnaught Point, to Diu Head, I have followed Mr. Skynner's original bearing and diftance; which gives $1^{\circ} 5^{\prime} .15^{\prime \prime}$ difference of longitude weft; placing the weftmoft part of the Point, in lon. $69^{\circ} 52^{\prime} 15^{\prime \prime}$. The latitude is $20^{\circ} 43^{\prime}$.

From Diu Point to Cape Monze, beyond the mouth of the Indus, or Sinde river, the bearing and diftance is taken from a medium of three charts furnifhed by Mr. Dalrymple, and appears to be $\mathrm{N}_{4} 1^{\circ}$ $20^{\prime} \mathrm{W}$; and the diftance, corrected by the latitudes of Point Diu, and Cape Monze, the latter taken at $25^{\circ} 5^{\prime}$, gives $3^{\circ} 5^{\prime}$ difference of longitude; placing Cape :Monze in $65^{\circ} 54^{\prime}$. M. D'Anville places this Cape near a degree more to the eaftward; and makes the longitude between it and Bombay $4^{\circ} 57^{\prime}$, inftead of $6^{\circ} 44^{\prime}$, as given in my map: and this makes a great alteration in the figure of the $\mathbf{c}$ aft between Surat and the mouth of the Sinde, or Indus: the peninfula of Guzerat being much larger than was formerly fuppofed,
the gulf of Sinde (or Cutch) much fmaller; and the Deltefof, the Indus projecting into the fea, inftead of receding from its.

The feveral charts of the weftern coaft of the peninfula of $\mathbf{G u}-$ zerat, and of the coaft of Sinde, differ in a variety of particulars; and would make a minute difculfion of them, too tedious, even for this Memoit; and befides, nothing appears in either of then; to claim a preference. In the general bearing above given, the three charts differed no more, among themfelves, than $2^{\circ} 15^{\prime}$, in bearing; but the charts of the mouth of the Sinde and the gulph of Cutch, differed fo much that. Mr. Dalryonple thought proper to publifh them all feparately, in order that every perfon might be enabled to judge for himfelf. On collating the names of the different mouths of the Sinde, one finds great contradietions; and it is very difficult to identify them in the feveral charts. The flatnefs and want of variety in the appearance of the coaft, added to the fand-banks which keep navigators at a diftance, and prevent their difcriminating any minute objects that may occur, occafion thefe miftakes. The tombs alone appear to be the marks for the coaft. The latitude of Ritchel I have taken at $24^{\circ} 21^{\prime}$; and that of $\mathrm{Ca}-$ ranchy or Crotchey, at $25^{\circ}$.

All the particulars of the weftern coaft of Guzerat, and the mouth of the Siade, are copied from the abovementioned MS. and printed charts of Mr. Dalrymple's : and confequently the whole coaft from St. John's Point to Cape Monze, is defrribed from new materials.

I now return to Balafore.
From Balafore, eaftward to Chittigong, the diftance has been determined by the inland furvey; and the figure of the coarts and inlets by Capt. Ritchie's fea furvey. The difference of longitude between the towns of Balafore and Chittigong (or Illamabad,) is $4^{\circ} 53^{\prime}$ eaft ; and, it is worthy of remark, that the diftance by Capt. Ritchie's marine furvey; agreed with the meafurement on hore, to within two miles and a half.

The

4 The'thafte' 'at late at the year 1752, reprefented the difference of lobngitude between thefe two places, to be only $3^{\circ} .^{\circ} 8^{\prime \prime}$; that is, 1.5 年敫 than the truth. And this diminution of the longitade, while the "difference of latitude continued right, gave the fea coaft between the mouths of the Ganges, a direction of twe points, or $22 \frac{1}{\frac{1}{1}}$ degrees more northwardly than the truth; which doubtefs occafioned the lofs of many fhips, who trufted to the information.
From Illamabad, in longitude $91^{\circ} 55^{\prime}$, latitude $22^{\circ} 20^{\prime}$, the coafts of Atacan and Pegu take a S SE courfe to Cape Negrais, the extreme point of Pegu to the fouth-weft; the latitude of which is under it degrees, and diftance from Illamabad about 420 G. miles. The outline of this whole coaft has been traced by Capt. Ritchie, under the fame direction, and in the fame manner, as the coafts on the weft fide of the bay. He made the difference of longitude $2^{*} 32^{\prime}$ eaft from Illamabad; placing Cape Negrais in $94^{\circ} 27^{\prime *}$. Mr . Dalrymple, who has taken uncommon pains to afcertain the bearing of this coaft, from journals, and a variety of fketches and remarks, makes the difference of longitude $2^{\circ} 34^{\prime}$, or only $2^{\prime}$ different from Mr. Ritchie. The refult of this laborious enquiry, corrected by a nicely difcriminating judgment, corroborates, in the ftrongeft manner, Capt. Ritchie's calculation ; and affords a degree of fatisfaction next to that of an actual obfervation.

I mean to have it underfood that Capt. Ritchie's chart of this coaft, is to be taken only as a general outline, being imperfect as a cooafting chart. Many particulars on this coaft are taken from Mr. Dalrymple's collection, both printed and MS.: particularly, the river of Aracan, the eaft fide of Chedaba, and the paffage between it and the main ; and a variety of particulars on the coaft of Ava. Sorme of the names of places were alfo mifconceived by Capt. Ritchie.

[^55]Capt. Ritchic's latitude of Cape Negrais, or Pageda: Point; it more fouthwardly than it is commonly taken at, by 10 minutes $s$ which I cannot account for, as his obfervations of latitude are generally exact. I have placed this Cape (by which I mean the fouth extremity of the coaft of Ava) in $15^{\circ} 57^{\prime}$, by the medium of 6 dif: ferent accounts, varying from $15^{\circ} 51^{\prime}$, to $16^{\circ} 4^{\prime}$. Capt. Ritchie's was $15^{\circ} 52^{\prime} 30^{\circ \prime}$.

At this point, my materials for afcertaining the intermediate longitudes of places on the eaftern fide of the bay, fail me: and I have been, under the neceeffity, in a great meafure, of fabftituting judg. ment: for fact, between Cape Negrais and the next place of obfervation, Mergui: which place, as it is given by M. D'Apres in, his new Neptume Orientale, is in $98^{\circ} 20^{\prime}$ eaft longitude, or $3^{\circ} 53^{\prime}$ eaft from Cape Negrais. M. D'Anville allows 4 degrees; which comes within 7 minutes of mine; but although we agree pearly in the aggregate, we differ widely in point of particulars.

The MṢ. charts that I have confulted, make the difference of longitude in queftion, $4^{\circ} 30^{\prime}$ on a medium.s which is $37^{\prime}$ more than I make it. And M. D'Apres makes it $4^{\circ} 19^{\prime}$.

The difagreement in particulars between M. Th'Anville's, nocount and mine, arifes in the part between Cape Nograis, and she cozat of Martaban. It happens that this coaft lies in a direction fo far from meridional, and at the fame time the tides and currents of the feveral mouths of the Ava river, do fo difturb and falafy the Chip's reekpnings, that the true diftance can never be afcertained that way, in the ordinary courfe of navigation. Plans of the Porfaim and Syrian rivers, as high up as the cities of thofe mames refpectively, have been already publifhed in Mr. Dalrymple's collection; and, fortunately, I have been able to obtain tracings of the continuations of thofe rivers (which are the two extreme branches of the Ava river) to the place where they feparate from the main river, at sbout 150 G . miles from the fea. The bearings of the two branches interfect each other at an angle of about 60 degrees; and, there-

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fore, by the help of the latitude, may be ufed, in correcting the length of the coaft between Negrais and Syrian. The Perfaim; or Negrais branch, was traced by that accurate obferver, Capt: George Baker, in his way to Ava in 1755. I have not been able to learn by whom the Syrian branch was traced ; but by the orthography of the words in the map, the author appears to have been a Dutchman.

The refult of thefe bearings, corrected by the latitude, as fet forth in the Syrian map, gives difference of longitude from Negrais Point, to the mouth of the Syrian river, $2^{\circ} 21^{\prime}$ eaft; which is about $10^{\prime}$ lefs than M. D'Apres makes it, and $21^{\prime}$ lefs than M. D'Anville.. Some of the MS. charts make the difference fill more.

The mouths of the Ava river, which form an affemblage of low ${ }_{1}$ illands, like thofe of the Ganges, are defcribed from feveral MS, charts of Mr. Dalrymple's, collated with M. D'Apres' new chart.

From the mouth of the Syrian river to the coaft of Martaban, in. latitude $15^{\circ} \mathrm{I}$ have copied from the new chart of M. D'Apres, publifhed a very thort time before his death. The figure of the coaft is quite new.

Between the aforefaid latitude and Tavai Point, our charts are. very imperfect $\boldsymbol{j}$. but generally agree in giving the coaft a direction: of fouth, a very little eaftwardly.

From Tavai Point to Mergui, the coaft is taken from a MS chart compiled by the late Mr. Howe.

Mergui is placed, as $\mathbf{I}$ have faid before, acconding to M. D'Apres': obfervation: that is, in longitude $98^{\circ} 20^{\prime}$; latitude $12^{\circ} 9^{\prime}$.

All the remainder of the coaft, to Junkfeilon; and the whole Mergui Archipelago, is from M. D'Apres.

I NEXT proceed to the chain of illands that extend from Cape Negrais to Sumatra; and are known by the names of the Preparis, Cocos, Andaman, and Nicobar iflands.

Capt. Ritchie, after leaving Negrais, proceeded agreeably to his influctions, to defcribe the fituation and extent of the iflands that compofe this chiain.

None of them are more than 84 G. miles diftant from each other; fo that he needed never to be more than, 42 miles from land: and that but once'duting the voyage; that is to fay, between the Little Andaman and the Nicobar iflands. In other places, the diftance between the larids i's commonly much lefs: fo that the meridional direction of the courfe, and other circumftances, render this line of much ufe in correcting the longitudes, not only of the iflands them-' felves, but of Sumatra alfo; and, had it been continued as was intended, to Acheen, would have anfwered the purpofe completely.

Paffing the Preparis and Cocos iflands, Capt. Ritchie proceeded to Narcondam, to fix its pofition : then back again to Cocos; down the eaft fide of the Great Andaman, (which he found to be almoft a degree of latitude longer than was before fuppofed) then up the weft fide of it , almoft to the latitude of $\mathrm{i} 2^{\text {i }}$ : when finding the attempt to circumnavigate the ifland, might prove fatal to the remainder of his work, he proceeded fouthward; defcribing the extent, figure and pofitions of the Little Andaman and the Nicobars, till he came to the fouth point of the great (or fouthmoft) Nicobar. Here the wind fuddenly changed to the fouth, and prevented him from determining the refpective pofitions of the fouthern Nicobar and Acheen: which is the more mortifying, as one day's fair wind would have enabled him to accomplifh it.

The refult of this line of bearing is, that the fouth end of the Great Nicebar, is in longitude $94^{\circ} 23^{\prime} 30^{\prime \prime}$; that is, only $3^{\prime} 30^{\prime \prime}$ weft from Cape ivegrais.

The pofition of Acheen Head, or King's Point (the N W point of Sumatra) has hitherto been deduced from its bearing and diftance from Malacca, the neareft place of obfervation; and its longitude according to this deduction, is $95^{\circ} 30^{\prime}$ according to M. D'Apres. Now the bearing of Acheen from Malacca, being in a direction of more than 60 degrees from the meridian, and the diftance 450 G. miles; little reliance could be placed on the refult of it, if it did not happen that the refpective pofitions of the fouthern Ni cobar, and of Pouloo Ronde (an illand near Acheen) the one deduced from Negrais Point, and the other from Malacca, agreed nearly with their reputed bearing and diftance from each other. For, of two MS. charts which I have examined, the one makes $1^{\circ} 1^{\prime}$, the other $1^{\circ} 2^{\prime}$ difference of longitude between them $\xi_{3}$ and thefe being laid down apparently without any attempt to fupport a fyftem, may be fuppofed to be agreeable to experiment. The bearings and diftances in thefe MS. charts are

In one $\mathrm{S} 56^{\circ} \mathrm{E}-72 \mathrm{G}$. miles.
And in the other S 56 E- 75
And according to the deduced longitudes abovementioned, the bearing and diftance is $\mathrm{S}_{56} \mathrm{E}-76$

So that there cannot be any great error in the longitude of Acheen, as laid down in M. D'Apres', and in my map, if this fort of coincidence can be reckoned a proof of accuracy : a difference of a few miles, in the diftance of 8 degrees, being much lefs than could be expected in fuch a feries of deductions. M. D'Apres makes the bearing and diftance between the fouth Nicobar and Pouloo Ronde S $57^{\circ} 30^{\prime} \mathrm{E} 97 \mathrm{G}$. miles; or difference of longitude $1^{\circ} 22^{\prime}$, that is, ' $22^{\prime}$ more than the MS. charts. It muft be obferved, that he reckons the fouth end of this Nicobar, 9 miles farther to the north than the truth; occafioned by his making the ifland fo much too little in extent: for the north end is in its true latitude. Had the fouth point of the illand been in its true latitude, the bearing of Pouloo Ronde would have been, more eaftwardly, and the diftance

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only 93 , inftead of 97 : and if, on the contrary, he has enjarged his diftance on'the original bearing, to make it anfwer to the latitude, the original diftance could have been only 85 miles.

I have faid before that Capt. Ritchie went no higher up the weft fide of the Great'Andatrin; than' about the latitude of $12^{\circ}$. The remalnder 'of that "coaft,' as well as the paffage through the iflands at the 'notth' end of it, is from a MS. chart lent me by Mr. Dalrymple ; and which carries with it the greateft appearance of truth, on a comparifon of the fouth and fouth-weft parts of the Great Andxinan min'this chart, with the fame parts in the chart of Capt. Ritthie.
'Batren'Ifiatid, and the rock on the eaft of Duncan's Paffage, are from the remarks of Capt. Juftice in 1771 .
ISLAND OF CEYLON.

IT happens that the ordinary tracks of Britin hips, to and from Ceylon, and the coaft of Coromandel, are pot calculated for determining the relative pofitions of Point Pedro and Point Calymere, the approximating points of Ceylon and the continent of India. Hence it is, that we are fo ill informed, not only of their true fituations with refpect to each other, but alfo with refpect to the parallel of latitude under which Point Pedro is fituated.

By my obfervations, Point Calymere (the fouthern extreme of Coromandel) lies in $10^{\circ} 20^{\prime}$ latitude, and by inference from Madras, in longitude $79^{\circ} 54^{\prime} 30^{\prime \prime}$. M. D'Apres places it 6 minutes more: northwardly; and D'Anville 7 further fouth. The latitude of Point Pedro, is alfo varioully reprefented by the above geographers : $I$ have taken it at $9^{\circ} 52^{\prime}$.

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In M: D'Apres $\$$ find the bearing and diftance from Point Calymere to Point Pedro, to be - S $37^{\circ}$ E $41^{\text {G. miles. }}$
In D'Anville - - $\mathrm{S}_{39} \mathrm{E} 3^{8}$

In a MS. chart, no name, - $\mathrm{S}_{4} 6^{\circ}{ }_{3} 0^{\prime} \mathrm{E} 40$
I had an opportunity in 1764, of determining the pofition of Cow Illand from Tondi, nery nearly : I made it 10 G. miles weft of Point Calymere, and 39 eaft of Tondi. Between Cow IIland and Point Pedro, Van Keulen reckons $41 \frac{1}{3}$, and D'Apres and D'Anville, 42 miles, of eafting. This will place Point Pedro $3^{\frac{1}{2}}$ eaft of Point Calymere; or in longitude $80^{\circ} 27^{\prime}$, and in bearing from Point Calymere $\mathrm{E} 43^{\circ} 20^{\prime} \mathrm{S}$; $42 \frac{1}{2} \mathrm{G}$. miles diftant. I have placed it in this fituation accordingly; as thinking it not liable to any great objection.

The figure of the ifland of Ceylon is varioully reprefented by different geographers. Van Keulen makes it too narrow, in the fwelling part: that is, between Batacola and Columbo; as is pretty evident from the longitudes fhewn by the time-keepers of fome of the commanders of the Eaft India fhips, and others. D'Anville and D'Apres in their maps of the illand, agree much better with thefe obfervations.

Between the meridians of Calitoor and the eaft fide of Ceylon in lat. $7^{\circ} 40^{\prime}$, Van Keulen reckons the difference of longitude

| only | - | - | - | $1^{\circ}$ |
| :--- | :--- | :--- | :--- | :--- | $6^{\prime}{ }^{\prime}$

However, until a regular feries of obfervations by time-keepers are made by the fame perfon, all round the ifland, we muft defpair of feeing the true figure of it, unlefs its coafts were furveyed. The cafual obfervations which we are in poffeffion of, from different hands, will only affift us in fixing certain points of it ; which being done, the general figure of the illand muft be collected in the beft manner it can be done, from the, charts exifting.

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The following are the obfervations.of longitude, taken on the routh fide of Ceylon.


Dundrahead by Mr. Topping's obfervation (worked to Pondicherry in lon. $80^{\circ}$ ) is in lon. $80^{\circ} 39^{\prime}$ : I reckon Point de Galle $\mathbf{2 8}^{\prime}$ weft from Dundrahead, therefore it ihould be by this account in $80^{\circ} 11^{\prime}$.

Mr. Topping obferved the longitude of the Great Bafias alfo ; fe did Capt. Dundas: but as we are not well informed concerning the exact difference of meridians between them, and they being at leaft $1^{\circ} 22^{\prime}$ diftant, nothing in thefe obfervations will apply to Point de Galle.

There is certainly too much difcordance between the three longitudes of Point de Galle given above; the medium of which is $80^{\circ} 8^{\prime} 30^{\prime \prime}$. As Anjenga and Cape Comorin were placed $3^{\prime}$ farther to the eaftward, than Capt. Huddart's obfervation warranted, in order to accommodate the differences between the two calcalations, Point de Galle thould be reckoned in $80^{\circ} 11^{\prime} 30^{\prime \prime}$. Mr. Dalrymple's time-keeper gave the difference of longitude between Anjenga and Point de Galle $3^{\circ} 29^{\prime} 30^{\prime \prime}$, which added to $76^{\circ} 40^{\prime}$ (fee page 19) :gives $80^{\circ} 9^{\prime} 30^{\prime \prime}$.

If we confider the refpective pofitions of Point Pedro and Poirt de Galle by the different geographers, we fhall have the following sefult :

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$$
\text { Medium of the three } \therefore 8^{\prime} 55^{\prime \prime} \text { or } 9^{\prime}
$$

And the longitude of Point Pedro being taken at $80^{\circ} 27^{\prime}$, Point de Galle by this rule will be in $80^{\circ} 18^{\prime}$.

On an occafion like this, where we are not likely to come exactly at the truth, fince no one can pretend to fay, whethar the longitude of Point de Galle be $80^{\circ} 1^{\prime} 30^{\prime \prime}$ or $80^{\circ} 18^{\prime}$; I thgught it better to enfure a certain good, at the hazard of a fmall miftake, than to facrifice that advantage, by adhering to a refult. which in itfelf was problematical. In other wordses I judged it better to proferwe the general form of the inland, and confequently the refpective pofitions. of the north and fouth points, of it, as given by D'Apres; and which appear to me to agree bent with the refult of the obfervations of longitude, taken on different fides of it; thap to change thofe relative pofitions, which muft have been done, had, Capt. Eluddart'o obfervation at Paint de Galle beqn adopted. I haye therefort placed. Point de Galle 10 weft of Point Pedro (accarding to D'Apres); that is, in lon. $80^{\circ} 17^{\prime}$. Had I adhered to the obfervations, in nefpect of Cape Comorin, it would have been $80^{\circ}: z^{\prime}, 30 \%$. 1 The mediym of alf the obyervations and deductions, is about $80^{\circ} 1.4^{\prime} 130^{\prime \prime}$. The oblervatiops differ ampng themfelves $14^{\prime} 30^{\prime \prime}$. The latitude of this Point is 6 degrees; and of Dundrahead, the fouthmoft point: of the whole illand $5^{\circ} 55^{\prime}$.

The obfervations at Dundrahead, were, by Mr. Topping $80^{\circ} 39^{\circ}$. and $\operatorname{by} \mathrm{Capt}$. Huddart $80^{\circ} 23^{\prime}$. The Great Baffas, by Mr. Topping $81^{\circ} 41^{\circ}$; by Capt. Dundas $81^{\circ} 3^{\circ}$.. The variation in thefe longitudes, thew that a feries of them by the Gme perfon, and the fame time-keesper ${ }_{3}$ is by much the moft defireable.

The longitudes on the eaft fide of Ceylon, $6 y$ ' 3 different gentlemen; (viz.) Capt. Cumming, Capt. Weft, and Mr. Topping, do not difagree fo much as thofe on the fouth fide of the inland. They are thefe :


Togethor with M. D'Apres' dimenfions of the ifland, (in the fouthern parts, particularly) I have adopted his detail of the coaft from Columbo to Vendelos Bay. From Vendelos Bay to Point Pedro, the coaft in Van Keulen appears to be too nearly meridional, and his latitudes too much fouthwardly. Again, on the weft fide, from Columbo to Manar, I followed D'Apres' bearing, which is more north-eaftowardly than Van Keulen's. Indeed it could not be otherwife, than that both the eaft and weft coafts muft have a greater degree of obliquity from the meridian, than 'Van Keulen reprefents: becaufe he allows too little breadth to the fouth part of the inland. In thort, the general form of the illand is D'Apres: but the particulars are collated with Van Keulen's and D'Anville's maps.

The diftance from Mentole Point, on Ceyloni, to Point Ramen on the continent I take to be lefs by in G. miles, than Major Stevens' fuppofed it to be, in his charts nor can it be otherwife, to reconcile it to my pofition of Cow Ifland.

The Maldive and Laccadive Inands are copied from M. D'Apres; fave that the pofition of the northmoft Maldive Inand (called by the French the bead of the Ilands) is placed according to Mr. Topping's obfervations of latitude and longitude in 1785 . He made the latitude of it $7^{\circ} 5^{\prime}$, and the lon. $73^{\circ} 4^{\prime}$; and when oppofite to it on the north, he counted 32 illands; the furtheft bearing $S \mathrm{E}$ by E .

SECT.

## [. $4^{8}$ \}

## SECTION H.

The furveyed Tract on the fide of Bengal, or that occupied by the Courfe of the Ganges, and its principal Brancbes, as far weft as the City of Agra.

THIS extenfive tract, which comprizes the foubahs of Bengal, Bahar, Allahabad, and Oude ; a large portion of Agra and Delhi, and a fmall part of Oriffa, is bounded on the eaft, by Affam, and the dominions of Ava; on the fouth-eaft, by the gulf, or bay of Bengal; on the fouth-weft by an imaginary line drawn from the port of Balafore in Oriffa, to the city of Narwah; on the weet by another fuch line drawn from Narwah, through the city of Agra to Hurdwar, the place where the Ganges firf enters the plains of Hindooftan; and on the north, by the firtt ridge of mountains towards Bootan. It is in length from the city of Agra, to the eaftern confines of Bengal, upwards of 900 Britifh miles; and in breadth from 360 to 240 ..

With refpect to the particulars of this furvey, which was executed between the years .1763 and 1777, it is unneceffary to fay more than that the diftances were meafured, and that they accorded with the obfervations of latitude and longitude : with the former minutely, and with the latter fo nearly, that it was unneceffary to make any correction.

Agra, by Claud Boudier's obfervation, is in - $78^{\circ} 29^{\prime}$
Calcutta, by the medium of four obfervations $\begin{array}{lll}88 & 28\end{array}$

|  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Difference of longitude by obfervation | - | 9 | 59 |
| By furvey | - | - | $5^{8}$ |

And Calpyon the river Jumnah, ftands in the furvey in lon. $80^{\circ} \quad 4^{\prime}$
And by the Revd. Mr. Smith's obfervations $\quad 80 \quad 0$

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Agra, then, appears to be' the moft weftern point determined by the furvey; and ferves as a common point of union between the furveys on the eaft, and the routes furnifhed by various MS. maps, and itineraries, on the north, fouth, and weft. By means of the furvey alfo, a number of points are afcertained, which ferve to fet off curfory furveys of roads both to the weft and fouth : fuch as Hurdwar and Ramgaut, on the north of Agra : and Gohud, Calpy, Chatterpour, Rewan, Burwa, and Balafore on the fouth.

As this tract contains the fite of the famous city of Palibothra (or Palimbothra) as well as thofe of Canoge (or Kinnoge) and Gour, it may not be amifs to take fome notice of them: as alfo of fome of leffer note, fuch as Punduah, Tanda, Satgong, (or Satagong) and Sonergong: all of which, (Palibothra excepted) are mentioned either in the Ayin Acbaree. or in Ferifhta.

Pliny is the only one among the ancients (as far as I know) that affigns a particular fpot for the fite of Palibothra; the reft only fpeaking generally of its fituation, and as it appears by a difcuffion of particulars, contradicting one another. All are agreed that it was fituated on the right bank of the Ganges (that is, intra Gangem) and at the confluence of a large river with it. This river was named Erranoboas according to Arrian (who had his intelligence from Megatthenes's journal) and was of the third degree of magnitude among the Indian rivers; and inferior to none but the Ganges and Indus. I cannot apply the name Erranoboas to any particular river. Pliny certainly fays that the Fomanes (Jumnah) entered the Ganges by Palibothra, between Methora and Clijohara.*;-but it is equally true, that in another place, he mentions the conflux of the Ganges and Jomanes, and in the very next article fays that Palibothra is fituated 425 miles below that very point of conflux. Strabo does not give the name of the adjunct river.

Palibothra, was the capital of the Prafii, by the account of: Megafthenes, who refided there; and was of very great dimenfions ${ }_{\text {\% }}$

[^57]beingsto Badia dix length and is bread，If we recton，there mear firres to produce 10 miles in length，and sear two in widthe⿻丷木， which for a Earopean city，compactly built，would be reckened cmormons；yet it does not exceed the dimenfions of fome of the capital cities of the Indian foubahs or vice－royalties．The rains of Gour in Beagal，are more extenfive；that of ancient Delhimuch more fo．The plans of the Indian cities contain a vaft proportion of gardens and refervoirs of water；and the houfes of the common people confift of one floor only：of courfe，fewer people can befac－ commodated in the fame compafs of ground，as in an Eurapean city；and this may account for the enormous dimentions of Afatic cities．
．－As Pliny＇s Indian itinerary（in Book VI．）enumerates the parti－ culars of the whole diflance between the Indus and the mouth of the Ganges ；and particularizes the fite of Palibothra；it could hardly be doubted that fome very large city ftood in the pofition affigned to it：but I had always a doubt of its being the capital of the Prafii $\uparrow$ vifited by Megarthenes．Late enquiries made on the fpot， have，however，brought out this very interefting difcovery，that a very large city，which anciently ftood on or very near the fite of Patna，was named Patelpoot－her（or Pataliputra，according to Sir William Jones）and that the siver Soane，whofe confluence with the Ganges is now at Moneah， 22 miles above Patna，once joined it under the walls of Patelpoot－her．This name agrees fo nearly with Palibothra，and the intelligence altogether furnißhes fuch pofitiva tind of proof；that my former conjectures refpecting Canoge，muft all fall to the ground；notwithftanding that Canoge was unqueftion－ ${ }_{i}$ ably the capital of a large kingdom from very early times．
$\because$ I confider the above information as too clear and pofitive to ro－ quire any proofs from ancient authors；and therefore the following

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## [ 51$]$

 great accuracy in:gegraphical fubjects, than as m proof of the above pofition;: athough it may ferve that purpofel alfo : Toicife the words of iz celobrated author, "Pliny's:natural hiftomy is cons sa the greateft monuments of univerfal knowletges andiunvfraried
 meraryj applicabletito my purpofe, is as follows:
$\cdots$ Fiforn Taxala or Tapila, on the Indus (probably near the fitesof uftrockly ${ }^{4}$ to the river Hydafpes (the modern Chelum) 120 Roman milits! 10 a ninarn.

To the Hyphafis (Beyab) - - 390 Roman miles.
"T's the Hefudrus, probably the Setlege river 168
Tothe fomanes (fumna) _ _ - 168 1 :
Tro the Ganges - - - 112 ,
To Rhodopa - - - II9
© To Calinapaxa (a city) - - 167

- Ta the conflux $\ddagger$ of the Jomanes (Jumna) $\therefore$ and Ganges - - - 225
Tó Palibothra - - - 425 ,
$\cdots$ To the mouth of the Ganges - - $63^{8} \cdots \quad$ x:me
It murt firft be obferved, of this itinerary, that it furnifies no means of comparing the robole diftance between the Indus and the mouth of the Ganges, as thewn here, with that on the map; becaufe the fecond article, namely, the diftance from the Hydafpes to the Hyphafis, is obvioufly wrong, even if the text (which is very. obfcure) is to be taken at 390 : for it cannot be more than 220 of Pliny's miles, unlefs the furveyor of Alexander's marches threw.

[^59]H 2
into

## [ 3* ]

ined: Theractount, the circuitous route to the city of Sangala, soci after the Catheri or Cathei. So that the account, as far as it res gards the wobole diftance, is vitiated; and we muft therefore have recourfe to parts. Taking therefore for granted, that the Beyah tiver is meant by the Hyphafis (or rather Hypafis) as I hope to prove fatisfactorily in my obfervations on Alexander's march; and meafuring on the map, along the line of the great road from the Panjab country to the mouth of the Ganges, the diftance will be about ri40 G. miles: and as the itinerary in queftion gives the length of the fame interval at 2022 Roman miles, the proportion of one of Pliny's miles to a geographic mile, will be as 56 to $\mathbf{x 0 0}$; in horizontal diftance ; or about $\tau_{50}$ of a Britifh mile in road diftance. This is certainly too fhort for the Roman mile of 1000 paces*; but the queftion in the prefent cafe, is not the actual diftance, but the proportions of the intermediate parts of the road. The conflux of the Ganges and Jumna, on the map, is 990 of Pliny's miles from the Beyah, and 1032 above the mouth of the Ganges: and the itinerary makes the length of the firft interval 959, the other 1063 ; that is, Pliny's account places the conflux too far down by $3^{1}$ of his miles, or about ${ }_{17}$ G. miles. Nor is this difference at all to be regarded in the general queftion : for our ideas of the diftance were much wider of the truth, 20 years ago.

Palibothra, he places 425 miles, or fo many parts in 1063, of the diftance from the conflux of the Jumna to the mouth of the Ganges : and this is the point we are to attend to. Patna indeed, is only 345 of Pliny's miles below the prefent conflux; and this difference of 80 of Pliny's, or about 44 G . miles, however confiderable it may appear to thofe who expect nice coincidences in fuch matters as thefe; does not, in my idea, leffen the general authority of the itinerary : becaufe if we admit only what is literally proved;

[^60]Patibethra muft ftill have been Gituated, within 44 , mides of Patna; And;as the people there have a tradition that Patna flands on, or sear, the fite of Patelpoot-her, it rather proves to me either that there is an error crept into the copies of the itinerary; which notwithfanding, proves in generals as much as is required; or that the point of conflux of the Jumna with the Ganges; has undergone a change. For although the point of conflux is not found in the very pofition in which it ought to be by the itinerary, yet Patna is nearer to the pofition affigned to Palibothra. It may appear to fome, a violent way of reconciling difagreements, but it is no new thing for the rivers of India to change their courfe and place of confluence. I have in another place * taken occafion to obforve that the Cofa river changed its place of confluence with the Ganges, which is now 45 miles higher up, than it was. The Burrampooter has varied its courfe fill more. And to come nearer to, the Gite of: Patna, the change in the conflux of the Soane, jurt, now remarked. It would be unneceffary to enter fo far into a difcuflion of there differences, had not Pliny affured us that the dißtances were meafured; and that by order of Seleucus Nicator.

We may obferve that Arrian does not mention the name Jomanes in his book, although he does that of Sonus. And if we had no other authority than that paffage in Pliny, which expreffly fays, that the Jomanes, a river which paffes by Methora (probably Matura) rums into the Ganges by Palibothra, we muft have fuppofed: that this city was feated at the conflux of the two rivers. But the itinerary fays that Palibothra was 425 miles below thiss conflux. Pliny muft therefore have meant another river, different from the Jomanes.

Strabo gives the diftance of Palibothra above the mouth of the Ganges at 6000 ftadia; and though we cannot fix the exact length, of the ftade, we can collect enough to underftand that 6000 ftades

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 (in ritacity) in which Palibothra, the chief city of the Indiahs upon the Guthes, is tait to hie towards the moutts df that river. But we ought not to omit, on the other hand, that Arrian quotes from Eratothenes, the diftance of Palibothra from the weftern extreme of India, which is faid to be 10,000 ftades, only: and that Projemy gives its latitude at $27^{\circ}$; both which particulars apply better to Canoge than to Patna. It is poffible that both places may havie been occafionally ufed as capitals of the Prafii, as we have kition both Agra and Delhi to have been of Hindoótan in geneffar, dưrih'g the two laft centuries.

Pliny's Palibothra, however, is clearly Patma: and it is probable that Strabo meant the fame place, by the diftarice from the mouth of the Ganges.

Canoge t, the ruins of which are at prefent of great extent, was, in an early part of the chritian æra, the capital of Hindooftan ; or rather, of the principal kingdom along the Ganges. It is now reduced to the fize of a middling town. It is fituated on the right bank of the Ganges, near the place where the Calini river (or Callynuddi) joins it ; and is poffibly the place meant by Pliny for Calinipaxa. It is faid to have been built more than a 1000 years before our æra: and is mentioned in Ferihta $\ddagger$ as the capital of all Hindooftan, under the predecefior of Phoor, or Porus, who fought againft Alexander. In point of extent and magnificence, Canoge anfwers perfectly to the defcription given of Palibothra; and in fome refpects to the local pofition of it given by Ptolemy and Eratofthenes, did not the above authorities affign it in a pofitive manner to Patna: The Indian hiftories are full of the accounts of its grandeur and populoufnefs. In the fixth century it was fid

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po contain 30,000 fhops, in which betelnut, was foll (which that Indians, almof univerfally, chew, as fome Eumpeana do tobacco). In A. D. 1018, it was feized on, by the Gaznian Emperors: at which time, it gave its name to the kingdom, of which it was the capital.

Gour, called alfo Lucknouti, the ancient capital of Bengal, and fuppofed to be the Gangia regia of Ptolemy, frood on the left bank of the Ganges, about 25 miles below Rajemal *. It was the cat pital of Bengal $73^{\circ}$ years before Chrift $\dagger$, and was repaired and beagutifed hy Acbar $\ddagger$, who gave it the name of Jennuteabad; Which name, a part of the circar in which it was fituated, fill bears? According to Ferifhta's account, the unwholefomenefs of its. ait, occafioned it to be defertod foon after $\S$; and the feat of government Was remowed to Tanda, or Tanrah, a few miles higher up the river.

No part of the fite of ancient Gour is nearer to the prefent bank of the Ganges than four miles and a half; and fome parts of it, which wore originally warhed by that river, are now 12 miles from it. Howeyer, a fmall ftream that communicates with the Ganges; now runs by its, wert fide, and is navigable during the rainy feafon, On the eaft fide, and in fome places within two miles, it has the Mahanada river ; which is always navigable, and communicates alfo with the Ganges.

Taking the extent of the ruins of Gour at the moft reafonable calculation, it is not lefs than 15 miles in length (extending along the old bank of the Ganges) and from 2 to 3 in breadth. Several villages fland on part of its fite: the remainder is either covered with thick forefts, the habitations of tygers and other beafts of prey; or become arable land, whofe foil is chiefly compofed of brick-duft. The principal ruins are a mofque linod with black marble, elabo, rately wrought ; and troo gates of the citadel, which are ftrikingly,

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grand and lofty. Thefe fabricks and fome few others, appear to owe their duration to the nature of their materials, which are lef marketable, and more difficult to feparate, than thafe of the ordinary brick buildings; which have been, and continue to: be, an article of merchandize; and are tranfported to Moorfhedabad, Mauldah, and other places, for the purpofe of building. There bricks are of the moft folid texture of any I ever faw; and have preferved the fharpnefs of their edges, and. fmoothnefs of their furfaces, through a feries of ages. The fituation of Gour was bighly convenient for the capital of Bengal and Bahar, as united under one government : being nearly centrical with refpect. to the populous parts of thofe provinces; and near the junction of the principal rivers that compofe that extraordinary inland navigation, for which thofe provinces are famed: and moreover, fecured by the Ganges and other rivers, on the only quarter from which Bengal. has any caufe for apprehenfion.

Tandah, or Tanrah, (called fometimes' Chawafpour Tanda, from the original name of the diftrict in which it was fituated) was for 2 fhort time in the reign of Shere Shaw, in about 1540 , the capital of Bengal, and became the eftablifhed capital under Acbar in about 1580. It is fituated very near to the fite of Gour, on the road leading from it to Rajemal. There is little remaining of this place; fave the rampart ; nor do we know for certain when it was deferted. In 1659 , it was the capital. 'of Bengal, when that foubah was reduced under Aurungzebe : and Rajemal, Dacca, and Moorhedabad, appear to have fucceffively:become the capital, after Tanda.

Pundua, or Purruah, mentioned as a royal refidence in Bengal, in the year $1353^{*}$, is about 7 miles to the north of Mauldah, and 10 from the neareft part of Gour. Many of its ruins yet remain; particularly the Addeenah mofque, and the pavement of a very, long ftreet, which lies in the line of the road leading from Mauldah to Dinagepour.

Satgong, or Satagong, now an inconfiderable village on a fmall creek of the Hoogly river, about 4 miles to the north-weft of Hoogly, was, in 1566 , and probably later, a large trading city, in which the European traders bad their factories in Bengal. At that time Satgong river was capable of bearing fimall veffels; and, I fufpect, that: its then courfe, after pafing Satgong; was by way of Adaumpour, Omptah, and Tamlook; and that the river called the old Ganges, was a part of its courfe, and received that name; while the circumftance of the chango was freh in the memory of the people. The appearance of the country between Satgong and Tamlook, countenances fuch an opinion.

Sonergong, or Sunnergaum, was a large city, and the provincial capital of the eaftern divifion of Bengal, before Dacca was built; but it is now dwindled to a village. It is fituated on one of the Eranches of the Burrampooter, about 13 miles fouth-eaft from Dacca; and was famous for a manufacture of fine cotton cloths.

In fome ancient maps, and books of travels, we meet with a oity named Bengalla; but no traces of fuch a place now exift. It is defcribed as being near the eattern mouth of the Ganges: and I conceive that the fite of it has boen carried away by the river: as in my remombrance a vaft tract of land has difappeared thereabouts. Bengallah, appears to have been in exiftence during the early part of the laft century.

It does not fall within the compafs of my defign to defrribe all the principal cities of Hindooftan, which alone would require a large volume; but it may not be amifs to point out their general pofitions, and the relation in which they ftand to the feveral provinces or ftates, in which they are fituated. Moft of the capital cities are already defcribed as they were in the laft century, in the books of travels of Thevenot, Bernier, Tavernier, P. de la Valle, \&cc. which are in every body's hands. Moft of thefe cities, have, I believe, very confiderably declined fince that time; owing to the almoft continual wars and revolutions, that have taken place, fince

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the death of Aurengzebe; and which were fufficient to defolate any country that did not produce almoft fpontaneoully ; and of courfe; where the deficiency of population is quickly replaced.

Within the tract difcuffed in the prefent fection, the principal cities are, Calcutta, Moorfhedabad, Patna, Dacca, Coffimbazar, Mauldah, and Hoogly, within the Bengal provinces: Benares, within the diftrict of the fame name, under the Britifl fovereignty : and Lucknow, Fyzabad, Oude, Jionpour, Allahabad, Bereilly, and Corah, fubject to the Nabob of Oude, our Ally: and Agra; late in the poffeffion of Nudjuff Cazw. Generally fpeaking, the defcription of one Indian city, is a defcription of all; they being all built on one plan, with exceeding narrow, confined, and crooked ftreets; with an incredible number of refervoirs and ponds, and a great many gardens, interfperfed. A few of the ftreets are paved with brick. The houfes are varioully built : fome of brick, others with mud, and a ftill greater proportion with bamboos and mats: and there different kinds of fabricks ftanding intermixed with each other, form a motley appearance : thofe of the latter kinds are invatiably of one ftory, and covered with thatch. Thofe of brick, feldom exceed two floors, and have flat, terraced roofs. The two former claffes far outnumber the laft, which are often fo thinly fcattered, that fires, which often happen, do not, fometimes, meet with the obftruction of a brick houfe through 2 whole ftreet.

Calcutta, is in part, an exception to this rule of building; for there, the quarter inhabited by the Englifh, is compofed entirely: of brick buildings, many of which haye more the appearance of palaces than of private houfes: but the remainder of the city, and by much the greateft part, is built as I have defcribed the qities in general to be. Within thefe 20 or 25 years, Calcutta has been wonderfully improved both in appearance, and in the falubrity of. its air: for the ftreets have been properly drained, and the ponds. filled $u_{p}$; thereby removing a vaft furface of ftagnant water, the exhalations from which were particularly hurtful. Calcutta is well
known to be the emporlum of Bengal, and the feat of the Governor General of India. It is a very extenfive and populous city, being fuppofed at prefent to contain at leaft 500,000 inhabitants. Its docal Atuation is not fortunate; for it has fome extenfive muddy Jakes, and a vaft foreft, clofe to it. It is remarkable, that the Englinh have been more inatentive than other European nations, to the natural advantages of fituation, in their foreign fettlements. Calcutta is fituated on the weftern arm of the Ganges, at about too miles from the fea; and the river is navigable up to the town, for the largen hips that vifit India. It is a modern city, having rifen on the fite of the village of Govindpour, about 90 years ago. It has a citadel, fuperior in every point, as it regards ftrength, and correctnefs of defign, to any fortrefs in India : but on too extenfive a fcale to anfwer the ufful purpofe intended, that of holding a poft in cufe of extremity s fince the number of troops required for a proper garrifon for it, could keep the field. It was begun immediately after the victory at Plaffey, which infured to the Britinh, an unlimited influence in Bengal: and the intention of Clive was to render it as permanent as pofifible, by fecuring a tenable poft at all times. Clive, however, had no forefight of the vaft expence attending it, which perhaps may have been equal to two millions fterling.

Hoogly is a fmall, but ancient city on the fame river as Calcutta, though on the oppofite fide; and about 26 miles above it. In the time of the Mohamedan government, it was the Bunder or Port of the weftern arm of the Ganges; where the cuftoms or duties on merchandif, were collected. The French, Dutch, Danes, and Portuguefe, have each of them a town and factory on this part of the river, and between Hoogly and Calcutta; and all within the extent of 10 miles, along the river. The French fettlement of Chandernagore, and the Dutch one of Chinfura, are both very neat and pretty large towns; and each of them on a better fite than Calcutta.

## $\left[\begin{array}{ll}\infty \\ \infty\end{array}\right]$

Moorfhedabad, fituated alfo on the weftern arm of the Ganges which is there very low in the dry feafori, is about 120 miles above Calcutta. It was the capital of the Bengal provinces until the eftablifhment of the Britifh power : and even long after; it was the feat of the Collector general of the revenues; being a more centrical fituation than Calcutta. It is very large, but ill built $\mathrm{s}_{\mathrm{i}}$ 'and in its plan fo very irregular, that it is difficult to eftimate the quantity of ground it ftands on. It is a modern city, and does not contain any magnificent buildings, either public or private: nor was it ever fortified except by an occafional rampart thrown up roind it, on the Mahratta invafion in $174^{*}$. This city is now decaying, efpecially fince the removal of the Board of Revenue to Calcutta, in 1771 .

Coffimbazar is a fmall city, nearly adjacent to Moorfhedabad, and was at all times the place of refidence of the different European factors; this being the centre of their trade:

Mauldah is a pretty neat city, not far removed from the north bank of the Ganges, and on a river that communicates with it. It arofe out of the ruins of Gour, which are in its neighbourhood. In' point of general fituation, it is about 70 miles to the north of Moorfhedabad. This, as well as Coflimbazar, is a place of trade, and in particular produces much filk

Rajemal lies on the weft bank of the Ganges nearly in the parallel of Mauldab, and about 20 miles from it; at the foot of the chain of hills which projects into the river, at Siclygully and Terriagally. It is in a ruinous ftate, although the refidence of the Viceroy not 130 years ago; and has hardly the population of an ordinary market town, at prefent. Its fituation is romantic, but not pleafant : for in Hindooftan, the hills and eminences being always covered with wood, that beautiful fwelling of the ground, which is fo juftly admired in European landfcapes, is loft; and the fancy is

[^64]prefented at beft with nothing beyond a wild fcene: which can only be relifhed by being contrafted with foft and beautiful ones. M. D'Anville confidered Rajemal as being feated at the head of the Delta of the Ganges : but it is more than 30 miles above it.

Dacca is fituated in the eaftern quarter of Bengal, and beyond the principal ftream of the Ganges, alchough a very capital branch of it runs under it. Few fituations are better calculated for an inland emporium of trade, than this; as the Dacca river communtcates with all the other inland navigations; and that not by a circuitous, büt by a direct communication: as may be feen by the, plan of its environs; in the Bengal Atlas. It fucceeded Sonergong, as the provincial capital of this quarter; and is the third city of Bengal, in point of extent and population. It has a vaft trade in mullins ; and manufactures the moft delicate ones, among thofe that are fo much fought after in Europe: and the cotton is produced within the province. Dacca has in its turn been the capital of Bengal: and that within the prefent century. There are the remains of a very ftrong fortrefs in it; and within thefe few years there was near it, a cannon of extraordinary weight and dimenfions *: but it has fince fallen into the river, together with the bank on which it refted.

Dacca is fituated about 100 miles above the mouth of the Ganges, and 180 by the road from Calcutta. The country round it lying low, and being always covered with verdure during the dry months,

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The gum contained 234,413 cubic inches of wrought iron: : and confequéatly weighed 64,814 pounds avoirdupoize: or about the weight of eleven 32 pounders. Weight of an iron fhot for the gun 465 pounds.
it is not fubject to fuoh violent hams an Moorfhedahad, Patna, and other places.

Patna is the chief city of Bahar, and is a very extenfive and po. pulous city, built afong the fouthern bank of the Ganges, about 400 miles from Calcutta, and 500 from the mouth of the river. Having been often the feat of war, it is fortified in the Indian manner with a wall and a fmall citadel. It is a place of very conflerable trade. Moft of the faltpetre imported by the Eaft India Company, is manufactured within the province of Bahar. It is a very ancient city; and probably its modern name may be detived from Pataliputra, or Patelpoot-her; which we have fuppofed above to be the ancient Palibothra.

Benares is the chief city of the diftrict commonly known by that name (and which confifts of the circars of Benares, Jionpour; Chunar, and Gazypour) but is more celebraked as the aneient feat of Braminical learning, than on any other account; although it be a fine city, and very rich and populous, and the mort compactly built of any. It is built along the north bank of the Ganges, and is diftant from Calcutta, by the road, about 460 miles. Its ancient name was Kafi ; but there axe no notices concerning it, in the works of the ancient geagraphers. I think, if it had exiftied during the time of the Syrian Ambafladors, Pliny would have noticed it; as he has done Methora (Matura) and Clifobara, which lay near the Jumna river.

Allahabad is feated at the point of confluence of the two great rivers Ganges and Jumna, and fucceeded to Piryaug. Actbar fourtded the prefent city, which he intended as a place of arms, as its fituation is very important both as it refpects the navigation of the two rivers, and the country of the Doab, behind it. Allahabad is about 820 miles above the mouth of the Ganges, and $5: 0$ by Jand from Calcutta. It belongs to the Nabob of Oude, but its fortifications will hardly refift the battering of a field piece.

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Lucknow is the prefent capital of Oude, having fuperfeded the late capital Fyzabad, on the occafion of the Rohilla and other conquefts; which left it rather in a corner of the kingdom, as it is now conttituted, and in that corner the fartheft removed from the fcear of bufinefs. It is a very ancient city, and moderately extenfine: but after the fhort account given above of the nature of the ondinary buildings, a city may very fuddenly be augmented on its becoming 2 royal refidence : and Fyzabad of courfe may have declined. A fmall river, named the Goomty, runs under Lucknow, and communicates with the Ganges; but this laft river is at leart 43 miles to the S W of Lucknow. With refpect to Calcutta, it is diftant by the nearef road, 650 miles; and about 280 from Delbi. All is one vaft plain from Lucknow to the mouth of the Ganges.

Fyzabad lies on the river Gogra, a very large river from Thibet, and is fituated about 80 miles to the eaftward of Lucknow, and 560 from Calcutta. It is a very large city, and nearly adjoining to it, is the very ancient city of Oude or Ajudiah. Fyzabad was the capital of the Nabob of Oude, till within thefe few years; but it was an inconvenient fituation, even before the Rohilla conqueft.

Jionpour is a fmall city on the Goomty river, about 40 miles to the N W of Benares, and in the road from that city to Fyzabad.

Corah, or Corah-Jehenabad is a finall city in the Doab or country between the two rivers Ganges and Jumnah. Both this city and Jionpour, are within the Nabob of Oude's dominions.

Bereilly is the capital of Rohilcund, which was added to the dominions of Oude, in the year 1774. It is but a fmall city and fituated about half way between Lucknow and Delhi.

The city of Agra*, as I have faid before, is fituated at the weftern extremity of the tract under difcuffion; and on the fouth bank of the Jumna river, which is very feldom fordable. This

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city appears to have been during the late century, and in the beginning of the prefent, the moft fplendid of all the Indian cities ${ }_{3}$, and at this time exhibits the moft magnificent ruins. About the year 1566, the Emperor Acbar, liking its fituation, made it his capital, and gave his name to it : fince which, it is often named Acbarabad. It was then a fmall fortified town; but it foon fprung up to an extenfive well built city, regularly fortified according to the ladian method, and with a fine citadel of red free-ftone. Perhaps it has feldom happened, that a city of fuch great extent and magnificence hàs declined fo rapidly. If Rtolemy, by Agara, meant Agra, it is 'certainly a' place of great antiquity; but he has not placed Agara in the fituation where we fhould look far Agra. Biana or Baniana feems to have immediately preceded it, as the capital of the province now called Agra, and which was originally included in the kingdom of Canoge.


SECTION

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## SECTION III.

The Tract occupied by the Courfe of the River Indus and its principal Branches: with the adjacent Countries on the South and Eaf, as far as the Cities of Agra, and Agimere; and the River Puddar.

He His part comprehends in general the foubahs or provinices of Latiore, Moultan, and Sindy; with the northern parts of Agimere, and the weftern parts of Agraiand Delhi: and is about hoo B. miles in length from NE to SW; and from $55^{\circ}$ to $35^{\circ}$ in width. It is bounded on the eaft by Mount Sewalic, and by an imaginary line drawn from Hurdwar to Agra; on the fouth by the great road leading from Agra to Agimere, and by the river Puddar; on the weft by the Arabian fea, and Perfia; and on the north by Cabul and Cafhmere.

Delhi, the nominal capital of Hindooftan at prefent, and the actual capital during the greateft part of the time fince the Mohamedan conquef, has its pofition determined by obfervations of latitude and longitude ; which obfervations accord both with the maps, and with the popular eftimation of its diftance, from the neareft points in the furveyed traet, mentioned in the laft fection.
We firft hear of Delhi, as the capital of Hindooftan, about the year 1200. It is reported to have been founded by Delu*, about 300 years before our æra; and I believe Mould properly be written

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Aehly ${ }^{\text {Although a more extenfive and populous city than Anio }}$ it whs not fo well built. Shah Jehan, grandfon of Acbar and father of A Arengzebe, made this city his refidence, and directed it to be callen Shahjehagnodd, apod brohisknd of vanity, it happens," that maft of, ithe Indian cities have a plurality of names : which occaHons great confufion when it becomes neceffary to trace any event to a high perigd of antiquity.

Delhi, which is now fituated on the right, or weftern bank of the Jumina, ancient y food on the oppofite bank. It is difficult toprotitaik Whetrua meafure of extent: of this city, which was faid to contain induring the latter part of the last century, two millions of inhabitants. It is certain, that the account given by Bernier, who hata good opportunities of being informed, and who deferves the greateft credit for veracity, does not juftify fo high a calculation of its inhabitate. His:acount was; indeed written in if63, only four years after the acoffion of Aurengebe : and it is well known thatyundmahismign, both the empire and capital were greathy augmented. nBergier, I fayi eftimated the circumference of Delhi, at three ledgete onlys, reckoning what, was within the fortifications $:$, befides whichi he
 for a capital city in India. He defcribes Agra as being confidegthely larger. After the plunders and maffacres that; it has:been fupjeet to, fince the decline and downfall of the Mogut eppires we.may expeeq, it jto, bes feduoed yery low : and accordingly, it: is fpoken oof by late traveldersas a city of moderate extent ; and eyen, in in infon city, very ill built.
flaud Boudier found the latitude of Delhi to be $28^{\circ} 37^{\prime}$ : $;$ and its longitude $27^{\circ}, 40^{\prime}, \ldots$ A MS. map communicated by Mr, Haltings, and: which jacludes fome principal roads in the Doodi between ,Furruckabaf, Matura, Anopetheer, and Delhi ; gives 51 G: miles of wefting from Anoperheer, the nearent point in the furvey to Delhi; and 16 of northing : and this agrees perfectly with the obfervation of longitude, and comes within one minute of the latitude. Delhi is alfo 40 computed coffes from. Ramgaut, another $x$ Stappean that ancient Delhi strod on the same side of the famn apoint with the mesent city of that name $B$.

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point in the furvey; but this would place it 4 miles further to the eaft than the obfervation. "It is" placed according to the obfervation, and the diftance from Anoperheer. Beyond Delhi, weftwards; there are no points determined mathematically, by which the length and direction of the route can be afcertained; except the computed diftrances betwee places $\dot{j}$ and fome latitudes and longitudes, taken with little precifion, if we may judge by a companitón of fome of the obfervations from the fame catalogue, with tho'fe taken by Eiipeans. For infance, the latitude of Jionpour and Burhanpour are from 21 to 25 miles too far north, in the Ayin Acbaree; Oude, 35 tog far north; and Delhi, 22 too far fouth. We have therefore little reafon to fuppofe that any of the others are much nearer the truth; nor is there any rule to guefs on which fide the error lies. The longitudes are fill more vague $;$ as for infance:

Here the medium of the difference is 10 minutes too little, in each degree.

And again:

In thefe places, although the longitudes in the map are not determined with precifion, we may ftill perceive that the $A y y^{\prime}$ 'Acbaree is not exact. From fuch kind of materials, nothing very accurate can be expected: and therefore I have never had recourfe to them but in a very few cafes, where every other fpecies of information has failed.

The contrition of the geography of the tract Poteen droit this Section, tarns chum an eight pumoty Rattans, or joins's and
 tan, Attock, Toulomba, Batnir, Jummoo, and Bullaypordr. - $1,-:$
 fixing the potion of, is Lahore, a capital city in the Pahatio, and formerly a royal tefidence. I have feveral itineraries ant thethotaifduns of the road between the two places; but Tome aft duetuive through orinifidns, and others too obscure to be undentood or foll lowed! : Tavernier,'for infante, omits a whole fade of 15 coles, between Faridabad and'Sultanpour; which added to his orlgitail
 reckons only 189 : but though I cannot trace any omifions in it the account is confused and obscure; and therefore I have equity up. 'A map of the Panjab, obligingly communicated by y edFnel : Yokn'Mintray, Commiffary General to the army in tengatigividethe diftance at 205 coffer, or 293 G. miles.


The medium of which is $203 \frac{2}{5}$; or, at 42 coles to a degree, '291 G. miles. I have allowed 290, and taken its idatitude at $31^{1^{\circ}}$; fo that its longitude will be $72^{\circ} 47^{\prime}$, or $4^{\circ} 53^{\prime}$ weft of Delhi. The Ayin Aacbaree makes the longitude $5^{\circ}{ }^{1} 6^{\prime}$, or $23^{\prime}$ more. W os tirude is variously reprefented: by the Ayin Acbaree $31^{\circ} 5^{\prime} ;$ by .Thevenat, the fame; in an Indian table $31^{\circ}$; by a MS. itinerary $\uparrow$ (dated 1662$)^{\prime} 30^{\circ} 30^{\prime}$; and by Col. Murray's map $31^{\circ} 15^{\prime}-1$ ant

[^68] lates the poritions, of all the phaces fbotween limeing and the Ipdos; and thertfore we have reaforito regret that we have no better authon rity for:fxing it

 blifhed themfives, in the central parts of the sgopntry.c. It owed its modern inprovemeats, however, to Humaioag, the father of Achang :who made it his refidence duriag a part of his :troublefome porgno Theveriot fays that, including the fupprbs, it whe 3 leagues intlongth at that period: and, when he faxwit, about the year 166 gs the eity itfalf abowe a league in extent. Jehanguire, fon of Acbary-altawad the Portuguofe to build a church there; and fome of ita farniture remained at the time of Thevenot's yift. :- The Raven (the anciont Hydractes) on which it is, fitanated, is 2 -obdentivet, 3 and by its navigable courfe, has a communicatigh with the Indus, and all its branches. The province, of which Hahose is the capital, is oftner named Panjab, than Lahore : however, Panjab being applied to a natural divifion of eountry, $1 s^{\prime}$ Ipplicable alfo, to part of Moultan. It is very extentive, and equadkably fertile; affording, in addition to all the neceffaries of hifer white, fugars, and cotton wool; the laft of which fupplied the manufactories of the province. There are alfo in the tract between the Indys and Chelum, (or Behut) calt mines, wpoderfully productive; and affording fragments of roek falt, hard enough to be formed into veffols, Brc. Gold (according to the Ayin Acbaree) was found in the channels of its rivers ; and the fame is related of thofe of Kemaoon, which praceed from the fame ridge of mountains, Ice is brought from the northern mountains, to Lahore, and fold there all the year. The famous avenue of hady trees, fo much apoken of, by .the early Inchan travollers, began at Lahore, and extended to Agra, near 500 Englifh miles. Lahore is now the capital of the'griks,

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a mefriplower, whof mames cevensas arfectu was handy dinown uñtid thie rapid declind of the Mogul's empirts, in the prefenticentury, mis

Sirhind isla city of great antiquity; and dies aboner. midwayr bes tween, Delhi and Lahore. Tavernier reckons it 103: cofles froth Dellhis and Steel ${ }_{2} 99$. I have placed it:in. ids "proportion: ©f she whole difance between Delhi and Latiore, which is iogi coffes; lor abouk 147, G, miles: Col. Murray's map gives 108 moffes 1 Not having the latitude of Sirhind, and the line on which its parallet depends, being near 300 miles in length, much moft be left to chance, as to its accunacy. . It happens, however, that no: obfacles preffent themaflves between Delhi and Lahore, to igive any conafi+ derable elbow ar bend, to any part of the road (fee page (or) s: which is, therefores geaerally fpeaking, very ftraight; and only makiatig in fmall bend gorthwards, in the neighbourhood of the fuman siven Sirhind fands in the map, in lat. $29^{\circ} .55^{\prime}$ lon. $75^{\circ}$ atsimt ylyfioy
A. Gind by Condamine's travels in Italy, that the art of weavige filk was blought back to Conitantinople in the inarteenth century, by the monks who returned from Sirhind (or Serinde accordingt to
 :under the/Rpman Emperors, it had again been lof dutiagothe, 000 fufiong that atteneqded the, fubverfion of the weftern empire. : 1 . b.: :

It is worthy of remark, alfo, that Procopius takes notioe, that filk was brought from Serinda, a country in India, in the time of Juftiniann (in, the fixth century). The reader is apprized, that filk, together with the Latin nappe of it, is underfood to have, bean brought from Seres or Serica (a.country of upper Afia, bordering on the N W of the Chinefe wall). This was Pliny's idea; how juft I kngw not : The Ayin Acbanee takes no notice of any manufac tures of, filk an, Sirhind ; it only calls it a famous city (in cthe lixateenth century)

Between Delhi, and Sirhind are very extonfive plains, wichin which are fituated the towns of Panniput, and Carnawl, famous for great battles, both in ancient and modern times. The reafon

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of rit, is obuibullys the fatave of the counory, rbetween itrand Dethis ; for it is' a mant: plain, uftuuted at the mouth of la pafs y for fuch the cinntiny' immediately on the wett of Delki maty be confidered to be, Ithut upiby the mountainoos and clofe country. ff i Mewat and Agimorecon: the opse haxad, iand by the fuodna river ot the other: and whethierts Dolitis Agraj as Canogeyswas the capital y this was the soad to it.from Turtary and Perfiay the original courtrics of the conquerozs of Hindooftan. The courfe of the Jumna, above Delhi, is determined in the map by the direction of ther road to Sithinds;《ungipara,' near that river, being placel iny jefertencet to Car mand, from whence the river bends (according to ther Mis jiminps) cowands the NE to Sehauranpour and Nen." Mr. Forters, who craffed it in his way from Loldong to Jummoo, eftimated? the dirn tringe becowern the Ganges and Jumna at about 40 coffor, in-a northi wefterly diretion - The place of the fource of the Jumina, batiare gignorant of inbatite wouldiappear to be remote; even-frotin thit place whitre he crofeduit within the mountains; for he found it 'a'large

© The upper part of the Doat*, or tract iaf Jarld betweek "thle

 Jane, tranflated by M. de la Croix.
2. Between Caynawl andid Sithind, are "found in theft 'MS!' 'maps',
 the Oaggarn(or Kenket) and the Saffobtfifor Setef watty) arid the Thied has tio name in the maps. The firft is taken notice of in the -Ayin Acbaree, as one of the leffer ftreams in the foabah of 'Dethi, andraserpafing on the welt of Tainafar, a cefebfated place of Miodóo
 the third between the two others. It is probable, fiftom circumstancos, that chere may-be others; although deemed tob trfigrifitant

[^69] and probalify mixe either with the Indus, on Puddar: thoughilifoot merty fuppofed thoin to run toithe 3 Eintor the Juman. Iihad alfos, with M. D'Anville, fuppofed the: Caggar to be the : Ifyminuos of Pling, fruateil balf way betweain the Hypbefis: and ffubminea: bue having. now. difoovesed the Beyah to be the river asoant the the ancient Hyphafis, there carr be no difficulty in prosiousicing the Settege or Srittuluz; to be the Heofodrus, as it anfivers ing peint: of proportional diffamec. :

Lcamot find what diver is moant by. the Jidger, affen mopitionde by Feriftea, untofs it be a.branch of the Caggarg, whiok tivety as well st the Surfuoty, has its fource in the Sewalic nomerainty bet tween Dethi: and Sirhind; taking its cowre by: Semanah witt: Sowo nam. The Surfooty, we learn by the MS. maps, mferes pafingidyy Tanmafer, Burfa or Surfioti, \&ue; joina the Caggar.

Near: to Tannafar and the labe Koorkbot, places of IFiadot warfhiph: is the fite of the ancient city of Huftupprius and oft the war of the Mariasarut (anepifode of which has been lately tranfiand fuot the erieginal Sanfarit, by Mt. Widkins): fo that this grbetd, whint in for from Carnawl and Panniput, haw been the feene of war to all aget; pretically, well as:hifurically; The, counatries between Delhi, and the Panjab, being faantily fupplied with wator, the Emperor Parofe LH. undestopk the nable as wrell as usefulitalk of fapplying it bettos, and at the fane time moant te apply the mocen. for fipraifhaty to the purpofes of navigation. Dow, (Vol. If. Pr 3i27) trandatery Ferifhn thas: "In the year 1359, Ferofe * marched Debalpputs, white he made a canal 100 miles in " length, fropp the suttulur to the Jidger. In the foHowing years " between the.hills of Mendanli mod Sirmore, he cula a chasnatfiom "the Jupane, which he dividont into feven fremene; one of which " he brought to Haffi, and from thence tol Bernifon, whape be buit " a frong caftle, calling it by his own name. He drew. foon after, " a canal from the Caggar, paffing by the walls of.Sirfutti, and " jained
*.joined it to the river of Kera; upon which: he built a city, named " after him, Ferofeabad. This city he watered with another canal " from the Jumna. Thefe public works were of prodigious advantage " to the adjacent countries, by fupplying them with water for their " lands, and with a commodious water-carriage from place to place." We learn alfo from the Ayin Acbaree, (Vol. II. p. 107 Englifh tranllation) that Ferofe founded the city of Hiffar, (called alfo HiffarFeroozeh) and dug a canal from the Jumna to it. And we find; moreover, that the canal from the Jumna Kungiparah, to Delhi, was the work of Ferofe: and is probably one of the feven channels mentioned by Ferifhta. I apprehend then, that Hiffar; or Hiffar-Feroozeh, of the Ayin Acbaree, is the fame with the Ferofabad of Feriihta. But poffibly, Ferofe might only embellith and increafe the fortifications of Hiffar, and then give his name to it ; a practice very common in Hindooftan, to the utter confufion of hiftoric records, and no lefs injuftice to the original founders. The town of Surfutti, by the authority of the MS. maps and othor circumfances, I place on the river of that name between Tannafar and Kythil (or Kuteil) ; and Haffi or Hanfi, on the weft or S W of Kythil. Hiffar, or Ferofeabad, will occupy a place ftill further: to the S W; and in this pofition, will be about 7.5 cofes from Delhi, in a weft, or weft-northwardly direction; and about 100 miles from the Setlege or Suttuluz, at the neareft part of Debalpour, from whence the canal was faid to be drawn. The rivulet of Kerah, I cannot trace, any more than the Jidger : but I think it will appear as clear to the reader, as to myfelf, when the text, and the different pofitions in the map, are confidered, that thefe different canals had for their immediate object, the junction of the Setlege and Jumna tivers; and remotely, that of the Indus and Ganges; although they do not allow us to comprehend the whole fcope of Ferofe's plan of inland navigation: By a dight infpection of the map, it will appear that this project would, if the ground admitted of its being fuccersfully put into execution, be one of the greatelt under1 Li takings
takings of the kind that ever was projected; that of cutting through the ifthmus of Suez, only excepted. We fhould then have feen two capital rivers, which traverfe a large part of the continent of Afia; which enter the fea at 1500 B. miles afunder; and which ftretch out their arms as it were, to meet each other; united by art, fo as to form an uninterrupted inland navigation from Cabul to Affam! I take it for granted that this canal was never completed, otherwife we Chould have heard more of it, as we have of the canals leading from the Jumna. The diftance between the navigable parts of the Jumna and Setlege, is not 120 B. miles, direct.

Again, (in page 329 of Dow's 1 ft volume) it is faid that Ferofe turned the courfe of a large rivulet which fell into the Setlege, from Hirdar in the province of Sirhind, into the Selima, a fmaller rivulet that ran fouthwards towards Sunnam (a place 14 G. miles S W of Semanah). Improvements of this kind, occur fo feldom in the hiftory of Hindooftan, where barbarous conquefts and maffacres, are the principal fubject, that they are dwelt on with pleafure, whenever they appear: and we have only to regret on the prefent occafion, that the defcription of them is fo obfcure.

Semanah (or Sammanah) has its diftance given from Panniput, at 52 cofles, in Sherefeddin; but its diftance from Sirhind is inferred from the line of Tamerlane's march from Batnir to Panniput. I had placed it $43^{\frac{1}{2}} \mathrm{G}$. miles in a S by $\mathrm{E} \frac{1}{2} \mathrm{E}$ direction from Sirhind: and find it in Col. Murray's map nearly the fame diftance (44 miles) but on a $S$ by $W$ bearing. It is included in the circar of Sirhind : and the circar of Hiffar, lies immediately to the fouth of it. On the weft and S W of Hiffar and Semanah, our knowledge, both geographical and political, is very much confined. Timur's (or Tamerlane's) route from Batnir, the courfe of the Caggar river, and the road from Agimere to Jeffelmere, is all that we have towards filling up fo large a void. The firft is from Sherefeddin ; the others from Mr. Hartings's, and Col. Popham's MS. maps.

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The common boundaries of Agimere, Delhi, and Moultan, we have no means of afcertaining: nor is the Ayin Acbaree particulaz enough on this fubject, to lend any affiftance towards it.

Mewat, or the hilly tract lying on the weft of the Jumna, between the parallels of Agra and Delhi, as well as the northern and eaftern parts of Agimere, which are mountainous alfo, have their geography much improved by the MS. maps communicated by Mr. Haftings, and Col. Popham. There is little to be faid on the fubject of the confruction of thefe parts. Agimere, which is the primary point that determines the parallel and fcale of the weftern parts, will be difcuffed in the next fection, to which it properly belongs: the pofitions on the north and eaft of it, are taken chiefly from the MSS. juft mentioned.

Jaepour or Jaynagur, the capital of one of the Rajpoot Princes in the eaftern quarter of Agimere, has its Iongitude given by Claud Boudier, at $76^{\circ} 9^{\prime}$, or $2^{\circ} 19^{\prime}$ weft from the city of Agra. All the MS. maps that I have confulted, place it very differently : and, I find, I cannot allow a greater difference than $I^{\circ} 55^{\prime}$, without rejecting the fcales of all the MS. maps; which, as they are formed from the difference of latitude, would be abfurd. Perhaps the numbers in Claud Boudier's table, are not right: M. D'Anville has them at $76^{\circ} 5^{\prime}$ in the Eclairciffemens, which is ftill wider from probability.

It appears by M. D'Anville, that the Rajah of Jaepour (by name Jeffing) had erected two obfervatories, one in his newly built capital of Jaepour (which is about a league from Umbeer or Ambeer, the ancient capital) the other in one of the fuburbs of Dethe. Father Claud Boudier, at the Rajah's requent vifited the former of thefe obfervatories about the year 1732: and I think it probable that we are indebted to the Rajah's affiftance for fome others of the obfervations made by Claud Boudier ; particularly thofe at Agra and Delhi. The latitude of Jaepour is $26^{\circ} 5^{\prime \prime}$; and M. D'Anville L 2
is
in his Antiquité de L'Inde reckons it 50 leagues from Deihi; which aceords well with my idea of the diftance between them.

The MS. maps which I have fo repeatedly mentioned as being communicated by Mr. Haftings and Col. Popham, together with others formerly in the poffeffion of Col. Muir, and fince his death *, obligingly communicated by my friend Mr. Benfley, of the Eaft India Direction, are corrected in bearing and fale by the primary points of Agra, Delhi, and Agimere ; but only a very trifling alteration was required. It may be obferved, in refpect of the new matter contained in thefe communications, that a great number of places appear, that were familiar to us, as well in the hiftory of former times, as in the account of recent tranfactions; but which we could not, heretofore, refer even to any general fituation in a map. Still however, much is wanting, to render in any degree perfect, the geography of the tract in queftion, both as to mathematical exactnefs, and to relative defcription : in particular the latitudes and longitudes of Lahore, Sirhind, Attock, Moultan, Batnir, Agimere, Calhmere, Jummoo, Sehaurunpour, \&cc.; together with the intermediate roads and particulars of the face of the country, and the courfe of the river Indus. Until thefe are procured, we muft be content to remain in ignorance concerning many curious particulars of Indian geography; and fatisfy ourfelves with having the fituations of places that are the moft interefting, either from having been the fabjects of hiftory, or as being connected with the politics of the prefent times.

The next place in point of confequence to the confruction of this part of the map, as it regulates many of the northern pofitions, is Attock, a city and fortrefs on the eaft bank of the Indus, and built by Acbar in the year 158 I . We fhall have occafion to fpeak on the fubject of its hiftorical importance, hereafter. The pofition

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of this place, geographically, can only be regulated by the apparent bearings from Lahore and Moultan, in a Perfian map of the Panjab, together with the diftances collected from the different accounts in the fame map; in itineraries ; and in the Ayin Acbaree. The latter gives for the breadth of the Panjab, from Ludhana to Attock, reckoning from river to river, on the line of the roads betweenthem 185 coffes: and as two of thefe roads make a confiderable angle with each other, I allow the diftance on a ftraight line to be only 180 coffes; or 259 G. miles. Some accounts that I have feen of the number of coffes, are too much exaggerated, to be depended on, or noticed ; and I rely on the Ayin Acbaree, in preference to them. The MS. map communicated by Col. Murray, gives 181 coffes, or $260 \frac{1}{2}$ G. miles, for the whole diftance: but although it comes fo very near to my calculation in the general account, it differs in the meafure of each particular Doabah, or fpace, between two adjoining rivers. Attock is placed accordingly, 259 G. miles from Ludhana, on the bearing from Lahore, as nearly as it could be collected from the Perfian map: and there data give its latitude at $32^{\circ} 27^{\prime *}$; lon. $70^{\circ} 36^{\prime}$. Col. Murray's map places it in lat. $32^{\circ} 25^{\prime}$.

Moultan, fuppofed, with great appearance of reafon, to be the modern capital of the country, which was defigned by the hiftorians of Alexander, under the name of Malli, is 90 coffes from Lahore (fouth-weftward) according to the Perfian map; 120 according to Thevenot's account ; and 110 in Col. Murray's map. The Ayin Acbaree takes no notice of the diftance between them; but gives the latitude and longitude of both. The latitude is alfo given by Thevenot, and by the Miffionary's itinerary; and when allowance is made for the latter, in the fame proportion as it differed from the true latitude at Agra, the three obfervations differ among themfelves 22 minutes. That is, the Ayin Acbaree gives $29^{\circ} .5^{\prime}$, Thevenot $29^{\circ} 40^{\prime}$, and the itinerary $29^{\circ} 32^{\prime}$, which with the addi-

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tion of $30^{\prime}$ (fee note, page 68) gives $30^{\circ} 2^{\prime}$. I have placed it in $29^{\circ} 5^{\prime}$; which, on the aforefaid diftance of 90 coffes from Lahore, gives $70^{\circ} 40^{\prime}$ for its longitude; or $7^{\circ}$ weft from Delhi. The Ayin Acbaree makes it $7^{\circ} 3^{\prime}$ : which agrees very nearly with the 90 coffes in the Perfian map. This diftance alfo accords with the bearings in the fame map; where Moultan ftands $S$ a very little $E$ from Attock, and about $60^{\circ}$ to the weftward of S from Lahore. And Col. Murray's map has nearly the fame bearings. Thefe three primary points of Lahore, Attock, and Moultan, vaguely as they may appear to be afcertained, are the foundation on which the fcale, and relative parts of the whole Panjab country depend.

Thevenot defcribes Moultan as a city of fmall extent for the capital of a viceroyalty, but ftrongly fortified, and having a Hindoo pagoda of great celebrity. The Ayin Acbaree reprefents it, as one of the moft ancient cities of Hindooftan. It has, or had, a great manufacture of cotton cloths; the province itfelf producing the cotton; as well as fugar, opium, galls, brimftone, \&c. Thevenot defcribes the river that led to Moultan, as being partly choaked up, or fpoiled, in its channel, in his time (about 1665) and this had greatly leffened its trade. He alfo takes notice of a particular fect of Hindoos there, called Catry; and fays, that this is their proper country. In another place, he explains the Catry tribe, to mean Rajpoots, or warriors; that is, the Kuttry tribe, properly. We fhall take notice hereafter, that thefe Catries were the Catheri of Diodorus, and the Catjei of Arrian; with whom Alexander svarred, on the borders of the Malli. Moultan belongs now to the Seiks, though the poffeffion of it, as well as Lahore, has been often difputed by the Abdalli.

I have not extended the large map of India further to the north, than Attock and Jummoo, becaufe it would have added confiderably to the width of it, without furnihing any fubject, particularly interefting to modern enquiries: and the materials are no of a quality or quantity proper to correct the geography of that part, on an extended fcale. I have therefore added a map on a fmaller fcale, $x$ Mouthan ity has beenganciond by the king of Candathar omie 1799 B. in

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in which the traet between the Panjab, Bëchara, \&cc. is defcribed; and a feparate account of it will be given in the courfe of the Memoir.

The river called by Europeans Indus, and by the natives generally Sinde * (or Sindeh) is formed of about 10 principal ftreams which defcend from the Perfian and Tartarian mountains, on the north-eaft, and north-weft. The Ayin Acbaree defcribes its fource as being in Cafhgur and Cafhmere; by which it appears that the people of Hindooftan confider the north-eaft branch as the true Sinde $\dagger$. From the city of Attock, in about lat. $32^{\circ} 27^{\prime}$ down+ wards to Moultan, or to the conflux of the Jenaub, or Chunaub, it is commonly named the river of Attock, which in the HindooItan language, imports forbidden: probably from the circumftance of its being the original boundary of Hindooftan on the north-weft; and which it was unlawful for the fubjects of Hindooftan to pafs over, without fpecial permiffion $\ddagger$. Below the city of Moultan; it is often named Soor, or Shoor, until it divides itfelf into a number of channels near Tatta; where the principal branch takes the name of Mehran. The river, however, when fpoken of generally, is called Sinde, although particular parts of it are known by different names: The courfe of the Indus below Moultan, has its particulars from M. D'Anville; but the general direction of its courfe, is confiderably more to the weft, than he defcribes it. This is occafioned by my placing its emboucbure fo much farther weft than tufual, in refpect of Bombay (fee page36) while the pofition of Moultan res mains nearly as it formerly was. I obferve that moft of the old maps of India give the Indus much the fame courfe as I have done.

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The Mifionary's itinerary, beforementioned, gives the names of. many, places, and ome latitudes, on the Indus. It plafes the for: trés and city of Bhakor, which the Ayin Acbaree fays, is the ancient Manfurah (though D'Anville fays the contrary) in latitude $22^{\circ}$ i2; Tatta in $24^{\circ}$ 2o' ; and Bunder Lawry (called alfo Bunder Laheri an 240 An there, I take tonge from 20 to 30 minutes too far foyth.

Moultan is about the fame diftance from the feay as Allahabad ${ }_{\text {a }}$, that is, about $800^{\circ}$ B. miles by the courfe of the river; and our. author was 21 days in dropping down with the fream, in the months of Oetober and November: when the frength of the land floods 'were abatẹd.

The boundaries of the provinces of Moultan and Sindy on the wèt, extend a confiderable way beyond the bank of the river; that. is to fay, from 50 to 100 miles. The country is in ganeral flat and ópen from Moultan to the fea; and the province of Tatta ittelf (the Patale or Patpla of Alexander) is faid to refemble Bengal, not, only in the flatherss of its furface, richnefs of foil, and periodical, inundations ; but allo in the food of its inhabitants, which is chiefly rice "and fiff. The fite of the ancient capital, Braminabad, is, near Tatta; and, in the time of Acbar, fome confiderable ruins of it were remaining : particularly the fort, which is faid to have had an antohining number of baftions to it. Tatta is made fynonymous to paibul, 'in the Perfian tables (which were obligingly lent ne by Sir William Jones, and are thofe mentioned in his ofree face to Nadir Shah) where it is placed in $24^{\circ} 10^{\prime}$. The itinefary fays $24^{\circ} 20^{\prime}$, and D'Anville $24^{\circ} 40^{\prime}$. I have placed it accordipg to its reputed diftance from the mouth of the Sinde, which brings, it to $24_{j}^{\circ} 45_{1}^{\prime *}$.

The country known by the name of Panjab, or that watered, by ; the five eatern branches of the Indus, has been very little known to

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us in modern times; either geographically, or politically. However, it deferves notice, if only on the fcore of ancient hiftory; being the frene of Alexander's laft campaign, and the ne plus ultra of his conquefts. Here fome new matter offers; having before me; a map of this country drawn by a native, and preferved in the archives of government in Hindooftan. The names were obligingly tranflated from the Perfian, by the late Major Davy, at the requeft of Sir Robert Barker. The tract, of which this map ferves as a ground work, is a fquare of about 250 B . miles; and includes the whole foubah of Lahore, and a great part of Moultan proper. The points of Lahore, Attock, and Sirhind (the fixing of which, I have before given an account of) determine the fale of the map; the intermediate diftances from place to place in it, being given in writing, and not by a fcale.
I confider this MS. as a valuable acquifition; for it not onty conveys a diftinct idea of the courfes and names of the five rivers,' which we never had before : but, with the aid of the Ayin Acbax ree, fets us right as to the identity of the rivers croffed by Alexander, during his famous expedition into India; of which more will be faid hereafter.

Befides the places found in this map, I have inferted others, from the authority of the Ayin Acbaree; feveral from implied fituations in Ferihta; others from Sherefeddin's hiftory of Timur*; (particularly his march from Toulomba to Adjodin and Batnir) and othert from various MSS. in my poffeffion. The divifion of the country, is entirely from the Ayin Acbaree.

The town of Adjodin, often mentioned by Ferihta, and Sherefeddin, is recognized in the MS. map, by the circumftance of its containing the tomb of Sheik Furrid, which was vifited by Timur. In the map it'is' called Paukputton; but it perfectly anfwers to the

## [ Bz]

ppaition
 O. Then mext river to the enff of the Sindes or Attock, mind;the undfomeft of the five shiugrs, is, in modern languages called Behets
 thei Attock, ?butijts Brudk isilefs. : This is the famouts Hylarped of Alexander, and faid ${ }^{\text {Phy }}$ the Ayin Acbacee ton ber amciontlys ailled Berfupare It gunsp thoough Calhmere, and was fappofedi by M. D'Anville(though ermoneoully) to join the Sinde at Aptook Tat vernier feernst to:have ded M. D'Anville into this mittake ; 1 which has fanallys becmetbe oreafion of his mifplacing and df courfe miff namping r all the, other four risxers. The fact is, that the inimen which. runs by Cabul, and bears the name of Attock, joimpothing Sinde on the weft fide, and in front of the city of Attocka: Whe ave obligod to $\mathbf{M m}$ George Forfer for clearing' up cthisi mifake. He travelled that wway:in 1783 .
4. The ficend wiver is the Jenaub, or Chunaub; apd is theinatem fines: *of Aldixander, $;$ : The third is the Rauve, or Hydraotes $\dagger$ of idexandery ondthe fouthibank of which fands the oity of Lahore. iThefe three :ivers fucceflively unite with each other fondiff
 iat the place of $x$ onfluence; which is about 20 miles on the weft of Moutite ; and po below the moath of the Rauvee. It is romarkable, : that the Jenaub, communicates its name to che connmeat Atucans in thefe times; as it did, in Alexander's time, ander the name of Acefines. Its rapidity and bulty are paxticulatyly remaited by the hifforians of Alexander and of Timur. The founth siverlis the Beyah, anciently called Beypafba, and is the Hypbafe of the
 or modern Rauvee : and the fifth is the Setteg, Suttuluy, of Buthaj.

[^74]
## [ ${ }^{1}{ }_{3}$ ]

Thit riaft rivery about midway betweentiter fonceined the Inffos, receives the Beyah: after whichy they to not mix thefr vatert with the other fivers of the Panjab, but foin the indus in a fepizate ftreant, a great "way to the fouth of Moultan' ; while the other three invers plafa in al ceollegtive fitearn on the north of Móultan,
 (gibing caftward) the Zafadrus; Pliny, the Hefuidrus: Atfian has the nime of Saranges among his! Panjab rivers sindirays thitt it jolns the Lyphafs (or Beyah). The Ayin Actareoriays that fis ament adnic was Sbetooder ; from whence we may edfly ftaceidet sugy or suttulaz. Before it is joined by the Deyah, it 'fs'a! vety confiderable river, and is navigable 200 miles. 'About 24 miles below the eonflux, a feparation again takes place ${ }^{*}$, ahd four difftin ent ftreams are formed'; the northmeft, and mort confiderable of which; recovers the name of Beyah; and is a deep and repidriver. The others are named Herari, Dond, and Noorney s! and netr Moultan, they unite again, and bear the name of Settiges'uintil. both the fubftance and name are loft in the Induis, abbiat 180 miles; or three days failing $t$, by the courfe of the rives; below the maith of the: Jenaub. It is owing to the feparation that takes placeil affer the firft confluence of the Beyah and Setlege, I apphehenet, that fo many names are given to the latter, by moderne; as well:as anbient authors: which names, applied 'by the' natives, to their mefpocime branches; Hiave, by Eurepeans, or oflkers, who' werte iegriorant iof the circumftances, been fluppofed to belong to one principal river only. The Perfian map of Panjab, and Sherefeddin's hiftory of Timur, take notice of only one branch, befides the Beyah' (whence one would conelude there were only two principat onest and this freond tivet is named Dena : 'poffibly the fame meant' inithe Ay in Abbatee, by the Dond.

- Ayin Acbaree.


## [ 8 ]







 fame mepprbe toue, ctithet it is only 18 coffes from Lahore to Kpr
 is highlywimprobable fromi cther circumßtances; ; in particulagy ithat the fame Perfanimap allowis a greater fpace betwebns ther Rauwed and Setiege, than between the Rauvee and Jenaub. 3 ColirMMurneyls map places Kuffoor, on the Beyah, and not within. 25 :coffectere obe Setlege: The marches of Timur. acrofe the lowemparto df the
 2ad thare in an soblique direction.
10 The authorities on which. I have founded whe goography iffithe Ranjab, afteen fixing: the primary points already difcuffed; art the followainger zubnI nill

 Itralcebfurmifies fome pofitive diffances, and the Ayin Acbarde maty) athetssiand the match of Timaur, and the Mifiponary's diti-
 lotisba, onollulmabins, which is coarfidered as a primery fationior
 abioves on to the $\mathrm{E}, \mathrm{N} \mathrm{E}$ of Moultan; or 5 days out of 8 , of the voyage from Lahore to Moultan + : and the general direction of
 we hape a joigt fetted in refpect of Lahore and Moultans and from it, 'Timut's route may be traced acrofs the Panjab, both ways:',

[^75]$t$ Itinerary.
the


 the wers arl theariode of the Prauveley or ctheifferaubs it Etrifthei has


 day's saarah, from the conflux of the Chelum, and Jehamb rtoo this place; ;and as he did not bring the army writhitimll bitt left thoan croffing the mivor, it may be infernect, that ithed gearquyiwasf giot ea
 tion: that being the pofition of Toulomba fodm; athe coprffox, ity the above conftruction. A fortrefs, not named, ftotord ion thay weft fide of the copnflux; and juft below. it, Timarthrew a Bridgesgrofes. Befone Timura arrivedat this place, he had mardhedsacderding ab:\$tiet refeddin, 5 or 6 days along the weftern baink quf/ ©herChed atorlative ha had taken the fortrefs of Sheabedin Mobaxick, in ansinend of that river. This is all that we are told of ither paricicuthrs, bof chit march, from the Indus, to Toulomba. The Indus hericreented! (I take it for granted) at, or very near, ohe plader whensinatbold Tow ftands (for it was, built, more than ais century 'and dall Acbar) as he came by way of Nagaz anil Banown oshenefildidis. nt lates that he croffed the Inchus, at the place whebenGelatirop Getion leddin (King of Charafm) did, when lae cfeqd from Oerentis Cawn; and this I think may be afoertained to bet the Idmeiplice*, , dThe hiftory, of Gengis + gives no fatisfaction on this beadj but cepras fents :Gelali as chufing the moft difficult patt of the river fop'che

[^76]
## [ 88 j



 A tock, there muft be tifany difficult places, Attock itfif' beifit


But'soreturin to Fimur. After he had droffed the Fitlus overiz briage of bodts*; we learn that the chiefs of the mointitain of Joftud or Youd erme 'to trake their fubuiffions to him", as Ambifares, Wing' of the fime cotintry, did to Alexander, about' $173^{\circ}$ yeârs:before.: The Jehư mbuntairs, are thofe which extend frotn A tock, eaflard to Bember; and are a part of the territory of the mountaideers, Fometime's, defigned under the mame of Oicker's, Gehkers, or Kakares.

Trimur's firft object after croffing the Indus, being to effete a punction with his grandfon Peer Mahmud's ärny, twhich wast thila beffeging Moultan, he directed his courfe that way, inftead of taking the comion road to Delhi, by Rotas and Lathore.' 'The' nefghbouxhood '6f 'a Havigable river, being a defireable object to an' afmy matching through a dry fterile country, he pufhed for the reareft part ©frthe Behtut, or Chelum river (the Hydarpes of Alexandet) where he attacked and took the fortrefs and ifland of Sheabadin. After thit, 'He'marched as His been' faid before, along the Chefàm, and croffed that rivet, "uide the Jenaub; belów their conflux ; "atid went 'froth', thenerice' to ${ }^{\text {bo }}$ Thulomba; which we have juft left: 'This is a confidedthe' "and a pais of confequence oti the Radive river; árte often decurs in Perifthta's hiftory of Hinafooftan!. It was in'the neighbourhood of this place, that 'Alexander made war on the Mani; or people of ancient Moultan; as will be taken notice of, herstater "Tirriut faid here $6^{\text {ldays, }}$ and then" procéeded with the whole army acrofs the Baree Doabain 4 to SHawnatiaz for

[^77]Sha-

## F 8 x 1

 Beyah, after, its. Ceparation ffom the setlegen, Herre he found more grain than his. army could confume i whenge we; may infer the fertility of the country, whinh is low and hat, and fubject to periodical inundations like Bengal. Shatefeddin :deffribes at; this place a deep , take fortified round with a a wall, apd defsended by 2000 men, (This reminds, one frongly of fomething femilar at Sangola, which Alexander attacked, before he reached, the, Hyphafis; onky the hill, which was fortified round with, cariginges, is
 Sangala was only 3 days march from the place. wheres the Hydrates, (Rauve) was crpoliod, fieppofing itit to be,at the place, where Lahore plainds.
It was faneething moxe than $i$ a days mancli from Toubompor to
 not far from Shawnawaz. As Timur's army, was 3 daye in paling this , civef, fome in barks, and, ethers by: fwingning it in my, be reckoned a conidemble riyer. Its diftanice folom Mepulan is, given
 Troulpoben, in a fouth-caf directian,, as thgir diftances ftom Ahpuitana indiogte.

At Jengian, Timur flaid 4, daysu and, was ipined , by: Bpapa Math.,

 añd here: he: frparated. from : his grand army, which, he, dirceted to proceed by Debalpour, and to rendezvous at Semanah, y town \$o or 90 coffes on the weff of Dethi; whilify he procmadert with's apyopo
 from JJelanl, and far to the righti of the Delhi road, heing begond
 He was led to this place, from refentment, at its giving protection :a.n
 is

6

## $[18]$


 fteragth, might the one inducement: to undertake the feege of it ;

 (bf: whiche westave: forkensteforof a town included in owe of the large illands formed by the branches of the Setlege : and ther being3 days, merch from : Gengrian , I eftimate the diftance from it at 30 coffes, ot:43 G. miles: As the Delhi and Batnir roads, feparated
 courfe from Jengian may the taken at ESE.

At Adjadin, "Timurivifited, and fpent fome time in devotion," at the tomb of Sheik Furrid (fee page 81) and then fet forward for Batniry whicty is Padsed by Sherefeddin at 60 ceffec fuem Adjodin.
 to 8ectumah, appeave taibe 8:days march, in which: he was fometimes deanad by hat military operations; yoe having a lightarriny; it may bio fappocidt that he marched 85 coffed in the 8 days $\%$. Aldufrom Gemangh to Pannipert, the nursber of coffes are given at 52 †; so that the whole number 137, from Batoin, may fe flated at $193 \frac{1}{1}$ G. midas: fonderting being daducted for the defort thature of the adedntrys inutie Batnir province.

If therefose ito coefes, or $85^{\frac{1}{2}}$ G. mikes, be laid off from Adjodinto Butnio, andr $199^{\frac{1}{v}}$ from Panniputs, the interfection will place Batnir in lox. $28^{\circ}$. $39^{\prime \prime}$, lowi $73^{\circ} 20^{\prime}$; and it. will bear about S 8 E $4 \mathrm{E}^{\prime}$


On the foumbeaft of Adjodin, a few coffes, Thmur crefid the river Dena; which I take to be one of the four branches of the Setlege, (poffibly the Dond) and perhapt the only principily ont among them, except the Beyah, already noticed.

[^78]
## [ 89$]$

uffempit not be omitted that: Timur quofisa an extensive defer in: hies way: to Batik : I mention this particular: to thew that Alexander was yet mifinformed, when he was told that there was a defect beyond the Hyphafis*. Afteritaking and defroying. Banner, which employed only a, fawidgys te he marchedion the 3 beth of Novemben, making, nearly, the straight road :tex Sematali, where he joined his grand army on the 8 th of December in 498 it $-7 . \quad \vdots$

His march from Semanah to Delhi, aport, 88 . coffer, appears, to have taken up 22 days ; whence we may collet, that the commos marches of his grand army, were about $7^{\frac{1}{2}}$ coffer each did a or about 14 or 15 Britifh miles, by the read.
: On his returns he made an excurfion to the northrealt into the Dab, took the city of Merat, or Mevat, (calla dr Mirth by de lay: Crit) 30 cafes from Delhi, and advanced to the Ganges; near the: place whose it isles out of the Sirinaguo mountriad. : Togtocpour, and the frats of Cupele, two r places of victory as the eaftern:bank of the Ganges, cannot now be nocognifed. but fromiSherefoddin's: account; of the march, they cannot be far from. Lading 51 where the i; Britifo army completed their campaign : in apples : $5100:$ British? miles from'Calcuttat. ... . . $1 . . .1$. :! dis sis sis al : | . :

From the banks of the Ganges, he proceeded to the north-weft, along the foot of the Sewalic mountains, by Meliapour, Jallindar, and Jumper: th the frontier of Cafhmere : and from Cafhmere, acroff the mountainous and defers country of the Kakates § on Gen kens; to the INdus, which; heicroffed at the fame plicae . ac i before; and in the fame manner ; and returned to Samarcand by tray of Ban.: ngirg Naga, Kermudge, Kabul, Bacalan, and Termed.:

[^79]: 501

 Kent: 1 it rrow retur to the Panjid.

The bearing and diffance of Jummoo from Lathete, 'antel that 'of


 ts 'the Thent authiority! Col: Murray's map gives 54 coffes, itharly


 [which the interval' would not allow; if Cafhnite lay' witle'weth' of the metidian of Lahiore.
. D.irg
Bullaurpour', a fort 'on the Setfege, within the motintain's, ' $\ddagger$ Have oblly the fiuthority" of the Perfian map, and fome vigite MSS. for: and 'if in'placed in thie map 'yo G. miles NE from Liathata.

 the tiathote"fod surdi the mountrins from whence we fuppofe the

 this pate mitytie widve" Betn' tendered more perfect; 'for he entered the mbuntaites at Wofdong, crofed the Ganges and Junitre riters

(1) By the arat 'ff the Perfian map, and other MS. maps's' (patticulathy the one furnifhed by Col. Murray') I have been enabled to githeithe
 with thary 'other pofitions in and about the Panjab. The "foad

${ }^{1}$ is known to be'on the great road from Delhi to Moultan's 'and the diviffois's of the country in the Ayin Acbaree point out its fituation,

[^80]$$
[9 \mathrm{~g}]
$$

AR bec far down the Setlege, in the Jallindar Deahah.: The few particulars that occur on the weft of the IAdus are all from DiAnville, except the pofition of Pihour, which is placed accofding to Mr. Forfter's obfervations.
$\therefore$ Retweep the Indup; Agimeres Mqultans and ther, Ryddar fiver, is an extengive defent, in which is fituated the forth of Ammergeta or Omiroout, the birth place of Acbar, and the repreat , ff Khgdaiar *. I think it improbable that ever we fhally have anpy, grographical knowledge of the inland parts, between the Puddar and Indus, more than the very vague information contained ip, the Indiam hif tories. The river Puddar, from the length of its courfe, promifes to be navigable; and, probably, it is more from the want of ufful products on its banks, than from the fhallownefs of, its changel; that it has coptinued fo long unexplored by Europeans.

The geography of, the Panjab country, as beingr. comparptively, of little confideration in a map of fuch extent, has bpept detailed much beyond its feeming importance. The rearon is, that we are not likely, as far as I can judge, for a greath length of, time, if ever, to be poffeffed of amy hetter materials than thafe breave exhibited; indifferent as they may be, in many inftances: and fherefore; I ceqfider it as the finihing froke to the whole, matter for fone, fime to come. And if any good materials do $c_{1} \neq, 4 p_{0}$ fuch afithe datitudes and longitudes of fome principal points, of some mearurod routes, I hhall, I flatter myfelf, have preppared theiground fory the eregtion of a fabric of a better compruction. Upon a reconfideration of the queftiop, concerning the length of the Panjab fropp Ludhana to Artock, I think fomething might be added to the $;$ prefent dimenfions, perhaps 4 or 5 miles: but it is a matuer of imall, importance, where all the diftances are aftimated. The Panjab country being the frontier province towards Tartarys and the northern parts of Perfia, from whence have fprung the conquerors of Hindophtan in

[^81]every age, Alexander alone excepted; it follows, that their route to the interior parts of the country; muft have led through it. Of all thefe conquerorb, 'as far as I can learn, the routes of Alexanider, Timur (or Tamerlane) and Nadir Shah, are the only ones that have Their particulars on record *: Timurn'stoute 1 have aliendy given'; as it wha shtetwoven fo clofely with the geographical conltruction; and towards" which it furnithed a confiderable proportion of materials. And Nadir Shah's route was the ordinary orie, by Attock and Lahore; and, I apprehend, he returned the fame way ; fo that it fürnifhes no matet for this work.

The particulars of the marches of the late Acmet Abdatla, (King of Candahar) during his frequent vifits to Delhi, in the prefent age, have not come to my knowledge. Alexander's route then, is the only one that temains to be difcuffed; and although latt in point of order, here'; is confidered as the firft as it refpects hiftory; and the gratification of popular curiofity.

I'take it for' granted, that Alexander crofled the Indus + at or near the place where the city of Attock now fands; becaufe firf, it appears to have 'been lin all ages, the pars on the Indus, leading ffom the cobritries of "Cabul and Candahar into India : and this is ftrongly indicated by the circumftance of Acbar's building the Fortrefs of Attock, to cdmmand it. Mr. Frafer, in his hiftory of Nadir Shah, fays, "there is but one place where an army can "conveniently be"tranforted, the frearn being fo rapid in thof * parts. There is a caftle commanding that paffage, cafled the 'caftle of 'Attock." Attock then, muft ftand on or near the fite of the Taxila $\ddagger$ of Alexander. And fecondly, as roon as Alexander

[^82]
## $\left[\begin{array}{ll}{[93}\end{array}\right]$

had croflid over to the eaft fide, Ambilares. King of the Indian mountaineers (the Gehkers or Kakares) fent ambaffadors with prefents to him. .The Prince of the fame country made his fubmiffions to Tamerlane, and in the fame place, in +398 , (fee page 86). From Taxila, as his intention appears to have beent to penetrate by the thorteft way to the Ganges, he would proceed by the ordinary road to that part of the bank of the Hydafpes (Behut or Chelum) where the fortrefs of Rotas now ftands; and bere he put into execution his ftratagem for croffing the river, while the oppofite thore was poffeffed by Porus. After crofing the Acefines (Jenaub-) and Hydraotes (Ranvee) which latter he may fuppofed to erofs near the place where Lahore now ftands, he appears to be drawn out of the direet route towards the Ganges, to attack the city of Sangala, moft probably lying between Lahore and Moultan ; but we are left in uncertainty as to its pofition, by Alexander's hiftorians, otherwife than by circumftances, and detached facts. The name Sangala, occurs only in Arrian : and is faid to have been a city of great ftrength and importance, in the country of the Cathei. Diodoras Siculus calls the - Tame people Catberi, or Katberi; and thefe may veny eafily, be recognized under the name of Catry, in Thevenot that is to fay, the Kuttry tribe, or Rajpoots. Thevenot fpeaking of the people of Moultan, fays, "t there is a tribe of Gentiles (iv, e, Gentoos or "Hindoos) here, called Catry, or Rajpoots: and this js properly "c thein country, from whence they fpread over all the Indies." Diodorus Siculus marks them by the cuftom of their women burning themfelves alive, on the funeral piles of their-hubands; which is indeed a cuftom among them, as well as fome other Findoo tribes, at this day. Now we find by Arrian, that the Cathei were confederated with the Malli and Oxydracæ, that is, the people of Moultan and Outch, and which lay to the fouth-weft of the place where Alexander might be fuppofed to crofs the Hydraotes (or Rauvee) in his way into India. (That the Malli were the people of the prefent Moultan, we can have no doubtr, if the attend


 the thind day after croffing the Hydraotes; and wee capnot:allexs leff thann; 4: horiapontal, diflapcese Had Alexander's route been S E towarder, the Ganges, the above diftance, would have brought him within 6 minef of the Hyphafis (the modern Beyah) and Arrian fays not a mpord about that, river, untill Alexander had returned to Sangala from the purfuit of the fugitives, and again fet forward on bis march. No idea is given; either in Arrian, Diodorus, or Quintus Curtius; of the diftance between Sangala* and the Hyphafis, $;$, but it may be collected by Arrian's manner of ipeaking, that they were not near each other. Diodorus places the kingdoms of Sophitem, and, of Pbigeus betweeen the, Catheri and the Hyphafits; whences wes may infer a confiderable fpace between them, If I am right in my copjecfuye concerning the pofition of Sangala, the Hyphafis (Beyah) muft be about 40 miles from it, eaftward; and let Sangala be whese it, will, the riyer Beyah anfwers to the Hyphafis, or Hypafis (called anciently :by the , matives, Beypanha) and Alexander's altarss r, may probgbly have been erected between Aurupgabad and the conflux of the Beyah and Setlege, at Firofepouf; Pliny, fays on the further, or eaftern Lide of tha river. One cannot help regretting the extreme bravity of this part of Arrian's narration, with refpect to the, denil of Alexanderi's marches, between Sangala and the Hyphafisk and back again to the Hydafpes; which is difpatched too rapidly foria geographer to profit by. Diodorus and Curtius are nat monet explicita; inan indeed, if they had, are they to be much dependedton, in this irefpect for they have confounded the Hydafpes (Cherymp) with the Agefines (Jengub) in their account of Alexander's yoyage. But, I think, whoever takes the trouble to compare Arrian'f af-

[^83]Conly, both bf the lania marchez, atid the woyde downtit invers; Whth the geography of the Panjab'; will flid the anclent ' Yyydatpes; in the modern Chelum, the firft river beyond the Indus; and fuceeffively; the Acefinies in the Jehaub or Chunatb; the Hydraotes In thit Rauvee; ahd the Hyphafis, in the Beyah': though I will not ebintend for the exact pofition of the altars,' 'whethet they might be above the conflux of the Beyah, or below it : only the aneient name Beipafla, appears more likely to have been the oright of the Greek Hyphafis, Hypafis or Huphafis; than Sbetooder, which was the ancient niamie of the Setlege.
Theite is a flat contradietion between Arrian and Diodorus (and Curtiins who follows the latter) regarding the quality of the country on the' 'eaft of the 'Hyphafis; the former deftribing it as a flourifhing能d well lifhabited country; the latter fay there is an extenfive Affert between it and the Ganges. Arrian's account flies' the upper phate of the river, and Diodorus's, the lower pare, for there is certrinty a defert', as has been before obferved; between the Panjab and Batnir.
i) We are left' to fuppofe that Alexander, 'caftet the deternmination of his army to proceed no further, returned to the Fy datpds, "ty the route he came, bating the ground he loft' in tharduring dafter the Catheri y' and finding his cities of Nicte and Buecephaliat ceinplleted ; and a flect, or part of one, built dut of the 1 mbbr proctired from
 E.or Imous, He proceeded ditwn the Fyytafpes with his' fleet, while "the greater' part of the army marched by land.

- Here it it ithay be proper to obfetve, that Atrian toes' 'not'fay from swhetce the timber carne, *ut leaves us to fuppof that it came iffom the firette neareft to the riter, and enough fy known of the thature the country, to continet us that the ' Forent beitaefing on the flot 'of the Cafthmirian Hfflts 'were very' near to the rider 'Hydafpes. The mountains Emodus and Imaus indeed, were at a very great diftance, and could be only in fight to the $\mathrm{N} E$, fince they are a
continuation of the great, ridge called, Hiendo-Kro sor tho Indina. Cançafus.; and whiop :are nearicic the hend of the Indus, and run through the heart of Thibet. I fufpecti, Emodus and Imaus to be different readings of the fame name; and Imaus or Himaus, wa have every reafonable proof of being; derived from the Sanferit word Himmatel, fignifying fnowy. That vaft ridge bears the fame nama at prefent; and Pliny knew the circumftance well *.

To return to Alexander. He failed from his firft place of emobarkation an the Hydaspes, about the middle of November N. S: 327. years before Chrift, (according to Uhher) having of courfc; been in the field the whole rainy feafon; for he croffed the Indus in May: In five days, the fleet arrived at the conflux of the Hy dafpes and Acefines (Chelum and Jenaub) the identity of which, is moft pointedly marked, by the nature of the banks : for thefe.large rivers, pent up within ftrait rocky beds, form a rapid and troubled ftream at their confluence; and this appearance difmayed the whole fleet ${ }_{3}$ and proved fatal to fome of the large fhips. A fimilar defcription of this confluence is given in Sherefeddin's life of Timur, : who crofled: a liztle: below it in 1398 nearly at the fame feafon, ouver $a$ : bridge of baptse At this place, Pbilip, who had led a divifion: of the army along the banks of the Acefines, (whofe courfe is not far from that of, the Hydafpes, and gradually approaches it, until they: meet) here joined the grand army, and was ferried over the Acefince. We may obferve from this, and from Craterus and Hepheftion' being detached, with the other two diwifions along the oppofite. banks of the Hydafpes, that Alexander might be faid almoft to fweep the whole country. He now approached the confines of the
 the people of the country, to prevent their giving affiftance to that nation; but the particulars of his march are not recorded. He returned again to the fleet and army at the conflux of the Hydafper;

[^84]andifrom thence difpatehed the flet to the hext price of rendezuous, at the conflux of the Hydradtes (Rairvec) with the Acefines (Jenaub) ; for fo the confluent Areams' of the Hydafpes and Acefines were named, the Acefines being the latgeft; and as the Hydarpes is faid to be 20 itades in width the whole ways the other muft have boen an immenfe miver. The army was divided into feur divifions, three of which marched at a confiderable diftance frbm each other, along or near the courfe of the river; the fourth, Alexander took the command of himfelf, and marched inland from the fiver, to attack the Malli on that fide ; in order to drive the fugifives toiwatds the forks of the rivers, where they might be intercepted' by forme of the other divifions. The line of direction of his march minft have boen fouth or fouth-eatward. On the fecond morning hetook a trong city, and Perdiccas, another; and after a fetond long night march, arrived at the Hydraotes (Rauvet): perhaps; wo midy' allow for the day, and two night marches, 40 road miles ; or 36 G! miles of horizontal diftance *. He fell in with the river'at fome confiderable ditance above the conflux (the appointed refidezvous: for the fleet.) as appears by what followed : and after erolling it,: took two other towns $\dagger$, and then proceeded to the "tapital 'city' of' the Malli; after difpatching Pithon back te the riven fide' to intercept the fugitives. This capital of the Malli, "mouff not "be' mitaken for the modern Moultan; which is at leaft 40 miles by land, below the conflux of the Fydutotes s! ord tivo dayst voyage: for a boat going with the fream $\ddagger:$ but the ahcient capital in queftion, was above the conflux, and near the Hydraote's (Rauvee) by the garrifon's leaving it, and retiring to the oppofite (north) fide of the river. Alemander recrofles the river, after them, but finding

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them too frong: to beattacked, with the papty he hrought, with himo and waiting for a, reinforcement, the enemy had time to refire into. another fortified, city, pot far, off: This namelefs city, is the, place where Alexander was wounded, and in fuch imminent danger; and not in the capital: of the Malli, nor among the Oxydrace (Outch) whiah is on the oppofite fide of the Acerinesb (Jenaub) and near its confluence with the Indus. Indeed Arrian is particular in pointing out this error [of Diodorus]. As to the diftance of this city above the conflux, we may colled that it could not be very far, both by reafon of the quick communication between Alexander, and the camp and fleet; and by the ground he had marched over, after leaving the firft conflux. I am inclined to place it about 10 G. miles above the conflux (of the Jenaub and Rauvee) and a few miles from the north bank of the latter; and the capital of the Malli on the oppofite fide, and not far from the river bank; fo that they will be fomewhat below the prefent town of Toulomba, a famous pafs on the Rauvee, between Lahore and Moultan.

When Alexander was fufficiently recovered from the effects of his whound, he was embarked on the Hydraotes, and carried down the Areams the his; feets which appears to have been brougbt into the Hydraptef; for we learn that he paffed the conflux after he joined the fleet *:

We learn alfo, from the fame author, that the Acefines preferves its name until it is loft in the Indus, although it receives the $\mathrm{Hy}-$ darpes and Hydraotes: the hiftorian of Timur, in like manaer, gives the name of Jenaub to the confluent waters of the Chelum and Jenaub: this alone, however, does not prove that it was the largeft river; for we have many examples, in modern geography, at leaft, where the adjunct river, though the fmalleft, gives its name to the confluent waters. It is worthy of remark, that Arrian, as it appears, not knowing what became of the Hyphafis (Beyah)
does not fay that Alexander haw the mouth of it, as he did thole of the Acefines and Hydraotes; but only informs us that it fell into the Acefines. And indeed, the truth is, that there rivers under the modern names of Beyah and Setlege, do not join the Jenaub; but after uniting their freams, fall into the Indus, a great way farther down. It is certain that the courfes of rivers, even of the largeft, do alter fo much, in time, that what Arrian fays, might have been the cafe; but there is no neceffity for fopporing it.

Arrian, as well as Sherefeddin, informs us that the lower part of the Panjab towards Moultan, is flat and marty, and inundated [like Bengal] by the periodical rains, which fall between the months. of May and October. As a proof of it, Alexander was once obliged to break up his camp, on the Acefines (Jenaub) and retire to the higher grounds.

From the conflux of the Acefines with the Indus, we accompany: Alexander fucceffively to the territories of the Sogdi, Muficani; Oxycani, Sindomanni, and Patalans. The Oxydrace, who had fubmitted by their ambaffadors, were left unmolefted. Bhakor: anfwers nearest to the position and defcription of the country of the Muficani, which was next to the Sogdi, and the mort powerful on that part of the Indus : and the Oxycani, the next in order, to Hajycan; a circar, or divifion of Cindy. In Sindomanni, we may, recognise the country of Sindy; or that thro' which the river Sinceflows, in the lower part of its courfe: and Pattala, has ever been: referred to the Delta of the Indus. But fo vast a change of names, or rather fo vat a change in the manner of writing them *, forbidsthe building of any hypothefes, on the fimilarity of ancient and,

[^86]modern names of places gil:usceft in cafes, whese the locutity nis equally evident.

Haxing, now conducted Alexander acrofs the Panjab, and down the Jndurs, to the head of its deftr; it may not be aniifs to obferve; that the ftuke of the country through which he paffed, was wery differeht ifrom what we fhould have conceived, who have been in the habio of confidering Hindooftan, as being governed by one monareh; or even as divided into feveral large kingdoms. In the Panjab country, in an extent lefs than is comprifed within one of the faubahis, or grand divifions of the Mogul Empire, we find no lefs than feven nations; and along the lower parts of the Jnitus, many mone. Even in the Panjab, where Alexander warred a whole campaign and part of another, there was nothing of that kind of conoert appeared, which muft have taken place between the govetnore of provinces, had they been under one head: but in general, each acting feparately, for himfelf. The Malli, Catheri, and Oxydracæ, we are told, leagued together for their mutual defence; and this proves that they were feparate governments. It is curious, that the fame caust that facilitated Alexander's conquefts in India, thould aifo have given them the degree of celebrity that has ever accempanied them; that is to fay, their fubdivifion into a number of fmall ftates: and ordinary readers, either not regarding, or not comprehending their extent and confequence, have confidered them as kingdoms. The conqueft of the Panjab and Sindy, would, with fach an army *, be no very great matter in our times, although united : and yet this conqueft is confidered as a brilliant part of Alexander's hiftory: the truth is, the romantic traveller is blended with the adventurous foldier; and the feelings of the reader, are oftner applied to, than his judgment.

But although the weftern part of Hindooftan was in this ftate, there exifted beyond, or rather towards the Ganges, a powerful

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kingdom, as appears by the ftate Mogafthenes found it in, when. he refided in quality of ambafiador from Seleucus Nicator, not many years after, at Palibothra, the capital of the Prafii*. The Prafians probably owed to the difoontents that prevailed in Alexander's army, their efcape from a foreign conqueft, at that period.

Alexander arrived at Pattala about the middle: of Augurt (Before Chrift 326 years) and after he had made proper arrangements for the fafety and conveniency of his fleet and army; and had viewed alfo the two principal mouths of the Indus, in which he experienced fome degree of furprife, if not of terror, from the bore, on fudden influx of the tide $\dagger$; he departed by land for Sufa, beaving Nearchus with the fleet to follow, as foon as the etefian winds $\ddagger$ thould ceafe. He had been more thian 9 months in failing down the Hydafpes, and Indus. He croffed the Hydafpes about the fummer folltice in the preceding year, and of courfe had been in the field, or in fome kind of warfare, during two rainy feafons: we are told however, by the author of the Ayin Acbaree, that but little rain falls in the lower parts of Moultan; that is, the part bordering on the Indus. Nearchus failed about the middle of October§ with the N E monfoon; conducting, according to Drv Gillies, in his elegant hiftory of Greece, "t the firf/t Eurnpean fleet which navigated the Indian feas." By the journal of this.voyage, publifhed by Arrian, it appears that the fleet failed out of the weftern branch, by the diftance between the mouth of the Indus and the river Arabius, which was only 1000 ftadia; for Arrian gives the breadth of the Delta at 1800 ftadia, along the fea coaft $\|$. Arrian takes notice that when Nearchus ftood out to fea, on the coaft of India, he found either no fhadow at noon; or elfe the fhadow,

[^88]if any, was projected fouthward. This, however, could not porfibly happen, becaufe Alexander did not arrive till after the fummer folftice, nor till Auguft. And yet Arrian took this from Nearchus's journal : but whoever examines the geography of it, will find that he could never be within a degree of the tropic, allowing him to have failed at a reafonable diftance from the fhore.

It may appear extraordinary that Alexander chould, in the courfe of a few months, prepare fo vaft a fleet for his voyage down the Indus; efpecially as it is faid to be the work of his army. But the truth is, that the Panjab country, like that of Bengal, is full of navigable rivers; which, communicating with the Indus, form an uninterrupted navigation from Cafhmere to Tatta: and, no doubt, abounded with boats and veffels ready conftructed to the conqueror's hands. That he built fome veffels of war, and others of certain defcriptions that might be wanted, I entertain no doubt ; but tranfport and provifion veffels, I doubt not, were to be collected to any number. There were about 80 triremes; and the whole number of embarkations were near 2000. I think it probable, too, that the veffels in which Nearchus performed his coafting voyage to the gulf of Perfia, were found in the Indus. Veffels of 180 tons burthen are fometimes ufed in the Ganges; and thofe of 100 not unfremquently.

Account of the Map of the Countries, lying between the River Indos, and the Caspian Sea.

HAVING fo often had occafion to mention the countries of Perfia and Tartary, contiguous to the north-weft parts of India; it will be for the reader's convenience to have a fmall map of thofe parts, inferted in this work ; by which the relative pofitions of the

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#### Abstract

froptier provinces of both countries, will be fhewn, and the heads of the Indus, Ganges, and Oxus, brought into one point of view. It will alfo ferve to convey an idea of the route purfued by Mr. Forfter*, from the banks of the Ganges, to the Cafpian fea; and ! which has never been travelled by any European in modern times; at leaft no account of it is to be found on public record.

The pofitions of Jummoo, Attock, Behnbur (or Bember) and Pihour, are given in the large map of India; therefore, I thall begin with an account of thofe of Cafhmere, Cabul and Candahar.

From Jummoo, Mr. Forfter travelled to the capital city of Cafhmere, which he reckons 97 coffes by the road; and the general


- The hiftory of this gentleman's travels is very curious. He proceeded by land from Bengal to the Carpian fea, and from thence by the ordinary route on the river Wolga, \&c. to Ieetersburgh; in the jears 1783 and 1784 . It was neceflary, from a regard to fafety, to avoid the country of the Seiks; that is, Lahore : he accordingly crofled the Ganges and Jumaa rivers within the mountains, and proceeded to Caffmere by the road of Jummoo. He vifted this celebrated country, I prefume, through motives of cuiloity, as it lay fo far out of his way. From thence, crofing the Indus, about 20 miles above Attock, he proceeded to Cabut, the capital city of Timur Shah, King of Candahar ; or more commonly known by the name of sibdalla. He meant to have proceeded from thence, through the country of Bucharia or Trantoxonia; but finding it too hazardous, he purfued the accuitomed route of the caravans by Candahar. From this place, which is fuppofed with reafon to he the Parepomijan Alexandria, his route was nearly in a flraight line through Herat, to the fouth extremity of the C 4 fian ; acrofs the modern provinces of Seitan, Koratian, and Mazanderan ; and waich were known to the Ancients, under the names of Paropamijus, Aria, or (Arianai) Par!bics and Japuri. It will be perccived that (as far as a comparifon can be made) Mr. Foriter taced back a confiderable part of the route purfued by Alexander, when in puriuit of Belluss: As he travellyd in the difguife of an Aliatic, and in the company of Afiatics; through a vait extent of Mohammedan country, where the religious prejudices of the natives, are nearly equalled by their political jealouty of all forts of foreigners; we may pronounce the man who could perform fueh a talk without fufpicion, to poffefs great prefence of mind, and no lefs difcretion ; added to an uncommon fhare of obfervation of manners, and facility of attaining languages. Detection had becn worfe than death : and he was fubject to continual fufpicion froin his fellow-travellers, who were not in the fecret. I hope he means to publith his obfervations on the manners, government, and prefent ftate of that part of Perfia, of which we know the leaft : as well as of Ca!hmere, a fubject yet more interefling to the philofopher and naturalitt. It may ferve to hew the extenfive commercial intercourie, and credit in Hindooftan, and the adjoining country (once dependant on it) notwithflanding the variety of governments it contains, and the unfettled flate of the greateft part of them ; that the bills of exchange which Mr. Fortter obtained at Calcutta, were negociable at Cabul, 17 or 18 hundred miles diltant; and the capital of a kingdom totally unconnected with, and pofibly hoitile in political fentiments, to that in which the bills originated. From the time he left the laft Britifh fation in Oude, to the Cafpian, in which he employed near 2 twelvemonth, and travelled 2700 Englifh miles; the was compelkd to forego molt of the ordinary comforts, and accommodations, which are enjoyed by the loweft chais on people, in European countries; fleeping in the open air, even in rainy and flnowy weather; and contenting himfelf with the ordinary food and cookery of the country he paffed through., Indeed it was barely poffible to carry with him the means of procuring comforts, without hazarding his fafety; as he was fo long on the road.
bearing, at N by W.: The loflil 19 coffes of the way: (were" by water, following the courfe of the Chalum or Behut' river (he writes it ( Falum) which, with its feveral branches, traverfes the valley of Callmere, and takes nearly a wefterly direetion, in this place. This being the eafe, only 78 coffes are to be reckoned it a northwardly direction; from Jummoo to Ihamabad, the place of embarkation : and as the hilly (not to fay mountainous) nature of the country requires at leaft 45 coffes to make a degree, the pofition of the capital of Cafhmere may be reckoned 117 G . miles N by W from Jummoo: or in lat. $33^{\circ} 49^{\prime}$, lon. $73^{\circ} 11^{\prime}$. The Perfian tables give its latitude at $35^{\circ}$ : but not only the diftance from Jummoo, but its bearing from Pifhour, plainly demonftrates that it ougbt not to be higher than $33^{\circ} 49^{\prime}$, or at moft $34^{\circ}$; provided Lahore be in $31^{\circ}$. The capital of Calhmere has the fame name as the province, according to Mr. Forfter, and M. Bernier : but the Ayin Acbaree, at an earlier period, names it Sirinagur. It is a large city, and built on the fides of the river Chelum, which has. a remarkable fmooth current throughout the whole valley, according to, Mr. Forfter) and this proves the remarkable flatnels of the. country; as the body of water is very large.

The valley or country of Cammere, is celebrated throughout upper Afia for its romantic beauties, for the fertility of its foil, and for the temperature of its atmofphere. All thefe particulars may be accounted for, when it is confidered, that it is an elevated and extenfive valley, furrounded by fteep mountains, that tower above the regions of fnow; and that its foil is compofed of the mud depofited by a capital river, which originally formed its waters. into a lake, that covered the whole valley; until it opened itfelf a paffage through the mountains, and left this fertilized valley;' $a n$ ample field to human induftry, and to the accommodation of a happy race: for fuch the ancient inhabitants of Cafhmere, undoubtedly were.

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Although thls account has no living teeltimony to fupport it, yot history and tradition, and what is yet ftranger, appearancos; have improfled a convietion of its truth on the minds of all thore who have wifited the feene; and contemplated the different parts of it. Differrent authors vary in their accounts of the extent of the valley. The Ayin Acbaree reakons Ca/bmere 120 coffos long, and from 10 . to 15 broad; but I imagine that fome other diftricts under its government, are included. Bernier, who accompanied Aurengzebe thither, in 1664 , fays it is 30 leagues long, and 10 or 12 broad. And Mr. Forfter, who I dare fay was accurate in his enquiries and obfervations, fays it is 80 miles long, and 40 in breadth; and of an oval form.

The autbor of the Ayin Acbaree dwells with rapture on the bearties of Cahmere; whence we may conclude that it was a: favoutite fubject with his mafter Acbar, who had vifited it three times, before Abul Fazil wrote. Other Emperors of Hindooftan vifited it alfo, and feemed to forget the cares of government, during their refidence in the bappy valley. It appears that the persiodical mins, which almoft deluge the seft of India, are That out of Cafhmere by the height of the mountains; fo that only light Ghowers fall there: thefe however, are in abundance enougl to feed fome thoufands of cafcades, which are precipitated into the valley, from every part of the ftupendous and romantic bulwark that encircles it. The foil is the richeft that can be conceived; and its productions thofe of the temperate zone. A vaft number of ftreams and rivers from: all quarters of the valley, bring their tribute to the Chelum, the parent of the foil; which is a large navigable river, and in which we recognife the famous Hydarpes of Alexander, who crolled it about 100 miles below the valley. Many fmall takes are fpread over the furface, and fome of them contain floating illands: "In a word, the fcenery is beautifully picturefque; and-a part of the somantic circle of mountains, makes up a portion of every landicape. The pardonable fuperftition of the fequeftered inhabitants, has mul-
tiplied the places of worMhip of Mahadeo; of Berchan; and of Brama. All Cafhmere is holy land; and miraculous fountains abound. Ope dreadful evil they are conftantly fubject to, namely, earthquakes; and to guard againft their moft terrible effects, all the houfes are built of wood; of which there is no want.

Among other curious manufactures, with which Cafhmere abounds, is that of the fhawls; which are diftributed over all the weftern and fouthern Afia. We learn from M. Volney, that they even make a part of the drefs of the Egyptian Mamlouks : and at prefent (as if to exhibit the moft ftriking contraft in the claffes of wearers) they are worn by the Englih ladies. There remains no doubt, but that the delicate wool of which they are made, is the produce of a fpecies of goat, either of that country, or of the adjoining one of Thibet. Notwithftanding the prefent extenfive demand for fhawls, the manufacture is declined to one fourth of the former quantity; which may be eafily referred to the decline of the Perfian and Hindooftanic empires. Here are bred a fpecies of Theep, called Hundoo, which like thofe of Peru, are employed in carrying burthens. The annual publick revenue of Cahmere, in the time of Aurengzebe, appears to have been only about 35,0001 . From what has been faid above, it was, no doubt, a favoured province.

The Cafhmirians have a language of their own, faid to be anterior to the Sanferit. And it would appear that they had alfo a religion of their own, different from that of the Hindoos. Abul Fazil lays, " the moft refpectable people of this country, are the Reyfhees, " " who although they do not fuffer themfelves to be fettered by tradi"tions, are doubtlefs true worhhippers of God." Nothing can exceed the liberality of mind both of Abul Fazil, and of his mafter, the great Acbar: but the former appears to have caught fome of the enthufiafin of the valley, by his defrriptions of fome of the holy places in it. To fum up the account of Cahmmere, in the words of tie fame author, "It is a garden in perpetual fpring."

So far am I from doubting the tradition refpecting the exiftence of the lake that covered Cafhmere; that appearances alone would ferve to convince me, without either the tradition, or the hiftory. It it a mere natural effect; and fuch I apprehend muft be the economy of nature, in every cafe where the waters of a river are inclofed in any part of their courfe, by elevated lands. The firft confequence of this ftoppage, is, of courfe, the converfion of the inclofed lands, into a lake: and if this happens near the fountains of the river, and the ground is folid, it is likely to remain a lake for ever; the river not having force enough in its infant ftate to work itfelf a paffage through the mountains. Hence it is that more lakes are found near the fources of rivers, than in the lower parts of their courfe. If the river be inclofed after it has gained a great acceffion of water, and of comrie, flength, it will indeed at firft form a lake as before; but in time, the place at which it runs over, will be gradually fretted away, as in the cafe of the Chelum abovementioned. The Euphrates, in like manner, opens itfelf a paffage through Mount Taurus; and the Ganges through Mount Imaus: and even though the bafe of the mountain be of the firmeft texture, it will give way to the inceffant friction, through a courfe of ages: for we know not but that it may have been an operation of fome thoufand years. In the cafe of the Ganges, which paffes through Mount Imaus, it may be fuppefed that the lower frata were fofter than the upper; for the upper ftill remain, to a vaft height. In that of the Chelum, the lake appears to have exifted long enough to depofit a vaft depth of foil, before it difperfed. The Cafhmirian hiftory names the lake Sutty-sirr: and adds, that Kufhup led a colony of Bramins to inhabit the valley, after the waters had fubfided. Cafhmere is the frontier province of Hindooftan, towards Tartary and Thibet: it having little Thibet on the north, and great Thibet on the eaft; and Cangur on the N W.

From Cahmere, Mr. Forfter went by a very circuitous route, to Cabul; the barbarous ftate of the people who inhabit the fhores

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of the Indus towards, its fource making this, precautibninaceflify. The countries in queltion are thofe of Pehkely or Puckely, Sowhad, and Bijore, the (fcene of Alexapder's warfare; on the weft of the Indus. ${ }_{i j}$ all of which were fubjected to regular authority during the long and vigorous reign of Acbar. We are told by the Ayin Acbaree, that feveral of the freams that form the head of the Indus, yeild gold duft: and this accounts for the circumfance of the fadian tribute being paid in gold to Darius Hyftarpes; according: to Herodotys ( Book III.). The fum indeed feens too great, in proportion to what other provinces paid : but as the gold of the, river Pactolus has been exhaufted; fo may that of the Kihatngongab: in Puckley, be diminifhed. Pehkely, I take to be the RaClfac of: Herodotus, Book IV. (as well as the Peucelaotis of Arrian) from whence Scylax fet out to explore the courfe of the: Indus, ;under the orders of the fame Darius: for it lies towards the upper fart of the navigable courfe of that river.

The firft part of Mr. Forfter's route from Cahmmere, was down the courfe of the Chelum, or Behut, which has a fouth or $S S$ courfe, from the capital of Carhmere, for about 14 cofies; at which point he difembarked, and ftruck to the weftward, towards Muzifferabad; the capital town of a chief, who ftyles himfelf Sultan : of a diftrict of the fame name, bordering on the fouth-weft of Cafm mere. This capital is reckoned 71 coffes from Cafhmere city, in a W by direction.. The country being mauntanous from the confines of Canmere, together with the obliquity of the coburfe. of the river; not more than 73 or 74 G . miles can be allowed on this courfe. The frontier of Cafhmere was paffed at $15^{\frac{1}{2}} \cdot$ cofles. from the landing place, on the bank of the Chelum.

At Bazaar, 64 coffes in a S W by S direction from Muxifferabad, 1 Mr. Forter crofed the Indus., This place is about 20 miles to the : N N E of Attock, and, together with Jummoo, ferves to correct the pofition of Cafhmere, in refpect of Attock and Lahore. I have allowed the 64 coffes to produce 80 G. miles; and it accords, as

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nearly fuch a rough kina of computation, can be expected to do. The greateft part of the way from Muzifferabad," "was mountainous, and the counery fubject to petty Princes of the Patan racee. Mr: Forter entered the country of Timur Shah Abdalla, at Hyderbutgee, a town abbut' 8 mifles to the eaft of the Indus.:

The Indus (or sinde) was crofled by Mr. Forfter, the , ioth of Joly. He remaks, that no rain had then fallen in that neigh-' bourhood : but we know that the periodical rains muft have commenced in the northern mountains, near three months before, and of courfe mult have fwelled the river very confiderably; for Mr. Forfter judged the breadth of the fream to be three quarters of a mile. It was alfo very rapid, and turbulent, although not agitated by any wind. He obferved alfo, that the water was extremely cold, and that a great deal of black fand was fufpended in it. NiI-ab, or the blue tiver, is a name fometimes applied to the Indus: poffibly from the fancied colour of its waters, when mixed with this fand. The Ganges and Burrampooter rivers, on the contrary, when fwoln, are of a pale yellow, lightly tinged with red; being then faturated with mad. I doubt not but that the Indus affumes the farme colour, after the rains have fallen into the level countries, and wafhed a portion of the foil into the river.

I cannot find out where the fprings of this celebrated river, are. Unquetionably, they are far more remote than the fides of the mountains, which feparate Hindooftan from Tartary; and where both the ancient and modern Europeans have agreed to place them: for as thefe mountains are not in a higher parallel than $35^{\circ}$, at moft; the Indus could have no more than 150 G . miles to run (reckoning in a ftrait line) before it reached the place where Mr. Forfter croffed it : and we have no example of any river having acquired fuch a volume of water, in fo early a part of its courfe, as this fuppofition would make it. All the Panjab rivers; and moft of the weftern rivers; that is, thofe of Candahar and Cabul, fall in below this point. The Ayin Acbaree fays, " the Sind, accord-
" ing to fome, rifes between Cafhmere and Cafhgur, while others | "place its fource in Khatai." By Khatai, is ftrictly meant Cuina; but the term is likewife extended to Tartary, and other adjacent countries; of which Cafhgur may be one. This country commences on the north and north-eaft of Cafhmerc, and extends northward to the fortieth degree of latitude; and eaftward to the chain of mountains, which, in the idea of the ancients, feparated the two Scythias: in effect, it was that branch of Mount Imaus that extended in a direction nearly from north to fouth, and terminated on the eaftern branch of the fame mountains, near the heads of the Ganges. The Indus may then poffibly fpring from the weft fide of this ridge of Imaus ; and this soould allow a length of courfe, equal to what the Ganges takes, before it enters Hindooftan. A great part of the face allotted by the maps to Cafhgur, is known to be a fandy defert: it is poffible that the black fand feen in the river by Mr. Forfter, is rolled down by the torrents, from that defert. I cannot help obferving that on the eaft fide of the northern Imaus, the name Cbata appears as the name of a nation*; as that of Cafia does in the pofition affigned to the modern city of Caflggur. Khatai, as I have faid before, is applied rather im a lax fenfe by the people of Hindooftan. Cheen, or Maha-Cheen, is their proper name for the empire of China; as Sinf appears to have been among the Romans. Khatai anfwers better to Tartary, and its different members, fuch as Thibet, \&c. Probably Khatai, and Scythia have the fame derivation; as they appcar to have been applied in certain inftances, to the fame tracts of country.

Pihhour or Peifiore, is the next place of note that lay in Mr. Forfter's route. It is a confiderable city, and is fituated on the great road leading from Attock to Cabul; being 25 coffes from Attock, and 29 in a $W$ by $S$ direction from Bazaar; whence its latitude fands in the map at $32^{\circ} 44^{\prime}$; and lon. $69^{\circ} 54^{\prime}$. From this

[^89]place to Cabul, Mr. Forfter reckons 90 coffes; Col. Popham's MS. 108; and Tavernier 100. I have preferred Mr. Forfter's account of the diftance; but have altered his bearing to NNW , which accords beft with other circummances: and allowing 45 coffes to a degree, Cabul, by this account, will be in lit. $34^{\circ} 3^{6^{\prime}}$; lon. $68^{\circ} 5^{8^{\prime}}$. By the Perfinn tables, its latitude is $3:^{\circ} 30^{\prime}$; and its lon. $4^{\circ} 4^{\prime}$ weft from Lahore: but the conlruction allows only $3^{\circ} 47^{\prime}$. Thefe bearings, taken in a great meafure, at a venture, together with the computed diftances on each; can only be adnitted in geographical determinations, where there are no fixed points at the extremity of the feries, through the neceflity of the cale: however, they may be eftimated, as at leaft equal in point of authotity, to the Perfian tables of longitudes, in which Cabul is pliced $104^{\circ} 40^{\prime}$ to the eaft of the Fortunate Illands.

The city of Cabul, the prefent capital of Timur Shah, King of Candahar, is fituated near the foot of the Indian Caucafis, or Hindoo-Ko ; and not far from the fource of the Attock river, which paffes very near, or under it. Its fituation is fpoken of in terms of rapture by the Indian hiftorians; it being no lefs romantic, than pleafant: enjoying a delightful air, and having within its reach, the fruits and other products both of the temperate, and the torrid zone. In a political light, it is confidered as the gate of India towards Tartary: as Candahar holds the fame place, with refpect to Perfa.

The Ayin Acbaree is very full, in its defcription of the province of Cabul; as well as thofe of Candahar and Caflomere. Cabul has an extent given to it, of 150 cofles from the Indus (at Attock city, probably) to Hindoo-Ko; and 100 , from the river Chaghanferai, the eaftern boundary, to Charbagh. Thefe meafures may be taken at 200 G. miles, by 134 ; and appear confiftent.

The province of Cabul appears, by every account, to be a country highly diverfified: being made up of mountains, covered with eternal fnows; hills of moderate height, and eafy afcent; rich plains

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plains, and, ftately forefts; and thefe enlivened by innumerablef ftreams of water. It produces every: article necefary to human life, together with the moft delicate fruits and flowers. It is fometimes named Zabuliftan, from Zabul, ane of the names of Ghizni : which was the ancient capital of this country, and of which, Cap-: dahar was then reckoned a part. The mountains of Hipdoo, or Hindoo-Ko, feparate Cabul from Balk and Badackchan; and are: precifely the ridge defigned. by the ancients, under the name of the Caucafus of India: and the proximity of this ridge to Cabul, occafions the moft rapid changes in the temperature of the atmofpheref, The Ayin Acbaree, from whence moft of there particulars are col lected, takes particular notice of the Attock river, which takes. its: courfe from north to fouth (nearly) and fertilizes the lands of Cabul ${ }_{4}$ and Ghizni.

Cabul, as well as Candahar, together with fome diftriets:pn the, eaft of the Indus, are comprifed within the extenfive dominions, of Timur Shah Abdalla; which extend weftward to the neighbour- $;$ hood of the city of Terfhifh ; including generally Cabul, Candahar;, Peifhore, Ghizni, Gaur, : Seifan (or Sigiftan) and Korafan. . This, tract is not lefs than 6.50 B. miles in length, from eaft to weft: but although we, know, not what the extent may be, breadthwifes; yet,; there is little reafon to fuppofe, that it bears any proportion to :the $;$ length. . It does not differ much from the tract comprifed within! the ancient kingdom of Ghizni. Timur Shah's Indian fubjects are, chiefly Afghaps; the reft, Perfans and Tartars of almoft every de-:, nomination. His government is faid to be mild and equitable; with fome degree of relaxation as to military difcipline. This, in? a gpvernment purely military, forbodes diffolution.

The pofition of, Candahar is ftill more indeterminate, than that t of Caphet in as being placed with a reference to the latter, andin then paralle a affigned by the Perfian tables; which is $33^{\circ}$, of a degreeand half to the fouthward of Cabul. . Its longitude cannot be col- ; lected from the Ayin Acbaree, becaufe there is a miftake, in the:

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figures: : it giving a higher number of degrees than for Cabul; reckoning from the Fortunate Iflands. Mr. Förfer eftimates the bearing of Ghizni (or Gazna) from Cabul, at S or S by W; and the diftance 20눌 farfangs, or 41 coffes: and from Ghizni to Candahar SW, 103 coffes. Thefe give a general bearing of S $33 \mathrm{~W}, 137$ coffos. Col. Popham's MS. gives 122 coffes between Cabul and Candahar, in direct diftance; and Tavernier iio. There appears a wide difference in thefe accounts: Mr. Forfter's bearing from Ghizni, is unqueftionably too much foutherly, as is proved by the difference of latitude; therefore the diftance arifing from his compound courfe, is to be placed out of the queftion. And Col. Popham's MS. fays that the coffes are to be reckoned at a mile and half (Britifh, we may conclude) and then the 122 coffes, produce only 96 Hindooftanny coffes; and thefe, at 42 to a degree, will give $13^{8}$ G. miles. I have accordingly placed Candahar $13^{8}$ miles from Cabul, and in lat. $33^{\circ}$, lon. $67^{\circ} 5^{\prime}$ : which is D'Anville's pofition of it, in his map of Afia. In my map, it ftands $5^{\circ} 42^{\prime}$ weft of Lahore; or $1^{\circ} 55^{\prime}$ weft of Cabul. The eaftern geographers, according to M. D'Anville, allow 2 degrees between them.

Candahar, while the Perfian and Mogul empires were fèverally undivided, was the frontier city and fortrefs of Hindooftan towards Perfia; and was efteemed the key of the weftern provinies of the latter ; and not unfrequently changed mafters: The Ayin' Acbareé, claffes, as belonging to Candahar, feveral provinces on the weff of it, and which unequivocally belong to Perfia : but as the limits of the empire varied with the prowefs and abilities of the different Emperors, it may be concluded that Acbar extended them to the utmoft. I believe there are no doubts entertained concerning the adeient name of Candahar: which is allowed to be the Paropamifan Alexandria; from whence Alexander, directed his march northward, into Bactria' and Sogdiarta, that is, the modern countries of Balk, Bucharia, and Samarcand: and returned again to it, previous to his Indian expedition.

The pointion of Ghizni, the ancient capital of the kingdom of the fame name, is totally different from what M. D'Aquille fupz pofed. He has placed it in the NW extreme of Cabul : but Mr. Forfter found it in the very heart of that province. Geography is, indeed, very bare of particulars through the whole tract between Cafhmere and Candahar : although Mr. Forfter has contributed 'fo much towards the improvement of it. He has fhewn that Cahmere ftands nearly a whole degree to the north of the pofition affigned, it, in our beft maps: has taught us to diftinguifh certain branches of the Indus, which before, were either confounded together, or mifnamed. In particular, we learn from him, that the niver which paffes by the city of Cabul, is named the Attock; and joins the Indus in front of the city of Attock : and although the fmalleft river of the two (for it is not more than 100 yards wide, though deep) yet communicates its name to the other, duying a confiderable portion of its courfe.

Although this was the part of India, the firf known to Europeans, yet at this day, we know lefs of it, than of moft other parts. nor ought it to excite furprife; for the moderns have vifited India, on a very different errand than what the ancients did: ours being purely on the fcore of maritime trade, until the downfal of the Mogul empire, opened the way to the acquifition of territory : and that in the oppofite corner of the empire. I have availed myfelf of the laborious refearches of the celebrated D'Anville, to introduce feveral places, whofe names he has identified on the authority of a Turkih geographer, whofe works 1 am unacquainted with. From M. D'Anville's works alfo, I have copied the pofition of the northern mountains, which feparate India from the Tartarian provinces, as well as thofe provinces themfelves; having, as I faid before, extended the map to Samarcand and Calhgur, in order to fhew the relative pofitions of the places fituated near the common frontiers of Perfia, India, and Tartary. Thofe who wihh for more particular information, may confult his map of Afia publifhed in

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1751 ; as alro his Eclatridemens*, which accompanied that, and the map of India; the firf fection of which is particularly curious, and applies directly to this fubject. His Anitiquitte Geograpbiquie de L'Inde, deferves attention likewife: though I cónfés I cannot follow Arrian in his ditail of Alexander's marches, in the countries bordering on the weft of the Indus, for want of fuch unequivocat marks, as are to be found on the eaft fide of that river, in the courfes and confluences of the Panjab river's. However, by the aid of the Ayin Acbaree, reveral pofitions in the march of Alexander may be afcertained; as the fecond volume of that work," under the heads of Canlmere and Cabul, gives the names, dimentions, and "re"' lative pofitions, of the fubdivifions of thofe countries. I think' I can clearly perceive that Alexander never went fo far to the north as the city of Cabul; and that although his route is' generilly reprefented as very circuitous, and even traverfing the country' from one extreme to the other; yet I apprehend, that on the contrary, it was tolerably fraight, from Alexandria (or Candahar) to the Indus, near, Peincelaotis, or Pehkely. Let us endeavour to trace his route generally :
$"$ Leaving Alexandria, he came to the river Copbenes $\dagger$, which, by circumftances, ought to be the river that runs under the city of Nagaz: and the modern name of which, M. 'D"Anville has found to be Cow, in the Turking geographer above fooken "of. 'It is un-' fortunate, that neither Mr. Forter's journal, nor Col, Popham's Ms' give the particulars of any of the rivers on the road between Cabul and Candahar: the latter indeed, notes no lefs than five ffreams that crofs it : but leaves us in uncertainty as to their buik, names, and future courfe. In Alexander's arrangement of boundaries, the river Cophenes was the eaftern limit of the province of Paropamifus ; of which Alexandria, or Candahar, was regarded as

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 agrees with the modern Pebkely or Puckley, lying on the noth of Attod fisnat Hepheftion's Itay there muft have been very'ddni-
 Wote of the Priste of the country, the fiege of his capititit tod thp 30 thys.s. Alexander himfelf, marched fron the banks of the Cophenes againt the A/piij, Thyrai;' and Arafari; nation's, whiote fituations, and modern names, I am utterly ighorant of; 'tut cth'
 swated! bn the northeaft of Candahar'; for, not to mentition lithat Alecander would hardly purfue the fame route as Fephettiond dia, which was wo the edat ; he afterwards faited dowon ibe jftelim' of tht Indius; tosthel plate where the briage was built: and every ciretith-

 and defoating the Alpians'in a pitched battle, paffed through the territorijes of the Gutrai, and croffed the river of the fame namis, with rinucho diffedity; by' reafon of the depth and rapidity bf jiti ftreams, iand the bhature ' ' its bottom; which was comipbled of round ghppery flonest'. He was at this time, on his way to the country of the :Ifacemil or Afacani; and this is a point, at whith I Thull paufe, to eendearour to afcertain its pofition, from thee naturt of the citcumftanices relafing to' fit. The river Gureifs, "then, "uppears to to ihbve been the fhot coonifiderable one that occiurred firlee Alexander pafled the Cophenes: it was deep; but yet fordable; for had his army croffed it in boats, they would either have been ignorant of the nature of its bottom; or knowing it, they could

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 tack, rivers w, which : :




 road miles.
The gountry of Aflacani, appears to boprder, ppa!the fant pefefthe

 the xapital, being taken by affiult, Alexapder fummoned Rezzires which we may conclude to be the territory adjoining to the Af Alat, canj; ;and here the modern diefrict of B.ijare prefenets isfelf. incanpofit tion , ghat- anfwers moft unequivocally to that, of, Boatirasilond the fimilarity of the pames is no lefs ftriking. Bijoreqis spfmall provimet bogdering op the north of Pihhar (or Peighore) which isbfyment mous, with Beckran $\dagger$, and is confined by the fiyers Indusi inted Aftock. Its dimenfipns are not more than sparailefy byices fulborf
 Ins poiftion becomes interefting, as it conmang, the qqupord mounemin
 ploits of Alexander, in thefe parts. The Ayin Acbuceepgivis:00
 defgribss it generally as a very drong, countrywand ads bexingurafth. neffes, into which the inhabitants occafionally, retreazen Atrconding to, the above particulars of the fituation of Bijgres; and the accounnt of Alexander's proceedings after he deft, Atocnus, CI coiocilute that this celebrated mountain lies qbout 55 G. niles: norshward; ma



[^91]$t$ Ibid. p. 194 and 205.
ceflible only by"otie fartow path, "cit out in the rock. On' the'
 of 'water', to' that' a gariffon of 1600 men 'might Yobjift, wiffiout' ariy extraneons aid. We may fuppore ft to be fomewhat fimilar to Gwalior ${ }^{\text {H }}$, or Rotas Our in Bahar. The Indus does not pas hear Aormus; becaufe the diftrict of Sowhad proper hits between the Indus and Bijore, according to the Ayin Actbaree.
M. D'Anville in his Eclaircifemens, and Antiquité de L'ride, infornt's us that the Siear Otter, in his account of the return of Naffl'Shah,' in i739, (a work I have never been able to meet with') deferibes a rematkable mountain of the name of Renas, on the eáte" of the Attock river, and near the banks of the Swvat' and indeed, in the polftion, in which we might expect to find 'Aornu's.' Thé river Sutiat, probably means that of Sowbiad ; a province bordering;' as we 'have faid before, on the weft of the Indus: 'and I Mould furpeet that the Indus itfelf is intended by thle river Suvat. 'M. D'An's' ville's reafonimg; to próve that Renas and 'Aornus are meant for the fanie word, is'vety curious: and I beg leave to refer 'the' readér' to page 17 of the Antiguite de L'Inde, where he will find it in the autheres bww words."

- It'appéars that Alexander, after the taking of Bazira, and béfore he befieged Aornus (ndtwithftanding its' proximity to the former) proceeded to the Indus, where he took poffeffion of the city and fortrefsiof Petucelabtis, and feveral fmall towns on, or near, that river: and as Heptieftioti and Perdiccas make their appearance here,' I coniclude this to Ge the city fpoken of before, as fiftaining a fiege' of 30 days; which period might poffibly expire about the time of Alexander's' arrival :"and the furrender might have been' a confe-' quence of it.

We lide before fuppored the county of Peucelaotís to be the modern Pehkely: aria the fortrefs'and city m quention, wás probà-

[^92]bly then capital of it it.: The Ayin Actaref defcribes, the prokince thus:- it is Gituated on, the weft (on rather S,W,) of Calhmeres, with: the country of Gebker to the fouth; Attpck to the weft (or S W), Sowhad, which includess Bijere, on the N W/; and Kenore on tha north: its rivers are the Behput, Sinden (or Indtys) apd Kifhengonga: and its dimenfions 66 B. miles by 47. ., The $t$ wo circumptances of the Indus and Kiahengonga paffing through it; and its bordering: on the diftrict of Attock (or Attock-Benaris) point out its general pofition very. clearly. Mr. Forfter thews us that the Attogk diftrict extends 27 or. 30 miles to the N N E of the city of tbat nampe : apd it may poffibly go fomewhat farther northward; though probably not much. Here then we place the fouthern limit of Pohkely, about 35 miles above the city of Attock, and extend it ta the N N E, along the fhores of the Indus; though much more of it lies on the eaft of that river, than on the weft. . The Kilhengonga being the common boundary of Pehkely and Cahmere, proweo. that Pehkely has its greateft extent from NE to S.W: and Mr. Forfter, who avoided the Pehkely diftrict, and did not fee the, Kihnengonga, mult have been to the eaft of it it in his, jipurney tifpra,
 will convey a clearer idea of the relative pofitions of the feveral provinces juft mentioned, than any written defcription: and, to that, I. hhall beg leave to refer the reader.
.. If I underfand the matter right, Alexander, left, thearack Aprm nus behind him, as I faid before, when he proceeded to Prucelaotisy. to receive its furrender : and afterwards marched back again (that is, to the N or N W ) to inveft the rock; taking the, city of Embolima; which food near it, in his way. And after the taking of Aornus, he made a fecond expedition into the country of the Afficani, ftill, tracing back his ftepe to the northward. His errand among the Aflacani (Iffa-kyl) this fecond time, was to get pofiefion of fome elephants, which were faid to be fent thither, to prevent their fat: ling into his hands. It was doubtlefs an objeat to him, to be pros
vided'with a fufficient number of elephants, in order to oppofe, with a profpect of fuccefs, thofe of his enemies, when he 'floutd arrive on the eaft fide of the Indus. And although Alexander might, from his' fuperior knowkedge of difeipline, defpife the 'ettacks of thofe aximals, as every aecomplifhed general in overy ab has done; yet from an equar degree of knowlodge of the hromen mind, he might conclude that his foldiers in general would feel themfelves poffeffed of more confidence, when, in addition to their ordinary means of attack, they could alfo employ that, which appeared the mooft formidable in the hands of their enemies. The elephants were at laft found, in the paftures near the ludas; and fent off by land to the grand army; which we may fuppofe to be on their march, towards the bridge. He in the mean time, poffbly tired of marching; or for the fake of novelty, wifhing to cmbark on the Indus; caufed trees to be felled, with which baving conftructed boats (according to Arrian) he failod down the fream ta the bridge. Poffibly he made fome rafts, which might be fully equal to his wants; but it is difficult to conceive, by thofe who are acquainted with the nature of confructing any kind of boats, that he either waited to build them ; or that he carried with him the requifites for their equipment, on fo fudden an emergency.

I have before (page 92) fuppofed Attock to be the place where Alexander croffed the Indus: and over and above the reafons there s affigned for it, $\mathbf{I}$ will now add another : which is, that after he came to the bridge, (which was compleated before hit arrival) :he made an excurfion by land, into the country adjacent to the weftern bank of the Indus, to view the city of $N y f a$ (fuppofed by D'AnL ville to be Nagaz, the Nagara, or Dyonyfopolis of Ptolemy) and he th then faid to have entered the country, that lay betwoen the two rivers, Cophenes and Indus. We have before taken it for grateid that the Cophenes is the river that runs by Nagaz, and falls imto the Indus about 30 miles below the city of Attock; and as the rijor Attock joins the Indus in front of the city of that name, it is clear that

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that until he came oppofite to that city, he could not be between the Cophenes and Indus. And if it be faid that the Attock river, was the Cophenes, he had all along been between the Cophenes and the Indus; and Arrian's words could have no meaning. But it is probable on every account that Attock was the croffing place: there the mountainous country from the north-eaft terminates, and the plains of the Panjab begin; a circumftance highly favourable to his future plan of penetrating into India, and no lefs fo to the conftruction of his bridge ; which was no eafy matter to accomplifh, acrofs a river fo wide and fo rapid as the Indus; but which was lefs difficult in a level country than in a mountainous one. The bridge was undoubtedly made of boats, as Tamerlane's was, in 1398 : but Tamerlane croffed at a feafon when the river, was (comparatively) low; Alexander, after it was confiderably fwoln, with the periodical rains.

By Alexander's iending off Hepheftion from the Cophenes, to provide the means of paffing the Indus in the country of Peucelaotis (Pehkely) it would appear that he had an intention of croffing it higher up than he afterwards did: and it was natural enough, before he had learnt'from Hepheftion that the fituation was in every refpect, unfavourable.

It is unlikely that Alexander, fo far from vifiting. Cafhmere, as fome have thought, ever had heard any diftinct account of it; otherwife fome of the writers of his life, would furely have taken. notice of fo extraordinary a country : nay, I conclude, according to my idea of Alexander's character, that he would certainly have vifited it, when he returned to the Hydafpes, to embark for the Indus : and was, in fome degree at leifure; if a man who is eternally preparing work for himfelf, can be faid to have any.

As M. D'Anville's account of Alexander's progrefs in the Antiquité de L'Inde, fuppofes that the Behut, or Chelum (he calls it: Genave) the wefternmoft of the Panjab rivers, was the Indus of Alexander; it is neceflary to obferve, that M. D'Anville's opinion
was formed on the fuppofed certainty of that Monarch's having only four rivers between him and the country of the Prafii, when he had croffed the Indus. That learned geographer had not the true geography of the Panjab before him : and, in fact, Alexander had all the five rivers of the Panjab to crofs, after he artived on the caft fide of the river, which he fuppofed to be, and was in reality, the Indus.

I return from this long digreffion concerning Aiexander, to the account of the modern geography of the tract in queftion. I am convinced that the more our knowledge of the particular geography of the countries, on both fides of the upper parts of the Indus, increafes; the clearer will be our ideas of Alexander's marches. The commentaries of the Emperor Baber, quoted in the Ayin Acbaree, may be a fruitful fource of information; as they treat particularly of the province of Cabul.

Between Candahar and Mefchid-Sirr, on the fouth coaft of the Cafpian fea, Mr. Forfter's route lay in a pretty ftrait line through Herat, Terfhifh, and Buftan (Biftam in D'Anville) and this circumftance is favourable to the defign of ufing his fcale of computed farfangs, through that fpace. He eftimates this meafure roundly | at 2 coffes; or about 4 Britih miles. His whole number of farfangs between Candahar and Mefchid is $280^{*}$, and the diftance according to M. D'Anville, (the beft authority I know) is $15^{\circ}$ of longitude, wanting $12^{\prime}$, which with the difference of latitude between $33^{\circ}$ and $37^{\circ}$, gives 772 G. miles. The farfang then, pro-

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duces 2,757 G. miles of horizontal diftance; or allowing for the inflexions of the road 3,71 , or near $3^{\frac{3}{7}}$ Britifh miles; not very wide of Mr. Forfter's eftimation: for 2 Hindooftanny coffes may be taken at $3,8 \mathrm{~B}$. miles. According to this proportion, about $2 \mathrm{I}_{\frac{3}{4}}$ farfangs, will make a degree of a great circle. M. D'Anville's fcale of Parafangas in his Euphrates and Tigris, are at the rate of $5^{\frac{1}{2}}$ to a degree. With the above fcale, I have compared fome of the intermediate places, in M. D'Anville's map of Affa, and find that Herat, the capital city of Korafan, is too far to the weft by $1^{\circ} 37^{\prime}$ of longitude; and Terfhin (or Terfhiz) by $15^{\prime}$, in refpect of the Cafpian fea. Thefe pofitions I have ventured to alter : for it is probable that M. D'Anville might not have been pofieffed of an itinerary, fo accurate as Mr. Forfter's. Between Candahar and. Gimmock, Mr. Forfter eftimates the bearing, at $\mathbf{W}$ and W by N : and the fhort diftance between the latter, and Herat, N. No reafon is affigned for the fudden change of courfe. From Herat to Buftan, W by N, and the remainder of the way, W, W by N , and N W. All thefe bearings are tolerably accurate.

This gentleman furnifhes us with new ideas refpecting the bearing of the chain of mountains, that is commonly fuppofed to penetrate Afia from weft to eaft, under various names: or rather, he brings us back to the ideas left us by the ancients. It is unqueftionable, that the Greeks and Romans knew more of the particular geography of Perfia, than the modern Europeans do: although the parts that are known to us, may be arranged with more geometrical precifion. This chain or ridge, which rifes in leffer Afia, and was anciently named Taurus, and runs eaftward through Armenia; and from thence deviating to the S E, fhuts up the fouth coaft of the Cafpian fea; was continued by Ptolemy, under the names of Coronus, Saripbi, and Paropamifus: dividing Hyrcania and Tapuri, from Parthia; Margiana from Aria; and Bactria from the province of Paropamifus (or, according to modern geography, dividing Mazanderan, or Taberiftan, from Comis; Dahiftan from Korafan ;
and Balk from Seiftan, or Sigiftan) and finally was made to join that vaft ridge, which under the name of Indian Caucafus, divided India from Baetria; and afterwards took the names of Imaus and Emodus; feparating India from Scythia. It is not known to the moderns, what courfe this chain takes, after it leaves the neighbourhood of the Cafpian fea: or whether it does in reality join the Indian Caucafus: but the probability of it is Itrong, although it is not after the manner M. D'Anville fuppofed: for he gives it an ESE direction from the Cafpian, and makes it pafs on the fouth of Herat. But had this been the cafe, Mr. Forfter mult have croffed it in his way from Candahar; inftead of which, he croffed no mountains until he came within 90 miles of the Cafpian fea; fo that he left the continuation of the Indian Caucafus, if fuch there be, on his right; or to the northward; and I really believe that the ridge does exift, under the form defcribed by Ptolemy : for the rivers croffed by Mr. Forfter, had all a foutherly courfe; proving that the high land lay to the north, although out of fight : therefore the connexion between the Cafpian mountains, and the Indian Caucafus, muft be by the north of Korafan. As for the ridge that Mr . Forfter croffed near the Cafpian fea, it had a north and fouth direction, and anfwers to the mountains Mafdoramus of Ptolemy, which thut up the eaftern fide of Partbia proper, which lay on the S E of the Cafpian. The modern name of this ridge is Kana-boody; and Mr. Forfter remarks that the elevation of it is far greater on the weft, than on the eaft: fo that the lands of Korafan, are in general, more elevated than thofe towards Ifpahan. The Kanahoody mountains are thofe which M. D'Anville has extended to Herat and Cabul; but we find their courfe to be quite different; but how far they extend to the fouth or $S \mathrm{E}$ is ftill a queftion.

I confefs it was a matter of furprife to me that there fhould be no mountains between the province of Cabul and Terfhifh, in the route paffed by Mr. Forfter : he defcribes nothing but fcattering hills, where the maps ufually reprefent lofty chains of mountains.

Through -

Throughout his whole route from Candahar to the Cafpian fea, he croffed no ftream that was too deep to be forded, although the journey lafted from the beginning of Auguft, to the latter end of January.

I have introduced Alexander's march after Beflius, \&cc. in order to render the map more compleat. We may trace the ancient Tapuri, in Taberiftan; Dabe, in Dahiftan; Arachofa, in Arokhage ; and Aria, in Herat, or Harat. Cau-cafus, and Paro-pamifus, the names of ridges of mountains on the N W of India, derive part of their names from Ko and Pabar, words which fignify mountains and hills in the Indian languages. Of Imaus, we have fpoken before, in page 96. Probably, the name of the Caucafus of Georgia, had the fame derivation, as that of India.

I Thall clofe the account of this fmall map, with an obfervation or two, refpecting fome geographical mifconceptions which I have obferved to prevail, even among forne of the learned. The firft is, that the modern Bucharia (or Bocharia) is the fame with the ancient Bactria. This is fo far from being the cafe, that Bucharia is fituated beyond the river anciently called the Oxus, or the modern Jihon: and is the country anciently named Sogdiana; from Sogd, the valley: that is, the beautiful valley, in which Samarcand (anciently Maracanda) is fituated. Bactria, or Bactriana, on the contrary, lay on the fouth of the Oxus; and comprehended the prefent provinces of Balk and Gaur ; and probably part of Korafan. Maver-ul-nere, is alfo applied to the country beyond the Jihon; and between the lower parts of the courfes of that river, and the Sirr, or ancient Iaxartes: Mavel-ul-nere fignifying the ciuntry beyond the river; or Tranfoxiana.

The other mifconception refpects ancient Partbia. Very inaccuraté ideas prevail concerning the local pofition of that country. Thofe whofe knowledge of it is collected chiefly from its wars withthe Romans, conceive Parthia to be only the countries bordering on the Euphrates and Tigris ; as the eq boundaries, on the extenfion of their em-
pires, met thofe of the Romans. Strabo has either been miftaken in this point, or has not fully:expreffed himfelf, where he defcribes the Parthians who defeated Craffus, as the defcendants of thofe Carduchians, who gave fo much trouble to Xenophon, during the celebrated retreat of the Greeks. It is probable, or at leaft poffible, that the Parthians might have had in their army at that time, fome detachments from among thofe hardy mountaineers; as the Carduchi were then numbered among their fubjects: but the bulk of the Parthian army, came from Perfia, their proper country. Whoever confiders the flight fubjection in which the Carduchians were held, even during the vigorous reigns of the firf Perfian Emperors, will not expect that the Parthians had many recruits from that quarter. The hiftory of the Parthian geography is briefly this: Parthia proper, was a fmall province, very near to the fouth-eaft extreme of the Cafpian fea; which territory, after the divifion of Alexander's empire, fell to the thare of the Seleucidx, Kings of Syria, and of the eaft, about 300 years before our æra. About 50 years after, Parthia rebelled; and together with Hyrcania, and other adjoining provinces, became an independant ftate, under Arfaces. As the empire of the Seleucidæ grew weaker, the Parthians extended their country weftward; and the fine province of Media (now Irak-Ajami) fell to them : and within a century after the foundation of their ftate, it had fwallowed up all the countries from the Indus to the Euphrates, Bactria included : and this province had thrown off the yoke of the Seleucidæ, long before Parthia. The Parthian conquefts in Armenia, about 70 years before Chrift, brought them acquainted with the Romans; whofe conquefts met theirs, both in that country and in Syria. The Parthians, together with their conquefts, had advanced their capital weftwards; and had effablifhed it on the Tigris at Seleucia, or rather Ctefiphon (near the prefent Bagdad) before their wars with the Romans commenced. The particulars of their firf wars with the Roman people, which continued about 65 years, are too well known to be repeated, here, had

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had this been a proper place for it; fuch as the expeditions of Pompey, and Anthony; and the defeat of Craffus. On occafion of this laft event, the Parthians extended their conquefts further weftward, but were afterwards compelled to retire : and they generally loft ground in Armenia and Mefopotamia, during the time of the Roman Emperors. Trajan penetrated to their capital; and fatisfied his curiofity by embarking on the Indian fea. The moderation of Adrian reftored the ancient boundary of the Euphrates. In A. D. 245 , Perfis, or Perfia proper, which had hitherto ranked as a province of Parthia, gained the afcendency ; and under Artaxerxes, put an end to the dynafty of the Arfacidæ, and reftored the ancient name of Perfia to the empire; after that of Parthia had exifted about 480 years. So that, in fact, the Parthian empire, confidered generally, was the Perfian, under another name.

## SECTION IV.

The Tract fituated between the Kistnah River, and the Countries traverfed by the Courfes of the Ganges and Indus, and their principal Brancbes: tbat is to fay, the middle Parts of $\mathrm{I}_{\mathrm{NDIa}}$.

THIS very extenfive tract is bounded on the north-eaft by the foubahs of Bengal, Bahar, Allahabad, and Agra; on the N W by the courfe of the river Puddar ; on the eaft and weft by the fea; and on the fouth by the river Kiftnah or Krifhnah : and comprehends in general the foubihs of Guzerat, Malwa, Berar, Oriffa, Candeifh, Amednagur (or Dowlatabad) Vifiapour (or Bejapour) and Golconda. It is about 800 Britifh miles in length from NW to SE; and 600 wide: and has in and about it, many points that are determined either by cœleftial obfervations; or inferred from fuch points, by the help of furveys or good charts.

The fundamental points on which the conftruction and fcale of this part depend, are as follows:

On the north and north-eaft, Agra, as determined by obfervations and furvey (page 48); and Calpy, Chatterpour, Rewah, Burwah, and Balafore, inferred from meafured lines drawn from other places of 'obfervation. On the eaft, Cattack, as determined by Col. Pearfe, (page 11). On the fouth, Mafulipatam, as determined by Col: Pearfe, and Capt. Ritchie (page 12). On the weft, Bombay, by the obfervations of the Hon. Mr. Howe (page 31) and Surat,

Surat, Cambay, and Diu Point, inferred from charts and furveys (page 33). And in the interior parts, Narwah, Sirong, Bopaul, Huffingabad, Burhanpour, Poonah, Amedabad, by Mr. Smith's obfervations, and General Goddard's march: Nagpour, Ruttunpour, and Gurrah, by Mr. Ewart's obfervations and furveys : and Aurungabad; Hydrabad, Sumbulpour, Agimere, and Areg (near Vifiapour) by mifcellaneous materials. I hall proceed firft, to give the authorities by which thefe primary fations or points, were determined; and afterwards thew how the intermediate parts were filled up, in detail. The conftruction of the fea coafts, on both fides of this tract, has been already difcuffed, in fection I: and I fhall begin my account of the conftruction of the inland parts, with Mr. Smith's and General Goddard's lines acrofs the contizent, from Calpy to Bombay, and Surat.

The Rev. Mr. Smith fet out from Calpy with Col. Upton in 1776, on an embaffy to the Mahratta Court at Poonah; and fell into the great road from Delhi and Agra to the Deccan, at the city of Narwah; which is fituated on the river Sindeh, near the entrance of a famous pafs, that leads through the chain of mountains, that divide Malwa from Agra. From Narwah, he proceeded to Sirong, a city of Malwa, fubject to Madadjec Sindia: and from thence to Burhanpour, the capital of Candeifh; and at one period, of the Deccan alfo. It is yet a flourifhing city; and is fituated in the midft of a delightful country. In his way to this place from Sirong, he croffed the famous river Nerbuddah; formerly the reputed boundary of the Deccan, to the north. From Burhanpour, he: went to Poonah, the capital of the weftern Mahratta empire, croffing the heads of the Godavery and Beemah rivers in his way: and. from Poonah to Bombay. During all this route, he took obfervations of latitude and longiiude, as often as opportumity offered; which was not unfrequently: and with thefe, together with the intermediate bearings of the road, he conftructed a map, which is. no lefs valuable on the fcore of its general accuracy; and extenfive
information; than carious, by the novelty of its fubject. We had then for the firt time, a geographical line, on which we could depend, drawn acrofs the contiaent of India, through the principal points between Agra and Poomah; and which, by eftablifhing fo many interefting pofitions, has enabled us to correct feveral routes; which, without it, would have remained very indeterminate. Narwah, for inftance, corrects the bearing and diftance of the road between it, and Agra; Sirong, the road to Ougein, and Mundu 3 and Burhanpour, the pofition of Aurungabad; and the bearing of the roads to Surat, Hydrabad, and Nagpour.

General Goddard's celebrated march from Calpy to Surat, touches on the route of Mr. Smith, at Calpy, Sirong, Bopaul, Hurdah, and Burhanpour: and the map of it, which remained in the General's poffeffion at the time of his death, was faid to be drawn from the materials furnifhed by the field engineers; who meafured the diftances, and took the bearings of the road, the whole way. On a comparifon of the difference of longitude shewn by this map, with that refulting from Mr. Smith's obfervations, the difference was, $6^{\prime} 355^{\prime \prime}$; the meafured line giving fo much more than the obfervations.

General Goddard's map gave the miles of wefting,
between Calpy and Sirong $109^{\prime}$, or difference $\} 2^{\circ} 0^{\prime} 15^{\prime \prime}$ of longitude
And from Sirong to Burhanpour 96 : miles of wett- $\}$ ing, ar difference of longitude

Whole difference between Calpy and Burhanpour
$\begin{array}{lll}3 & 44 & 3\end{array}$


## $\left[\begin{array}{ll}131\end{array}\right]$

And in the interval between Calpy and Sirong, about $\&$ degrees, the meafurement exceeded the difference of longitude by obfervation 4 minutes; fo that the meafured line exceeded the diftance by obfervation, proportionally through each interval.

Now it remains to be obferved, that Calpy, on the fouth bank of the Jumna river, the laft point in the furvey, that way, and the firf in Mr. Smith's route; ftands in my map, in lat. $26^{\circ} 7^{\prime} \mathrm{r} 5^{\prime \prime}$, and in lon. $80^{\circ} 4^{\prime}$; while Mr. Smith reckons it in $80^{\circ}$. Again, on the weft fide of India, I have taken Bombay at $72^{\circ} 40^{\circ}$ (fee page $3{ }^{1}$ ) and Mr. Smith places it in $72^{\circ} 45^{\prime}$ : fo that, in fact, he is $4^{\prime}$ to the weft of my account at Calpy; and $5^{\prime}$ to the eaft of it at Bombay: his whole difference of longitude between Calpy and. Bombay, being 9 ' lefs than what I have taken it at.' And again, it has been obferved that Mr. Smith reckons $6^{\prime} 35^{\prime \prime}$ lefs between Calpy and Burhanpour, than Goddard's meafured route gives. It is certain that obfervations of longitude, taken in the ordinary way, cannot be expected to correct fmall errors in diftance, fo well as meafured lines; and therefore it is no impeachment of the general. utility of Mr. Smith's obfervations, that I have ventured to deviate from them, in fixing the pofitions of fome places in the road acrofs the continent.

Narwah, or Narwha, is the firft point that I hall notice in Mr. Smith's map, from Calpy. He places this city and fortrefs in lat. $25^{\circ} 40^{\prime}$; lon. $78^{\circ}{ }^{1} 7^{\prime}$; his difference of longitude from Calpy, being $1^{\circ} 43^{\prime}$. Mr. Cameron, who furveyed the roads and country between Etayah and Sirong, reckons $1^{\circ} 3^{\prime}$ difference of latitude, and 57 miles of wefting, or $1^{\circ} 4^{\prime}$ difference of longitude from Etayah to Narwah. Now, Etayah being by. the furvey in $26^{\circ} 43^{\circ}$ $40^{\prime \prime}$ lat. ; and $79^{\circ} 17^{\prime}$ lon.; the latitude of Sirong comss out perfectly right, but the longitude is $4^{\prime}$ to the weft of Mr . Smith's. account; or $78^{\circ} 13^{\prime}$. I cannot, however, determine with what degree of exactnefs, this furvey was made; and I have placed Narwah in $79^{\circ} \mathbf{7}^{\prime}$.

Sirong (called alfo Seronge) by Mr. Smith's obfervations, is in lon. $78^{\circ} 4^{\prime}$; and as General Goddard's map makes it $2^{\circ}$ of longitude weft from Calpy (which is in $80^{\circ} 4^{\prime}$ by the above account) they both agree in this point, although they differ in the quantity of wefting between the two meridians of Calpy and Sirong : for Mr. Smith's difference of longitude is only $1^{\circ} 56^{\prime}$; and the meafured line exceeds it by 4 minutes. The latitude of Sirong is $24^{\circ} 4^{\prime} 40^{\prime \prime}$. It is proper to obferve, that General Goddard's route croffed Mr. Smith's about 6 miles to the S E of the latter place; but the furvey was clofed to it.

Between Calpy and Sirong, General Goddard's route paffed through Chatterpour, a city in the weftern quarter of Bundelcund (or Bundela). This place was formerly vifited, and its pofition determined by menfuration, from Rewah; by Capt. Carter. He placed it in lat. $24^{\circ} 58^{\prime} 30^{\prime \prime}$; lon. $79^{\circ} 56^{\prime} 30^{\prime \prime}$. Gentral Goddard's roiter qeprefents it as being half a minute in latitude more to the north,' that is in $24^{\circ} 59^{\prime}$; and $3^{\prime} 30^{\prime \prime}$ more wefterly in refpect of Calpy. As it was fixed by a meafured line drawn weftward from Rewah; its longitude ought to be better determined by it, than'by a meridiongl line 'drawn from Calpy; and accordingly, I have not altered its pofition.
Bopaltol is the next place where the roads meet; Mr. Smith's longitude of it is $77^{\circ} 4^{\prime}$, and lat. $23^{\circ} 13^{\prime} 30^{\prime \prime}$. General Goddard's map gives 'G2 G. miles, or $35^{\prime} 15^{\prime \prime}$ of longitude, from Sirong; making Bopal in $\boldsymbol{y}^{\circ} 28^{\prime} 45^{\prime \prime}$. I have placed it in $77^{\circ} 28^{\prime}$ lon.; and $23^{\circ} 14^{\prime}$ latitude. $\because$ It appears unaccountable that there fhould be no lefs than 19 'difference, between Goddard's account and Mr. Smith'sj; in the longitude of Bopaul. I copied the longitude, as it ftands above, from Mr. Smith's map.

Hurdah, of the Touth of the Nerbuddah river, is the next point of jupetion of the two routes. This, Mr. Smith places in $77^{\circ} 21^{\prime}$ $15^{\prime \prime \prime}$; and by Goddard's line, it comes-out $1^{\prime} 30^{\prime \prime}$ more to the weft; or $77^{\circ} \cdot 19^{\prime \prime} 45^{\prime \prime} . \therefore$ It will be recollected, that as General Goddard

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at fetting out, was f' ta the gastward of Mre Smith's account fat Calpy) Hordah will be $5^{\prime}: 38^{\prime \prime}$ on the whole; mote to the wefward, than Mr. Smith's difference of longitude from Calpy, would give.

Between Bopal and Hurdah, General Goddard's route makes a large elbow, or angle, to the fouth-eaft, to Huffingabad Gatt, on the fouth bank of the Nerbuddah river; and on the fontiers of Nagpour, the eaftern divifion of the Mahratta empire : thus eftablifhing a moft ufefnl primary point or ftation, in a quarter where it was the moft wanted. Huffingabad is placed in lat. $22^{\circ} \cdot 42^{\prime} \cdot 30^{\prime \prime}$, lon. $77^{\circ} 54^{\prime}$; and about 140 G . miles to the N W of Nagpour city.

The two routes run often into, and acrofs each other, between Hurdah and Burhanpour. The latter, as is faid befores, is by Mr Smith' $\xi^{\prime}$ obfervation, in lon. $76^{\circ} 22^{\prime}$; and in lat. $21^{\circ} 19^{\prime}$ : and by: Goddard's meafurement, which gives $3^{\circ} .44^{\prime}: 35^{\prime \prime}$, from, Calpy; in lon. $76^{\circ} 19^{\prime} 25^{\prime \prime}$; which, rejecting the feconds, is' the longitude I have adopted for it; not altogether on the evidence of the neafured diftances themfelves, but becaufe they agree with the whole difference of longitude arifing from the obfervations: adquted in the map, between Calpy and Bombay. (fee page 130 ).

Burhanpour is a very fine city, and was one of the earlieft conquefts made in the Deccan. In Acbar's divifion of the empire, it ranks as the capital city of the foubah of Candeif. It is now in the hands of the Poonah, or weftern Marattas. About 20 miles to the N E of it, is a very ftrong fortrefs named Afeer or Afeergur.

The final feparation of the two routes, is at Burhanpour, from whence Goddard went weftward to Surat; and Smith, fouth-wentward, to Poonah. The meafure of the radd to Surat gives $3^{\circ}$ $30^{\prime} .45^{\prime \prime}$ difference of longitude; which taken from $76^{\circ} 19^{\prime \prime}$. leayes $72^{\circ} \cdot 4^{\prime} 15^{\prime \prime}$ for the longitade of Surat; which I have adopted. This fubject has been already difcufled, in the firft fection (page 32) where it is obferved, that the different authorities between

Bonfoty and Sirrat, gave io diffirence of longitude between them'; by' which '(as Bombay is taken at $72^{\circ} 40^{\prime}$ ) Surat would be' in
If Mr Smith's obfervations at Burhanpour was a-
dapted $72^{9}: \mathrm{zR}^{\prime}$, then ie would be in
$72^{\circ} \quad 50^{\prime} 00^{\prime \prime}$

If his lodgitude of Bombay; $72^{\circ} 45^{\prime}$, then - 725500
72.5115

If:Mr. Howe's, $\quad-\quad 7^{2}$ 40, with an allowance of $8^{\prime}$ : $15^{\prime \prime}$ inftead of $10^{\prime}$ difference of lon. $\}$

The lat point in Mr. Smith's route, is Poonah, and the longitude given for that, is $74^{\circ}$; or $1^{\circ} 15^{\prime}$ eaft of Bombay. But as I have taken Bombay 'at $72^{\circ} 40^{\prime}$, Poonah, to preferve its proportional diftance, fhould be in $73^{\circ} 55^{\prime}$; which I have accordingly placed it in ; fo that it ftands in refpect of Burhanpour only 2 minutes farther to the weftward, than Mr. Smith places it. Its latitude is $18^{\circ} 30^{\prime}$ : Between Burhanpour and Poonah, Mr. Smith's map eftablifhes fome ufeful points, from which other routes may be laid off; fuch as Nufferabad, Chandor, Unkei-Tenki, Bahbelgong, and Nimderrab Gaut.

Poonath is the capital of the weftern Mahratta empire, and is fituated abour 30 miles on the eaft of the Gauts; 100 road miles from Bombay ; and about 75 from the neareft fea coaft. It is meanly built, and not large; and lies quite open and defencelefs. Pooroonder, a fortrefs on a mountain, about 18 miles to the ESE of Poonah, is the place of refuge in cafe of invafion: there the archives of government are depofited; and there I believe the principal officers ufually refide. Whenever an invafion has happened; the Mahrattas never thought Poonah a place worthy of defence; and have accordingly deftroyed it with their own hands. In a ftate that can conveniently exift without a great capital, no doubt but that great advantages are gained, in war, by a releafe from fuch an incumbrance. An overgrown capital, full of rich inhabitants, and a kind of general depofitory of wealth, however pleafant it may be, as it tefpects polifhed fociety, and the elegancies of life; yet from

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the greatnefs of its extent, and other circumitataces, incapable of defence; muft be confidered as a great political evil in a ftate: it is like a fortrefs that expofes its weakeft part to the enemy, and points his attacks: and to purfue the allegory, there may be fome danger of the garrifon's facrificing the intereft of the empire at large, in order to preferve their own property, in the hour of affault. The Scythians, who were not chained to the foil, could never be conquered : and thofe who have no large capitals, fand in the next degree of fecurity; all other circumftances taken into the care. If the queftion be confidered, as it concerns moraks, the objections. are yet ftronger : for the larger the capital, tho greater will be the proportion of the population that is corrupted.

Amedabad, the capital of Guzerat, was the extreme point of General Goddard's marches to the northward, in the province of Guzerat. In the firft fection, a comparifon was made between the fcale and bearing of the map of General Goddard's marches in. Guzerat, and thofe of the furveys taken between Sarat and the Myhie river'; and it was found to agree fo well, that the line between Brodera and Amedabad might be very fafely adopted... The bearing was $\mathrm{N} 36^{\circ} \mathrm{W}$, and the diftance 53,2 : G. miles; giving for the pofition of Amedabad, $22^{\circ} 58^{\prime} 30^{\prime \prime}$ lat.; and $72^{\circ}$ i $37^{\prime}$ lon.f; on $3^{\prime}$ weft of Bombay. By M. Thevenot's account, the latitude io $23^{\circ}$ and fome odd minutes: and $23^{\circ}$ by the Ayin Acbaree.

Amedabad is 2 very confiderable city, and fucceoded Mahmoordabad, as capital of Guzerat. It is one of the beft fortified cities. of Hindooftan; and made a good defence when taken by General Goddard in 1780. On the peace of 1783 , it was reftored to its; former poffeffors, the Poonah Mahrattas. Travellers have dwelt: much on the beauty, and convenient fituation of this city, which is in a level country and on the banks of a fmall navigable rivers, named Sabermatty; and whioh, together with other cousfuent ftreams, falls into the head of the gulf of Cambay, near to the city of that name. Cambay, is indeed, the port, of Amedabad, and is: diftant
diftant from it about 56 road miles. It is a large city, and appearis to be the Camanes of Ptolemy; although the gulf, which is now denominated from Cambay, had then its name from Barygaza, or the modern Baroach.

Aurungabad is a point of confiderable importance to the confruction of the weftern part of the tract in queftion; and although we have neither its. latitude, longitude, nor diftance accurately meafured from any one point ; yet the fort of coincidence that arifes between a number of eftimated routes, from 6 different places, in oppofite directions, round it, imprefs a certain conviction of its being placed nearly in its true pofition. It will be neceffary to particularize the principal of thefe routes. One of them regulates alfo the pofitions of Hydrabad, Beder, and Mahur; and is that of M. Buffy from Mafulipatam. The copy from whence I have collected my ideas on the fubject, is that included in the late Mr. Montrefor's map of the fouthern part of India. As his map goes no farther weft than Aurungabad, we may conclude that he has not altered the original bearing and diftance, with a view to reconcile its fituation to any other place to the north or weft.

Mafulipatam is already placed in the map, in lat. $16^{\circ} 8^{\prime} 30^{\prime \prime}$, lon. $81^{\circ} 12^{\prime}$, on the authorities of Col. Pearfe and Capt. Ritchie (fee page 12). This is a city and port of trade, near the mouth of the Kiftna river; and appears to be fituated within the diftrict named Mefotia, by Ptolemy. Between this place and Bezoara (or, Buzwara) a fort on the north fide of the Kitna river, M. Buffy's route allows only $3^{6} \mathrm{G}$. miles; but as there is exifting a map of Major Stevens's, which fixes the faid diffance at 40,3 G. miles, I have adopted it ; and allowed M. Bufly's authorities to commence only at that point. Bezoara, fo placed, is in lat. $16^{\circ} 33^{\prime}$; and lon. $80^{\circ} 39^{\prime}$. Then from Bezoara to Aurungabad, the bearing is given at $\mathrm{W} 35^{\circ} 10^{\prime} \mathrm{N}, 323 \mathrm{G}$. miles ; producing $3^{\circ} 6^{\prime}$ difference of latitude; and 264 of wefting; or difference of longitude (in lat. $1^{\circ}$ ) $4^{\circ} 3^{8^{\prime}}$. This would place Aurungabad in lat. $19^{\circ} 39^{\prime}$, lon. $76^{\circ} 1^{\prime}$. Buffy's

Buffy's (or rather Montrefor's) whole diftance from Mafulipatam to Aurungabad, was 359.

Let us now examine what data we have to check this long line of M. Bufly's, from the fide of Surat, Poonah, and Burhanpour. The pofition of Surat has been juft accounted for: and Noopour, a city on the road from Surat to Burhanpour, is by Goddard's roiute $59^{\prime}$ of longitude to the eaft of Surat; or in lon. $73^{\circ} 47^{\prime} 15^{\prime \prime}$. And from this place to Aurungabad, Tavernier reckons 105 coffes; which, at 42 to a degree, is 150 G . miles of horizontal diffance. Now, Noopour, Aurungabad, and Bezoara, lie as nearly as poffible; in a right line, whofe extreme length, is 475 G . miles. Tavernier's 150 , added to Buffy's 323 , make up 473 ; or the whole fpace, within 2 miles. But from the nature of a march of an army in a warm clinhate, great part of which, is often made in the night, it mútt neceffarily require correction; in the bearing at leaft, and probably in the diftance too. Nor can the 105 coffes of Tavernier, be expected to be even fo correct as the march : it is therefore a matter of furprife that only fo fmall a difference fhould have arifen. I't thould be remembered that 4,3 miles were added to M. Buffy's original diftance, between Mafulipatam and Bezoara; fo that the whole original error was 6,3 ; if we do not refer a hhare of it to Tavernier's effimated diftance. It is proved in another inftance by Major Gardner, in Peach's march from Ellore fowards Warangole, that M. Buffy's geographer has given too little diftance. This is probibly an error of the compiler, not of the furveyor; it being an error of a different kind from what might have been expected in the ordinary way of meafuring diftances with a perambulator*.

The latitude of Aurungabad is inferred from its diftance from Burhanpour given by Golam Mohamed + at 66 coffes; and as the

[^94]bearing is not far from meridional, we may ftate the difference of latitude at $1^{\circ} 34^{\prime}$; which taken from $21^{\circ} 19^{\prime}$, the latitude of Bure hanpour, leaves $19^{\circ} 45^{\prime}$, for that of Aurungabad *. Now, M. Buffy's line, gives only $19^{\circ} 39^{\prime}$; which is $6^{\prime}$ too far fouthwardly, by this account. If $19^{\circ} 45^{\prime}$ be adopted, fome further addition muft be made to the line of diftance from Bezoara; but it is too trifling a matter to require difcuffion. In effect, the longitude of Aurungabad by thefe data, will be $76^{\circ} 2^{\prime} 30^{\prime \prime}$; lat. $19^{\circ} 45^{\prime}$.

Two more lines of diftance are given, from Nimderrah Gaut and Bahbelgong; two points in Mr. Smith's route, on the weft and S W of Aurungabad. Nimderrah is in lat. $19^{\circ} 12^{\prime} 45^{\prime \prime}$, lon. $74^{\circ}$ $54^{\prime} 30^{\prime \prime}$ : and Bahbelgong in lat. $20^{\circ} 45^{\prime}$, lon. $74^{\circ} 55^{\prime \prime} 30^{\prime \prime}$. M. Anquetil du Perron furnifhes thefe diftances. That from Nimderrah to Aurungabad, he reckons 32 coffes; and that from Bahbelgong $34^{3}$. Now, as the diftance between Poonah and Nimderrah, is known, it furnifhes a fcale for the reft of his route. He makes this diftance 34 : coffes; but it is clear that he reckoned by fome other ftandard than the common cofs (poflibly be reckons leagues and coffes the fame, as we hall have occafion to remark in his, route from Goa to Poonah) for the diftance being 69,7 G. miles of horizontal diftance between Poonah and Nimderrah, it Mhould rather be $48 \frac{1}{2}$ coffes, than $34 \frac{1}{2}$. However, taking his diftance for a feale, whatever the denomination may be, the diftance between Nimder: rah and Aurungabad, will be 64.7 G . miles; and that from Bahbelgong, 70,2 . And the medium of thefe accounts give alfo, $76^{\circ} 2^{\prime} 30^{\prime \prime}$ for the longitude of Aurungabad.

There is yet another line of diftance to Aurungabad, and that is from Nagpour ; whofe pofition is afcertained with precifion. Two accounts of the eftimated diftance between them, collected by Lieuts Ewart, are, 162, and 165 cofles: the medium of which, $-163 \frac{1}{2}$, at

[^95]42 coffes to a degree, is 233 G. miles of horizontal diftance. This would place Aurungabad, admitting its latitude to be $19^{\circ} 45^{\prime}$, in $75^{\circ} 53^{\prime} 30^{\prime \prime}$ or $9^{\prime}$ to the weft of the other accounts. The refult of the fhort diftances, are doubtlefs to be preferred to that of the long ones; and I infert this laft only to thew the extremes of the different accounts.

Laftly, if the diftances from the 4 nearef points are taken; that is from Noopour ${ }^{150}$ G. miles; Burhańpour 95 ; Nimderrah 64,7; and Bahbelgong 70,2 : the medium of the interfections of thefe, will be in lat. $19^{\circ} 44^{\prime}$, lon. $76^{\circ}$.

Although I have taken the latitude at $19^{\circ} 45^{\prime}$, as the diftance from Burhanpour is fo nearly meridional : yet the interfeetions of the other diftances, point to its being in a lower latitude, by 4 or 5 minutes : in which cafe, its pofition would alfo be fomewhat more wefterly.

Upon the whole, I have placed Aurungabad in lat. $19^{\circ} 45^{\prime}$, lon. $76^{\circ} 2^{\prime} 30^{\prime \prime}$; and by what has been faid, it cannot be much out of its true place: but as it is a point of great importance in the geography of this part of India, it required particular difcuffion; being the centre of feveral roads; and the bearing of that long line, between it and Hydrabad, Beder, Calberga, \&cc. depending on it.

Aurungabad is but a modern city ; owing its rife from a fmall town, to the capital of the province of Dowlatabad, to Aurungzebe; from whom alfo, it had its name. After the Deccan became a province, of the Mogul empire, it was reckoned the provincial capital; and continued to be fo, after the Nizams became independant of Delhi; and until the encroachments of the Poonah Mahrattas, of late years, made it an uncomfortable relidence to the Nizam. When the Deccan was firt invaded by the Patan Empetors of Delhi, Deogire was the capital of the province of Dowlatabad, and was fituated near the fortrefs of the fame name; which is built on a mountain about 4 or 5 cofies to the NW of Aurungabad; and is deemed imprcgnable by the people of the country.

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$\therefore$ The Emperor Mhomed, in the 1 ith century, medernander to eftablifh the capitil of his Empire, at Deogire ; and to that end almoft ruined Delhi, in order to drive the inhabitants to his new capital, about 750 miles from their ancient habitations. This fcheme, however, did not fucceed: and was if poffible the more abfurd, as at that time, but a fmall progrefs had been made towards the conqueft of the Deccan.

The pagodas of Elora are in the neighbourhood of Dowlatabad, moft of which are cut out of the natural rock. M. Thevenot, who particularly defcribes them, fays, that for two leagues together, nothing is to be feen but pagodas, in which there are fome thoufands of figures. He does not, however, greatly commend the fculpture of them : and, I apprehend, they are of early Hindoo origin. We muft remember that Deogire, which flood in this neighbourhood, was the greateft and richeft principality in the Deccan ; ard that the fame of its riches, incited Alla to attack it, in 1293 : and thefe elaborate monuments of fuperftition, were probably the offspring of that abundant wealth, under a government, purely Hindoo.
M. Buffy's line inclndes within it, the pofitions of Hydrabad, Golconda and Beder. When the line is corrected as above, to Aurungabad, Hydrabad will be found in lat. $17^{\circ} 24^{\prime}$; which I conceive to be too far to the northward, confidering its reputed diftance from Nagpour and Cuddapah. M. D'Anville too (in his Eclaireiffemens) fays that the latitude of Hydrabad is $17^{\circ} 1.2^{\prime}$. How he came by his information, I know not ; but I believe it to be nearly right : and this is the parallel it is generally placed in. A third circumftance tending to confirm this opinion, is, that the map of Col. Peach's march from Ellore to Warangole (in 1767 ) in which the diftances were meafured, and the angles of pofition taken by Major Gardner, places the latter only 37 G. miles from the pofition in which Hydrabad ftands by M. Buffy's line. It can hardly be deemed an impeachment of the general truth of a line
of 360 G. miles, meafured after ap army, that a pofition, in or near that line, should be 10 or 12 miles out of the fuppofed line of direction. It is conformable to my idea of the diftances of Nagpour, Cuddapah, and Warangole, that Hydrabad thould be in $17^{\circ}$ $12^{\prime}$, rather than in $17^{\circ} 24^{\prime}$; and I have accordingly followed M. D'Anville : giving the lines between it and Aurungabad on the one fide, and Condapilly on the other, a new direction accordingly.

Although by proportioning M. Buffy's march from Bezoara, Hydrabad is placed in $78^{\circ} 5^{\prime}$ longitude; or only 114 G. miles from Bezoara, yet the different reports of the diftance between thefe places, is much greater than the conftruction allows. For 114 miles will produce only $87^{\frac{1}{2}}$ coffes, according to the proportion of 46 to a degree (which is the refult of the calculation made on the road between Aurungabad and Mafulipatam, page 4) whereas, one account from General Jofeph Smith, fates the number of coffes at 98 ; and another from a native at 103. Again, Col. Upton reckoned $118 \frac{1}{2}$ coffes between Hydrabad and Ellare, which the confruetion allows to be only $13^{8} \mathrm{G}$. miles; or $105^{\frac{3}{4}}$ coffes according to the fame proportion of 46 to a degree. So that I have either mintaken the longitude of Hydrabad, which is improbables; all circumftances confidered; or the cofs is even fmaller than I have fup: pofed. Or, the road leading through a hilly and; woody country, is more crooked than ordinary *: and the journals remark its being very woody, and thinly inhabited, between Condapilly and Hydrabad. Until we have the latitude and longitude of Hydrabad; or fome place very near it, we cannot be fatisfied with its prefent pofition; for M. Buffy's line is too long, to be exact, without the aids of latitude to check it. The reputed diftance between it and Nagpour, 169 coffes, agrees perfectly with its corrected parallel of $17^{\circ} 2^{\prime}$.

[^96]Hydra-

Hydrabad or Bagnagur, is the prefent capital of the Nizame of the Deccan; who fince the difmemberment of their empire, have left Aurungabad, the ancient capitals which is not only in a corner of their dominions, but in that corner which lies near their hereditary enemy, the Poonah Mahratta6; and which is alfo the leaft defenfible. About 5 or 6 miles to the W N W of Hydrabad, and joined to it by a wall of communication, is the celebrated fortrefs of Golconda * occupying the fummit of a hill of a conical form, and deemed impregnable. When Aurungzebe conquered the kingdom of Golconda, in $168 \%$, this fortrefs was taken poffeffion of by treachery.

The next primary point or fation, and one of the moft important, as being the fartheft removed from any other given point, in the whole conftruction, is Nagpour; the capital of the eaftern divifion of the Mahratta empire, and nearly in the centre of India. - This laft confideration, and the number of roads iffuing from it to the circumjacent cities, moft of which roads had their diftances given by computation only, made the determination of this point a grand defideratum in Indian geography. Mr. Hattings therefore, with that regard to ufeful fcience and improvements of every kind, which has ever diftinguifhed his character, directed a furvey to be made of the roads leading to it from the weftern frontier of Bahar; atid alfo from the fide of Allahabad. This was executed in 1782 atid 1783 , by Lieut. Ewhart, under the direction of Col. Call, the Surveyor General. The refult of this expedition was perfectly fatisfactory. He began his meafured line at Chittra or Chetra in Bahar, placed in $85^{\circ}$ of longitude, and in lat. $24^{\circ} 12^{\prime}$, in my map of Bengal and Bahar; and his difference of longitude from thence to Nagpeur, in lat. $21^{\circ} 8^{\prime} 30^{\prime \prime}$, was $5^{\circ} 16^{\prime}$ weft: by which Nagpour would be in $79^{\circ} 44^{\prime}$. And from Nagpour back to Benares, in lon. $83^{\circ} 13^{\prime}$, in' the fame map, he made $3^{\circ} 25^{\prime} 10^{\prime \prime}$, difference of longitude, caft;

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which placed Nagpoar in lon. $79^{\circ} 47^{\prime} 50^{\prime \prime}$; or $3^{\prime} 50^{\prime \prime}$ only, different from the other account; and this I fufpect to arife partly from the error of his noedle. If we clofe the account back again to Chittra, the place he fet out from, he made only 4 minutes difference, in the diftance out and home : and the road diftance, was 600 B. miles from Chittra to Nagpour, only.

Taking the medium of the two accounts, the longitude of Nagpour will be $79^{\circ} 45^{\prime} 55^{\prime \prime}$, or $79^{\circ} 46^{\prime}$. The obfervations for determining the longitude at this place, by Lieut. Ewart, do not accord with the above account, by a confiderable number of minutes: therefors I have not inferted them here, in expectation that they may be compared with correfponding ones, taken at places whofe fituations are already afcertained.

As Mr. Ewart's route to Nagpour, was by way of Burwah, Surgoojah, and Ruttunpour : and from thence to Banares, by Gurry, the capital of Mundella, he afcertained the pofitions of thofe places, fatisfactorily; and by that means added to the number of primary ftations. The latitudes were conftantly taken, in order to correct the route, in detail. Nor did his work end here : for his enquiries at Nagpour, furnilh a number of eftimated or computed routes from that capital to Burhanpour, Ellichpour, Aurungabad, Neermul, Mahur, Chanda, \&uc. that is, in every direttion, except the SE; whence we may infer the ftate of that tract to be wild, uncultivated, and little frequented. And it appears by his intelligence, that the way to Cattack is unfafe in any direction farther fouth than Sumbulpour.

Nagpour, the capital of Moodajee Boonflah, the chief of the eaftern Mahratta ftate, is a city of modern date; and though very extencive and papulous, is meanly built, and is open and defencelefs, fave only by a fmall citadel, and that of little ftrength. The city is faid, by Golam Mohamed, to be twice as large as Patna; but Mr. Ewart's account makes it but of a moderate fize. Moodajee's principal fortrefs, the depofitory of his treafures and valuables, is

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 103 G. miles to the $W$ by $N$ of Nagpour. Each of the biviare: Princes in India, has a depofitary of this kind, and commonly a diftance from his place of refidencet the unfettled flate of the country making it neceffary. The country round Nagpoari"is fer: tite and well cultivated, interfperfed with hills of a moderate fieight but the general appearance of the country at large, and particularly between Nagpour and Bahar, is that of a foreft, thinly fet witth villages and towns. It is the weftern and northern parts of Moodajee's'country, that produce the largeft part of his' revenue; "to-' gether with the Cbout, or proportion of the revenues of Ellichpoiur, \&rc. held by the Nizam.

Ruttunpour is a city lying in the road from Bahar to Nagpourt; and is the capital, and refidence of Bambajee, who holds the govern-: ment of the eaftern part of the Nagpour territories, under fris bpio ther Mobdagee. This place, alfo, has its pofition fixed very ac-' curately by Mr. Ewart, in lat. $22^{\circ} 16^{\prime}$, lon. $82^{\circ} 36^{\prime}$. This is a : -primary fiation of great ufe, as it, regulates all the pofitions betwden Cateackiand Gurry-Mundella ; ; between Bahar and Nagpour.: As7 its corrected perition differs only 3 miles from the former entiniated one, collected from Col. Camac's obfervations and enquiries s; ; $\mathfrak{i t}$ : ferves as an additional proof, how much may be effected by a careful examination and regifter of the eftimated diftances on the rodids:? apld this mode of improving the geography of India, may be adbpteltit when all others fail. An intelligent perfon fhould be'entployted in collecting fuch fort of information, as Mr. Ewart collected at Nagis pour ; from the principal cities in the leaft known parts of 'Hind dooftan; at the fame time determining the pofition of fuch citiesf, by ciceleftal obfervations; by which means a number of fixed podints would be eftablifked, from whence the computed diftaneey thigbt? at once be laid bff, and corrected. More could be done in this way in a thort time, towards completing the geography, than mbft

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people can eafily conceive: and, I flatter myfelf, it will be foon adopted.

Agimere, Ajmere, or Azmere, is the primary point on which the geography of the N W part of, the tract in queftion, refts; and is determined by the eftimated diffances from Agra and Burhanpour. An itinerary kept by John Steel, reckons 1.19 cofles between Agra and Agimere: and Tavernier, who left Agimere to the north, in his way from Amedabad, reckoned 100 coffes from Banderfandry to Agra; and Banderfandry being 14 from Agimere, by Steel's account, we may take 114 for the whole diftance, from Agra to Agimere. A map of Malwa and jits neighbourhood, communicated by Mr. Benfley, places Agimere 180 G. miles to the weft of Gwalior; and another map communicated by Mr. Haftings, gives the fame diftance.. . By the confruction, founded on Mr. Steel's 119-coffes from Agra, and which produce $172 \frac{1}{2}$ G. miles, Agimere is found to be $10^{\frac{1}{2}}$ miles dhort of the diftance from Gwalior, in the above maps.
The parallel of Agimere is determined by Sir Thomas Roe's computation of the diftance from Burhanpour, to Agimene, through Mundu and Cheitore; and that is 222 caffes, or 348 G . miles : and the interfection of the two diftances from Burhanpour and Agra, happens in lat. $26^{\circ} 35^{\prime}$, lon. $75^{\circ} 20^{\prime}$. This is the pofition of Agimere in the map: no great accuracy, however, with refpeet to its parallel, can be expected, where the authority is nothing more than a fingle line of diftance, and that a very long one. The Ayin. Acbaree is totally glent concerning its latitude and longitude. Col. Call, in a map of his, communicated by Mr. Hartings, places it in the paralled I have affigned to it; and allows it to be diftant from Burhanpour, 307 G. miles, and 192: from Agra; on what autho-: rify, I know not. Thevenot, gives its latitude at $266_{\square}^{20}$.

Agimere was the capital of the foubah of the fame name, in Acbar's divifion of the empire, and is probably the Gagajmira of Ptolemy. It is built at the foot of a very high mountain; on the
 miles by the road, from Agra, and yet the famous Emperor Acbart, made a pilgrimage on foot, to the tomb of a fiint, there; to ithipfore the divine bleffing on his family, which at that time confifted orify of daughters; but after this pilgrimage, he had three fors added to it. Jehangurire, his fon and fucceffor, occafionally kept his Couft Fiere; and this occafioned the vifits of Sir Thomas Roe to this place; as well as to Cheitore, and Mandu, which lay in his way to it, from Surat.

Oügein can hardly be regarded as a primary tation, as it effects the pofition of one place only; that is, Mundu. Col. Cimac's tables place it 50 coffes from Bopaltol, a point in Smith's and Goddard's routes; and 89 from Pawangur, which is 14 coffes to the ENE of Brodera, in Guzerat. A Perfian book of routes, obligingly communicated by Capt. Kirkpatrick, gives 108 coffes betweff Ougein and Brodera; or 5 more than Camac's account. This', together with fome other routes from the Perfian book, was tranlf' lated for me, by Mr. David Anderfon, whofe fervices on the themorable occafion of negociating the Mahratta peace, in 1782 and 1783, claim the united acknowledgments of Great Britain, and Hindooftan. If we take the diftance on the map, between Bopd and Brodera, through Ougein (which occafions a confiderable bend in the line) it will be found to be 251 G. miles: and the coripuitation of coffes being 158, the proportion will be about 38 to d degree; which is nearly the fcale adopted for Malwa, in'page 5.: Having laid off 50 coffes for the diftance of Ougein from 'Böpal', tweftward, by this fcale; the parallel of Ougein is then obtainett by its reputed diftance from Mundu: concerning whofe poftion, we have only the following information: $\quad \therefore$. $x+m$ esind

Sir Thomas Roe paffed it in his way from Burhanpour'to Chei- ${ }^{1}$ core and Agimere, in ' 1615 ; and reckoned it " 66 coffes' front the former, or 94 G. miles. For the direction of this tine of diftance, which appears to be about N by W , we have nothing more than
 us: the general longitude of Qugeip; which alone concerns this part of the quefion, being oltained by means of the lines of difo tance froma Bopal and Brodera. D'Anville gives the, hearing line
 MS. map of Col. Muir's has it $\mathrm{S}_{\frac{1}{2}} \mathrm{~W}_{3} 6$. I have made the bear? ingt $S$. by Wh and the diftance 36 miles $;$; whence the refult will be, that Mundu is is lation $22^{\circ} 50^{\prime}$, lan. $75^{\circ} 9^{\circ} 47^{\prime}$. Col. Muir's map places it in $23^{\circ} 18^{\prime}$, and M. D'Anville's in $23^{\circ} 10^{\prime}$, but this is owing to his taking Burbanpour at too high a latitude, by $3^{\circ}$ minutes.

The 50 cofles, or 86 G . miles, being laid, off from Bopal, weftward; and 36 mides northward from Mundu, give the pogition of Ougein in lat, $23^{\circ} .6^{\prime}$, lon. $75^{\circ} 5^{\prime \prime}$. The Ayin Acbaree takes no notice eithen of the latitudes or longitudes of Ougein or Mundu; aldhough fuch ancient and famous cities. Col. Muir's map has the latitude of Ougein at $23^{\circ} 56^{\prime}$, or $30^{\prime}$ to the northward of the afumed prition of it, in the map. And D'Anville places it in $83^{\circ} 39^{\circ} \cdot$

The cities of Ougein and Mundu are both of great antiquity: The former appears evidently both as to name and pofition, in Ptolemy, under the name of Ozene. When the Ayin Acbaree was written, pbont 200 years ago, Mundu, (or Mundoo) was the capital of Malwa, and is defcribed as a prodigious city, of 12 coffes, or 22 miles in circuit; and containing many monuments of ancient magnificence: but when it was vifited by Sir Thomas Roe, in 4615 : it was then fallen much to decay. It occupied the top of a very large and high mountain: few cities were ever placed in a bolder fituation.

Ougein is the prefent capital of Madajee Sindia; who, with Tuckajee Holkar, poffeffes the principal part of Malwa. Holkar's eapital is at Indore or Endore, a modern city, which is faid to lie about $1: 5$ cofles from Ougein, weftwards. This is a part of Hin-
 Sindia wifled to koep us in tighorance! for it is faid, he'exprefted a difapprobation of the brigade from Gazerat, takingits route through Ougein, 'In its' way to the Bengal provinces: fo that the detachment returned, nearly by the fame road as it went, as far as Sirong.
Having now difouffed the manner of eftablifhing the primary Alations, or thofe principal points, on which the general conftruction of the geography of the tract under confideration, depends; I frall proceed to give the detail of the manner, in which the intermediate fpaces were filled up : but fo great a variety of matter offers'; that I hardly know where to begin ; nor is it a point of much confequence : however, to preferve as much regularity as the fubject is capable of, I fhall begin on the weftern fide, near Bombay; go round by the north and eaft ; and finifh in the foteth. J

The road from Bombay to Poonah is taken from a MSyffiap, made during the unfortunate campaign of $1778-9$ : collated twith Mr: Sinith's; and General Goddard's. And all' the particulars'on the weft of the Gauts, between Bombay and Surat, are alfo taken from Gerieral Goddard's map.

The road from Poonah to Nuffergur (or Nufferatpour') and roumd to 'Soangur, was đeferibed by Meffieurs Farmer and Stewart, daring the time they femained' as łioftages in the Mahratta camp; and the particulars' wete obligingly communicated to me by Mr! Fartmer: His mrap afeertains the fituations of Cafferbarry and Coonfabarty Gauts; and, in particular, that of the city of Amednagur, once the capital of the foubah of the fame name; but now better known by that of Dowlatabad. This city, : which was the refrdence of the Emperor Atrengzebe, during his conqueft of the Decein'and Cetrriatic, has generally been placed 50 miles to the fouth-eaft of 'fts true pofition.

The read from Nimiderrah Gant to Aurungabad, and back to Eahbelgong, and thence by Chandor and Saler-Mouler; to Noon-
pour fas fram M. Apquetil du Perrom. Chandor, pgears in Mr. Smith's route $;$ as well as Unkei-Tenki, which we meet with in Tavernier, and helps us to join the routes together.

The fouth-eaft part of Guzerat is from a furvey taken by order of the Bombay Government, collated with General Goddard's marches; and eftablifhes among other points, that of Brodera, a principal fortrefs and town, in the north-eaft part of the tract lying between the rivers Tapty and Myhie: through which the great road leads from Surat to Ougein. Brodera lies in lat. $22^{\circ} \cdot 15^{\prime}: 30^{\prime \prime}$, lon. $73^{\circ}$ 11 $1^{\prime}$. The Ayin Acbaree reports that there was an avenue of mango trees, extending the whole way from Brodera to the city of Puttan ; which may be 130 miles. The road to Amedabad, is entirely from General Goddard : and the country round about it, as well as the peninfula of Guzerat, owe their prefent appearance, to a MS. map of Governor Hornby's, communicated by Mr. Dalrymple. This map contains much new matter : and the Ayin Acbaree affifts in difcriminating the valuable parts of it. In it is Eound the fite of Mahmoodabad; in its turn, the capital of Guzerat, and founded by Sultan Mahmood in the inth contury.: The Agin Acbaree defcribes the walls of it, as including: 2 vaf extent of ground; and fpeaks of it rather as an exifting city, than as a place in rains. . This was in the latter part of the 16 th century. Junagur or Chunagur, a city and fortrefs in the heart of the peninfula, and, a fubject of Ferifhta's hiftory, is likewife found, in this map: but Nehlwarrah, one of the ancient capitals of Guzerat, and alfo the fubject of the fame hiftory, I cannot trace out by name, either in this map, or in the Ayin Acbaree. I find however, in the latter, fome notices refpecting a large city in ruins; and whofe fituation agsees with my ideas of that of Nehlwarah. It is in the peninfula, at the foot of the mountains of Sironj; and the port of Gogo was dependent on it : whence I conclude by the lights afforded by hiftory, and by its latitude, given by Nafir-Uddin and Ulegbeg, at $22^{\circ}$, that it lies about $3^{\circ}$ road miles NW of Gogo.

## [4.59]

Many other pofitions:are pointed out, or illuotrated, by this map; which, K am informed, is: the production of a native of Ouzerat. After this account of ites author, one might have refted fatisfied with its containing a great variety of particulars, although not arranged in geographical order: but it is remarkable, that it gives the form of Guzerat with more accuracy, than moft of the. Europqan mapa can boaft.

It does not however, clear up the ambiguity that has long exiftech concerning the lower part of the courfe of the Puddar river: non am I yet informed whether that river difcharges itfelf into the haed of the gulf of Cutch by one channel; or whether it forms feverad chanaels, and difcharges itfelf torough the many openings that prefent themfelves, between the head of the gulf of Cutch, and tho Indus. One thing only, we are certain of by means of this, mapa; and that is, that one large river (or branch of a river) falls.into the head of the gulf of Cutch; and that it appears to be the fame fiver that has, its fource if the S W part of Agimere, and which.is, mamed by Europeans, tho Puddar. The river that opens into the headiff the gulf of Cutch, is named in the MS. map, Butlafs; taking int courfe by Sirowry, Pathanponr, and Radunpour (or Radiuppour), The Ayin Acbareq dopes not enumerate among the rivers of. Guzeratin or Agimere, either the Puddar, or Batiass. It: is more extraordio nary that the Puddar Chould not be taken notice of, as the Ayin Acbaree deferibos an extenfive tract of low fenny land, on the weft of Amedabad, and which was periodically overflowed by the mouth; of a river; when that very river is what we name the Puddar. It is certain that the name occurs only in D'Anville. Tavernier takes na notice of it, in his route from Amedabad to Agra; although he mult have crofied it. Poflibly the word Puddar, may be no moren than an appellative; or may be the fame as buddar, or budda, in Soane-budda and Nei-budda: and the proper name of the river, Butlafs, might have been omitted.

The penimfula of Guzerat is about 200 miles in length, and 140 wide, formed by the Arabian rea' (called by the Afratics, the fea of Omman) and the gailfs of Cambay and Cutch; both of which penetrate far within the continent, as the dimenfions of the peninfula Arew. By the numerous fabdivifions of this tract, and more by the fum of its revenue, in the Ayin Arbaree, we are led to confider it as of very great importance, in the opinions of the Moguls. Surat too, that great emporium, fituated in its vicinity, had its fhare in raifing the value of the natural products of it, among which, cotton is the faple article. Being a frontier province, as it refpects the accefs by fea, Guzerat contains a greater mixture of races, and a greater variety of religions, than any other province. The Ayin Acbarce fays, "From the liberality of his Majefty's (Acbar's) "difpofition, every fect exercifes its particular mode of ${ }^{\prime}$ wormip, * without moleftation." What a happy change fince Mahmood, in the itth century; whofe principal delight was the deftruction of Hindoo temples! The famous pagoda of Sumnaut, which was deftroyed by Mahmood, ftood within the peninfula, of which we have been'rpeaking; and its particufar fite is pointed' out by circuitifanees, in the Ayin Acbaree, and Ferithta. "Fot the former fays, "Puttan on the fea ihore, is alfo called Puttdn Sumnaut. And the latter, ""it was fituated upon the fiore of the obcean, and WS is at this time to be feen in the diftriets of the harbour of Beo * (Dite) under the dominion of the idolaters of europe." This plainly refers to Diu, in the hands of the Portliguefe: and the town of Puttan is about 30 miles on the N W of Diu; and on the fea Ahore.

Although the gulfs of Cambay and Cutch penetrate fo deepliy within the land, yet fo far from rendering the fea fmoother, or the navigation fafer, they occafion fuch high and tapid tides', and are fo thickly fown with fand banks, that few places are more danger-' ous. The Bore, which means the flood tide ruffing in flddenly, and forming a body of water; elevated many feet above the com-
mgn furface, of the feana and of gourfo lovelligg every ohfaclesthat:
 the fand banks, which before appeazed dry and firm. I have accounted for the teqror with which Allexauder's followers whane finuck. at the mouth of the Indus, from this dreadful phenomenon, . (Sen the Introduction):

Capt. Jpfeph Price had the misfortune to be cartied up to the head of the gulf of Cutch, by pirates, who captured his Mip, aften a moft gallant and. obftinate defence, of two days; but was after, wards tygated, with great refpect and tendernefs, and permitted to depart by fifand for Bombay. . He accordingly traverfed the IThumen, to Gpgor; and reports that the country in that track, is gomerallyt flat; ;haying only a few eminences, and thofe fortified. ' The fois: is dry and fandy, as is common to Guzerat in general; for; , the author pof, the Ayin Acbaree fays, the rain there, does not octabianes mud. $:$ Thisimay be inferred from the nick-name of Gberdakadsion, duff-town, beftpwed gn Amedabad, by Shah Jehan.
The 期解, frnflu Amedabad to Agimere, by Meerta, is chioflyo
 Haftingpr ,Togthif, $I$ have added Tavernier's particulars of, ebe readn' as he travelled thif way from Amedabad to Agra. : I know not from whence Col, Call had his particulars, but they appear to be perre fectly new: Thayernier's diftance is enormous, according to tho fcale of theq cofs $\mathrm{g}_{\mathrm{i}}$ butt it , is to be confidered, that the road, is, werfy. circuitouf and an lefs mountainous; fo that no rule can well , bed; applied, for reducing the road diftance, to a ftraight line. . . orf

The pofitions of. Agimere, Jaepour, and Ougein, have been alr: ready difcuffed, as well as the places fituated in the line of Mr. Smith's route. The fpace included between thefe. points, and whied, in. chiefly fituated in the foubah of Agimere ${ }_{2}$ has undergone a Nety: confiderable improvement in its geography, fince the publication of my laft map; by the contributions of Mr. Haftings, Mr. Benfley, and Col. Popham. I knpw not who the authors of the feveral

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redoditmaps in quettion were; they have, however, my acknowledgments for the affiftance I have received from them: and $I^{\text {i }}$ grieve to reflect, that fome of the perfonages who furnified the nof interefting matter towards the improvement of this work, have rot lived: to be witnefles of the fuccefs of their labouts. "The tract in queftion, includes among others, the provinces of Cheitore and Gudipbut, fubject to the Rana or chief Prince amorig the Rajpoots; and the antiquity of whofe houfe may be gathered; by the name Rbannce appearing in Ptolemy, nearly in its proper pofition, as a province. The province of Agimere in genieral has ever been the country of Rajpoots; that is, the warrior tribe among the Hind $\$ 00$, and which are noticed in Arrian, and Diodorus: and Cheitore or Oudipour (which I confider as fynonimous) is, I believe, rockoned the firft among the Rajpoot ftates. The whole confifts generally of high mountains divided by narrow vallies'; or of plains, environed by mountains, acceffible only by narrow paffes and defiles: in effect, one of the ftrongeft countries in the world; yet having a fufficient extent of arable land: of dimenfions equal to the fupport of a numerous population; and bleffed with a mild clitndte;
 country likely to remain for ever in the hands of its prefent pbirel? fors; and to prove the afylum of the Hindoo teligion and cultoms. Notwithftanding the attacks that have been made on it, ${ }^{9}$ By the ! Gaznaxide, Pattan, and Mognl Emperors, it has neter bet more than horninally reduced. Some of their fortreffes, with" which the country abounds, were indeed taken; but the spirits or in - ${ }^{\text {; }}$ defenident nations, do not reside in fortresses; nur are they to be conquered with them. Accotdingly, every war made' on the pedple, even by Aurungzebe, ended in a compromife, 'or dufert; : on the fide of the affalants.

Cheitore was the capictil of the Rana in the days of his greatpefs.' It was a fortrefs and city of great extent, fituated on a mountain ; ' but has been in ruins fince the time of Aurungzebe in $1681^{\prime}$ : and ${ }^{\prime}$
had once before-experienced a like fate from the hands of Acbar, in 1567. The pofition of this place is inferred from the account of Sir Thomas Roe, who made it 105 coffes from Mundu, and 5 from Agimere. From this I have been led to place it in lat. $25^{\circ} 21^{\prime}$, lon. $74^{\circ} 56^{\prime}$. The different MS. maps, give its pofition more to the weft ; and indleed, one of them, fo far as to throw it near the great road from Amedabad to Meerta. The caufe of this, is a miftake in the difference of longitude between Agra and Guzerat, which has been, reckoned too much in thefe MSS. Cheitore, placed as above, is only about 181 G. miles on the weft of Narwah : Mr. Haftings's MS. map, gives this diftance at 196; Col. Popham's at 19.5 ; Col. Muir's at 193 ; and a map of Malwa 23. All but the laft, affign it the fame parallel as Narwah: white my confruction places it 19 minutes more fouthwardly: the sap of Malwa, alone places it $18^{\prime}$ fouth of Narwah. Mr. Haftinge's copy agrees with tha confruction, in making it bear about $S S W$ from Aginere; ; but, ihprteras the diftance about 6 coffes.

Rantampourn ${ }_{n}$ very celebrated fortrefs in the Indian hiftories is fituated in the eaftern quarter of Agimere, and has its pofition from the fame MSS. : and in the SE quarter of the fame foubah many other noted fortreffes and refidencies of Rajahs, are extracted from the fame MSS.; affifted by Col. Camac's tables of routes: fuch as Kotta, Boondi, Gandhar, Thora, Suifopour, Sandri, Mandelgur, \&c. And in Marwar, or the north divifion of Agimere, Nagore, Bicaneer;. Catchwana, Didwanah, Samber, \&c. \&c. The upper part of the courfes of the Chumbul, Sinde, and Sepra rivens, appear now, for the firft time, in fome fort of detail; though it mult be long, e'er the geography of parts fo remote from our eftablinments and influence, can be in any degree correct : and the reader, will pardon his being reminded, that the geography we are treating tof, includes an extent equal to one half of Europe.

The Ayin Acbaree has furnifhed fome new ideas refpecting the divifion of the foubah of Agjmerc. It confifted at that time of

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three grand divifions, Marwar, Meywar, and Hadowty for Nagore) ; and thefe contained 7 ciroars or fubdivifions, Agimere, Chiörore, Raneampouf, Joudypour, Sirowy, Nagore, and Beykhneer (or Bicaneerf). Marwar, as including the circar and fortrels of -Agimere, has:grawn almof fynonimous with Agimere, in common acceptation. The extent of this province as given by the fame book, is 168 coffes, or about 320 B . miles, from eaft to weft; and 150 cofles, or 285 B . miles, from N to S : and its extent on the map, juftifies this account. Such is the province of the Rajpoots: the grain cultivated there is chiefiy of the dry kind; and from the indulgence granted to this tribe throughout India, namely, that of feeding on goat's fleh, we may infer, that the cuftom originated in this mountainous country. The taxes amounted (in the time'of Acbar) to no more than a feventh, or eighth, of the produce of the harveft.

We come next to the Gohud and Narwah provinces, between the Chumbul and Sinde rivers. Much of this tract was defcribed by Mr. Cameron, in a map communicated by the late Col. Camac: but even a province equal to one of the largeft Englifh counties, is loft in fuch a map, as the one under confideration. Bcyond this, on the eaft and fouth-eaft, to the Betwah river, is filled up chiefly with Col: Camac's informationt: Between that river, and the Nerbudda, the Perfian book of routes (fee page 146) furnißhes the road between Callinger and Bilfah, and becomes interefting by its leading through Sagur (the Sageda, of Ptolemy) a capital fortrefs and town, fituated on a branch of the Cane rivet, about 55 G . miles to the eaftward of Bilfah. This royte was alfo tranflated by Mr . Anderfon. It gives only 78 coffes between ${ }_{\lambda}$ Pannah (or Purnah, the famous diamond mine of Bundelcund, and fuppofed to be the Panaffa of Ptolemy) which, I ffould apprehend, was a miftake; as the diftance on a fraight line, is 165 G . miles. Sagur, however, being flated at 26 coffes from Bilfah, a known point, does not allow of being far mifplaced, by an crror in the fcale.

## [i


 the, routes of, Goddand and Smith, in the others; it camonatbe far? out of its place.:i , Bilahh; which is almoft in the heact iof India, affords tabacap of ithe mort delicate kind, throughout that iwhold' region ; and which is diftributed accordingly *.

Chanderee, and other places along the courfe of the Betwah, are: either from Col. Camac's routes, or Col. Muir's map. Chanderee is a very ancient city, and within the province of Malwa. The Ayin A'cbaree tays, "there are 14,000 fone houfes in it." It is is. now, like mort of the ancient cities of Hindooftan, fallen finto de-" cay; but is ftill the refidence of a principal Rajah. The routesin the central parts of Malwa, are from Col. Muir's map: Hindia, is from Tavernier, fuppofing it was meant by Andi. It is aftonithing how' he could fo fat miftake the coufe of the Nerbudda at thate cith ? te fappofe it tan into the Ganges.
A Hindoo map of Bundela or Bundelcund, inctuding generally the tract betwecin the Betwah and Soane rivers, and from the Grifges the the Nefbudda; was obligingly communicated by Mrys Boughtonopoones who alfo tranflated the names in it, from thed Perfian In its map points out feveral places that I had not heard of'before, and affits in fixing many others of which $I$, had been. partially informed:

The country between Mirzapour and the heads of the Soane and Apebudda, was explored by Major William Bruce, who fo eminently ditinguifhed himfelf at the efcalade of Gwalior in i. 780 During 10
$\vdots$
3""A difference of opinion feems to have arifen among the learned, whether tobacca came? originally from Afia or America. It was poffibly indigenous to both continents. It is unider-: atly diffeminated over Hindooflan, and China: and appears to have been in ufe fo longe in the former, that it is not jegarded as a new plant. It is there named Tamba-patra; that is the: copper, or copper coloured, leaf.
The circumftances attending this capture are fo very curious, that I cannot helpinferting them ${ }^{t}$ here, though confefiedly out of place. They are extracted from the printed account of Stwation, which accompanies a beautiful engraved view of that fortrefs, publithed in $1 \boldsymbol{y}^{8} 4$.
*'The fortreis of Gwalior ftands on a vaft rock of about 4 miles in length, but narraw, and of unequal breadth; and nearly flat at the top. The fides are fo fteep as to appear alinoft


# [in 157 ] <br> Duning chisi expedition ber Verifiod a fuct which hat becirlishg doulited, thinough ftrennoment infifted on by the matives s: (vike) that the Sonate and Nerbudtha rixiers had their common buirce from a pont, or lates bn the foutbern confines of the Allahabad provinet.'  

perpendicular in every part ; for where it was not naturatly fo, ir thas beepa fcrepedi away it and the height from the plain below, is from 200 to 300 feet. The rampart conforms to the edge
 rock, defended on the fide next the country by a wall and baftions, and farcher guarded by 7 . ftone gateways at certain diftances from each other. The area withrn is fall of tioble' binildings,
 At the'N. W. foot of the mountain, is the torvn, pretty large; and well built; the houres and of dogne. To have befieged this place, would have been vain; for mothing but, a farprizelor: blockade could have carried it.

A: tribe of banditri from the diftritt of Gohud had been accuftomed to rab iabout this tpwa; and once in the dead of night had climbed up the rock, and got into the fort. This inteiligance they had commanicated to the Rana, who often thought of availing himfelf of it; but' was fearful of undertaking an enterprize of fuch moment with his own troops.
At length, he informed Colonel Popham of it, who fent a party of the robbers to conduat fome of his, own: \{pies to the fpot. They accordingly climbed up in the pighty. agd fquand shaty the gáards generally went to fleep after their rounds. Popham now ordered ladders to be made, but with fo much fecrefy, that until the night of the furprize, a feery Officersiouly: kises: it. On the 3 d of Auguft, $1 ; 80$, in the evening, a party was ordered to be in readinefs tofmarch under the comriand of Major Bruce; and Popham put himfelf at the head of 2 battalions which were immediately to follow the ftorming party. To prevent as much as poffible, apy naife in approaching or afcending the rock, a kind of thoes of woollen cloth were made for the fepoys, and Quffed with cotton. At is o'clock, the whole detachment mareched from the carpap af Reypour, 8 miles from Gwalior, through unfrequented paths', and' reached it a little befort day:break. r. Juft as Bruce arrived at the foot of the rock, he faw the hights whigh accompariod they. rounds, moving along the rampart, and heard the centinels cough (the mode of fignifying that hill is tovell; in an Indian camp, or garrifon), which tmight hind damped thie tpiriv of matiy kiza;? but ferved only to infpire him with more confidence; as the moment for action, that is, the interval between the paffing of the rounds, was novivafertaineds Accordingly; wher the lightis were gone, the wooden ladders were placed againft the rock, and oas of the robbers firtt mounted, and returned with an account that the guard was retired to feep. Lieutenant Ca -: meron, the engineer, next mounted, and tied a rope ladder to the battloments of the whll; this kind of ladder being the only one adapted to the purpofe of faling the wall in a body (the wooden ones ouly ferving to afcend from crag to crag of the rock, and xa affat in fixitug the inope' ladder.) When all was ready, Major Bruce, with 20 fepoy grenadiers, afcended without being difcovered, and fquatted down under the parapet; but before a reinforcement arrived, three of the party had fo little recollection as to fire on fome of the garrifon who happened to
be lying alleep near them. This had nearly ruined the whole plan: the garrifon were; of courfe alarmed, and ran in great numbers towards the place; but ignorant of the frength of the aflailants (as the men fired on had been killed outright) they fuffered themfelves to be ftopped by the warm fire kept up by the fmall party of grenadiers, until Colonel Popham himfelf with a confiderable reinforcement came to their aid. The garrifon then retreated to the inner buildings, and difcharged a few rockets, but foon afterwards retreated precipitately through the gate ; while the principal Officers, thus deferted, affembled together in one houfe and hung out a white flag. Popham fent an Officer to give them alfurances of guarter and protection ; and thus, in the fpace of two hours, this important and aflonifhing fortrefs was. completely in aur polfefion. We had only 20 men wounded, and none killed. On the fide: of the enemy, Bapogee, the Mahratta governor was killed, and moft of the principal Officers, were-woanded.".
jointly with the Ganges; an ifland of the foutherspart bef Hindot ftan : and flowing in oppofite directions 1.500 miles. The corinfe of the Nerbudda river is afcertained, only in certain points where it happens, to be crofled by any of the great roads here defcribed : excepting only in the neighbourhood of Broach. All the intermediate parts are drawn from report. It is reprefented to be as wide at Huffingabad Gaut, as the Jumna is at Calpy: but fordable in moft places, during the dry feafon.

We learn from Mr. Ewart that the Soane is named Soane-budda, by the people who live near the upper part of its courfe; as its fifter river is named Ner-budda. The upper part of the courfe of the Soane is drawn in the fame manner as the Nerbudda is defcribed to be; and the fortrefs of Bandoo-gur, near it, is from the information of Mr. Ewart.

- The data for the pofitions of Nagpour and Ruttunpour, are already given in page 142 and 144 , in the difcuffion of the primary fations. Many roads lead from each of thefe places; but two only were meafured: :-one from Chittra in Bahar, through Ruttunpour, to Nagpour; the other from Nagpour, through Gurrah, to Rewah and Mitzapour, on the Ganges. The firt, by determining feveral points; fuch as Surgoojah, Dongong, Kyragur, \&c. enabled me to correct fome of Col. Camac's eftimated routes; and the latter, befides giving the pofition of Gurrah, the capital of Gurry-Mundella; affifted in fettling Mundella, and Deogur. The eftimated routes from Nagpour, were to Ellichpour, Burhanpour, Narnalla, Gawile (or Gyalgur) Aurungabad, Jaffierabad, Mahur, Notchengong, Neermull, Chanda, and Manickdurg; all collected by Mr. Ewart. All thefe proved very fatisfactory; as they correfpanded with the diftances of the feveral intervals: and Nagpour being determined with the precifion requifite for a general map, there is Tittle doubt but that all the places between Bengal and Bommay, are splaced within a few milcs of their refpective pofitions: that is, ad-
mitting


## [ I:59]

mikuing the lopgitude, of, Borabay to ber right, in refpect of Calcuta.

Befides the routes collected by Mr. Ewart, Mr. Wathertone obligingly communicated his route from Huffingabad Gaut, on the Nerbudda, to Nagpour. He was fent thither on bufinefs of the higheft political importance, by General Goddard; whofe army was then encamped on the banks of the Nerbuddaj in the courfe of its celebrated march acrofs the continent.*. $:$ His journey 'pointed out, among other particulars, the fource of the Tapty (or Surat river) whofe fpring is more remote than we had an idea of. It rifes at Maltoy, a town fituated 42 cofies to the $\mathrm{N} W$ of Nagpour: fo that its coure, is full two thirds of the length of that of the Nerbudda. The diflance between Huffingabad and Nagpour, is 100 coffes.
Ellichpour is a fine city, and was anciently the chicf city of Berar proper ; by which I mean to diftinguifh the province known in the Ayin Acbaree by that name: for our modern acceptation of Berar, includes the whole country between Dowlalabad and Orifla; the eaftern part of which, was neither reduced by Acbar, nor even known, in particulars, to the author of the Ayin Acbaree. At prefent, Ellichpour is the capital of a large province or ditriet, fubject to the Nizam ; but paying a chout, or nominal fourth part of its revenues, to Nagpour.
Deogur, or Deogire $\dagger$, was anciently a capital city, and the refidence of the Rajah of Goondwaneh ; or, as he is called in the Ayin

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Acbaree, the Goond Rajah; the Nerbudda being then the fouthern limit of Hindooftan. This province appears to be one of the moft elevated in Hindooftan, feeing that the rivers Tapty, Bain, and Nerbudda, defcend from it. Malwa, is unequivocally the higheft; for there, the rivers defcend in every direction.

Golam Mohamed's routes, being added to thofe collected by Mr. Ewart, contribute much towards the improvement of the map, in the interval between the meafured lines by Mr. Ewart : and before we were favoured with that gentleman's moft valuable materials (which entirely fuperfede the former, as far as they go) Golam Mohamed's contributed largely towards the geography of the country round Nagpour*. Thefe we owed to the late Col. Camac, who to his praife, employed a part of his leifure time, during his command on the weftern frontier of Bahar, in enquiries concerning the ftate of politics, government, geography, and nature of the countries included in the abovementioned tract : the geography of which, had till then, been very little known to us.

Sumbulpour or Semilpour, is determined by its reputed diftance from Ruttunpour, and from 4 different points in the Bengal furvey; from routes collected by Col. Camac. Unluckily, I had placed Sumbulpour in the map, as it now ftands, before I had foen Mr. Ewart's papers; by which it appears to be 10 or 11 miles to the fouth-weft of its true pofition; being in $21^{\circ} 25^{\prime}$ lat., and $83^{\circ} 40^{\prime}$ lon. ; when it ought to be in $21^{\circ} 34^{\prime} 30^{\prime \prime}$, and $83^{\circ} 46^{\prime} 30^{\prime \prime}$. Had this new pofition been eftablifhed on the fame principle as Nagpour and Ruttunpour ; that is, mathematically ; I hould not have fcrupled to erafe a large portion of the map, to gain fo defirable an advantage : but as it yet refts on computed diftances, I am content to point out the error in this manner.

[^99]The

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Theidetince of Sumbelpoir from Rüttarpour, Which is hardy affeeted by the new mater, lis 'by wrie wectount' 53 coffes ; and by antother 56 : the mediurn, $5^{4} 4 \frac{1}{2}$ coffes, : of $7^{8} \mathrm{G}$. miles, is the diftance adopted.



Alt thefe places being nearly in one line of directión from' 5 um ${ }^{\prime}$ bulpour, admit of a medium being fruck between them : and this medium appears to be $66 \frac{3}{2}$ from Raidy; or 9.5 G. miles. The in'terfeotion of thefe lines of diftances, from Rattinpour and Raidy; a nearly at right iangles," and they meet as is faid above, 'in lat'. if $\mathbf{F}^{\circ} 34^{\prime} 30^{\prime \prime} ;$ loni. $83^{\circ} 4^{\circ} 6^{\prime} \cdot 30^{\prime \prime}$. This pofition falls out $14^{2} \mathbf{G}$. miles from Cattack; and Mr. Motte, who traced this road, togegether with the courfe of the Mahanada in 1766, made the diftance 1229 : he alfo reckoned $51^{\prime}$ difference of latitude; arid it appears' to Be 64'5.

The lower rodad from Nagpour to Sumbulpour, through Ratipodt; is from Golam Moharned; and the upper, by Dumdah and Soorangut, is Mr. Thomas's ; communicated by Mr. Ewart. " The lower woute, which is checked, laterally, by the diftance of Rdipour from Ruttunpour, points out alfo the courfe aind navigable part of the Mahanuddy; or' Mahanada river. Arung is the furtheft point to which it is navigable, from the fea. The upper road croffes the cher, ${ }^{\text {thear }}$ the conflux of the Hutfoo river, which is alfo navigable, to Dungong. By the deviation of the road between Nagpour and Soonpour, from the true line of direction towards Cattack, it may bo inferred that the country on the fouth of it, is either defert, or in a fate of anarchy. We are however, not well informed on this point, but have every reafon to fuppofe it; and the rather, as Mr.

Thomas mentions Dewancole near Soonpour, as a retreat of banditti.

Soorangur, where the roads divide to Sumbulpour, and Soonpour, is the burial place of the late Mr. Eliott; who died on his way from Calcutta to Nagpour, in October 1778. At that crifis, when the fate of the Britif empire in India, hung fufpended by a flender thread, this gentleman was fent by Mr. Haftings, on an embafly to the Court of Nagpour, which at that time, might be faid to hold the balance of power, in Hindooftan. Zeal for the public good, prompted him to undertake a fervice of great perfonal danger ; and which eventually occafioned his death. Mr. Haftings caufed a monument to be erected to his memory, on the fpot: and alfo commemorated his early genius and attainments, and no lefs early death, in fome lines, which make part of an imitation of an ode of Horace *. Soorangur is about 270 road miles hort of Nagpour, and 470 from Calcutta; and lies out of the direct road.

I obferved above, that Sumbulpour is mifplaced; and this occafioned an error in all the places between Ruttunpour and Cattack. For the diftance between Soorangur and Soonpour is too fmall; and between the latter and Cattack, too great; the Mahanada not making fo deep a winding or elbow, between Boad and Sumbulpour, as Mr. Motte defcribed, and as is reprefented in the map. Golam Mohamed reckoned only 137 coffes between Nagpour and Sumbulpour: but the conftruction will not allow of lefs than 157 ; which is a miftake not eafily to be accounted for.

Boad, a fort near the Mahanada, is faid by Col. Camac to be 40 coffes only, from Gumfoar, in the Ganjam diffrict : by confruction

> - An carly death was EL Lot r's doom, I faw his op'ning virtues bloom, And manly fenfe unfold; Too foon to fade ! I bade the fone, Record his name 'midd hordes unknown, Unknowing what it told.

Hor. Book II. Ode xvi.
See the New Annual Regifter for 1786.
it is 46 ; which difference is probably occafioned by the miftake in the pofition of Sumbulpour. On the weft of Boad, and near the Mahanuddy river, Mr. Thomas paffed a town of the name of Beiragur; which I take to be the place noted in the Ayin Acbaree, as having a diamond mine in its neighbourhood. There is indeed, a mine of more modern date, in the vicinity of Sumbulpour; but' this whole quarter muft from very early times have been famous for producing diamonds. Ptolemy's Adamas river anfwers perfectly to the Mahanuddy : and the diftrict Sabara, on its banks, is faid to abound in diamonds. Although this geographer's map of India, is fo exceedingly faulty, in the general form of the whole tract; yet feveral parts of it, are defcriptive. When we perceive the head of the river juft mentioned, placed among the Bundela hills, and Arcot thruft up into the middle of India; we ought to reflect, that Ptolemy's.ideas were collected from the people who failed along the coaft, and who defcribed what they had feen and heard, without regard to what lay beyond it : and moreover, made ufe of too wide a fcale; as commonly happens when the fphere of knowleđge is confined, and the geographer works ad libitum, from the coaft, cowards the interior of an unknown continent: Whoever confults Ptolemy's map of India, mould carry: thefe ideas in his mind?' that' the conftruction of it is founded on three lines; one of which, is that of the whole coaft, from the gulf of Cambay, round to theGanges; a fecond, the courfe of the Indus, and the gulfs of Cutch and Cambay; and the third, the common road from the Panjab to the mouths of the Ganges. The objects within thefe lines, have a relative dependance on each line refpectively; and are invariably placed at too great a diftance within them: it therefore happens, that an object which fhould have occupied a place near one of the: lines, is thruft towards the middle of the map; and this being a general cafe, places on oppofite fides of India, are crouded together, as Arcot and Sagur.(Sagbeda) are. At the fame time the central' parts are wholly omitted; as being, in reality, unknown. Some

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may treaz with sidicule, what I have faid on the foore of Prolemy; but a work which has travelled down to us from the fecond century of our mra, muft have poffeffed fomething worthy to recommend it, and to lseep it alive : and, at leaft merits an explanation.

Mr. Motte's route along the Mabanuddy, was defcribed from computed diftances, and bearings by a compars. He allo took the latiutude of Sumbulpour, in a rough manner, and made it nearly the fapme as that of Batafore; that is, about 21 degrees and a half. The mouths of this river, which form an affemblage of low woody illands, like the: Ganger, and many other rivers, have never. been traced, but are defribed from report only. At the mouth of the principal chanpel, near Falfe Point, is a fortified illand, named Cajung, or Codjung.

This brings us into the neighbourhood of the Chilka lake, which bounds the circars (or northern circars) on the north. This lake feems the effect of the breach of the fea, over a flat, fandy Thore, whofe elevation was fomething above the level of the country within. Pulicat lake appears to have the fame origin. Both of them communicate with the fea, by a very narrow but deep open. ing; and are Challow within. The Chilka lake is about 40 miles in length from NE to $S W$; and in moft places 12 or 15 wide; with a narrow dip of fandy ground, between it and the fea. It has many inhabited iflands in it. On the N W it is bounded by a ridge of mountains; a continuation of that, which extends from the Mahanuddy to the Godavery river; and huts $u_{p}^{*}$ the circars towards the Continent. The Chilka, therefore, forms a pafs on each fide of it, towards the Cattack province. It is defcribed from the obfervations of Mr. Cotsford, and of Capt. Campbell : though poffibly the extent of it may be fomewhat more than is given, towards the north. It affords an agreeable diverfity of objects: mountains, iflands, and forefts; and an extended furface of water, with boats and fmall veffels failing on it. To thofe who fail at fome

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me diftance from the coaft, it has the appearance of a deep bay ; the lip of land not being vigble.

The famous pagoda of Jagarnaut, lies a few miles to the eaftward of this lake, and clofe on the fea fhore. It is a fhapelefs mafs of building: and no otherwife remarkable, than as one of the firf: objects of Hindoo veneration; and as an excellent fea mark, on a coaft which is perfectly flat, and exhibits a continued famenefs; and that in a quarter, where a difcriminating object becomes of the higheft importance to navigators. It has no claim to great antiquity : and I am led to fuppofe that it fucceeded the temple of Sumnaut in Guzerat; which was deftroyed by Mahmood in the 11 th century. Poffibly the remote fituation, and the nature of the country near it, fhut up by mountains and deep rivers, might recommend the fpot, where Jagarnaut is fituated: for we find Oriffa was not an early conqueft.

The circars are defcribed from various authorities. The conAtruction of the fea coalt has already been difcuffed in the firft fection. Our poffeffions in this quarter, extend no where more than 50 B . miles inland; and in fome places, not more than 20 ; between the Chilka lake, and the Godavery river : and between this river and the Kiftna, about 70 or 75 . So that the circars form a: flip of territory, bounded on one fide by the fea; and on the other, generally, by a ridge of mountains, that runs nearly parallel to it. Col. Pearfe's line, runs entirely through this tract ; and may be confidered as the foundation, on which a fuperfructure has been raifed, by the labours of many different people. The diftrict round Ganjam, known by the name' of Itchapour, and which is one of the divifions of the Cicacole country; is drawn from Mr. Cotsford's very elegant map. The Tickly diftrict, adjoining to it, on the fouth, is chiefly from Lieut. Cridland's furveys; and extends to Cicacole town (the Cocala of Ptolemy). From Cicacole, to Vifagapatam, including the country to the foot of the mountains, is taken from an old MS. map of Mr. Dalrymple's : and from thence
thence to Rajamundry, is taken from a map of Col. Forde's marches, collated with Montrefor's large map, at the Eaft India Houfe. It is all along to be underftood that Col. Pearfe's line (corrected as in page 10 ) forms the fcale of the parts in queftion. The remaining part of the circars ; that is, between the Godavery and Kifna rivers, is chiefly taken from a map of that country, publifhed by Mr. Dalrymple; the ground-work of which is compofed of the late Major Stevens's materials. The routes to Joypour and Badrachillum, are on the authority of Mr. Claud Ruffell; and the pofitionof the latter place, which is very near to the Godavery, accords with Mr. Montrefor's idea, as expreffed in his large map:

The Godavery river, or Gonga Godowry, flometimes called the Gang in Ferihta's hiftory) was, till very lately, confidered as thefame with the Cattack river, or Mahanuddy. As we had no authority, that I can find, for fuppofing it, the opinion muft have beer taken up, on a fuppofition that there was no opening between the mouths of the Kiftna and Mahanuddy (or Cattack river) of magnitude fufficient for fuch a river as the Gonga. It could not be for the want of fpace fufficient for the Cattack river to accumulate in, independent of the Gonga; for the diftance is as great from the mouth of the Cattack river to the Berar mountains; as from the mouth of the Godavery to the-Baglana mountains. The truth is, that no juft account of thefe rivers, any more than of the Burrampooter, had then reached any European geographer: Succeeding enquiries and difcoveries have made it.certain, that the Godavery isthe river that runs under Rajamundry, and falls into the fea betweenCoringa and Narfapour; and that the Cattack river rifes in the Ruttunpour country. But the recent difcovery (to Europeans) of the Bain Gonga, whofe courfe is direetly acrofs the fuppofed eourfe of the Gonga, (the name given to this compound river, whofe head was the Godavery, and tail the Mahanuddy) clears up at once the ambiguity; if any there could be fuppofed to remain; after the difcuffion of the fubject in the memoir of the map of 1782: The-

Goda-

Godavery has its fource about 90 miles to the NE of Bombay; and in the upper part of its courfe, at leaft, is efteemed a facred river by the Hindoos: that is, ablutions performed in its ftream, have a religious efficacy fuperior to thofe performed in ordinary ftreams. The Beemah is fuppofed to have fimilar virtues: nor are facred rivers by any means uncommon, in other parts of India. The Godavery, after traverfing the Dowlatabad foubah, and the country of Tellingana, from weft to eaft, turns to the fouth-eaft; and receiving the Bain Gonga, about 90 miles above the fea, befides many fmaller rivers, feparates into two principal channels at Rajamundry ; and thofe fubdividing again, form altogether feveral tide harbours, for veffels of moderate burthen. Ingeram, Coringa, Yanam, Bandarmalanka, and Narfapour, are among the places fituated at the mouth of this river; which appears to be the moft confiderable one, between the Ganges and Cape Comorin. Extenfive forefts of teek trees border on its banks, within the mountains; and fupply thip timber for the ufe of the ports abovementioned: and the manner of launching the fhips in thofe ports, being very fingular. I have fubjoined an account of it in a note *. The Godavery was traced about 70 miles above its mouth; the reft of its courfe is defcribed only from report; fave only at the conflux of the Bain river, and in places where different roads crofs it, un-

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til we arrive at the part where M. Bufly's marches have deferibed it, in common with other particulars! !

The courfe of the Bain Gonga (or Bain river) as I have juft obferved, is quite a new acquifition to Geography; and we are indebted to the late Col. Camac, for it. This river, which hate a courfe of, near 400 miles, was not known to us, even by report, till very lately. : It rifes near the fouthern bank of the Nerbudda, and runs fouthward through the heart of Berar; and afterwards mixes with the Godavery, within the hills that bound our northern circars. This circumftance confutes at once the idea of the Godavery being a continuation of the Cattack river. I cannot find how far up the Bain Gonga is navigable; but it is mentioned as a very large river, in the early part of its courfe; and is probably equal in bulk to the Godavery, when it joins it.

There yet remains in the map, between the known parts of Berat, Golconda, Oriffa, and the circars, a void fpace of near 300 miles in length, and 2150 in breadth; nor is it likely ever to be filled up, unlefs a very great change takes place in the ftate of European politics in:Indig ; for we appear not to have pénetrated beyond the firt, ridge of mquntains, till very lately; when the difcovery of the black pepper plant was made, in the diftricts of Rampa.

Beyond the great ridge of mountains (which may be 60 or 70 miles inland) and towards Berar, is a very extenfive tract of woody and mountainous country, with which the adjacent countries appear to have but little, if any, communication. We may fairly fuppofe that to be a country void of the goods in general efteem among mankind, that does not tempt either their avarice, or ambition. A1though. furrounded by people who are in a high degree of civilization, and who abound in ufeful manufactures, we are told that the few feecimens of thefe miferable people who have appedred in the circars, ufe no covering but a wifp of fraw. We know not, with any degree of certainty, how far this wild country extends within the great ridge of mountains, between the parallels of $17^{\circ}$
and $20^{\circ}$ : bat the firft civilized people that we hear of beyond them, are the Berar Mahrattas. I think it probable that it may extend 150 miles, or more. However, a party of Berar Mahrattas found their way through this country, and the Bobilee hills, in 1754, (Orme vol. I. page 373) at an opening called Salloregaut, in the Cicacolê circar. Our ignorance refpecting this tract may well be accounted for, by its lying out of the line of communication between our fettlements; and by its never having been the feat of any war, in which the Europeans have taken part. I fufpect, however, that the tract in queftion, is either too defert, or too favage to be eafily or ufefully explored.

Between the Godavery and Kiftna rivers, and on the north-eafi of Hydrabad, was the ancient country of Tellingana (or Tilling) of which Warangole (the Arinkill, of Ferißhta) was the capital. The fite of this capital is ftill evident, by means of the old ramparts; which is amazingly extenfive. A modern fortrefs is conftructed within it; and is in the poffeffion of the Nizam. Col. Peach marched by way of Ellore and Combamet, to this 'place; during the war of 1767 ; and the road was furveyed by Lieutenant, now Major Gardner. His horizontal diftance from Ellore to Warangole was 134 G. miles: and the bearing, W 33 N*. A note accompanying Major Stevene's copy of this route, fays, that the latitude of Warangole is $17^{\circ} 57^{\prime}$ : and this bearing and diftance accords with it. I am ignorant of the exact relative 'pofitions' of Warangole and Hydrabad: Montrefor's map makes the diftance between them 45 G. miles. My conftruction makes it 47, and the bearing of Warangole from Hydrabad NE by N. Montrefor's bearing of Warangole from Ellore, is very faulty; and it is remarkable, that though there are feveral plans of this road, moft of them differ widely, both in bearing and diftance. Major Gardner's I apprehend, may be depended on.

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The places round Warangole, are taken from a M3. map of $\mathbf{M r}$. Dalrymple's. Byarem, Culloor, Damapetta, \&c. are all from MSS. belonging to the fame gentleman.

The road from Hydrabad to Nagpour, was communicated by Mr. John Holland. The diftance is ftated at 169 coffes; which agrees remarkably well with the interval on the map: and, as Nagpour is a fixed pofition, we may infer, that Hydrabad ought to be rather in $17^{\circ} 12^{\prime}$ than $17^{\circ} 24^{\prime}$ (fee page 140). The two places bear nearly N and S from each other; and the whole diftance, of courfe, is difference of latitude. A place named Indelavoy or Endelavoy (Indelvai, in Tavernier, and Thevenot) appears in this route, between the Godavery and Hydrabad: and Thevenot's route from Aurungabad to Hydrabad, falling in there, determines the direction of both roads; and alfo the pofitions of Indour, and Sitanagur; the latter being a famous pagoda in that part. Neermul, a city of note, belonging to the Nizam, alfo rifes in this route; and is about 10 G. miles from the north fide of the Godayery, and about ${ }_{1} 22$ from Nagpour. Mr. Ewart alfo collected fome routes between Nagpour, Neermul, and Hydrabad: and a route by way of Chanda, appears in Mr. Orme's hiftorical fragments of the Mogul empire. As one of Mr. Ewart's routes gives the pofition of this Chanda, (a confiderable city belonging to Nagpour, and about 70 G. miles to the fouth of it) we are enabled to lay down this road ; which was marched over, by M. Buffy.

Another principal branch of the Godavery, is the Manzorah; a confiderable river which rifes in the country of Amednagur, and after a circuitous courfe by Beder, joins the main river below Nander.

Many interefting pofitions arife in the marches of M. Buffy; between Hydrabad and Aurungabad, by the two roads of Beder, and Nander; and no lefs in the march from Aurungabad to Sanore. Beder is a fortified city, about 80 road miles to the $\mathrm{N} \mathbf{W}$ : of $\mathrm{Hy}-$ drabad; and was in former times the capital of a confiderable kingdom.

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The road from Beder to Burhanpour, through Patris and Jaffierabad's is from M. Thevenot. It affifts in determining the pofition of Jaffierabad, a principal town on the N E of Aurungabad. The road from Nander to Nagpour, through Mahur, is partly from M. Buffy, and partly from Mr. Ewart ; by whofe account Mahur is 78 coffes, but by conftruction about 87 , S W from Nagpour.

The roan from Poonah to Beder, is taken from the journal of the late Col. Upton; who returned from his embaffy, by the route of $\mathrm{Hy}-$ drabad, and the circars, to Bengal. His journal has much merit, as being full and defcriptive of the countries he paffed through; as well as of their refpective boundaries: but he was unlucky in eftimating his courfe; and it happens that we have no crofs line to. correct it.

The road from Aurungabad to Sanore-Bancapour, is taken from the map of 'M. Buffy's marches: and Sanore was the extreme point of his campaigns, that way. See Orme vol. I. p. 425 . I could only take the bearing and diftance, as I found them in the map: and it is a great defect, that in fo confiderable an extent, there thould be no obfervation of latitude; that we know of. By the dotd, Sanore is placed in lat. $15^{\circ} 39^{\prime}$, lon. $75^{\circ} 44^{\prime}$; or about 117 G. miles $\mathbf{E}$ by $\mathbf{N}$ from Goa. There is nothing to check this pofition, from the Malabar fide: not even the number of computed coffes from Goa. However, let the matter ftand as it may, with refpect to the mathematical exactnefs of the queftion; had it not been for thefe marches of M. Buffy (the only monument remaining to the French nation, of their former fhort-lived influence and power in the Deccan) the geography of thefe parts, would have been extremely imperfect : but as they extend through more than ${ }^{5} 4$ degrees of latitude, and more than 5 of longitude; they occupy not only the principal part of the Deccan, but by fixing the pofitions of fo many capital places, and interfecting the courfes of fo many rivers, tend to clear up many other pofitions.

Vlifiapour (or properly Bejapour) is not fo well afcettained ha might be wifhed. Mandefoe, who travelled the roads himelf; fays, that it is 80 leagues from Dabul, on the coait of Matabar ; and 84 from Goa; which, if meant of French leagues of 3000 paces, with an allowance of one in feven for windings, will give 142 G. miles from Dabul, and 1.49 from Goa: making Bejapour in lat. $17^{\circ} 26^{\prime} 30^{\prime \prime}$, lon. $75^{\circ} 19^{\prime}$. P. du Val, who formed a map of Mandefloe's routes (a copy of which is in the Britih Mufeum) and probably had lights, befides what are furnifhed by the travels, to guide him; makes the diftance between Dabul and Bejapour, greater than between Bejapour and Goa. And this I think likely to be the cafe, though contrary to what is faid in the travels.

Tavernier reokons 85 coffes from Goa to Bejapour (or rather perhaps from Bicholim, the landing place on the continent) or 8 days journey: which 8 days, fhould be about 144 G. miles on a ftraight line; and agrees with what is faid above. He fays alfo, that from Bejapour to Golconda, the diftance is 9 days journey, or 100 cofles more : 'but this account muft be exceedingly vague; becaufe Goa and Golconda are near 230 coffes afunder, by the directeft roate; and Bejapourt lies more than 40 coffes out of the line. "Fryet reckons Bejapour 10 days journey from Carwar, or about 180 G. miles. Cæfar Frederick agrees with Tavernier in making it 8 days journey from Goa.

The Lettres Edifantes make the latitude of Bejapour $17^{\circ} 30^{\prime}$. I have placed it in lat. $17^{\circ} 26^{\prime} 30^{\prime \prime}$, lon. $75^{\circ} 19^{\prime}$; that is, 149 G . miles from Goa; 142 from Dabul; 171 from Carwar; and 203 from Golconda. At the fame time, I think it probable, that it may not be within 20 miles of its true pofition. The particulars of the roads'leading to it from Dabul and Goa, are from P. da Val's map. Bejapour is a confiderable city, and was once the capital of a large kingdom of the fame name. It is now in the hands of the Poonah Mahrattas:

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The travels of M. Anquetil du Perron from Gea to Poonah, have furnifhed fome ufeful matter towards filling up a part, that has long remained almoft a perfect -void, in the maps of India. His route croffes that of Mandefloe, deforibed by P. du Val, at a place named Areek or Areg, a few miles from the north bank of the Kifna, and on the road between Dabul and Viffapour ; and thus, fortunately, enables us to join his route with Mandefloe's, with fome degree of certainty. M. Anquetil fpeaks of coffes and leagues, as fynonimous terms; and reckons $40^{\frac{1}{2}}$ of thefe from Vaddal, at the weftern foot of the Gauts, and about 12 coffes (or leagues) S E or E S E from Goa, to Areg: and $5 \frac{1}{3}$ more from Areg to Poonah. Now the diftance from Vaddal to Areg, cannot be fuppofed lefs than 100 G . miles of horizontal diftance; and from Areg to Poonah nearly the fame : fo that one can hardly tell how to denominate his itinerary meafure; which is about 2 G . miles and a fixth in horizontal meafure. On the road from Poonah to Nimderra (in page 138 ) we have obferved the fame deviation from the ftandard of the itinerary meafures of the country; for on that road, his coffes turn out exactly 2 G. miles each, on a ftraight line. It hould be a rule for every traveller to ufe, not ondy the meafures, but the denomination of the country he paffes through; for then we are likely to poffefs a better fcale, than his judgunent can furnifh us with. This will be underfood to apply to computed diftances only. I have proportioned M. Anquetil's diftances, as well as I could, confiftently with the fuppofed fituation of Areg, in refpect of Vifiapour; which latter place, was the primary fation in this cafe.

His route from Goa to the Kiftna, is fo far on the ordinary road to Vifiapour, by the Ponda Gaut. The route from the croffing place of the Kiftna to Poonah, gives a general idea of the upper part of the courife of that river; and alfo points out nearly the fituation of Sattarah, the capital of the Mahratta ftate, daring the time of the Rajahs of Sevagee's line. This place appears, by the proportioned
$\left[\begin{array}{ll}174\end{array}\right]$
tioned difance of M. Anquetil's route, to he about 38 . G. minfes (horizontally) mearly $S$ by E from Poonah. A native of this place informed the that Sattarak was reputed to be 30 coffes (or about 43 Gumiles) S E of Poonah. I have no doubt but that M. Anquetil's route may be relied on, for the diftance. It is to Mr. Orme's hiflorical fragments before-mentioned, that I am indebted for the knowledge that M. Anquetil's book contained any fuch matter. I lament exceedingly that he had not a compafs with him, with which he might have taken the bearing of the road between Goa and Aurungabad: for in a quarter where geography is fo bare of materials, that every notice of the kind is received with avidity, that gentleman had a fair opportunity of diftinguifhing himfelf in this way; as he may be faid literally to have trod a new path.
The notes to Mr. Orme's hiftorical fragments afford fome rotices and fuggeftions, that have been of fervice to this work. The general fituation of Pannela, fo much celebrated in the hiftory of sevagee, is placed conformable to his fuggeftion, in the fame book. I have allo followed him, in fuppofing the Atoni of P. du Val, to be Huttany, once an Englifh factory in the heart of Vifiapour. Hubely, another factory, is faid by Fryer to be 6 days journey from Carwar: and by his manner of expreffion, 1 infer it to be fituated on the road to Viffapour. It is in the fame place that Fryer fays, that Vifiapour is 10 days journey from Carwar.

Naldorouk; Malkar, Sakkar, Kandjoly, and other places in the Deccan, are alfo from Mr. Orme's book; which points out the fource of the Kiftna river to be on the N W of Sattarah; and it cannot be far from it, as the Gauts, or Indian Appenine, lie fo clofe to Sattarah; and the Kifna is known to fpring from the caft fide of that ridge.

Raolconda, a famous diamond mine, is placed in Mr. Montrefor's map, about ${ }_{15}$ G. miles to the weft of Ralicotte, and 12 from the north bank of the Kiftna; but I know not on what authority.
 at 17 gos, of 4 French leagoes eachi. Tavernier mentions his crofling a river that formed the common boundaty of Golconda and Vifapour, about 4 gos , ot more, before he came to Raolconda. This river can be no other than the Betma, which, to this day; forms the eaftern boundary of Vifiapour; and paffes about 80 ot 82 G. miles to the weft of Golconda, croffing the road from it to Ralicotte : and if we reckon the 82 miles, 13 gos; that is, forming a fcale from the diftance between Golconda and the river Beemah; each gos will be 6,3 G. miles in horizontal diftance (or nearer 3; tban 4 Frenc̣h leagues) and Raolconda will be placed about 29 G . miles on the weft of the Beemah; or 11 , eaft of Ralicotte.

If we take the gos at 4 French leagues, without regarding the proportion arifing from the above calculation, it will bring Raolconda very near the fituation affigned it by Montrefor. But:I have neverthelefs adopted the former, thinking it, on the whole, the moft confiftent.

Cæfar Frederick fays that the mines (Raolconda) are fix days journey from Bifnagur : but this will apply equally to either of the above pofitions.

The general courfe of the Kiftna river from the fea to Bezoatd; is chiefly taken from Major Stevens's maps, communicated by Mr. Dalrymple. From thence, to Timerycotta is from Mantrefor, collated with Capt. Davis's $\mathrm{Kk}^{2}$ etch of Guntoor, $8 t \mathrm{c}$; and a French MS. map. From that place to the conflux of the Tungebadra, it is drawn only from report, and in the form it is ufually done, in the maps that include its courfe. From the mouth of the Tungebadra to Gutigui, or Catigui, its courfe is drawn in a French eopy of M. Buffy's marches; and I have corrected it in two places by General Jofeph Smith's journal. Above Gutigui, its courfe is marked in certain places, by the roads that crofs it; particularly thofe travelled by M. Anquetil du Perron: but upon the whole, nothing more than its mere general courfe is known, except within

70 miles of the fea. General Joreph Smith remarks, thate the Kifna was fordable both above and below the conflux of ithe Beemah river, in the month of March: and that a few miles below the mouth, of the Beemah, its bed was 6.00 yards wida, and exhibited an uncompon appearance, from the number and diverlity of the zocks in it.

The Kiftna and Godavery rivers, however remote at their foumtains, approach within 80 miles of each other, in the lower parts of their: courfes and form an extenfive tract of country, compored of rich vegetable mould, fuch as is ufually found at the mouchs of large:rivers. Here we behold, on a fmaller fcale, the fame economy that is obfervable in the agency of the Nile and Ganges, iniforming the deitas of Egypt and Bengal ; by means of the finer part.ticles of earth, that are fwept down by thofe vart rivers, and their branches, in a courfe of more than 2000 miles. Thofe iwhol hate been on the fpot, and reafon from analogy, in this caffe, with rean dily fuppofe that the whole, or the greateft part of the tradi; included between Samukcotta and Pettapolly (about 1.50 miltes in length alopg the fea fhore, and from 40 to 50 wide) isi in reation a gift of the two rivers, Godavary and Kiftna. The fame appeas apces indeed, may be obferved at the mouths of the Cattaek land Tanjore rivere; but the two rivers in queftion, by draining a muck greater extent of couptry (that is, from the 15 th to the 21 it degree of latitude) have collected materials for a. greater quantity of: neve land. : Within, this new formed land, and about mid way between the Godavery and Kifna, the foil forms a hollow fpace; which in its loweft part, is a lake at all feafons; and in all the other parts, an extenfive inundation, during the feafon of the periodicil ! fains; being then a lake of 40 or 50 miles in extents. Thist it called the Colair lake; and its origin may be referred to the fampe caufe, as that which produces the lakes and moraffes of the Egypl tian and Bengal deltas : which is, that the depofition of miud 烙 the two rivers (or the two branches of one river) at: the time when
they oivenflow, is greatef neaf the banks: for the forther the inuindation flows from the margin of the river, the more of its earthy particles will be depofited in its way; and the lefs will remain for whe diftant parts; which therefore cannot be filled up to the level of the ground, meareft the bank of the river: and thus the ground will acquire the form of an inclined plane, from each river bank towards the interior part of the country, where a hollow fpace will be left: but it may be expected that when the rivers have raifed their banks, and the adjacent country, to the greateft poffible beight, which is that of the periodical frood (and the ground can be raifed no higher) the fubfequent inundations will find their way iato the hollow space, from the lower part of the river; and will greadrally fill up with mud, the part of the lake that lies towards the fource of it: and as the new land continues to eneroach upon the fea; the lake will travel downwards in the ame proportion. Hor the namank courfe of things, is, that when the new latids that aec thefurtheft removed from; the fea, are raifed as high as the agency of the waters vill admit, that portion of the mud 'that cannot be depofited above, is carried lower down to raifeother leveds; or to lyy, the foundation of new land, further out: and this the regular declixity of the channel is preferved. All lands fabject to in undahions, myf: comtinue to rife; becaufe the water of the inundation depofits, at leaft, fome portion of the earthy particles ifurpended in $i u$ : bast there mult be a certain point of elevation, beyond which no delca or river bank, can rife; for each fucteffive point in the courfe of a river, muft be lower than the preceding one. As to the Nile, its banks will admit of being raifad, throughout the whole Said, 25 well as lower Egypt; the catatacts being to much elevated above the lower part of the river: andiEgypt alfo differs in another partioular, ifrom India; in that nor riin falls there to waflaway the light parts of the foil into the river, before the inundation: whercos, the heavy rains of Bengal, provious to the inundation, muft reduce the level of the elevated grounds, and

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 triunt have been more rapid' in Egypt than it any of the moiftot regions:
xumivo
. Tr appears to me that the gentlemen who have lately realoned 18 ingeniounly on the increafe of the delta of the Nile, have omitited a cirtumntaice of confiderable moment, as it refpects the length $b$ of the periods required to form given quantities of new land in's 'Gr to elediate the old to a certain degree. We never fail to rentark on a furvey of the naked fummits of mountains, thiat the rain thits in'z courfe of ages, wathed away the earth that covered theith : or in octher worde, that there is a progreflive motion of the finet particles of earth, from the mountains, towards the vallies. Adrilit ting thib to be trac, and that the fores of fine earth dare fibt mexe Hautitie; 'the longer the rivers continue to tun, the lefistantaty of 'earth' they muft carry away with them : and thettforte, the find creaft of the deltas, and other alluribns of capital rivers, mitn the


 Jofth suririan! Which wer, to open a commenication atiant featons, betwen the Codar lake atid its parent rivers, with a wiew to the unprovemefit "of the adjacent tands (which form a part of "the
 channel already exifts, between the lake and the Godavery'rivet ; Jity well as the traces of an uffininhed one, towards the Kiftria : amid whith this gentlemant, with great appearance of probability, initpotites '1ty a like defign liaiting been formed by the natives, in eaty they? This teheme, Which appears to be practicable on edit terms, 2 ihat
 the particulars, In fian refer to the trat itelf,- whith aifo cobituthis murch information on .other fabjects.

TYisfturn to the suhject of, the Memoir The, Beemah, xivper is kugwn the be, principal branch of the Kiftnay goming from the $\mathrm{N}, \mathrm{W}$, and joining, it near Edghir. It, ifes in the mountains, on the wnerth of Repanal, probably not far from the fources of the Godavery; and paffes within 30 miles of the eaft fide of Poonah, wheftry it is napged Befurah, as well as Beemah; and is alfo effeemed a fanced, river. Geperal Smith croffed this river, whep: açgompany: ing the Nizam from Hydrabad towards Myfore, in $\mathbf{7} \mathbf{7 6} 6_{1 ;}$; about Ip miles above its junction with the Kiftna, where it, was forfablef
The Vifiapqur river is a branch of the Beemaht and is papmed Mandouah, wr:Mandefoe.

The mountains named the Gauts, Gattes, or Indian Appranine, and, which extend from Cape Comorin to the Taptye or Surat riyer: is difcuffed in this fection:, but I thall referve a general accopntiff the Gauts, for the next fection; which treats of the penipfuh in general, and of the Gauts, as included in it. This celebrated ridge does not terminate in a point or promontory, when it approaches the Tapty ; but departing from its meridional cquyfferbends eartward in a wavy line, parallel to the river; and is afterfyards $A$ of among the hills, in the neighbourhood of Burbanpour. In itts: courfe along the Tapty, it forms feveral paffes, or defcents, (thap is, Gauts, according to the original import of the mord, which means a landing place) towards that river; whence the countrix into which the paffes defcend, was originally named, Candeif, of the low country. It would appear, that the ridge ahates of its great height, after paffing the parallel of Baffeene northward; for Mr. Farmer, in his way from Poonah towards $\mathrm{N}_{\boldsymbol{A}}$ derhary, obferved that the paffes had all a defcent northward 9 forming as, ift, were, 4 feries of fteps, until he landed in Candeih. He was then hottage with Madajee Sindia; who at that time led the grand Mabratta army into Guzerat, againft General Goddard.

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Tha






 mortha be 'ho map; 'ri'other record, defetiptive of the geography of Bridtand'; of' of anisy part of the tract between Bombay and Aattungabiat: 'The routtes' of 'M. Anquetil da Perrön, and of 'Mr: Farmer, together with Mr. Smith's line, Trave deftribed the toath leidiug ffom Poondh to Noopour, and Burthanpout: But an ont he Wief of thefe fines, is a blank, for an extent of 100 miles in w whidh, and 150 in length : even the pofition of Naffick-Trimuck, wettebrated place' of Hindoo worthip, on the NE of Baffeens " is not well known; 'and M. Anquetil du Perron's accournt of inte ' poditiont, in tefpect of fome points in his route from Poonah to Surat, is not satisfattory. It is fittuated near the fprings of the Godavery; and they mút be on the eaft fide of the Gauts, and nearly on a paratilel with Baikibelgong.
${ }^{2}$ Sbme generial itiformation refpecting the fitaation of the Treek forefts; and of the' extent bf the Brition conquefts in 1780 and 7787, glong the weftern foot of the Gauts, between Baffeen and Sirrat, was obligingly communicated by Mr. Hunter of the Edtrlfitia Direction; and by Mr. Holmes. The Teek forefts, from whence the marine yard at Bombay is furnihed with that excellent fpecies of thip timber, lie along the weftern fide of the Gaut mountains, and other contiguous ridges of hills, on the north, and north-eaft of Baffeen : the numerous rivulets that defcend from them, affording water carriage for the timber. I cannot clofe this account without rematking the unpardonable negligence we are guilty of, in diclaying to build Teek hips of war for the ufe of the Indian feas. They might be freighted home, without the ceremony of regular

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 culated juft tosplywer the purpofe of , the hane: Raffinge, gat the beft feafon: and crews could be provided in India. The letter fubjoined in a note, and which was written with the beft intentions, 9 or. 10 years agas will explain the circumanaces of the, cafe.*
 in the Indian feas: while an European built Bhip is, ruined, therfo in 6 gears,. The 乌hips built at Bombay are the beffe both in , poing of workmanhip.and materials, of any that are conftyucted in India: apd although 4th rates only are mentioned in the tetter, there, is noo, doubt but that 3 d rates may be confructed; ; as, theysf is, as chepife of timberr. The Spaniards build capital hips. in theqir foreign fetr tleqpents. .,The Eaft India Company have a Teek Mip on her fougth
 fore any obbiection founded on the effects of frpot, on the Teek, time ber, is doge away, $\qquad$

- .ci'Frequent have been the opportunities I have had, of obferving how very rapid the decay
 the hips are that are built of the wood of that country, namely, the 7 epk: which may not
 feas, during the late war ( 4757 to 1.762) may be admitted as a proof of the forner remark; and the great age of the flipg built in India, may ferve to prove the fifters:" Whtel 4 fididy to infer fromp this, for your Lordhips ufe, is, that hhips of , war, under thitd fotes rgay be conIfrueted in India; and with moderate repairs, latt for ages': whereas, a fhip of eurrpean con-
 lofing, in the mean time, the fervices of the fhips that are fent to relieve the worn out oiles.
 wanted to bring all thefe into ufe, but a fit opportunity, and proper encouragement"

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\text { Auguft 20, } 1778 .
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SECTLON

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## The Countries contained in that Part of the Praningosmys:

| $\therefore$ Clying on the South of the Kistna River. |
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THIS tract, which in extent is not a fifth part larget thraf the Bengal provinces; yet, by its political divifions, by the talents and ambition of its Princes, and moreover, "By theit Welihg frimulated by' the different Earopean powests, "whanc metcantite News ledthem thither; it has furnimed of late yeary, mbter ? fifteler for fpectation and hiftory, than perhaps, all the reft of the Mofotr ${ }^{3}$ enipire putt tofether *. But although it has been the theatre "ore repeated twars between the Europeans and the natives, as' "delr ass' Betwetir the Europeans themfelves; yet to ample a lupply de geo graphical athatter has not been fupplied, as by the wars and fegocial tions in the notth. The geography of fome of the weftern partstof the peninfula, ate as little known to us, as that of the central parts


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 happy natives of the Carnatic owe to the Englifh : I mean from the infufficient protection afforded them, at the conemencemsit of the war of 17.80 . The faying of the old womati to Phatipis "Be no longer King," might well have been applied to the executive government in the Curaatic. Nuch dloquetree has been employed in defcribing the wretched tate of thethitable tants of Bengal ; when, in reality, they are to be claffed among the happief nations throughor out Afia. Poets deal in fietion : but a plain tale of woe will beft defcribe the fufferings of the
 bute of applaufe to the character and abilities of the Nobleman, who affumed the government of Madras, at, a paripd when the Britifh interefs conld hardly beifaid to have an exifance in the: Carnatic: Hyder having nearly the entire poffefion of the whele country. I cannot exprefs my opition of this Nobleman's sharacter, in a more forcible manner, than by regreting thet Trete? thining talents, controlled by a difinterefted mind, thould not be employed for the benefit of the pablic.

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The figure of this tract is a triangle, of which the courfe of the Kidna river forms the bafe, and the coafts of Coromandel and Malabar, the fides. Its extent from the Kiftna to Cape Comorin, which forms the apex of the triangle, is about 600 Britifh miles; and its breadth, in the wideft part is about 550.

The conftruction of the fea coafts, has been already defcribed in the firft fection; and that of the courfe of the Kiftna river, in the latter part of the fourth.

Madras, or Fort St. George, as has been obferved (in page 13) lies in lat. $13^{\circ} 5^{\prime}$, lon. $80^{\circ} 25^{\prime}$; and clofe on the margin of the fea. It is the principal fettlement of the Britilh Eaft India Company, on the eaft fode of the peninfula; and is a fortrefs of great ftrength, including within it a regular, well built city, But as it was impoffible to fortify and garrion, in an effectual manner, a pity of, fychextent as the political and commerciah cqufequencernof Madras, muft give birth to; there is a fecond city de peparated frome Madras, by ther breadth of a proper efplanade only; and although; near, four miles in circuit, is fortified in fuch a manner, as to pret

 the country: Madras was fettled by the Englin ahout theryent
 David in 1758 . pointed out the neceflity of ift: It if nemwnerforps 1 one of the beft fortreffes in the poffeflion of the Britilh rimationin Pnd $_{0}$ although not of fo regular a defign as Fort William, yet from the greater facility of relieving it by fea, and the natural adyaftages of gronmd, which leaves the enemy lefs choice in the manner of con + : dueting his attacks; it may on the whole bes deemend at Jeart equad toftom antan
 this coaft, has no port for chippings the coaf forming nearly a Atraight line and dif ald uncommoded with a high and dangetamsio

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gerons farf* or wave, that breaks upon it; and induces the neceffity of ufing the boats of the country, to land in. Thefe are of a fingular conffruction; being formed without ribs, or keel; with flat bottoms, and having their planks fewed together : ison being totally excluded throughout the whole fabrick. By this contruction, they are rendered flexible enough to elude the effects of the violent dhocks which they receive, by the dalhing of the waves, or furf, on the beach : and which either overfets, or breaks to pieces; a boat of Eurapean conftruction. No port for large veffels occurs between Trinkamaly and the Ganges: that is, in an extent of 15 degrees : fo that the comparative proximity of the former, to Madras and Pondicherry, renders it a capital object, both to the Engt liih and French.

The Company's lands (or Jaghire $\dagger$ ) extend from Madras to the Pullicate lake, northward; and to Alemparvé, fouthwards : and weftward, beyond Conjeveram : that is, about 108 B . miles along fhore, and 47 inland; in the wideft part. This whole tract hath Had 'a regular furvey: and Mr. Pringle, who furveyed the marches of the army under Sir Eyre Coote, during the late war, has afcertained fome interefting geographical pofitions, beyond it; and by this means extended very confiderably, the dimenfions of what may be called the furveyed trast: fo that we are enabled, with a little adventitious help, to fill up with tolerable accuracy, all the country between the. patalicl of Pullicate northward, and Cuddalore, fouthward; bounded on the weft, or inland fiete, by a line drawn from Cuddalore through Arnee, Velore, and Chittoor; and eaftward by the fea. The whole of this tract is a triangular fpace of. 106 G. miles in length, by 70 wide. By means alfo of Mr. Pringle's bearings and meafored routee,

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the pofitions of Portonovo, Squtgud, and Amboor are obtained; which laft may be confidered as the weftmot point determined with accuracy, any where to the north of Tritchinopoly: and Amboor is only one fourth of the whole diftance acrofs the peninfula. I cannot find that the road to Colar, was meafured, during the campaign of 1767 .

- Arcot is found to be nearer to Madras than was before fuppofed. I have fixed it by a feries of triangles, by means of Wandiwain; Narnaveram, and Sholingur hills; and a bafe, furnified by the Jaghire map; at $56,6 \mathrm{G}$. miles, in horizontal diftance, from Madras; and about ${ }^{1} 3^{\prime} 30^{\prime \prime}$ fouth of its parallel ; whence, its latitude will be $12^{\circ} 51^{\prime} 30^{\prime \prime}$, lon. $79^{\circ} 28^{\prime} 15^{\prime \prime}$. I do not know that its obferved latitude is recorded any where. Mr. Pringle's map makes its diftance from Madras 57,9 ; and M. D' Anville 58,2 in his MS. of pofitions: and another French MS. map, 59, I.
- Arcot is reckoned the capital of the Carnatic; and muft be a place of great antiquity, by its being taken notice of by Ptolemy; as the capital of the Sorce, or Sora-mandalum; from whence cor-: ruptly Choro-mandel. It is a pretty large city, and its citadel is efteemed a place of fome ftrength, for an Indian fortrefs. The defence which it made under Clive, in 1751 , eftablifhed the military fame of that illuftrious nobleman; whofe foibles expofed him to the attacks of enemies, who were better qualified to obferve his defects, than to imitate him in the higher parts of his character : to which pofterity will do ample juftice, when it is praced beyond the reach of the envy of cotemporaries: and when his foibles will be as little remembered, as the malice of his enemies.

The pofition of Velore, is from Mr. Pringle's diftance, corrected by the bearing of Sholangur hill. In his map of Coote's campaigns, he has given too much diftance between Arcot and Velore: for it is 17 B. miles in the map, and only 15 by the road, in the tables. Alfo, between Conjeveram and Arcot, the road diftance exceeds the B b hori-
horizontal diftance, by three-fourths of a mille only; in $26 \frac{1}{2}$ miles. Thefe, I apprehend, are miftakes, occafioned by hafte.

Velore is a poft of great importance, commanding the great road leading into the Carnatic, from the valley of Vaniambaddy; and the directeft route from the Myfore country. It confilts of three ftrong forts, on as many hills : and is juftly deemed impregnablef to an Indian army. It is faid to have been originally fortified by the Mahrattas, more than 200 years ago. Among other acts of generalhip exhibited by Sir Eye Coote, during the late war ; the relief of this place, in the face of Hyder's whole army, may be reckoned a capital one. It is about 90 miles to the weftward of Madras.

Paliconda, had its bearing taken from Velore, and the diftance between them, was meafured. Amboor is determined by the diftance from Paliconda, and the bearing of Coulafgur; which latter is determined by bearings from Velore and Arcot. The diftances are obtained by means of Mr. Pringle's table of roads, with allowance for winding. Laftly, Sautgud is placed by angles taken at Amboor and Velore.

Thefe, together with Col. Pearfe's line, along the eaftern coaft of the peninfula, and thofe before taken notice of in the fouthern provinces (in fection I.) are all the meafured lines that occur in thefe parts : together with one, and only one, obfervation of latitude; that is, at Chinna-Balabaram, about the middle between the two feas. This being the cafe, it will follow, that the various materials of which the geography of the tract in queftion is compofed, can be no otherwife arranged, than by eftablifhing as primary ftations, fuch places as we have the beft data for; and which have the greateft number of pofitions dependant on them : and this being done, to adapt the matter to the refpective intervals, between thefe primary ftations: which intervals muft of courfe determine the fcales and bearing lines of the feveral MS. maps, of which the materials are compofed.

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I hall attempt only to give an account of the manner of determining the principal of thefe ftations, or points of connexion; and that for the ufe of future geographers. To defcribe the whole, would lead me into unnecefiary prolixity. The primary points which it became neceffary to defcribe, in the account of the fea coaft, were chiefly from actual meafurement; as Tritchinopoly, Tanjore, Madura, Palicaudcherry : and I may now add, Coimbettore and Carroor; which are placed by meafurement alfo. Arcot and Amboor, I have juft mentioned ; and Poliput and Chittoor, are the only remaining ones, that are eftablifhed by furvey.

Of thofe that remain to be determined, by tirefome difcuffion, and comparifon; and in fome cafes by mere judgment, founded perhaps, on doubtful teftimony; are Bangalore, Trinomalee, Darampoury, Dalmacherry, Gooty, Calaftri, Sami-Iffuram, Innaconda, Combam, Adoni, and Timerycotta. And of thofe furnifhed by Col. Pearfe's march, are Nellore, Ongole, and Siccacollum.

Bangalore, as the firft mentioned, is alfo the moft important ; as being in the centre of the peninfula, and having routes paffing through it, in cvery direction. It is in itfelf, a place of great political importance, being a fortrefs of ftrength; and from fituation, the bulwark of the Myfore country, towards Arcot. A variety of MS. maps of the country lying on the weft of the Carnatic, and between it, and Seringapatam, have appeared: moft of them, I believe, the offspring of the war of $1767-8$, with Hyder Ally. One of a much later date, communicated by Mr. John Sulivan, contains the whole peninfula, fouth of the parallel of $15^{\circ}$; and is particularly valuable, on account of its having many routes and fituations in Myfore, and Bednore; as well as in Tanjore and Madura. By its comprehenfive nature, it furnifhes an opportunity of proportioning the refpective diftances between Amboor, Bangalore, Seringapatam, Mangalore, and Bednore; as thefe places all appear in the fame map, together with the routes from one to the other. It would require whole Sheets to give an analyfis of ti.is, and the reft of the MSS. which

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have been confulted on this fubject, and therefore, I Aall only ftate generally, that by the medium of the diftance from Amboor to Bangalore, in 4 maps, it comes out to be $73,6 \mathrm{G}$. miles; (the variations between them, was 6 miles) and its parallel, according to the rame method of proceeding, was $4^{\prime} 10^{\prime \prime}$. fouth of Madras, or $13^{\circ}$ $\circ^{\prime} 50^{\prime \prime}$. To this may be added, that Chinna-Balabaram, is by the medium of the fame 4 maps, $23^{\prime} 40^{\prime \prime}$ to the north of the parallel of Bangalore: and the latitude of the former, which is fortunately preferved in the Lettres Edifiantes, being $13^{\circ} 23^{\prime}$, confirms the general accuracy of the former refult : this being only $\mathrm{I}^{\prime} 10^{\prime \prime}$ different from it ; or $12^{\circ} 59^{\prime} 20^{\prime \prime}$. Laftly, the interval on Mr. Sulivan's map, between Bangalore and Bednore, is 176 G. miles; and in mine, when Bangalore is placed, as above ( 73,6 from Amboor; and in lat. $13^{\circ}$ ) 172,5 . And again, the diftance between Bangalore and Mangalore in Mr. Sulivan's map, is 176,5 ; and in mine, $169^{\frac{1}{2}}$ : that is, $7^{\frac{1}{2}}$ different in one cafe, and $3^{\frac{1}{2}}$ in the other. And this difference is to be accounted for, by our giving a different degree of width to the peninfula : Mr. Sulivan's map making it $15^{\prime} 15^{\prime \prime}$ wider than mine does, in the parallel we are fpeaking of. I have placed Bangalore in lat. $13^{\circ}$, and lon. $77^{\circ} 37^{\prime} 10^{\prime \prime}$, according to the above data: and this capital point, or primary fation, being fixed with fo much fuccefs, both in latitude and longitude, gives fome degree of confidence to all the pofitions round it: for almoft every pofition between Col. Kelly's line on the fouth, and the Tungebadra river on the north; has, in its conftruction, a reference to Bangalore. It is the common point of union, in the centre of the peninfula, as Coimbettore is in the S W, and Tritchinopoly in the S E.

Before I proceed to the detail of the remaining primary ftations, in the peninfula, I fhall obferve at once, that all the roads and pofitions of principal places in the Myfore and Bednore countries, on the weft of Bangalore; and between Roydroog and the parallel of Tellicherry ; were furnifhed by the faid map of Mr. Sulivan's : and

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of which, I believe, there is no other copy in Europe. Chittetdroog, Shevagunga, Bankypour, Chennyroypatam, Ananpour, and many others, are quite new; and Sera, Sirripy, Roydroog, Rettingery, and Cenapatam, appear much more confiftent in their pofitions, than heretofore: and although we cannot expect that either the pofitive, or relative diftances, fhould be perfectly exact, yet I have every reafon to think that they are not far from the truth; and that at all events, the prefent map affords the beft materials that can be procured in this country.

Seringapatam is placed nearly in the pofition it occupies in Mr. Sulivan's map, in refpect both to Bangalore and Mangalore. Its parallel is very uncertain, as there is no good line of diftance, to check it, either from the north, or fouth. Mr. Sulivan's map places it 99 G . miles to the northward of Coimbettore; and Mr. Montrefor's 87,4 . As I have adhered more to the account of its relative pofition, in refpect of Bangalore; it ftands in the map, only 91 from Coimbettore. Befides, a MS. Itinerary gives its diftance from Sera, at 3 days journey, or 54 G. miles horizontal diftance ; which is perfectly confiftent with the 91 miles from Coimbettore. It is placed in lat. $12^{\circ} 31^{\prime} 45^{\prime \prime}$, lon. $76^{\circ} 46^{\prime} 45^{\prime \prime *}$.

Sir George Staunton's journey acrofs the peninfula, from Madras to Mangalore, in 1783 , as one of the commifioners for negociating a treaty of peace with Tippoo Sultan, furnifhed a lift of ftages, and the eftimated bearings and diftances between them, the whole way. Thefe, Sir George moft obligingly communicated to me, together with his mifcellaneous obfervations and reflections as he went along; and which, being written on the fpot, and difpatched as opportunities offered, may be allowed to exhibit a faithful pic-

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ture of the mind that dictated them : and they afford a proof that a long journey in which many things occurred that ufually excite difguft, difappointment, and chagrin (not to mention fatigues and want of comforts) ; may be performed, not only without difturbing the tranquillity of the traveller; but in fuch a ftate of mind, as to leave him a fufficient portion of good humour, to enable him to amufe others.

The commiffion were conducted by a very circuitous route, as well as impeded in their journey: for after proceeding on the great road from Anicul towards Seringapatam, ir a ${ }^{\prime}$ W S W direction, to Malavilly, within about 12 miles of Seringapatam; they were carried to the N , and N W , fo as to leave the latter place, at leaft 25 miles to the fouthward of them. As far as thefe eftimated bearings and diftances enable me to judge, the pofitions of Anicul and Seringapatam, in the map, are too far to the weft, by feveral miles, in refpect of Caveripatam; the laft point eftablifhed in this route, with any degree of certainty. But the route is unfortunately, too crooked, to admit of its being applied as a corrective, in finall errors of diftance.

Seringapatam is the capital of Myfore, the dominions of Tippoe Sultan; and it is fituated in an ifland of the Cauvery river, about 290 or 300 miles from Madras. It has little in it worthy of attention. Myfore, a town and fortified poft, and as I underftand, the ancient capital ; lies about 8 miles to the fouthward of Seringapatam. Mr. William Townfend, of the Eaft India Company's civid fervice, who travelled from Onore to Bednore, and Seringapatam, was 11 days in travelling between the two latter places; which, however, cannot be more than 180 or 190 miles afunder. He reprefents the whole country he travelled through, as being open and fruitful: nor did he meet with any mountains between the Gauts and Seringapatam.

Darempoury, Caveripatam, Kifnagheri, and Changamah, are obtained by means of a map of the valley of Vaniambaddy (or the Barra-

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Barra-maul *) which map includes in general all the furtrefies contained within the tract ufually known by that name. This map is in Mr. Dalrymple's collection, and has much the appearance of general accuracy; the number of forts placed on rocky eminences, in and about it, affording an eafy means of determining the relative pofitions, by triangles. The contents of this map are joined on to Amboor, a primary fation; and I made no alteration whatever, in its fcale or compafs. Darempoury, the extreme point in this map, to the S W , being thus obtained, ftands more fouthwardly in refpect of Arcot, than moft other maps reprefent it : that is, the interval between Darempoury and Carroor, is lefs than is commonly reckoned ; and that between Darempoury and Colar, lefs.

Cudapanattam and Vaniambaddy, were fet from Amboor rock, and their diftances taken from the MS. maps. The roads and places between Cudapanattam and Bangalore; as well as thofe between this laft place and Condour; and alfo between Bangalore and Darempoury; are taken from the 4 MS . maps, from whence I have inferred the pofition of Bangalore : and I confider the places within this tract, to be afcertained with much more precifion, than thofe on the fouth of Darempoury; and between it and Carroor, and Coimbettore: it being a more confined face, and alfo much oftener traverfed, during the war of 1767 . But to recount the particulars, would be both tedious, and ufelefs: as the account would contain nothing more than a comparifon of bearings and diftances, and the mode of correcting, and working them up, into their prefent form : the labour of which, although comprefled within the compafs of a few inches, would fcarcely be conceived, or believed. Although moft, or all, of the roads that appear in the map, between Darampoury, Attore, Carroor, and Coimbettore, have been marched over,

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cither by Britifh apmies, or their detachments, at different times; yet feldom having a furveyor with them, or by the want of inftrus. ments, or leifure, or both; little has been done for geography, more than barely informing us that fuch roads and places exift. So that the whole country beyond the firf ridge of hills from Arcot, and fouth of the Barra-maul, can be but vaguely defcribed: no one point, as I before obferved, having been mathematically determined, on the north of Carroor and Coimbettore : and was it not for the obfervation of latitude at Chinna-Balabaram, the pofition of Bangalore, and all the places dependant on it, would be involved in uncertainty.

The road from Seringapatam to Calicut, is from Col. Humberflone's report : and that from Calicut to Damicotta, is from Jefferies's old map. Of that from Seringapatam to Coimbettore, I have feen feveral copies; among which there are variations both in the fcales, and in the names. Col. Wood went from the Barra-maul to Damicotta, Sattimungulum, and Coimbettore, in the courfe of his campaign in 1767 : but I know not on what authority the. road from Damicotta to Myfore, is defcribed.

The determination of the pofitions in that part of the fouthern. Carnatic, beyond the extent of Mr. Pringle's meafured lines, was what interefted me particylarly: as from its vicinity to a principal fettlement, and the fcene of much warfare, it may Be expected to be a. fubject of public curiofity. But even here, any more than on the farther fide of the mountains, accuracy was not to be attained: for no pofition was determined mathematically, in the line betweenTritchinopoly and Velore : ner even a fingle line meafored from the fea to the hills, to determine the breadth of the Carnatic : nor even a feries of triangles, although fuch a fucceffion of tempting marks occur, throughout this whole fpace. The only particular that prefented itfelf, in the fhape of actual meafurement, was Mr. Pringle's route from Tritchinopoly to Velore: but this was without bearings, fave from the top of Tiagar hill, about midway
between:
between: and which, from the greatnefs of the diftance, could take in only a part of the line; that is, from Volconda to Trinomaly.

Changamah, as has been faid before, is placed by the map of the Barra-maul, from the weft: and as Trinomaly in the Carnatic, is not only very near it, but alfo an eligible primary fation, it appeared that if there was any tolerable authority for Trinomaly, the operation of fixing it, would at the fame time verify Changamah, in refpect to the eaftern coaft : which confidering the foundation on which it refted, appeared neceffary.

Trinomaly hill, which is vifible more than 40 G. miles, was found by trigonometrical procefs (that is, by an angle of interfection of 20 degrees, from the hills of Wandiwath and Carumpaucum) to be 40 G . miles from the former, in the direction of W : $28^{\circ} \mathrm{S}$. I hould not have been entirely fatisfied with this refult, had not the pofition thus pointed out, agreed nearly with the apparent fituation of Trinomaly, in refpect of Changamah. This is indeed given by Mr. Sulivan's map, at E $10 \mathrm{~N}, 13 \mathrm{G}$. miles; while the bearing of Collifpauk from Changamah is NE 20,7; and that of Trinomaly from Collifpauk, S. $7 \mathrm{~W}, 12,6 \mathrm{G}$. miles. , as Mr. Pringle meafured that fide of the triangle between: Trinomaly and Collifpauk, and found it only $11 \frac{1}{2}$ G. miles (or 15 , B. miles in road difance) the fide between Changamah and Trinomaly, ought to be only $10^{\frac{3}{4}}$ : and this I have adopted, with a fmall correction; as Mr. Pringle's bearing was S 122 W , inftead of, $\mathrm{S}_{7} \mathrm{~W}$, as in Mr. Sulivan's map. Sir George Staunton, who travelled along that fide of the triangle, between Collifpauk and Changamah, eftimates the road diftance at 19 B. miles; which bys this conftruction, ought to be: 23 at leaft.

Trinomaly, thus adjufted, is 52 G. miles, on a bearing of about W N W, from Pondicherry (the neareft point on the coaft). M. D'Anville thought it no more than 48 ; and another French MS. map, which contains the fouthern Carnatic, and which has afforded.

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me much afiftamee, only 43 G. miles: but the more modern maps, come nearer to my idea; Werfebe seckoning the diftance 55; and Mr. Sulivan's map about 50 . This Atation determines the breadth of the fouthern Carnatic; and alfo all the pofitions between Tritchimopoly and Velore. It will follow, alfo, that Tiagar, from whence the bearings of Volconda and Trinomaly were taken; as well as Volconda itfelf; muft have an immediate dependence on Trinomaly. The pofition of Volconda, in refpect of Tritchinopoly, would have been a defireable thing, in order to find how it agreed with the pofition deduced from Trinomaly ; but this I could get no good suathority for: and Mr. Pringle's bearing ought to have more weight, than mere opinions. I have given the different accounts in a note, but without admitting them as authority*. M. D'Anville's, however, agrees with mine. Baron Werfebe's routes obligingly communicated by the Hon. Col. Cathcart, (his Majerty's Quarter-matter General in India) did not appear until the map was engazved. If Werrebe is right, I muft have miftaken the pofition of Volcondaj; and placed it 7 miles $N W$ by $W$ of its true pofition. But ,Mr. Dalrymple, alfo, took the angles on Tiagar hills and made the angle of Trinomalee and Volconda, the fame as Mrv, Prisgle did, to 3 minutes of a degree.

Gingee is placed 30 , and $32 \frac{1}{2}$ G. miles from Pondicherfy in 2 Frepch MS; maps; and $3^{6 \frac{1}{2}}$ in Werfebe's: one might expect that the Frenoh knew: its poition well. I have placed it 33 . from Romdicherry; and 23 from Trinomaly.

The reft of the pofitions in the fouth Carnatic, as well as the courfes of the rivers, and direction of the firf ridge of hills, are taken chiffly from the 3 MS , maps beforementioned (vizin) DiAnwille's, the old French MS. map; and Werfebe's: and Come fow

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particulars afe from an engraved Ptenck miap of $1777^{1} ;$ whofe principal merit is confined to the fouthern part of the Carnatic.

Carnatic-Gur, and Doby-Gur, two fortrefles of note, in the ridge of hills on the weft of Arnee, have never: been taken notice of, in any former map. The latter is determined, as to diltance from Velore, by a meafured route of Mr. Pingle's : and the former had its bearing taken at Velore, and is known to bear about N by $\mathrm{W}, 3$ miles diftant, from the latter : of courfe, two fides and an angle are given; and the two places mutually affift in determining each others pofition.

The Coleroone and Cauvery rivers, with their branches, below Caroor, are taken from the maps of Werfebe and Kelly; collated with the old French map. Werfebe's map of Tanjore, containe more particulars than any other that I have feen; efpecially in the northern part. And for the fouthern parts, I had forme affiftance from the map of Mr. Sulivan.

More particulars appear in the Marawar and Madura countries; than in any former map that has been publifhed. After the great roads fpecified in the difcuffion of Kelly's map, \&tc. moft $6 f$ the new matter is from Mr. Dalrymple's colleetion; and the reft prom Werfebe and Sulivan. The almof incredible number of farts' and fortreffes of various kinds in the Carnatic, occafion a greater num ber of interefting pofitions within the fame fpace, thain in mof -ther countries. Villages, and even towns, in opers countries, are but of a day, compared with fortreffes; efpecially when they derive any portion of frength from their fituation; a very common cafe, here. Public monaments, too, the unequivacal mark of civilization and opulence, are more common here; than in the northerth parts of India.

Madura and Tinevelly are chiefly from Col. Call's old map, with many additions from Kelly and Werfebe.: The valley of Ootampaliam, inclofed between the branches of the Gauts, is a very recent acquifition to geography. Nor is thic the only new matter af-

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forded us by Col. Eullarton's march (during the late war) into the fouthern provinces; the geography of which now wears in entire new face. The intention of this expedition was, to open a communication between the two coafts of Commandel and Malabar; and at the: fame time to deprive Hyder Ally of the ufe of the valuatble province of Coimbettore : and, if neceffary, to open a ready way into that of Myfore. We learn from him, what will appear a new fact to mof readers, that of there being a break in the continuity of the ridge of mountains named the Gauts, oppofite to Paniany. Governor Hornby it feems was apprifed of this circumftance; anid probably. it was formerly known in Europe, though now forgotten.
This break is about 16 miles wide, and appears to border on what D'Anville calls Annamally, or the elephant mountains; and is odeupied cliefly by 2 foreft of timber trees, which has the fort of Anhamally on the eaft, and Palicaudcherry on the weft. The valley or opening extends 14 or 15 miles, between the termination of the northern Gauts, and the commencement of the fouthern ones; before it opens finally into the low country on the Malabar corft: It is well known that fhips which navigate the Malabar codfts during the N E monfoon, commonly experience a ftronger galei in the neighbourhood of Paniany, than elfewhere; and I am of opinion that this opening in the Gauts, is a very fufficient caufe for fuch an effect. I have been told alfo, that the lower part of the Caimbattore country; partakes of the rainy, or S W monfoonyuof the Malabar coaft : which may certainly be referred to the fatae caufe.

The siver of Paniany takes its courfe from the Coimbettore country, through this opening; and is faid to be navigable in the rainy feafon, for fmall boats, to the foot of the Gauts; which is'a circumftance worthy of being known, and which I was ignofant of, until I read the life of Hyder Ally, publined in France, in 1784. Thits circumftance, together with the inundated fate of the country at that feafon, may ferve to fhew, that the country

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weft of the Gauts, has no great declivity, in :a courfe of near to miles.

The Paniany river, as well as that of Daraporum, has its fource, from an elevated plain, of about 60 miles in extent ; and which Aretches itfelf acrofs the entern mouth of the gap or walley before fpoken of. This plain rifes fuddenly from the level of the furrounding country, like a vaft terrace; and the foref bounds it on the weft. There are examples of the fame kind of elevated plains in Bengal ; and in the Bundela country, fouth of the Ganges, near Soohagee Gaut.

The common boundaries of the Carnatic, and of Myfore, are tolerably well afcertained in the fouthern provinces*; and an approximation towards the truth, is made, in thofe of the Marawars and Tanjore; but on the north of the Cauvery, I belieye the boundaries are very ill defined, even by the governing powers themfelves; except in particular places.

On the weft of the Gauts, and between thofe mountains and the lakes of Cochin and Travancore, there is nothing new. The country is chiefly one valt foreft: and af courfe, farsely inhabited; or known, as to particulars.

Terriore, or Tarriore, a fort poffeffed by a Rajah:of. fomenote; on the north fide of the Catvery, and at the foot of the firt ridge of hills; has its pofition from the authority of the MS. maps abovementioned. They differ, in giving its diftance from Tritchis日oly, from $22 \frac{1}{r}$ to $25 \frac{1}{4}$ G. miles: and from Ootatore, from 46 to 17 :.

Attore, a confiderable port on the weft of Tiagar; I found fome difficulty in placing, from the difcordancy of the different accoumts: and indeed, the whole tract beyond the firft ridge of mountains beyond the Carnatic, is very vaguely defcribed, both in point of par-

[^106]ficulars, and of geometrical exactnefs. With refpect tor Attote, which is the centre of feveral roads defcribed in the map, 1 have placed it chiefly on the authority of Mr. Sulivan's map; as it correfponds with the bearing of the mouth of the pafs, from Tiagar; as reported by Mr. Pringle. That bearing was $\mathrm{W} 13^{\circ} 11^{\prime \prime} \mathrm{S}$; and in Mif. Sulivan's map, it ftands $\mathrm{N}_{3} 8 \mathrm{~W}$, diftant $28 \div \mathrm{G}$. miles from Volconda. It is placed in the map $\mathrm{N}_{39} \mathrm{~W}, 28 \frac{1}{2}$ miles : $32 \frac{1}{2}$ from Darampoury; and 34 from Salem *.

A route of Baton Werfebe's, from Tritchinopoly to Tiagar; communicated by my friend Col. Cathcart, came to hand after the map was engraved; and therefore too late to enable me to correct Ootatore; whofe pofition, by that gentleman's account, is more northwardly, in refpect of Tritchinopoly, than I have placed it. The route in queftion was not meafured, but it being very ftraight, there could be no difficulty in afcertaining the true bearing of it.

The principal fettlements and commercial factories of the Europeans, in the peninfula, are all fituated along the coaft of the fouth Carnatic ; or, as it is ufually termed, the coaft of Coromandel. Madras we have already fpoken of : the Englifh poffefs alfo the fortrefs and city of Negapatam, fituated on the coaft of Tanjore; and taken from the Dutch in the late war. It is a neat city, and a place of confiderable trade: but more valuable from its local pofition.

Pondicherry is the principal fettlement of the French in the In m dian feas. Its gereral pofition has been difcufled in page 13; and with refpect to Madras, it lies to the fouth, diftant 100 road miles; and at the moush of the Gingee river. It was firft fettled by the French in 1674; and was then included in the Rajarhip of Gingee, fubject to the King of Naringa.. Previous to the war of 1756 ,.

[^107]Pondicherry was, perhaps, the fineft city in India. It extended along the fea coaft about a mile and quarter, and was about three quarters of a mile in breadth: was well built, and contained many public buildings; and a citadel, then the beft of its kind in India, but of too contracted dimenfions. This fine city was firft taken by the Englifh, in 1761 ; and was immediately razed to the ground, in retaliation of M. Lally's conduct towards the fortifications and buildings of Fort St. David, in 1758. This proceeding of M. Lally, was agreeable to a fyftem adopted by the French Eaft India Company, in Europe : and which had its foundation in commercial jealoufy *. However, the confequent deftruction of the French fettlement of Chandernagore, might have glutted our revenge for the Iofs of Fort St. David: and we fhould have been content with difmantling Pondicherry. The French have alfo factories at Cuddalore, and at Carrical: the former within fight of Pondicherry; the latter in the Tanjore country. Cuddalore is naturally a very flrong fituation; and would have been the moft commodious, perhaps, for the chief Britinh fettlement ; fince the fecurity of Tanjore, and the conveniency of fupplies from it, muft ever be a capital object. Befides, as the S W monfoon is the feafon of naval warfare, Pondicherry has the advantage of being to windward of Madras; and the French, at the fame inftant, accomplifh the double purpofe of keeping to windward, and of protecting their capital fettlement : and receive afiftance from it in return. The Britihh fleet, in order to watch the enemy, retires 100 miles from their principal fettlement; and receives only a precarious affiftance from the thore : that is, from Cuddalore, or its neighbourhood, their ufual fation.
The Dutch poffiefs on this coaft the towns of Pullicate, Sadras, and Portonovo; each of which has a fmall fort to protect it, againtt the confequences of any defultory irruption, or the quarrels of petty.

[^108]Chiefs:

Chiefs : but which could make no ftand againft a regular army. The Danes have alfo a fettlement' of the fame kind, at Tranquebar, within the confines of Tanjore.

For an account of the cities of Tritchinopoly, Tanjore, Madura, and the ftupendous pagodas of Seringham, \&cc. I Mall refer the reader to Mr. Orme's elegant and faithful hiftory of the military tranfactions of the Britifh nation in Hindooftan.

When we turn to the north of the parallel of Madras, the fubject appears to be more barren of matter, of every kind, than in the fouth : and among the little that does appear, there is a ftill fmaller proportion of actual furvey. The Jaghire map, and the marches furveyed by Mr. Pringle, do not extend far to the north of Madras. There is indeed, Col. Pearfe's line of march, northward: but this furnifhes only an outline; for it never deviates far from the coart. The matter before us, is confined chiefly to the eaftern half of the peninfula; and the farther we recede from the coaft, the more fcanty are the materials, and the lefs to be depended on.

The authorities for the courfe of the Kiftna river, which bounds on the north, the tract which is the fubject of this fection, will be found at the end of the fourth fection : and I Mall now proceed to give an account of the authorities on which the remaining primary ftations, between the parallel of Madras, and the Kiftna, are founded.

On Dalmacherry and Gooty, depend the whole courfe of the Pennar river, from its fource to Cuddapa; together with all its branches, and the different pofitions near them; fuch as Cuddapa, Tripetty, Chandeghere (or Kandeghere) and Calaftri.

There is a diverfity of opinion concerning the pofition of Dalmar cherry, as there muft ever be, when the diftance and bearing of a place, have not been mathematically afcertained. A curious MS. communicated by my friend General Caillaud, entitled, "An account of the Pafles between the parallels of Udegbery and Sautgid," and from which I have received great affiftance, has the diftances
in computed miles from one pafs to another, and oftentimes from fome diftant capital place alfo; but without bearings. This MS. gives the diftance of Dalmacherry, at 75 Britifh miles of road diftance, or about $5^{6}$ G. miles of horizontal diftance, from Arcot. Montrefor's map gives 64, and Mr. Sulivan's $61 \frac{1}{2}$. Montrefor, alfo, places it $47^{\frac{1}{2}}$, in a N N E direction from Cudapanattum; and Mr. Sulivan 47. I have placed it $56^{\frac{1}{2}}$ from Arcot, in a N N W direction; which makes the interval between it, and Cudapanattum, $46^{\frac{1}{2}}$; and its latitude is $13^{\circ} 43^{\prime} 30^{\prime \prime}$. There are three important paffes leading from this place, into the Myfore and Cuddapah countries : and here it was that Doaft Ally, the Nabob of Arcot, was furprifed and defeated by the Mahrattas, in 1740.

Gooty or Gutti, is a ftrong fortrefs on a hill, beyond the river Pennar *, and towards Adoni; and formerly the feat of government of Morari Row, a Mahratta Prince. This place, together with the courfe of the Pennar, is found in Montrefor's map; which contains more particulars in this part of it, than any other map I have feen. But a difficulty arofe in adjufting the pofition of Gooty, in my map; becaufe the diftance between Dalmacherry and ChinnaBalabaram is much lefs in it ( 13 miles) than in Montrefor's ; and Gooty appears to be afcertained by two lines, drawn from thofe places: fo that either the bearings, or the diftances, muft be rejected. I thought it the fafeft way to adhere to the diftances: as it is probable they might have more weight, than the bearings had, with Mr. Montrefor, who adjufted this circuitous route, between. Arcot and the head of the Pennar. His fcale gives 112,2 G. miles, on a bearing of $\mathrm{N}_{3} \mathrm{E}$, from Chinna-Balabaram to Gooty; and $118,5, \mathrm{~N} 43^{\circ} 45^{\prime} \mathrm{W}$, from Dalmacherry to the fame place. The interfection of the bearings (which make an angle of about $40^{\circ}$ ) would place Gooty in lat. $14^{\circ} 5^{\prime}$ : and that of the diftances, in.

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$45^{\circ}$
$15^{\circ} 15^{\prime}$; apd nearly in the meridian of Chinna-Balabaram. I have preferred the latter, for the reafon abovementioned.

The inferior branches of the Pennar are taken from D'Anville's map of 1752 : but Tademeri, Anantpour, \&c. are from the Univerfal Hiftory. Gandicotta, on the fouth bank of the Pennar, is remarkable both as a ftrong fortrefs, and for having a diamond mine near it: a particular account of it, will be found in Tavernier. Penuconda a confiderable place near the Pennar river, is faid to be 20 leagues NE of Sirpy, and 20 N N W of Chinna-Balabaram. This account, alfo, is in the Modern Univerfal Hiftory. Cæfar Frederick mentions it as the retreat of the King of Bifnagar (or Narfinga) 8 days journey from Bifnagar.

The Pennar river, after fpringing from the neighbourhood of the Balabarams, runs directly northward, until it approaches Gooty; and then takes a $\mathrm{S}_{1} \mathrm{E}$ courfe by Gandicotta and Cuddapah: after which it changes to the eaft, and reaches the fea at Gangapatnam, after paffing the fort of Nellore. The MS. account of the Paffes, remarks that this fiver is 300 yards wide at Sami-Iffuram, about 70 miles from the fea; although it is confined in its courfe, by hills, on both fides.

It has been olferved in the firft fection, that Capt. Ritchie's chart of the coaft of Coromandel, made the point at the Pennar river, project too far out. I find by a reference to 6 different MS. and printed maps of this part, that the diftance of the fea from Nellore, is not reprefented in any of them, at more than $13^{\frac{1}{2}}$ G. miles, and mott of them allow only 12. And although I have allowed 16 , it comes confiderably within Mr. Ritchie's account.

Cuddapah is determined by the map of the Pennar river: and the conftruction agrees with its reputed diftance from Arcot in a Malabar map ; or rather a map drawn by a native of the Carnatic. It is there ftated at 60 coffes; which on the fcale adopted for the Carnatic (in page 5) and which allows only $37 \frac{1}{2}$ coffes to a degree, will correfpond with the 96 G . miles, arifing on the conftruction.

Tripetty

Tripetty and Chandeghere (or Kandegheri) the firft a famous place of Hindoo wormip; and the latter, the fite of the capital of the ancient kingdom of Narfinga, are placed with reference to Dalmacherry, by Montrefor's map; and by the MS. account of the Paffes. Kandegheri is there faid to be 22 B. miles (road meafure) from Dalmacherry, bearing about ENE; and Tripetty is 3 miles S E from Kandegheri. I have placed Tripetty accordingly: and it ftands in the map $53^{\frac{1}{2}}$ G. miles, nearly north, from Arcot; and about 66, nearly N W by W, from Madras. Mr. Orme fuppofed. it to be 50 miles NE of Arcot: and the Univerfal Hiftory fays it is 22 leagues W N W from Madras.

Calaftri appears alfo in the map of Montrefor. There is alfo aroute of General Caillaud's from Polypet to Udegheri, and Nellore, paffing through Calaftri. I have endeavoured to fix the pofition of Calaftri, by thefe joint authorities; and have placed it ${ }_{15}$ G. miles ENE from Tripetty; and 6I from Arcot: but I have my doubts concerning the accurary of its pofition.

Sami-Iffuram pafs, on the Pennar river, is reckoned in the MS. of the Paffes, 55 B. miles, or 44 G. miles horizontal diftance, weft: from Nellore: and this pofition is corroborated by Montrefor's. map (as far as the apparent rudenefs of his mateffials for this part, may be faid to confirm any pofition) and I have placed it accordingly. It comes within about $1_{5}$ G. miles, or $9^{\frac{1}{2}}$ coffes of Cuddapah; which bears from it WS W.

Udegherri and Sangam, two places in General Caillaud's route, are corrected by Col: Pearfe's pofition of Nellore; and by the relative pofitions of Sydaporum and Nellore, in a French copy of M. Buffy's marches: Sydaporum being alfo a pofition in Mr. Caillaud's route. 1 am confcious how incomplete the northern part of the Carnatic is, in comparifon with the fouthern part : but all my enquiries have produced nothing fatisfactory, on the NW of Polipet. Had the route of General Caillaud been meafured, it would.

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have:
have produced feveral primary flations: but as it is, the fcale appears to be ill proportioned in the different parts of it.

Narnaveram and Bomrauzepollam, are both placed on the authority of Mr. Pringle's obfervations: and the Pullicate lake is from the Jaghire map; Col. Pearfe's route; and other authorities. This lake, called by D'Anville, Ericans, feems to owe its exiftence to the fame caufe as the Chilka lake; that is, to the fea's breaking through a low fandy beach, and overflowing the lands within; for its communications with the fea, are extremely narrow, like the emboucbures of fmall rivers. This lake is in extent 33 B . miles from N to S , and in over, in the broadeft part; and contains fome large illands within it. One of thefe is named Ircum, in Mr. Barnard's map of the Jaghire, publifhed by Mr. Dalrymple: and as M. D'Anville names this ifland, as well as the lake, Ericans, I conclude it to be a corruption, or mifconception of Ircum.

I have not found it an eafy tafk to fix the pofitions either of Innaconda, Combam, Adoni, or Canoul. On thefe four places, many others depend, in the conftruction of the map; and they are neither of them afcertained to my fatisfaction. There is, in particular, a degree of obfcurity in the accounts of Canoul, that I cannot clear up. My local information fails me entirely, in this place: and this kind of knowledge is fo requifite to a geographer, that no. degree of ftudy, or inveftigation, can compenfate for the want of it. It not only enables him to reconcile names and fituations; but oftentimes furnifhes him with a criterion to diftinguith the value of his materials. Few Europeans, vagrant ones excepted, have vifited thefe places fince the time of M. Buffy (1751) and it is a misfortune to geography, that his marches between Arcot, Hydrabad, Adoni, Canoul, and Seringapatam, have not been recorded, in the fame intelligent manner, as the reft of his marches have been; and from whence we have drawn fo much information. But, however I may repine, as a geographer; I ought, perhaps, as a philofopher, to be fatisfied, that fo much has been preferved.

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Innaconda (called alfo Viniconda, and Huiniconda) is a fortrells on a hill; within, or bordering on, the Guntoor circar. : It is unt determined, as to its precife bearing, from any known place: thére fore I have been reduced to take it on the authority of fome vague maps, and by a reference to circumftances : and have placed it about N W by N from Ongole (a point in Col. Pearfe's roate). Mr. Pringle meafured the road, and found the diftance to be $46 \frac{1}{2}$ B. miles; for which 1 allow 36 G . miles, in horizontal diftance. By the Malabar map, it is 28 coffes, which may be reckoned about 45 G . miles. It is fomewhat more wefterly in bearing, and alfo more diftant, from Medipilli, than from Ongole.

Combam is reckoned 25 coffes from Innaconda; and 32 from Ongole; or about $5^{1}$ G. miles from the latter. It is placed in the map, at $4^{8}$ miles diftant, and nearly weft, from Ongole: but as its parallel is regulated by the affumed pofition of Innaconda, it is fubject, of courfe, to the fame errors. Tavernier's route from Gandicotta to Marherlaw, paffed through Combam, (which he calls Kaman) and its pofition accords very well, with the proportion of diftance affigned it. More will be faid on this fubject, hereafter.

Adoni is reckoned to be 66 coffes from Combam, by the Malabar map; and 67 by a route tranfinitted by Col. Harper to the Madras Government ; and which was collected from the information of his guides, while at Innaconda, in 1781 . Thefe coffes on the Carnatic fcale ( $37^{\frac{1}{2}}$ to a degree) are equal to 106 G. miles; and this is the diftance allowed in the conftruction, between Combam and Adoni, weftward. And for its parallel, no better authority ean be found, than its diftance from Gooty, which is fituated to the SE of it, two days journey, or 36 G . miles according to my calculation; which is founded on fome confiderable degree of experience in thefe matters. Adoni, thus placed, is $6_{3}$ G.. miles N N E from Roydroog, and about 44 fouth of the Kiftna river.

Adoni, as to geperal pafition, is about the middle of the peninfula, and exactly in the parallel of Goa. It was, not many years ago, a fine city, and extremely well fortified, fituated on the fide of one of the branches of the Tungebadra* river; and the capital of a fmall principality, or rather feudatory province, of Golconda. A part of its hiftory will be found in Mr. Orme's works. It was fince affigned, together with Rachore, and Guntoor, to the late Bazalet-Jung, brother to Nizam Ally, the reigning Soubah of the Deccan. Hyder's defperate grafp fixed on this, as well as the reft of the provinces on the fouth of the Kiftna, previous to the late war: but all of them were, or ought to have been, reftored by the peace of 1782 . Adoni certainly was: becaufe the attack of Adoni, then in the hands of the Nizam, was one of Tippoo's exploits. laft year.

The pofition of Canoul appears the moft uncertain of all. The: authorities for it, are, the Malabar map, in which its diftance from; Rachore, Cuddapah, Adoni, and Combam, are given in coffes; but the interfections of thefe from the different points, do not: agree. The map alluded to, is not conftructed by a fcale, but: rudely fketched out without much proportion being obferved either. in the bearings, or diftances of places, from each other: and the names, and the diftances between the ftages, are written in the: Malabar language. Canoul is there faid to be 57 coffes from Cuddapah; 38 from Combam; 28 from Rachore; and the farne from. Adoni: and $3^{6}$ from Timapet, a place that occurs in General, Jofeph Smith's route from Hydrabad to Sollapour. By this ac-. count, the number of coffes between Cuddapah and Rachore will be 85 ; which is really the diftance on the map, within 2 coffes; reckoning $37=$ to a degree. Nor are the crofs diftances from Com-:

[^110]bam, and from Adoni, far out; but that from Timapet is irreconcileable. However, as the pofition of it agrees pretty well with Cuddapah, Rachore, and Combam, it may be concluded that the diftance of Timapet is falfely given. In a map of M. Buffy's fouthern marches, faid to be compofed by M. D'Anville; Canoul is reprefented in a very different pofition from the above refult : for there it ftands only 18 coffes from Rachore, inftead of 28.

Condanore is $1_{5}$ coffes to the eaft of Adoni, according to Col. Harper's route.

Rachore, or Adoni-Rachore, a city, on or near the fouth bank of the Kiftna river, and not far above the conflux of the Tungebadra with it, and below that of the Beemah has its pofition from the map of M. Buffy's northern marches.

Rachore is four days journey from Adoni, according to the report of ap European who travelled it. This perfon came from Seringapatam, by way of Sera and Gooty, to Adoni ; and communicated this, and feveral other particulars in his itinerary, to Mr. W. Townfend; who obligingly gave them to me. It is reckoned three days journey from Seringapatam to Sera (or Merki-Seray) fix more to Gooty; two from thence to Adoni ; and four more to Rachour: If twe take the whole diftance through thefe feveral points on the map, the produce will be 276 G . miles. A days journey for an ordinary traveller, may be fixed at 22 Britifh miles, in road diftance; which reduced to horizontal, will be about 18 G . miles: and it will be found that the 276 miles will be nearly 15 days journey, at that rate : and the intervals are generally well proportioned. Although $\mathbf{2 2}_{\mathrm{i}}$ miles are ftated to be a days journey for an ordinary traveller; yet a coffid or courier goes ordinarily from 30 to 33 Britih miles in a day : and that for many days together.

Timerycotta, a confiderable fort in the Palnaud country (which is a diftrict belonging to the Carnatic, but fituated towards the Kifna river, on the weft of Guntoor) governs moft of the pafitions, in Guntoor and Palnaud ; as alfo the croffing place of the Kiftria, 'in's
the road from Madras to Hydrabad. In Montrefor's map, there are a number of places round Timerycotta; but they have no connexion with any other known place. Capt. Davis, in his account of the places in and about the Guntoor circar, fays that Timerycotta is 40 coffes weft from Guntoor fort: and Guntoor is placed by the Malabar map 9 coffes from Sattinagram ; a place on the fouth bank of the Kiftna, oppofite Bezoara; a point afcertained by Major Stevens. The bearing of Guntoor from Sattinagram, we can only infer, from its lying in the direct road to Ongole, to be about S W : but it is ftrongly corroborated by Montrefor's map, which gives the diflance between Guntoor and Siccacollum (another fixed point on the Kiftna) at about $25^{\frac{1}{2}}$ G. miles. Timerycotta, then, is placed according to there data, in refpect of longitude: and is 89 G. miles to the weftward of Siccacollum; or 64 from Guntoor, which anfwers to 40 Carnatic coffes. With refpect to its parallel, the Malabar map gives only a circuitous route of $49^{\circ}$ coffes to it from Ongole. Mr. Montrefor's map makes the diftance to be 66 G. miles from Ongole; and the bearing about $\mathrm{N} \mathbf{W}$ by N : but, as I faid before, the connexion between thefe places is imperfeft, in his map. Capt. Davis's map (or rather fketch) has it at 57. Again, Montrefor makes Guntoor and Timerycotta, nearly under the farme parallel, which would reduce the diftance to 59. I have allowed 60 : : and have been guided principally by the computed diffances in the Malabar map, applied to Capt. Davis's bearings, in his circuitous soute from Ongole to Timerycotta : and this pofition agrees nearly with Montrefor's idea.

Montrefor's map, as is faid before, contains many pofitions round Timerycotta, to the extent of 20 or 30 miles: among others; Currumpoody, Patack, Pongallah, Pulredygur, and Mahherlaw or Macherla. This laft place, together with Combam and Doupad, from other authorities, helps me to trace out the route of Tavernier from Gandicotta to the Kiftna, in his way to Golconda, in 1652. Combam or Commum, is the fame with his Kaman, faid

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to be the frontier town of the Carnatic, towards Golconda. Deopad, is what he calls Doupar; fituated, according to his account, in a country that is interfected by many torrents from the neighbouring hills. Col. Harper makes the fame remark on Doupad or Deopad: and thefe tarrents help to form the river Gondegama (or Gondlacomma) which gains the fea at Medipilly, and is the nominal boundary of the Carnatic. The Malabar map writes it Gilligama, and other accounts give it Gunta-camma: Gondegama, is. the common name. Combam is fituated near its fource. Tripanty pagoda lay near Tavernier's route, and is a few miles to the north of Doupad. Some have confounded this with Tripetty, a more celebrated pagoda in the vicinity of Chandeghere; and 160 miles to the fouthward of Tripanty. Tavernier's next ftage is Mamli; which may be recognifed in D'Anville's map of Coromandel, under the name of Mamenda. His Macheli, is, no doubt, Mafherlaw : foon after which he arrived at a large river; which was the Kiftna. It is fingular that his curiofity fhould not have led him to enquire the name of the moft capital river, that occurred during his journey.

Tavernier's route would hardly be worth remarking, did not his diftances help to corroborate generally, the pofitions of Combam and Timerycotta. He reckons 77 leagues from Gandicotta to Mafherlaw : 42 of which are between Gandicotta and Combam. Thefe leagues, I apprehend, are meant for coffes, a common error of Tavernier's: and it is remarkable that Thevenot falls into an abfurdity of the fame kind, by reckoning coffes for half leagues. How men of fenfe and reflection can apply the names of the itinerary meafures of their own country, to thofe of another, when the fcale differs fo widely, I confefs I am at a lofs to account. Coffes: and leagues, differ at leaft a third part, in their length : how then can Thevenot fay, that a cofs is equal only to half a beague? Tavernier's whole number of leagues from Gandicotta to Golconda, is 119 ; and the real diftance, through the points. of Combam, and
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Maher-

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Marherlaw, only 176 G. miles : it will follow then, that nothing more than coffes could be meant, and thofe rather mort, than otherwife. Between the Kiftna and Golconda, his account gives 39 leagues or coffes, which interval is 60 G . miles, by my conftruction. There muft, however, be an error in the diftance between Marherlaw and the Kiftna, which he reckons only 3 leagues, or coffes; whereas, it cannot be lefs than 7 coffes.

The fort of Condavir is the principal poft in the Guntoor circar ; and is ftrongly fituated on a mountain, 8 coffes to the weft of Guntoor, according to Capt. Davis; and 10 from the fouth bank of the Kiftna. The pofition of Mongelgary, I am not fatisfied about, as there are great contradietions in the accounts of it. Colour is from D'Anville: it is a diamond mine on the fouthern bank of the Kiftna, and not far from Condavir. Chintapilly and the roads in Guntoor, are from Capt. Davis's $\mathrm{iketch}_{\text {, }}$ and the Malabar map.

I could get no better authority for the road from Nellore to Hydrabad, than what appears in D'Anville's Coromandel, publifhed in 1753. I have altered the proportion of its parts, by changing the place of Podalah (his Poudela) as it is known to be 12 coffes, nearly W by N from Ongole, inftead of the northern pofition he has given it ; for want of fuch a check as I was enabled to apply, by being in poffeffion of a route acrofs, from Ongole to Combam. It is very extraordinary, confidering the long intercourfe that the Englifh at Madras, have with Hydrabad, that there fhould be nothing better of the kind, on record.

The road from Udegherri to Ongole, is alfo from D'Anville.
Sanore-Bancapour is from M. Buffy's march, as has already been obferved, in the fourth fection, page 171. Sanore and Bancapour, are two forts, lying about 3 coffes from each other; at 120 G. mileغ́, nearly eaft from Goa. Mr. Ewart procured (while at Nagpour) a route from Hydrabad to Sanore-Bancapour, and from thence to Chinaputtun, a city, with a fort of ftone; and fituated 37 coffes beyond Bancapour. There is nothing to guide the judg-
ment in determining the general bearing of it , further than that we may conclude it to be to the weftward of Sanore-Bancapour, becaufe the road from Hydrabad, leads through it ; and as the Sanore river (the Toom) was croffed 9 coffes beyond Bancapour, it may probably bear to the northward of weft from it, as the rivers in that part, run to the fouthward of eaft (fee the map). The diftance between Hydrabad and Bancapour ( 133 coffes) determines the fcale of coffes to be at the rate of $39 \frac{1}{\div}$ to a degree; fo that Chinnaputtun is aboat $56 \frac{1}{2}$ G. miles from Sanore-Bancapour; moft probably, in a W N W direction. We learn one interefting particular, if true, from this route; which is, that the Nizam's territories extend 31 coffes beyond Bancapour.

Bifnagur, or Bijinagur, the capital of the ancient kingdom of Narfinga, is fituated near the weftern bank of the Tungebadra river, and about 30 miles SE or SSE from Bancapour. It was vifited by Cæfar Frederick in 1567; and was then a very large city. He. reckons it 8 days journey from Goa, which, by the calculation in page 207, fhould be 144 G. miles; but it is only 130 by conftruction. We are told by Ferifhta, that Bijinagur was founded by Belaldeo, King of the Carnatic, in 1344. The Carnatic then, included the whole peninfula; or at leaft, all that lay to the eaft of the Gauts. Our hiftories of the Deccan and Carnatic are very imperfect; and at this day we can hardly diftingui $h_{\text {a }}$ between thekingdoms of Bifnagur and Narfinga; and whether they were two fucceffive, or two coexifting kingdoms. It:appears probable, however, that in the 16th century, the kingdam of Bifnagur included the greateft part of the peninfula; and that on the invafion of the King of Vifiapour, and other northern Princes of the Deccan, the King of Bifnagur retired; firft to Penuconda and then, to Kandighery (or Chandegheri) but ftill preferved his ancient title of Bifnagur. In 1599, Kandegheri was the refidence of a Hindoo King, whofe dominion extended over Tanjore and Madura; and
in 1640, a defcendant of this Prince reigned there: and petmitted the Engliff to fettlé at Madras.

Ranni-Bedalore, as well as the heads of the Tongebadra river, are from M. D'Anville. We know' generally, that this river is formed out of feveral fmaller ones, that iffue from the eaftern fide of the Gauts, in and about the Bednore country: Further down, it paffes Bifnagar (as is faid above, although Cæfar Frederick calls the river of Bifnagar, Nigonden) and between that and the Kiftna, it receives the Hindenny, or Endri river, which paffes by Adoni; as well as feveral fimaller rivers. The general courfe of the Tungebadra is reprefented in the map of M. Buffy's northern marches: and that of the Hindenny is marked more particularly, in the map of his fouthern marches, by D'Anville. It is alfo defcribed in the map communicated by Mr. Sulivan, as paffing under Chitteldroog, Rydroog, Chitrigally, \&c.
M. Buffy's route from Seringapatam to Adoni and Rachore is not to be found in the map of his other marches. Thofe who caft their eyes on that naked part of the map, will regret its being wanting:

The route from Goa to Galgala is from Mr. Dalrymple's collection; and appears to have been travelled by fome Portuguefe, who vifited 'Aurungzebe's camp on the Kifna, in the latter part of the laft century ; or early in the prefent.

The environs of Goa and the country to the foot of the Gauts, are from a Portuguefe MS. It is from Goa only, if from any quarter, that we are to expect the geography of the tract betwieen the Gauts, Vifiapour, and Adoni ; and which yet remains almoft a perfect void, in the map.

The general courfes of the rivers in the peninfula, indicate that a ridge of high land runs directly acrofs it, from Calaftri to Mangalore: but if we are to truft report, the country has not a hilly appearance between the Gauts and Bangalore; but that rifing fud-
denly from the weft, at the Gauts, it declines gradually eartward : fo that the Gauts form a fort of a terrace on an immenfe fcale.

The Gauts are marked only in certain places where the different roads crofs them, or where they have been viewed from the coaft. This famous Appenine, which marks, with more precifion, perhaps, than any other boundary whatever, the line of fummer and winter, or rather of dry and wet; extends 13 degrees of latitude ; that is, from Cape Comorin to Surat (with the exception of the gap mentioned in page 196) at unequal diftances from the coaft : feldom more than 70 miles, and commonly about 40: and within one fhort fpace only, it approaches within fix miles. Although the altitude of thefe mountains is unknown, yet it is fufficiently great to prevent the great body of clouds from paffing over them; and accordingly, the alternate NE and S W winds (called the monfoons) occafion a rainy feafon on one fide; of the mountains only; that is on the windward fide. It would appear, though, that clouds enough do pafs over, to occafion a rainy feafon, at a confiderable diftance to leeward, where thofe clouds defcend: as we may fuppofe them to do, although , at the time they paffed over the Gauts, they mult neceffarily have been too high, and of courfe too light, to condenfe and fall in rain, there. This, I am led to confider, by Lieut. Ewart's acçount of the weather at Nagpour, in the very centre of India; where the feafons differ but little from their ufual courfe. in. Bengal, and on the weftern fide of India : that is, the $\$ . W$ monfoon occafions a rainy feafon: but the rains are not fo violent, nor of fuch long continuance, as in thofe places. At the mouth of the Godavery river and its neighbourhood, the S W monfoon occafions a rainy feafon alfor and the Godavery is then fwoln and overflows: and this part is about as far to leeward of the Gauts, as Nagpour is. It is pollible, however, that the clouds which
which occafion a raing feafon at the mouth of the Godavery, may come from the eaft of Cape Comorin: though I rather believe the contrary, as the Cape bears S S W from it, and the reigning winds are much more wefterly. The Nagpour clouds, however, muft pafs over the Gauts. We may, I think, conclude then, that the ridge of the Gauts fhelter a particular tract only; beyond which, the light and elevated clouds that pars over it, defcend in rain. Madras is within the linits of the fhelteeted tract, though at leaft 300 miles to leeward of the Gauts: Rajamundry (near the mouth of the Godavery) and Nagpour, may be about 500. It would be curious to know the exact limit of wet and dry. If I miftake not, until lately it was a general opiniort, that the Gauts extended from the northern (or Bootan) motntains to Cape Comorin; and occafioned a diverfity of feafons, at one and the fame time, throughout all India.' But the trath is, that different feafons exift at the fame moment, only in a part of the peninfula: for the caufe ceafes in the parallel of Surat; where the SW wind, no longer oppofed by a wall of mountains; carries its fupplies of moifture uninterruptedly, both far and near', over the whole face of the country. For fome particulars refpecting the northern extremity of the Gauts, fee page 179.

As the peninfula, or tract difcuffed in this fection, contains more interefting matter than could well be comprifed within the fpace furnithed by fuch a fcale, as could conveniently be applied to a general map, of fo large a tract as. India; it was judged neteffary to form another map of the peninfula, on a much larger fcale: but an accident has retarded the publication. Thofe who may hereafter become poffeffed of it, will find the account of its comftructionin this Memoir: which is common to both maps, througfiout this whole fection; and alfo in the firf fection, as far as the map of the peninfula is concerned. The fcale of this map, is juft double that of the general one.

SECTION

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## SECTIONVI.

## The Countries between Hindoostan and China.

IT has been faid before (page 48) that the firft ridge of mountains towards Thibet and Bootan, form the limits of the furvey to the north: to which I may now add, that the furveys extend no farther eaftward, than to the frontiers of Affam and Meckley.

The Jefuit's map of China, as given in Du Halde, places the weftern boundary of Yunan (the weftmof of the provinces of China) between the 97 th and 98 th degrees of eaft longitude, in the parallel of $24^{\circ}$ : fo that the eaftern frontier of Bengal (Silhet) is within 350 Britich miles of the weftern part of China; or to fpeak comparatively, the fame diftance as Silhet is from Calcutta.: Here one is apt to wonder, that confidering their proximity weach: other, there fhould be no communication between the two countrios t The reafons probably are, that Yunan does not produce :fach maiaufrocm tures as are in requeft among foreigners; and that the countes of the great navigable rivers in thofe parts, are unfavourable to a coms munication by water. The fpace between Bengal and China; is occupied by the province of Meckley, and other diftricts, fubject to the King of Burmah, or Ava.

The river Nou-Kian, little, if at all, inferior to the Gangea, runs to the fouth, through that angle of Yunan;which approsches neareft to Bengal; where the Jefuits, who formed the map of China, left it, in its courfe to the fouth-wef. This rivere M. D'Ans ville conceived to be the fame with that of Pegu; in like manner
as he fuppofed the Sanpoo to be the Ava river : but fuopeeding accoupts have left no doubt remaining, that the Nou-Kian is the river of Ava. IIn the Modern Univerfal Hiftory (Vol. VI, p. 205). is ap account of a voyage performed on this river, by four Chinefe, about the middle of the, laft century. .. They went from Yunan to Yuntchian, and from thence to the front: F of Ava; where they embarked, and went down the fream to Ava city.

In my accoung of the conftruction of the fea coarts (page 39) my: authorities for deferibing the delta of the Ava river from the fea to the parallel of $18^{\circ}$, are given. The Dutch MS. map there quoted, defcribes the whole courfe of the river, as high up as the city of Ava itfelf, which it places in latitude $21^{\circ}-4^{\prime}$; and alfo fays in a note "by obfervation:" and indeed, the whole.fcale of the map feems to be formed from the difference of latitude.

The difference of longitude, as inferred from this Dutch map, places Ava in $97^{\circ}$. But Capt. George Baker, of whofe accuracy I entertain a high opinion, took the bearings, and eftimated the dif, tances, the whole way from Negrais to Ava; and the refult, core rected by the obfervation at Ava, $21^{\circ} 4^{\prime}$, gives the longitude $97_{1}^{\circ}$ $45^{\prime}$ : apd this longitude I have adopted. Capt. Baker's eftimation of the courfes and diftances between Negrais and Ava, placed the latter in lon. $97^{\circ} 54^{\prime}$, lat. $22^{\circ} 5^{\prime}$; or $17^{\prime}$ to the north of the obfer. vation, recorded in the Dutch map. This error, on a diftance of about 400 miles, is,trifling ; being lefs than a 20th paxt *. Avz


The whole traverfe gives 2 courfe of $\mathrm{N} 27^{\circ} 30^{\circ} \mathrm{E}$, diftance 498 G : miles. Thif difturge correAted, is 389 .
The Dutch map,gives a bearing of $\mathrm{N} 35^{\circ} 50^{\circ} \mathrm{W}$, diftance $8 \mathrm{a}_{0} 3$ milies, between Syrian river Point (meaning the point of conflux of the Syrian and Dogon rivers) and the head of Negrais Hirer $\mathrm{g}^{\prime}$ the upper point of the delta.

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ftands in the old maps, in lat. $25^{\circ} 20^{\prime}$, lon. $96^{\circ} 36^{\prime}$. The parriculars of the courfe of the river, I have taken from the Dutch map-; as Capt. Baker defcribes only the general direction of it.

Monchaboo, a city, and the refidence of the King of Burmab, or Ava, in 1755, is by Capt. Baker's account, $38 \frac{1}{2}$ G. miles north from Ava: and this was the extreme point of his travels that way.

The Nou-Kian is named Irabatty by the poople of Aiva; and is. faid by them, to be navigable from the city of Ava, into Yunan. Monchaboo being within ${ }_{1} 30$ B. miles of the Chineff frontier, we, want only fo much, to complete the courfe of the rives in the map. This break is there defcribed by dotted lines.

Capt. Baker defcribcs the country bordering on the Ava river, from the fed to Lundfey, as being very flat, and the foil rich; and, I fuppofe, like that at the lower parts of the courfes of the Ganges, Indus, and other capital rivers, formed out of the mud depofited by the inundations of the river. This low tract is mamed Pegu, and formed an independent kingdom in 1754, when it was reduced by the King of Burmah, to the ftate of a dependernt province.

Burmah borders on Pegu to the nopth, and eccupict Both banks. of the river, as far as the frontiers of China. On the north-welt is. Meckley, which we have before talen notice of: and on' the weft Aracan (or Reccan) and' Rohhaan. On the eaft; it has the kingdom or couptry of Upper Siam; which, Capt: Baker informs us, begins at a fmall diftance eaftward from the city of Ava: a ridge of mountains feparating it from Burmah and Pegu.

The King of Burmah, whofe reputed capital is Ava, and from whence the whole kingdem, though erroneoully, is often denominated, is faid to poffels not only the country of Meckley, in addition to thofe of Pegu and Burmah; bua atio the whole tract: which lies on the north of it, between China, Thibet, and Aflam. Da Halde's map Speaks pofitively, as to this point, but with what
truth I know not, as I have never been able to gain any information on the fubject.

Capt. Baker informs us, that the country of Burmah, adjacent to the banks of the Irabattey, or Ava river, between Pegu and Monchaboo, is in fome places hilly, and in others flat ; but not fo low as to fuffer inundations. Its produce is, in moft refpects, nearly the fame as that of the countries contiguous to the Ganges; and, it is remarkable, that the lands which produce the greatef quantity of faltpetre, are much about the fame diftance from the fea, as thofe of the fame nature on the fide of the Ganges.

Mr. Verelf, who meditated an expedition into Meckley from Bengal, and actually advanced as far as Cofpour on his way to it, in 1763 ; was informed by his Meckley guides, that after paffing the firft ridge of mountains beyond Cachar, he would find a fertile and well inhabited country all the way to Ava. He, however, went no farther than Cofpour; but the particulars of the road between that place and Ava, are defcribed from the intelligence furnillied by the guides who attended him.

The country of Burmah produces fome of the beft Teek timber in India. The forefts which produce this moft ufeful and valuable article, are fituated between the weftern bank of the Ava river, and the country of Aracan; and are only 250 miles from the fea, by the courfe of the river.

The Sanpoo, or Thibet river, was fuppofed by M. D"Anville to be the fame with that which is called, in the lower part of 'its' courfe, the river of Ava: but we have not the-leaft doubt at preL fent, of its being the fame with the Burrampooter, which enters Bengal on the north-eaft, and joins the Ganges near thel fea: traced it in 1765 , to about 400 miles above the conflux; thate as high as the latitude of $26^{\circ}$, longitude $91^{\circ}$; where the Benghal diftricts end, and thofe of Aflam begin: but I was not perthfeed to go any higher. However; fome few Europeans, engaged fin the Goatparah trade, and among others, M. Chevalier, the late Governor

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of Chandernagore, by permifion of the King, went as high up as the capital of Affam, about the year 1762: but was under a confir derable degree of reftraint, with refpet to making, remarks, either on the courfe of the river, or on the country.. As M. Chevalier, however, went on a very large embarkation, we are convinced that the river is navigable, for large boats, through: a fpace about equal to the diftance of Buxar from the fea; that is, between 600 and 700 miles. It may probably be navigable much higher up; though its navigable courfe cannot be equal to that of the Ganges; this flowing chiefly: through a level country, and the Buardmpooter through a mountainous one.

I haye placed the capital of Affam, Ghergong, (or Kirganu) 160 G. miles nearly E by N from Goalparah, according to the rerport of the Aflamers. They alfo informed me, that the Burrampooter has a very long courfe previous to its entering Affam; and that it comes from the NW through the Thibet mountains: Now the Lama's map of Thibet in Du Halde, defcribes the courfe of the Sanpoo, to within 120 G. miles of the affumed frutuation of the capital of Affam: and fill nearer to fome parts of the Buarrampobter that are $\mathrm{k}_{\mathrm{i}}$ nown, and have been defcribed by the Affamers. site: : i:

Thefe facte, together with thofe rafpeeting the Ava riveritand Nou-Kian, eftablinh (I think) the frongent prefumptives proof pof fible, of the Sanpoo and Burrampooter being one and the fame river, under different names: and politive proof ean mever: be' obtained, but by actually tracing them; a circumftanoe, unlikely ever to happen to any Europeans, or their dependants. The inserval between the known part of the Sanpoo, and that of the Burrampooter, is defcribed in the map by dotted lines. The Ayin Acbam ree fays that the Burrampooter comes from Khatai : meaning China: We muft not ferget that the fame book fays, that the fource of the Ganges had never been traced, at that time.,

Some difficulty arifes in fixing the pofition, of Laffay theicapital; of Great Thibet. We have the hiftory of the Lamas' map in Ffer

Du Halde,

## [ 1230 ]]

 efpecially in the parts towards the fource of the Sanpoo:and Ganges. -A cloferex́aminhations off its particulars, turns out Aill mote imfitiouriablertol itar For inftance, the 'place where the Ganges/onters: the

 , Whithurefpela to The longitude, we have no grounds, on which ;toiform an exaet corhparifion; but we may conclude generally, that ithe diffance abetwecta'Laffa and Hurdwar is near 2 degrees of longitude wefoc than itiought to be: I mean, provided that Laffa be rmear!its tvae pofition with refpect to Pekin, in the Lamas' map. "The difference of longitude between them is $24^{\circ}$ i $7^{\prime}$; Laffa being placed $91^{\circ} \cdot 40^{\prime}$ caft from Greenwich.

With refpect to Hurdwar, the proof is poftive of iits being 2 adegrecs farther ite the. fouth than it ought to be; and this furnifhes aftromgiprefumptive one, that all the weftern parts of the map, :are, fiultey in the fame proportion : and that the fources of the Ganges:and/:Sanpor, initead of being between the 29 th and 3 oth - wegrees of datitude; are feveral degrees further to the north'; 1 and probably between the '3and and 34 th : of which more will be faid insthed fequach, Nor ram I fingular in this opinion; for Mi D'Anville foumd it mocoffary to make an alteration of 2 degrees in latitadog and to radopt: the very longitude, which I have fuggefted. And I foofld be twanting in candour, and in refpeet to his me-
 placing the entry of the Ganges into Hindooftaps, by inference frdm Delhi, almoft in the very fpot where I have now placed ity by actual furvey.
 and Eaffi, adopted the latitude of the latter place; given thi the Lamas' chart: that is to fay, about $29^{9}$ ' $3 \mathrm{~g}^{\prime} \downarrow$. Fathet Giorgi (Vide Alphabetum Thibetanum) fayss the katidude of Liafia is xc about

30 degrees and a half;" and by what follows, it can hardly be in a lower parallel.^
The late Mr. George Bogle, who was rent by the Governor of Bengal (Mr. Hastings) on an embafly to the Grand Lama of Thibetin 1774 , twavelled by way of Coos-Beyhar, Taffafudon, and Faridrong, to Chanmanning, the then refidence of the Lama, and nearly in the fame parallel of latitude with Laffa. Unfortunately, yery little geographical information was furnifhed by this journey; unlefs the bare account of the number of days he was on the road between the two laft places, may be deemed fuch. However, this information, fuch as it is, joined with other circumftances, helps to aflure us that Laffa is farther to the north, than the Lama's map reprefents it: for Taffafudon, the capital of Bootan, is by the accounts of the Bootanners, about 46 G . miles horizontal diftance from Luckiduar, in a direction nearly north; and Luckiduar being in $26^{\circ} 5^{\prime}$; Taffafudon cannot be in lefs than $27^{\circ} 43^{\prime}$. Paridrong (called Paridfong in the Lamas' map) is a confiderable way beyond that, and may be fuppofed to be in 28 degrees at leart : but the Lamas'map places it in $27^{\circ}$; making an error of a whole degree of latitude. This place and the chain of mountains near it, have been regarded as the common boundary between Thibet and Bengal : but Mr. Bogle has cleared up this matter, by affuring us that Paridrong is the frontier town of Thibet towards Bootan, and not towards Bengal. And we have before afcertained that Bootan occupies an interval of at leaft a degree of latitude between Bengal and Thibet. Thibet and Bootan, are often confounded together : the latter is a feudatory or dependency of the former, and borders on Bengal.

Thus, I flatter myrelf, this difcufion refpecting the fituation of Paridrong, joined to the information of P: Giorgi, will contiace the reader, that the latitude of Laffa, if not perfectly right in my map is, at leart, nearer the truth than it has ufually Been reprefented. Its longitude is taken from the Lamas' map, in which it is reckoned
$24^{\circ}, 17^{\prime}$ ．weft from Pekin，or $91^{\circ} 4^{\prime} 0^{\prime}$ eaft from London：Had the bearings and latitudes of Mr．Bogle＇s route been taken，we hpould not only have been able to determine the poition of Laffa，with fome degree of accuracy（as the direction of the road，is，f 9 ，much．$k \rho$ the north）but alfo moft of the intermediate places．Mr．Bogle was fixteen days on the road from Paridrong to Chapmanning．The diftance affigned between thefe places in the Lamas＇map，is about 167 G ．miles of horizontal diftance：it is about 10 more on the map．

The fouthernmof ridge of the Bootan mountains，xiffs pear a mile and half perpendicular，above the plains of Bengal，in a horizontal diftance of only 15 miles；and from the fummit，the affonifhed traveller looks back on the plains，as on an extenfive ocean beneath him．There are not many paffes，through this，ridges． and alt are fortified．The fort of Dellamcotta，which commands the principal pafs，was taken by form in 1773，by a detachment under the command of Capt．John Jones；and the fame of this ex－ ploit made the Thibetians fue for peace；and was the immediate occafion．of Mr．Bogle＇s embafiy．The road between Bengal and Taffafudon，lies chiefly over the fummits of ftupendous mountains， or along the borders of craggy precipices；fo that the direett diftance is not eafily afcertained，even by the mof intelligent trave⿻l一⺕

Between Taffafudon and Paridrong，is a chain of mountains atill higher than the other．They are vifible from the plains of Bengal， at the diftance of 150 miles，and are commonly covered with fnow－ Thefe are a continuation of the mountains Emodus and Paropami－ fus of the ancients；and are fometimes by the moderns，erroneauly called Caicafus．In the Lamas＇map，they are called Rimola $:$ and by the people of Hindooftan Himmaleb（fee－page 96）：I takie it for granted that Himola or Himmaleh，ought to be fubfituted fon Rimolah，in Du Halde＇s map．I fuppore them to be in point of ele－－ vation equal to any of the mountains of the old hemifphere．In－ deed，the country of Thibet is，altogether，one of the higheft in

Afia; it being a part of that elevated tract which gives rife not only to the rivers of India and China, but to thofe alfo of Siberia and Tartary : for if we examine the map of Afia, we Chall find that mof of thofe capital rivers rife between the $3{ }^{1 \text { ft }}$ and 47 th degrees of latitude, and between the 70 th and 97 th degrees of longitude; from whence they run in every direction to the fea, as the Rhine, Rhone, Danube, and Po, do from the Alps in Europe.

Father Giorgi, whom I have mentioned before, has given us in his Alpbabetum Tbibetanum, an itinerary between Calcutta and Laffa. The diftances he eftimates in miles; which he probably meant for Italian, although they agree nearly with Englifh ones. For he reckons 284 between Coffimbuzar and Patna, which is the exact number of meafured ftatute miles between the two places. And between Singhyä and Maify, he reckoned 40 , for 37 meafured ones. We may therefore conclude that he was equally fortunate in proportioning the reft of his diftances; although the roughnefs of the road will not always admit of forming any juft proportion between the diftance by the road, and the horizontal diftance. We are almof entirely in the dark as to the particular direction of; his courfe.

Catmandu, the capital of Napaul, is placed according to the authority of fome MS. maps made by fome miffionaries who travelled from Bettyah to that place: and I found no material difagreement between their accounts and Giorgi's. ${ }^{i}$ I have therefore placed Catmandu 105 G. miles nearly north from Maify; that is, in lati-. tude $28^{\circ} 6^{\prime}$.

From Catmandu to Laffa, Giorgi reckons 504 miles by the road; but it muft be obferved that he omits to mention the diftances of, two flages between Khanfa and Mefcinzungh : and as the preceding, ones were of 14 and 16 miles, and the two fucceeding ones 16 each, I may yenture to add 32 miles for the two omitions; and then the whole diftance will be 536 B . miles, or 462 G . ones.

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The horizontal diftance between Catmandu and Lasfa (the latter being placed as defrribed in page 221) is 364 G. miles: fo that according to Giopgis's diftance, one mile in five, will be then up by the windings of the road: and this is not improbable, confidering the mountainous nature of the country; for in the flat countries of Hindooftan, the proportion is oftentimes 1 in 7 .

The territories of Napaul extend to the mountains of Rimola, as they are called in the Lamas' map. Giorgi does not give the modern name of them; but juftly concludes that the ancient one was Emodus. Thefe are a continuation of the chain between Taffafudon and Paridrong. Between Catmundu and thefe mountains, he paffed by a famous place of worhip, called by him Nogliocot, but by the Bengalefe, Nogarcot; and which gives name to a pars. that leads to it through the Bootan mountains, on the north of Purneah. (There is alfo a famous place of worthip of nearly the fame name in the mountains of Lahore.) He alfo croffed the upper part of the Kofs, or Cofa river, which takes its courfe through Purneah, to the Ganges.

Tankia, or Tinkia-ling, is a fortrefs and town fituated at the hither foot of Mount Langur, a fecond ridge of ftupendous mountains, fituated about 50 miles beyond Mount Rimola; and faid to abound with fuffacating exhalations, which increafe as you afcend; but are weakeft when the mountains are covered with fnow. Tankia is the firf place in Giorgi's itinerary, that can be recognifed: in the Lamas' map: for Nialma on the Nitchou river (probably the Nobotba of Giorgi) does not agree with any of Giorgi's names, although its fituation does with Catmandu; which, however, the Thibetians call Jangbu.

About 25 miles beyond Mount Langur, is the beautiful valley of: 'Tingri, faid to be 50 miles in length, though but narrow. It is: defcribed by Giorgi as an earthly paradife, in every refpect tave the tharpnefs of the air.


#### Abstract

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The next place of note is Zuenga, or Tzuenga, a caftle or fortrefs on the river Bontfu (fuppofed by Giorgi to be the Bantifo of Ptolemy) and about 90 B. miles from Tankia. From hence two roads lead to Laffa : the northernmoft by Sgigatche (or Jiecfee as it is called in the Lamas' map) and Rimbu; the other, and which was travelled by Giorgi, is by Kiangfee, or Tchiantfe. He fpeaks of wild horfes varioully fpotted, in great numbers on the banks of the Bontfu. Thefe, I prefume, are of the kind that are annually brought for fale into Hindooftan, where they are known by the name of Tanyans ; and are of a hardy breed.

Kiangfe is reprefented as a fine city and fortrefs; with a convent near it, which is fo very extenfive and magnificent, that it has the appearance of another city.

About 50 miles beyond Kiangfe, and 3 days journey fhort of I_affa, is the famous lake Palte, called by the natives Jamdro, or Jangfo. It is of fo great extent, that according to the report of the natives, it requires eighteen days to walk round it. In the Lamas' map, however, the circumference is only 150 Britih miles. In the middle of it, there are, according to Giorgi, a continued range of hillocks and illands ; or, according to the Lamas' map, one large illand, incircled by a lake from 3 to 8 miles wide. On the weftern Thore of this illand, or congeries of illands, is a monaftery, and the feat of the Lamifia* Turcepamo, or Tbe Great Regenerate: in whom the Thibetians think that a divine fpirit is regenerated, as in the Great Lama. The road from Kiangfe to Laffa lies along the north fide of this lake, a day and half's journey.

Between the lake and the river Sanpoo, which is about 12 miles, another very high ridge of mountains croffes the road. This sidge is named Kambala, and from the top of it may be feen towards the nopth; a range of, ftill higher mountains, covered with fnow.:-

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The river Sanpoo*, or, according to Giorgi, Ttangoiks or Tzanga, is 7 miles from the foot of Mount Kambala; and is crof fed in the way to Laffa, about 12 miles farther on, either over a bridge, or in a boat. The bridge, as well as moft others in this country, is compoled of iron chains ftretched from fide to fide, with planks or logs laid acrofs them.

Giorgi fays that the chains are compofed of 500 links, each a foot long $t$. We may conclude that the bridge is laid over the narmotweft part they could find, which, by this account, is 160 Englin yards in breadth; otherwife we might expect a larger body ' of water in a river that had ran at leaft 7 or 800 miles; and had received into its bed, fo great a number of ftreams. I compute that at this croffing place, the Sanpoo (which is afterwards called the Burrampooter) has as far to run to meet the fea, as the Ganges has at its firt entry on the plains of Hindooftan ; that is, about 1350 B. miles.

The city of Laffa is, by the road, about 24 miles to the nottheaftward of the croffing place of the Sanpoo; and is fituated in'a fpacious plain. It is not confidered as a large city; but the hoitfes 'are of fone, and are facious and lofty. The imountain of 中atala, which contains on its fummit the palace of the grand Lama, the High Prieft and Sovereign of Thibet, is about 7 miles on the caft of the city.

Much confufion arifes from the application of fo many different names to this capital of Thibet. Giorgi tells ns , that the proper name of it, in the language of Thibet is Baronthala; but that the Tartars call it Laffa; or Lahaffa. Other accounts call it Tonker; and apply the names Laffa and Baronthala to the diftrict which contains Tonker and Putala. And again others give the natre bf Putala inftead' of Laffa, to the capital of Thibet. Eut we ought to apply the name Laffa, or Lahaffa, to the capital; and to conffider

[^112]Butala arathe cafteand palace of the Lama, and his ordipary, place of refidenge.

By Thibet, or more properly Great.Thibet, we are to underAand all that vaf country extending from the fources of the Indus to the borders of China; and from Hindooftan, to the great defert of Cobi, northward; though we have but a faint idea of iti extent towards that quarter. Its length from eaft to weft cannot be lefs than 1600 Britih miles: its breadth is very unequal. We are ipformed generally that it is divided into three parts; that is, Upper, Middle, and Lower Thibet. The upper divifion feems to refpeft the countries towards the fources of the Ganges and Sanpoo rivers: the middle, that in which Laffa is fituated, and of which it forms the peatre: and the Lower Thibet, that which borders on China. But the fubject is obfeure, and likely to remain fo. I am not informed, whether or not the country called Little Thibet; is fubject to Laffa: this is fituated betweeen Upper Thibet and Canhgur.

Confidering the exceeding rough and fterite ftate of the country of Thibet, and the feverity of its climate, from its wonderful elemation, we are aftonifhed to find its inhabitants in a high ftace of civiization; their houfes lofty and built of ftone; and the, ufeful manufactures in fome degree of improvement. All thefe advantages they probably owe to their vicinity to the Chinefe; to whom, indeed, the Lama is tributary. For an account of Thibet, foe Aftey's Collection, Vol. IV.; Phid. TranC Vol. LXVIII.; and the Alphabetum Thibetanum.

With refpect to the heads of the Ganges and Sanpoo rivers, although they were vifited by the Lamas or priefts, fent by the Emperor CAMHI, whofe laudable curiofity led him to add thefe particulars to the geography of Thibet; yet we are far from being well informed, concerning the true pofitions of thefe celebrated fountains, A late publication by M. Bernoulli (who has done me toormuch honour in the courfe of it) contains among a variety of other matter, a map of the courfes of the Ganges and Gogra rivers;

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drawn:
drawn by M. Anquetil du Perron, from the materials of the late P. Tiefentaller. This map is highly interefting, on the fcore of its containing the courfe of the Ganges, as high up as the Gangotri, or cavern, Atyled by the Hindoos, the cow's mouth; and which is near 300 miles above the place where the Ganges enters Hindooftan: as; well as the courfe of the Gogra river, to its fource, in the weftern part of Thibet. Unfortunately, no obfervations appear to have been made for the purpofe of determining the latitudes of either of there places: which, on a courfe approaching to meridional, would have furnifhed a rule for correcting the diftances: thofe remaining quite problematical, from the circumftance of the route's being very crooked, and paffing through a very mountainous country; to which the fcale of computed coffes cannot be applied, with any degree of certainty. What is yet more againft the latter part of the performance (the Gogra river) is, that P. Tiefentaller did not vifit the fource of it, himfelf, as he did the Gangotri; bat ftopt hort at a place not far within the Kemaoon mourtains, and took the account of the upper part of its courfe, from a native (of Hindooftan we may prefume). The names of places $s_{y}$ and remarks, are written in the Perfic character, and tranflated (it appears) by M. Anquetil du Perron.

But notwithftanding any imperfections that may be imputed to the materials, or want of judgment in determining the fcale, this map conveys much intelligence refpecting the heads of the Ganges and Burrampooter rivers, as well as that of the Gogra; if we employ the lights furnihed by Du Halde, in his map of the heads of the Ganges and Sanpoo, to illuftrate the fubject before us. Let us proceed to the examination of it, without any regard to nicety of feale.

The Gogra or Soorjew river, then, is traced into a lake named Lanke-Dhe; which has immediately on the eaft of it, but without communicating with it, a much larger lake, named Manfaroar; out of which proceed two rivers, the one to the weft, or $\mathrm{N} \cdot \mathrm{W}$,

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the other to the eaft, or SE: Both of thefe lakes are faid to be fituated within Thibet; as indeed fome of the villages on the bank of the Gogra, much farther to the fouthward, are. By the conftruction of M. Anquetil's map, the fite of thefe lakes is carried as high up as the latitude of $36^{\circ}$ : however, by an analyfis of the fcale, they can hardly be higher than $33^{\frac{10}{\circ}}$; as will be prefently fhewn. Now, in the Lamas' map of Thibet, the heads of the Ganges and Sanpoo rivers (which laft, is called the Burrampooter, in the lower part of its courfe) are feparated only by a ridge of mountains, named Kentaiffe. The head of the Ganges is compofed of two; ftreams, which run weftward; and the fouthmoft of thefe branches runs through two lakes, of which the firft is named $M a$ pana, and the fecond Lanken. Thefe lakes are placed in refpect of each other, as Tiefentaller's are; and the names of the correfponding ones, are Lanke in one, and Lanken in the other account : and Manfaroar, and Mapana. The names of the latter have certainly no affinity with each other; but the fimilitude in point of fituation, remains. The river that runs from the Lanken lake in Du Halde, is named Lank-thou : and that from the Lanke lake of Tiefentaller, is the Gogra. With regard to the two rivers that iffue from the Manfaroar lake of Tiefentaller, that which runs to the weft is faid to be the Satloudj (Setlege) a river that has been noticed in page 83, as the eafternmoft of the five Panjab rivers. 'This :particular, however, the author himfelf difcredits, and very juftly: and the reader by turning to the map of the heads of the Indus, \& 8 . at page $\mathbf{s 0 2}$, may fatisfy himfelf as to the probability of it. In my opinion, this is the fouthernmoft of the two heads of the Ganges; above noticed; and which is known to run by Dfaprong, or (Chaparang) a confiderable city not a very great way to the weftward of there lakes (vide Lama's map in Du Halde, or D'Anville's map' of Afia). If it be objected that the Ganges is too famous a tiver to efcape the notice of the people who knew the Burramproter, at its fource; I anfwer, that I do by no means believe that the people

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iniThibet knots the Bubrampooter, by any other sumperthans that
 Indeed the writing in the map, imports only, "it is fick that the Burraripooter, \&ce." ahd the tranfation of the Perfic wiving, at the efflux of shis eattern river, gives a very different idea; being "Grand Riviere qui wa-du côte de Neipal" (or Napaut). It is clear; bowever, that the people have an idea, that the weftern river has a very long courfe. I fcruple not to believe, that the Lanke late of Tiefentaliep, is the Lanken of Du Halde; and that the Manfad roariof one, is alfo the Mapana of the other: and that the cirtuand tances relating to the effluxes of the rivers, which appear to con tradict each other, have not been carefully examined into, either by one, or the other party. As the Manfaroar lake is faid to be $\delta \mathrm{d}$ suilles Indiens (which ought to mean coffes) in circumference, that is, it B. mites; we can hardly fuppofe that the native who fity nified the wccount, made the tour of it, either to meafure its extent, or to oxplore the heads of the rivers: and on the other hand, the Lamas fent by Camin, might take a great deal of their account on trat. Therefore without contending about the exact circumfankes of the cafter have defcribed the Ganges (that is, the fouthent brapoln of ity as iffuing out of the lake Manfaroar: but have not regarded the eallevn tiver as the Burrampooter, or Sanpoo; becaule it woald be doing too much violence to the account given by the Lamas; ; which deferibes the Sanpoo as iffuing from the efinctht fide of Mount Kentaiff, and at leaft 40 miles from there takes. Be: Gdeś, the Lampas give an account of a third lake mamed Conghé, which interverces between the Manfaroar lake, and the head of ithe Sanpoo. If I am mitaken in my conjectures, I cantrot mitlead others; white the may is accompanied with this difcuffenne:The Lamas' map which appears in Da Hatde, places the hedid of the Ganges in latitude $29^{\frac{1}{3}}$; and M. D'Anvile found it neeeflary to remove it almoft high as $3^{\circ}$. In the prefent map, it-ftands in $33^{\frac{10}{2} 9}$ : ah which may fefve to thew how vague a performance the

## [ 23: ]

 whigh ought to be a well known pofition tot them, a full degrea too far to the fouth.

In the conftrution of the map of the Gogra; 32 coffos ane rockened toi a degitec, in a country, the mont tugged tand moun, tainous, imaginable'; while 42 is the standand in thie laved courrtry. A diftinction; however, mult be made in the foaleoof the upper and lower parts of the courfe of the river. Eor, from Mirzapout, which occurs in my map of Oude to the lake: DoulooSagur, the country is generally level: and was alloa exploted by Tiefentaller himfelf; while the upper part is taken from: the reports of a native. Therefore I have allowed 43 coffes to a degree, be+ tween thofe two points; fo that the diftance will be 98 G. miles, inftead of the 12 in in the map. Then for the upper part of the river, I have allowed t6o coffes to make a degree inftead of 32 : by which the diftance from the lake Douloo-Sagur, to the lake Lanke, is only $23^{\circ}$ G. miles, inftead of the 373 on the mapu. . To thofe who may object to fo great a diminution, as from 60 to 32 ; I Shall oblerve, that 32 , or even $37^{\frac{1}{2}}$ coffes to a degreari's a pro* portion widely different from that which ny experience fuggefts: and which allows 42 in the level country of Hiadoontan proper: (fee page 5) and whofoever has travelled in very mountainote countries, and has moreover traced the courfe of a riven through it $;$, will
 for this is the proportion between 60 and 42.0 , 10 , 10 it to $\therefore$ If Thefentaller's fcale is right, the Lanke lake would be in latisude $3 G^{\circ}$ and upwards; which I confider as highly improbable. It is gertain that our beft maps of Affa (妇at is, D'Anville's) poefand nothing but a blank fpace, in the pant affigaed to the beida of thitso riverss by M. Anquetil du Perron: and therofores, there in no pofitive evidence againft it.

In afcending thico xiver Gegra we find noted in the map, sot faz within the firf ridge of mountains; and near: the frootd ridge, three
thiree fubterraneous caverns, from whence proceed with violence, fire, wind, and water. No other particulars are given. About $3^{\circ}$ miles higher up, the Gogra forces its way through that vaft ridge which has been often taken notice of before, under the name of Himmaleh, and which is a branch of the Himaus, or Imaus, of the ancients. This ridge, which is covered with fnow, and vifible from the plains of Hindooftan, appears to be the general boundary of Thibet, through that whole extent from the Ganges to the. Teefta river; inclofing between it and Hindooftan, a tract of country, from 100 to 180 miles in breadth; divided into a number of fmall flates, none of whi hire underftood to be either tributaries or feudatories of Thibet: fuch as Sirinagur, Almora, Kemacon, Gorka, Napaul, and Morung. Bootan, a feudatory of Thibet, clofes on the eaft of this tract; and is the extent of our knowledge, as to particulars, that way.

The fmall number of towns and villages on the banks of this river, induces one to fyppofe that the weftern part of Thibet, is no better inhabited than we have before defcribed the eaftern part of it to be. Indian names prevail, even within Thibet: and a temple of Mahadeo is found on the banks of the Manfaroar lake.

We have before ftated the diftance of the cow's mouth, or Gangotri, to be about 280 or 300 road miles, above Hurdwar; where the Ganges enters the plains of Hindooftan. As the compars of Tiefentaller's map of the Ganges, declines 12 degrees more to the weftward of north, than that of the furvey does, between Allahabad and Hurdwat; this, allowance is made accordingly: and Tiefentaller's diffance exceeds that of the furvey, within the fame fpace, which is 331 G. miles, ahout $\mathrm{T}^{2}$ of the whole. Not being abfolutely certain whether or not Tiefentaller took the latitude of Gangotri, I did not venture to alter the parallel in which he has placed it, $33^{\circ}$ : but contented myfelf with correcting the bearing $\pm 2$ degrees; thereby fhortening the diftance, which was originally 240 miles, to 227 . If the latitude was not taken, by cœleftial obferva-
obfervation, but the diftance calculated on the fcale of $37 \frac{1}{2}$ coffes to a degree, the Gangotri will fill be placed too far to the north.

To fum up the whole information, collected from the different accounts of the upper part of the courfe of the Ganges, it appears that the two branches of it, which fpring from the weftern fide of Mount Kentaiffe, take their courfe weftward, inclining confiderably to the north, for a courfe of about 300 miles, in direct diftance; when meeting the great chain or ridge of Mount Himmaleh, which extends from Cabul along the north of Hindooftan, and through Thibet, the rivers are compelled to turn to the fouth; in which courfe they unite their waters, and form what is properly termed the river Ganges. This great body of waiter now forces a paffage tbrough the ridge of Mount Himmaleh, at the diftance, poffibly, of 100 miles below the place of its firft approach to it, and fapping its very foundations, ruhhes through a cavern, and precipitates itfelf into a vaft bafon which it has worn in the rock, at the hither foot of the mountains. The Ganges thus appears, to incurious fpectators, to derive its original fprings from this chain of mountains: and the mind of fuperftition has given to the mouth of the cavern, the form of the head of a cow; an animal held by the Hindoos, in a degree of veneration, almoft equal to that, in which the Egyptians of old, held their god Apis.

From this fecond fource (as it may be termed) of the Ganges, its courfe becomes more eaftwardly than before, through the rugged country of Sirinagur; until, at Hurdwar, it finally efcapes from the mountainous tract, in which it has wandered for about 800 B . miles. At Hurdwar, it opens itfelf a paffage through Mount Sewalick; which is the chain of mountains that borders on the level country, on the north of the province of Delhi. Even Sewalick would be deemed a lofty ridge, but for the prefence of Mount Himmaleh, or Imaus; which rifes behind it, when viewed from the plains of Hindooftan.

Hh
It

It may truly be faid that the knowledge of the origin of the Ganges was referved for the prefent age : for it was as late as the year 1717, that the Emperor CAMHI, fent perfons to explore it, and to bring fome of its water back with them to Pekin, a journey af about 2500 B . miles from the head of the Ganges. Until the refult of this expedition was known in Europe, it was believed, on the faith of the Hindoos, that the fprings of the Ganges, were at the foot of Mount Himmaleh.

A circumftance attending the courfes of the Ganges and Burrampooter rivers, in refpect to each other, is remarkably fingular. Iffuing from oppofite fides of the fame ridge of mountains, they direst their courfes towards oppofite quarters, till they are more than 1200 miles afunder; and afterwards meet in one point near the fea, after each has performed a winding courfe of more than 2000 miles. Our ignorance of this circumftanc, till fo very lately, is a ftrong prefumptive proof, that there yet remains a vaft field for improvement, in the geography of the eaftern part of Afia.

opresest,Google


## [ 235 ]

## SECTIONVII.

## Tables of Distances in Hindoostan.

THE following Tables, will, it is hoped; be particularly acceptable, not only to thofe, who for ufeful purpofes may . be defirous of calculating the time required for a courier or meffenger to travel from one place to another, but.alfo to thofe, who on the fcore of curiofity, or for the illuftration of hiftory, may wilh to be informed of the diftances between the principal towns. in Hindooftan. This information cannot be obtained merely by the application of the compaffes to the map, becaure the windings and inflections of the roads are not there taken into the arcount: but an approximation towards it, may be obtained, by the double: operation of meafuring the diftance on the map, and then applying to it, the rule given in page 7 of this Memoir.

To accomplifh the tafk above propofed, I firft felected. the names of fuch cities and other places as appeared likely to become objects of enquiry in future; and in fo extenfive a country, no lefs than 168 fuch places occurred. To have given the diftance between every two of thefe places refpectively, would not only: have extended the tables to an immoderate length (upwards of 14,000 diftances occurring on the above number) but would have burthened the purchafer with much ufelefs matter. For inftance, although Jionpour has a political connexion with Lucknow, and Tanjore with Madras; and it may be neceffary that the diftance of each of thefe fubordinate places from its fuperior, fhould be given:

$$
\text { H. h. 2: } \quad \text { yet }_{5}
$$

yet, as Jionpour and Tanjore ftand in little or no relation to each other, it was of no ufe to give the diftance between them. The fame may be faid of moft of the other fubordinate places.

The method, therefore, that I have followed, is this: I have chofen fuch places as appear to be of the greatef political confequence (fuch as the Britifh Prefidencies, and the Courts of the native Princes) and of which I reckon 12 ; and confidering them as centres, have formed for each a feparate table, in which the diftance from the central place to every other place of note, whofe fituation may be fuppofed to become a matter of enquiry, is inferted; the names following in alphabetical order. A page is allotted to each of thefe central places, which are Agra, Benares, Bombay, Calcutta, Delhi, Hyderabad, Lucknow, Madras, Nagpour, Ougein, Poonah, and Seringapatam, and thefe alfo follow in the fame order.

The tables contain near 1000 diftances; and although thefe are reckoned only from 12 different points, yet by attending to the particulars of each table, a great many other diftances may be found; as the communication between places, is ufually by the medium of the capital towns that intervene (fee page 6). For inftance, the diftance between Arcot and Allahabad may be collected from the tables of Hydrabad and Nagpour, as thefe places lie in the line of direction between the two former. Alfo, the diftance between Patna and Aurungabad may be found by means of the Nagpour table: and that from Mirzapour to Surat, by fubtracting the diftance of the one from the other, in the Benares table. And by the fame methods, the diftances between moft other places of note may be found. And in order: to facilitate the fearch, and bring into one view the refpective pofitions of the feveral places mentioned in the tables, I have added a finall map.

To avoid repeating the diftances between the 12 central or primary places, through every table, they are inferted in that table, alone, whofe name ftands firft in the alphabet. Thus the diftance

## [ 237 ]

between Calcutta and Agra, will be found in the Agra table, and not in that of Calcutra.

With refpect to the diffances themfelves, it muft not be expected that they are in general critically exact; for although the pofitions of 8 out of the 12 primary places are determined with fome degree of precifion; and 3 out of the 4 remaining ones, pretty nearly; yet the intermediate roads have, in few inftances (thofe between Bengal and Delhi excepted) been meafured. But fince the publication of the firft tables, the meafured routes of Col. Pearfe from Calcutta to Madras, Mr. Ewart's between Calcutta and Nagpour ; and Mr. Pringle's tables of routes in the Carnatic; have come to hand : and the prefent tables will accordingly be found much improved. The deficiencies could only be fupplied by the computed diftances; which, however, appear to come as near the truth in India, as in any country whatever : or where thefe have failed, by allowing fuch a degree of winding, as is found by experience to take place in a fimilar kind of country. The cofs is always reckoned at one Britifh mile and nine-tenths, in road meafure. For other particulars refpecting the length of the cofs, and the windings of roads, the reader is defired to turn to the firlt pages of this Memoir.

The length of a day's journey in Hindooftan (as has been obferved before) is from. I to 12 coffes, or about 22 miles, for an ordinary traveller. But that of a courier, or profeffed meffenger, may be reckoned at 30 or 33 ; and on occafions of emergency, they can travel even more; and that for a continuance of 15 or 20 days.

A regular poft is eftablighed throughout the parts of Hindooftan fubject to the Eaft India Company, and alfo from Calcutta to Madras. The poftmen always travel on foot. Their ftages are commonly from 7 to 8 miles; and their rate of travelling within our own diftricts, about 70 miles in the 24 hours.
$[238$ ]

## $\mathbf{T} \quad \mathbf{A} \quad \mathbf{B} \quad \mathbf{L} \quad \mathbf{E} \quad \mathbf{I}$.

AGRA, to

[ 239 ]
TABLEII.-BENARES to

| Britifh Miles. |  | Britih Miles. |  |
| :---: | :---: | :---: | :---: |
| Agimere | 571 | Hydrabad | 751 |
| Allahabad | 83 | Jagarnaut | 512 |
| Amedabad | 793 | Jionpour | 42 |
| Arcot | 1105 | Indore | 584 |
| Attock | 1083 | Joinagur or Faepour | 515 |
| Aurungabad | 740 | Lahore - | 882 |
| Balafore by Cbuta Nagpour | 316 | Lucknow | 189 |
| Bareilly - - | 345 | Madras by Hydrabad | 1103 |
| Baroach | 820 | Mafulipatam by Nagpour | 853 |
| Beder | 726 | Meerta - - | 636 |
| Bidjigur | 56 | Mindygaut | 253 |
| Bilfah | 416 | Mirzapour | 30 |
| Bombay by Nagpour | 982 | Monghir - - | 255 |
| by Burbanpour | 950 | Moorfhedabad by Birboom | 417 |
| Bopaltol - | 449 | by Mongbir | 477 |
| Burhanpour by Sagur | 609 | Moultan - - | 990 |
| Buxar | 70 | Mundlah | 306 |
| Cabul | 1301 | Myfore | 1165 |
| Calberga or Kilberga | 783 | Nagpour | 430 |
| Calcutta by Moorhbedabad | 565 | Napaul | 280 |
| by Birboom | 460 | Narwah | $35^{6}$ |
| Calpy | 239 | Oude | 130 |
| Cambay | 806 | Ougein - | 554 |
| Candahar | 1321 | Patna by Buxar | 155 |
| Canoge | 259 | by Daoadnagur | 165 |
| Cafhmere - | 1107 | Pawangur -- | 754 |
| Cattack, by Cbuta Nagpour | 452 | Pondicherry - | 1203 |
| Chatterpour | 237 | Poonah by Nagpour | 916 |
| Cheitore | 601 | by Burbanpour | 897 |
| Chittigong | 752 | Ramgaut - | 419 |
| Chunargur | 17 | Rewah | 126 |
| Corah | 195 | Rotafgur | 81 |
| Dacca | 601 | Ruttunpour | 275 |
| Delhi | 496 | Sagur | 341 |
| Dowlatabad | 742 | Sattarah - | 942 |
| Ellichpour | 552 | Seringapatam | 1157 |
| Etayah | 308 | Sindy or Tatta | 1210 |
| Furruckabad | 295 | Sirong - | 389 |
| Fyzabad. See Oude. |  | Sumbulpour | 375 |
| Ganjam - | 570 | Surat by Sirong and Ougein | 863 |
| Ghod or Gobud | 336 | by Burbanpour | 869 |
| Goa | 1070 | Tanjore by Nagpour | 1273 |
| Golconda | 750 | Tritchinopoly | 1277 |
| Gurrah | 270 | Vifagapatam | 758 |
| Gwalior | 355 | Vifiapour - | 876 |
| Hurdwar | 500 |  |  |

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## TABLE III. - B O M B A Y to

| Apimere by Amedabad Britih | Miles. |  | Britih Miles. |  |
| :---: | :---: | :---: | :---: | :---: |
| Agimere by Amedabad | $6_{50}$ | Jagarnaut | - | 1052 |
| Allahabad by Nagpour | 977 | Janfi |  | 728 |
| Amedabad | 321 | Jeffelmere - |  | 8 |
| Amednagur by Poonab | 181 | Indore by Pawangur | - | 45 |
| Anjenga | 900 | Joinagur or 7aepour | - | 7.4 |
| Arcot | 722 | Lahore - |  | 01 |
| Aurungabad by Callian | 260 | Lucknow |  | 92 |
| by Poonab | 284 | Madras |  | 758 |
| Baroach | 221 | Mangalore |  | 518 |
| Baffeen | 27 | Mafulipatam |  | 68 |
| Beder | 426 | Meerta |  | 610 |
| Bednore | 452 | Mirzapour |  |  |
| Bifnagur | 398 | Moorhedabad |  | 1.259 |
| Bopaltol | 516 | Moultan by Jefelmere |  | 920 |
| Burhanpour by Poonab | 386 | Mundu |  | 454 |
| Cy Cbandor | 340 | Myfore |  | 630 |
| Calberga | 386 | Nagpour by Poonab | - | 577 |
| Calcutta by Poonab | 1301 | by Callian | $-$ | 52 |
| Callian | 32 | Narwah |  | - |
| Calpy | 821 | Onore |  | 398 |
| Cambay | 281 | Oude by Burbaupour and | Siro |  |
| Canoge | 889 | Ougein by Paroangur | - | 486 |
| Cafhmere | 1233 | by Burbanpour |  | 50 |
| Cattack - - 1 | 1034 | Patna by Rersab |  | 11 |
| Chatterpour | 747 | Pawangur |  | 286 |
| Cheitore | 54.7 | Pondicherry |  | 805 |
| Cochin | 780 | Poonah |  | 8 |
| Corah | 853 | Ruttunpour |  |  |
| Damaun | 107. | Saler-Mouler |  | 82 |
| Delhi by Amedabad and Agimere | 880 | Sattarah |  | 146 |
| by Burbanpour - | 965 | Seringapatam |  | 622 |
| Dowlatabad | 258 | Sindy or Tatta |  | 41 |
| Fyzabad. See Oude. |  | Sirong - |  | 595 |
| Goa - | 292 | Sumbulpour |  | 826 |
| Golconda | 475 | Surat . |  | 177 |
| Gwalior | 768 | Tellicherry |  | 615 |
| Huffingabad Gaut | 500 | Vifiapour |  | 234 |
| Hydrabad = | 480 | Vizrabuy or Vizarabie |  | 48 |



## I i

# CALCUTTA to 

| Hurdwar by $M$. | Bruilh Miles. | Ongole : Britih | M |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Hunfligabad Gaut by Naspour | 975 909 | Oude by Moor/bedabad and Be- <br> nares |  |
| Hydrabad by Nagpour | 1043 | Bir | 590 |
| by the Circars | 902 | Moi |  |
| Jagarnaut | 315 |  | 639 |
| Indore by Mundlab | 1030 | birboom and Azimgur | 562 |
| Joinagur or faepour by M. | 1080 | Ougein by Patna | 66 |
| by $B$ ، | 975 | by Nagpour |  |
| Lahore by M. | 1447 | by Mundlab | 997 |
| by B. | 1342 | Patna by $M$. | 405 |
| Lafa | 850 | by $B$. | 40 |
| Lucknow by M. | 754 | Pawangur by Ougein |  |
| by B. | 649 | Pondicherry | 1130 |
| Madras. | 1030 | Poonah by Nagpour | 1208 |
| adura | 1336 | by the Circars | 1289 |
| Mafulipatam | 764 | Ramgaut by $M$. | 984 |
| Meerta by M. | 1197 | $B$. |  |
| by $B$. | 1092 | Rajamundry | 665 |
| Mindygaut by $M$ : | 818 | Ruttunpour by Little Nagpour | 493 |
| by $B$ : | 713 | by Cattack | 545 |
| zapour by $M$. | 598 | Sagur by Mundlab | 80.6 |
| by $B$. | 493 | Sattarah by Nagpour |  |
| Monghir by M. | 301. | Seringapatam | 1170 |
| by $B$. | 275 | Silhet | 325 |
| Moorthedabad | 118 | Sindy or Tatta |  |
| Moultan by M. | 1565 | Sirong by Benares | 849 |
| by $B$. | 1450 | Sumbulpour by Cattack | 4 I |
| Mundilla | 634 | by Little Nagpour | $43^{8}$ |
| Myfore | 1178 | Surat by Benares and Ougein | 1309 |
| Nagpour, Great |  | by Nagpour | $123^{8}$ |
| by Ruttumpour | 722 | Tanjore | 1235 |
| by Cattack | 733 | Tricchinopoly | 1238 |
| Nagpour, Little | 280 | Vifagapatam | 557 |
| Napaul | 591 | Vifiapour by the Circars |  |
| arwah by $M$. | 922 | by Aurungabad |  |
| by $B$. | 817 |  |  |



TABLE VI. $\begin{gathered}{\left[\begin{array}{cc}244 & ] \\ \text { T Y D R A B A D }\end{array} \text { to }\right.}\end{gathered}$

Britifh Miles.




| Britih | Miles. |  | ${ }^{\text {Britiolh Miles }}$ |
| :---: | :---: | :---: | :---: |
| Adoni | 496 | Hưingabad Gaut |  |
| Allahabad | 382 | Jagarnaut - | 500 |
| Amedabad | 576 | Indore | 7 r |
| Amednagur | 403 | Joinagur or Faepour |  |
| Arcot | 675 | Mahur or Maar |  |
| Aurungabad | 300 | Mafulipatam |  |
| Balafore | 592 | Meerta |  |
| Bareilly | 576 | Mirzapour |  |
| Beder | 302 | Moorfhedabad by Cbuta | Nag- |
| Bednore by Hydrabad | 734 |  | 695 |
| Bilfah | 249 | Mundilla |  |
| Bifnagur | 569 | Nagpour Little | 433 |
| Boad | 347 | Narnalla |  |
| Bopaltol | 238 | Narwah by Hufingabad | 421 |
| Burhanpour | 256 | Neermul - |  |
| Burwa | 383 | Omrautty |  |
| Calberga | $35^{8}$ | Oude or Fyzabad |  |
| Calpy | 394 | Ougein by Bopalool |  |
| Canoge | 486 | Panniput |  |
| Cattack | 482 | Patna by Ruttunpour |  |
| Chanda | 90 | D by Rewab |  |
| Chanderee | 302 | Pondicherry | 773 |
| Chatterpour | 302 | Poanah |  |
| Cheitore | 510 | Rachore |  |
| Chetra or Cbittrab | 463 | Ramgaut - | 58 |
| Chunargur. | 420 | Ramgur in Babar |  |
| Cicacole | 400 | Raypour | 200 |
| Condapilly | 370 | Rewah | 30 |
| Condavir or Guntoor | 385 | Rotafgur | 440 |
| Coomtah | 93. | Rurtunpour |  |
| Corah | 407 | Sagur | 21 |
| Cuddapa | $55{ }^{\text {k }}$ | Sauarah | 512 |
| Dowlatabad | 905 | Seringapatam | 727 |
| Ellichpour. | 122 | Sireng by Hulingabad | 295 |
| Ellore | 377 | Sonepour or Fonepour | 300 |
| Gangpour | 330 | Sumbulpour | 29 |
| Ganjam by Boad and Gumfoar | 480 | Surat | 516 |
| Gawile or Gyalgur | 137 | Surgoojah | 318 |
| Goa | 640 | Tanjore | 843 |
| Golconda Gooty or Gutti |  | Tricchinopoly | 847 |
| Gooty or Gutti | 500 | Vellore | 670 |
| Gumfoar | 434 | Vifagapatam | 394 |
| Gurrah ${ }_{\text {Gwalior by Hufingalad }}$ | 160 | Vifiapour | 448 |
| Gwalior by Hufingalad | 480 | Warangole | $258$ |




## TABLE XII.-SERINGAPATAM to



## A P P E N D I X.

## ADVERTISEMENT.

HE within Tract has already made its appearance in the
Philofophical Tranfactions of 178 I . It was fuggefted to the Author, that it would make 2 very proper Appendix to the Memoir of the Map of Hindoostan; and he accordingly offers it to the Public under that denomination: happy fhould the Appendix meet a degree of indulgence, equal to what the Work itfelf has experienced.

## A N <br> $\begin{array}{lllllll}A & \mathbf{C} & \mathbf{C} & \mathbf{O} & \mathrm{U} & \mathbf{N} & \mathbf{T}\end{array}$ <br> OFTHE <br> $\begin{array}{llllll}\mathbf{G} & \mathbf{A} & \mathbf{N} & \mathbf{G} & \mathbf{E} & \mathbf{S}\end{array}$ <br> A N D <br> BURRAMPOOTER RIVERS.

They gathering many a flood, and copious fed
With all the mellowed treafures of the iky ,
Wind in progreffive majefty along;
And traverfe realms unknown, and blooming wilds,
And fruitful defarts ——Forfaking thefe,
O'er peopled plains they fair-diffufive flow,
And many a nation feed, and circle fafe,
Within their bofom many a happy ifle.
Thus pouring on, they proudly feek the deep,
Whofe vanquifh'd tide, recoiling from the fhock, Yeilds to this liquid weight - ...

Thomson's Seasons.

## A N,. A C COUNT, छogc.

THE* Ganges and † Burrampooter Rivers, together with their numerous branches and adjuncts, interfect the country of Bengal (which, independent of Bahar and Orissa, is fomewhat larger than Great Britain) in fuch a variety of directions, as to form the moft complete and eafy inland navigation that. can be conceived. So equally and admirably diffured are thofe natural canals, over a country that approaches nearly to a perfect plane, that, after excepting the lands contiguous to Burdwan, Birboom, \&c. which may be reckoned a fixth part of Bengal, we may fafely pronounce, that every other part of the country, has, even in the dry feafon, fome navigable fream within 25 miles at fartheft, and more commonly within a third part of that diftance.

It is fuppofed, that this inland navigation gives conftant employment to 30,000 boatmen. Nor will it be wondered at, when it is known, that all the falt, and a large proportion of the food confumed by ten millions of people are conveyed by water within the kingdom of Bengal and its dependencies. To thefe mult be added, the tranfport of the commercial exports and imports, probably to the amount of two millions fterling per annum; the interchange of manufactures and products throughout the whole country; the fifheries; and the article of travelling $\ddagger$.

[^113]Thefe
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Thefe rivers, which a late ingenious gentleman aptly termed fifters and rivals (he might have faid twin fifters, from the contiguity of their fprings) exactly refemble each other in length of courfe; in bulk, until they approach the fea; in the fmoothnefs and colour of their waters; in the appearance of their borders and illands; and, finally, in the height to which their floods rife with the periodical rains. Of the two, the Burrampooter is the largeft; but the difference is not obvious to the eye. They are now well known to derive their fources from the vaft mountains of Thibet *; from whence they proceed in oppofite directions; the Ganges feeking the plains of Hindoostan (or Indostan) by the weft; and the Burrampooter by the eaft ; both purfuing the early part of their courfe through rugged vallies and defiles, and feldom vifiting the habitations of men. The Ganges, after wandering about 800 miles through thefe mountainous regions, iffues forth a deity to the fuperftitious, yet gladened, inhabitant of Hindooftan $\dagger$. From Hurdwar (or Hurdoar) in latitude $30^{\circ}$, where it guhhes through an opening in the mountains, it flows with a fmooth navigable fream through delightful plains, during the remainder of its courfe to the fea (which is about 1350 miles) diffufing plenty immediately by. means of its living productions; and fecondarily by enriching the

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adjacent lands, and affording an eafy means of tranfport for the productions of its borders. In a military view, it opens a communication between the different pofts, and ferves in the capacity of a military way through the country; renders anneceffary the forming of magazines; and infinitely furpaffes the celebrated inland navigation of North America, where the carrying places not only obftruct the progrefs of an army, but enable the adverfary to determine his place and mode of attack with certainty.

In its courfe through the plains, it receives eleven rivers, fome of which are equal to the Rhine, and none fmaller than the Thames, befides as many others of leffer note. It is owing to this vaft influx of ftreams, that the Ganges exceeds the Nile fo greatly in point of magnitude, while the latter exceeds it: in length of courfe by one-third. Indeed, the Ganges is inferior in this laft refpect, to many of the northern rivers of Afia; though I am inclined to think that it difcharges as much or more water than any of them; becaufe thofe rivers do not lie within the limits of the periodical rains ${ }^{*}$.

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The bed of the Gamges; is; ws may be fuppofed, very unequal in point of width. From its finft arrival in the plains at Hurdwar, to the conflux of the Jumna (the firft river of note that joins it) its bed is generally from 2 mile to a mile and a quarter wide ; and, compared with the latter part cof its courfe; tolerably ftraight. From hence, downward, its courfe becomes more:winding, and its bed consequenth wider*, till, having fuoceffively received the waters of the Gogra, Soane, and Gunduck, befides many fmaller ftreams, its bed has attained its full width; although, during the somaining 600 miles of its courfe, it receives many other principal ftrearns. Within this fpace it is, in the narroweft parts of its bed, hadf ia mile wide, and in the widef, three miles; and that, in phaces where no illands intervene. The Ptream within this bed is afways either incueafing or decreafing, according to the feafon. When at its dowert (which bappens in April) the principal channel vanice from 400 yards to $x$ mile and a quarter; but is conamonly about theree quarters of a mike, in width.

The Ganges is fordable in fome places above the conflux of the Jumna, but the navigation is never interrupted. Below that, the channel is of confiderable depth, for the additional ftecams bring: greater acceffion of depth than width. At 500 miles from the fea; the channel is thirty feet deep when the river is at its loweft; and it continues at leaft this depth to the fea, where the fudden expanfion of the ftream deprives it of the force neceffiry to fweep away the bars of fand and mud thrown acrofs it 'by the ftrong foutherly winds; fo that the principal branch of the Ganges cannot be entered by large veffels.

About 220 miles from the fea (but 300 reckoning the windings of the river) commences the head of the delta of the Ganges,

[^116]which is confiderably more than twice the area of that of the Nile. The two wefternmoft branches, named the Coffimbuzar and Jellinghy rivers, unite, and form what is afterwards named the Hoogly river, which is the port of Calcutta, and the only branch of the Ganges that is commonly navigated by fhips.*. The Coffimbuzar river is almort dry from October to May; and the Jellinghy river (although a ftream runs in it the whole year) is in fome years unnavigable during two or three of the dryeft months; fo. that the only fubordinate branch of the Ganges, that is at all times navigable, is the Chundnah river, which feparates at Moddapour, and terminates in the Hooringotta.

That part of the delta bordering on the fea, is compofed of a labyrinth of rivers and creeks, all of which are fatt, except thofe that immediately communicate with the prisicipal arm of the Ganges. This tract, known by the name of the Woods; or:Siomderbunds, is in extent equal to the principality of Walas; and is. fo completely enveloped in woods, and infefted with tygers, that if any attempts have ever been made to clear it (as is reported) they have hitherto mifcarried. Its numerous canals are fo difpofed as toform a complete inland navigation throughout and acrofs the lower part of the delta, without either the delay of going round the head of it, or the hazard of putting to fea. Here falt, in quantities equal to the whole confumption of Bengal and its dependencies, is made and $\operatorname{tranfported}$ with equal facility : and here alfo is found an inexhaurtible ftore of timber for boat-building. The breadth of the: lower part of this delta is upwards of 180 miles; to which, if we

[^117]add that of the two branches of the river that bound it, we fhall have about 200 miles for the diftance to which the Ganges expands its branches, at its junction with the fea.

It has been obferved before, that: the courfe of this river, from Hurdwar to the fea, is through an uniform plain; or, at leatt, what appears fuch to the eye: for, the declivity is much too finall to be perceptible. A fection of the ground, parallel to one of its branches, in length 60 miles, was taken by order of Mr. Hastines; and it was found to have about nine inches defcent in each mile; reckoning in a ftraight line, and allowance being made for the curvature of the earth. But the windings of the river were fo great, as to reduce the declivity on which the water ran, to lefs than four inches fer mile:- and by a comparifon of the velocity of thie fteam: at the place of' experiment, with that in other places, I hive no reafonto fuppofe, that its general defcent exceeds it *.

The medium rate of motion of the Ganges is lefs than three miles an hour in the dry months. In the wet feafon, and during the draining off the waters from the inundated lands, the current runs from five to fix miles an hour ; but there are inftances of its rumning:feven, and even eight miles, in particular fituations, and under certain circumftances. I have an experiment of my own on record, in which my boat was carried 56 miles in eight hours; and that againft fo ftrong a wind, that the boat had evidently no progrefive motion through the water.

When we confider, that the velocity of the fream is three miles in one feafon, and five or more in the other, on the fame defcent of four inches per mile; and, that the motion of the inundation is only half a mile per hour, on a much greater defcent; no farther

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proof is required how fmall the proportion of velocity is, that the defcent communicates. It is then, to the impetus originating at the fpring head, or at the place where adventitious waters are poured in, and fucceffively communicated to every part of the ftream, that we are principally to attribute the velocity, which is greater or leffer, according to the quantity of water poured in.

In common, there is found on one fide of the river an almort perpendicular bank, more or lefs elevated above the Aream, according to the feafon, and with deep water near it: and on the oppofite fide a bank, fhelving away fo gradually as to occafion hallow water at fome diftance from the margin. This is more particulafly the : care in the moft winding parts of the river, becaufe the very operation of winding produces the fteep and Chelvigg banks.*: for the ; current is always ftrongeft on the external fige of the curpe formed by the ferpentine courfe of the river ; and its contignal action on the banks either undermines them $\dagger$, or wanes them down. In places where the current is remarkably rapid, or the foil uncommanly loofe, fuch tracts of land are fwept away in the courfe of one feafon, as would aftonifh thofe who have not been eye-mitneffes to the magnitude and force of the mighty freams occafioned by the periodical rains of the tropical regions. This neceffarily produces a gradual change in the courfe of the river; what is loft on one fide being gained on the other, by the mere operation of the fream: for the fallen pieces of the bank diffolve quickly into muddy fand, which is hurried away by the current along the border of the champal, to the point from whence the river turns off to form the next reach;

[^119]where
where the ftream growing weeak, it finds a refting place: and helps to form a fhelving bank, which commences at the point, and extends downwards, along the fide of the fucceeding reach.

To account for the flacknefs of the current at the point, it is neceffary to obferve, that the ftrongeft part of it, inflead of turning fhort round the point, preferves for fome time the direction given it by the laft feeep bank : and is accordingly thrown obliquely acrofs the bed of the river to the bay on the oppofite fide, and purfues its courfe along it, till the intervention of another point again obliges it to change fides. See plate I.

In thofe few parts of the river that are ftraight, the banks undergo the leaft alteration *, as the current runs parallel to them; but the leaft infection of courfe, has the effect of throwing the current againft the bank; and if this happens in a past where the foil is compofed of loofe fand, it produces in time a ferpentine winding.

It is evident, that the repeated additions made to the fhelving bank before mentioned, become in time an encroachment on the channel of the river; and this is again counter-balanced by the depredations made on the oppofite fleep bank, the fragments of which either bring about a repetition of the circumftances above recited, or form a bank or fhallow in the midft of the channel. Thus a fteep and a fhelving bank are alternately formed in the crooked parts of the river (the fteep one being the $i$ isdented fide, and the fhelving onethe projesting); and thus, a continual fluctuation of courfe is induced in all the winding parts of the river; each meander having a perpetual tendency to deviate more and more from the line of the general courfe of the river, by eating deeper into the bays, and at the fame time adding to the points; till either the appofite bays

[^120]moet, or the fream breaks through the narrow ifthmas, and refores a temporary ftraightnefs to the chansel.

Several of the windings of the Ganges and its branches are faft approaching to this ftate; and in others, it actually exifts at prefent. The experience of thefe changes chould operate againft attempting canals of any length, in the higher parts of the country; and I much doubt, if any in the lower parts would long continue navigable. During eleven years of my refidence in Bengal, the outlet or head of the Jellinghy river was gradually removed three quarters of a mile farther down : and by two furveys of a part of the adjacent bank of the Ganges, taken about the diftance of nine years from each other, it appeared that the breadth of an:Engliih miseland a half had beea taken away. This is, however, the moltirapid change that I have noticed; a mile in iten oc twelve years being the ufual rate of incroachment, in places where the curnent: frike with the greateft force; namely, where two adjbining reaches approach neareft to a right angle. In fuch fituations it not unfrequently excavates gulfa 密. of confiderable length within the: bank. Thefe gulfs are in the dirtition of the ftrongeft parts of the frean ; and ares in fact, the young froots (if I may fo exprefs myfelf) iwhich in time frike out and become branches of the river: for we generally find them at thofe turnings that have the ifmalleft angles $\dagger$.

Two caufes, widely different from each other, occafion the meandering courfes of rivers; the one, the irregularity af the ground through which they run, which obliges them to wander in queft of a declivity; the other, the loofenefs of the foil, which yields

[^121]to the friction of the border of the ftrean: The meanders in the firft cale, are, of couffe, as digreffive ane irregular as the furfice they are-projected on : "but; in the latter, they are fo far reducible to rule; thent rivers "of unequal bulk will, under fimilar circum= flances, take a dircuit to wind in, whofe extent is in proportion to their refpective breadths: for I have obferved, that when a branch of the Ganges is fallen fo low as to occupy only a part of its bed, it no longer continues in the line of its old courfe; but works itfelf a new channel, which winds from fide to fide acrofs the former one: I have obferved too, that in two ftreams, of equal fize, that which has: the floweft current has alfo the finalleft windings: for as thefe (in the prefent cafe) are folely owing to the depredations made ori the banks; by the force of the current; fo the extent of thefe deipredations, of, in other words, the dimenfions of the windings, will be determined by the degree of force acting on the banks.

The windings of the Ganges in the plains, are, doubtlefs, owing to the:loafenefs of the foil : and (I think) the proof of it is, thete they are perpetually changing; which thofe, originally induced 'by an inequality of furface, can feldom, or stever do *. . . .ill

I can eafily fuppofe, that if the Ganges was turned into a fthenf canal, cut through the ground it now traveries in the montwhid ing parts of its courfe, its ftraightnefs would be of fiort duration. Some yielding part of the bank, or that which happened to be the molt froagly acted on, would firft be corroded or diffolwety thets a bay or carity, would be formed in the fide of the bank.' This' begets an inflection of the current, which; falling obliquely on the fide of the bay, corrodes it inceffantly. When the current has paffed the innermoft part of the bay, it receives a new directiont, and

[^122]is thrown obliquely towards the oppofite fide of the canal, depoiting in its way the matter excavated from the bay, and which bogins. to form a hhallow or bank contiguous to the border of the canal. Hilere then is the origin of fuch windings as owe their exiftence to the nature of the foil. The bay, fo corroded, in time becomes large enough to give a new direction to the body of the canal: and the matter excavated from the bay, is fo difpofed as to affit in throwing the current againft the oppofite bank; where a procefs, fimilar to that I have been defcribing, will be begun:

The action of the current on the bank will alfo have the effect of deepening the border of the channel near it; and this again increafes the velocity of the current in that part. Thus would the canad gradually take a new form, till it became what the river now is. Even when the windings have leffened the defcent one-half; we ftill find the current too powerful for the banks to withftand it.

There are not wanting inftances of a total change of courfe in fome of the Bengal rivers.*: The Cofa river (equal to the Rhine) once ran by Purneah, and joined the Ganges oppofite Rajemal. Its . junction is now 45 miles higher up. Gour, the ancient capital of Bengal, ftood on the old bank of the Ganges: although its ruins are 4 or 5 miles from the prefent bank:

Appearances favour very frongly the opinion, that the Ganges had its former bed in the traet now occupied by the lakes and moraffes between. Nattore and Jaffiergunge, ftriking oat of its prefent couric at Bauleah, and paffing by Pootyah. With an equal degree of probability (favoured by tradition) we may trace its fuppofed courfe by Dacca, to a junction with the Burrampooter or Megna near Fringybazar; whese the accumulation of two fuch mighty streams, probably. fcooped out the prefent amazing bed of the Megnat. See plate II.

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In tracing the fea coatt of , whe delta, we.fipd no lefs than aight opepings; each of which wistheput hefitation, one pronounces, to have been in its time the principal mouth of the Ganges. Nor is the occafional deviation of the principal branch, probably, the only qaune of fugtuation in the dimenfions of the delta. One obferves that the delites of mant cappital rivers (the tropical anes particularly) encroach upon, the fea. Now, is not this owing to the mud and fand brought down by the rivers, and gradually depofited, from the remoteft ages down to the prefent time? The rivers, we know, are loaded with mud and fand at their entrance into the feas and we alfo knpw, that, the fea recovers its tranfparency at the diftapace of twenty leagues from the coaft; which can only arife from the waters having precipitated their earthy partictes within that cpace, The fand and mud banks at this time, extend twenty mides off fome of the inlands in the mouths of the Ganges and Burramprooter;s and rife in many places within a few feet of the furface. Same future gemeratiop will probebly fee thefe banks rife abdve water, and faciceeding ones poffers and cultivate them! Next to earthquakes, nper. haps the, floads of the tropical rivers produce the quickeft alterthe tions in the face of our globe. Extenfive iflands age formed, in ting channel of the Ganges, during, an interval far hort of that of ramis life; fo that the whole procefs is completed in a period that falls within the compafs of his obfervation*.: Some of there illandts four or five miles in extent, are formediat the angular turtainge of the riyer and were originally large fand banks throwa up round the points (in the manner before defcribed), butiafterwatds infulatad my breaches of the river. . Others are formed in the Atraighte parts of the river, and in the middle of the freapa $;$ and owe their origin to fome obftruction lurking at the bottom. Whethet this be the fragments of the river bank; a large tree fivept damsufrom it or


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a funken boat; it is fufficient for a foundation : and a heap of fand is quickły collected below it. 'This accumulatés ámazingfy fatí: in the courle of a few years it peeps above water, and having now ufurped a confiderable portion of the chaninel, the river borrows on each fide to fupply the deficiency in its bed; and in fuch parts of the river we always find fteep banks on both fides *. Each periodical flood brings an addition of matter to this growing illand ; in' creafing it in height as well as extenfion, until its top is perfectly on a lewel with the banks that include it: and at that petiod of its growth it has mould enough on it for the purpofes of cultivation, which is owing to the mud left on it when the waters R and is indeed a part of the economy which nature obierves 'in fertilizing the lands in general.

While the river is forming new iflands in one part, 'fte fiseeping away old ones in other parts. In the progrefs of this deftuctive operation, we have opportunities of obferving, by meatrs of the. fections of the falling bank, the regular diftribution of the feveral fitate of fand and easths, lying above one another in the order in whien they decreafe in gravity. As they can only owe this dirpodt tion to the agency of the fream that depofited them, it would ap? pear; that thefe fubftances are fufpended at different keights' in the fream, according to their refpective gravities. We never find a Atatum of carth under one of rand; for the muddy particles float weareft the furface + . I have counted feven diftinct ftrata in a fection of one of there iflands. Indeed, not only the inlands, but moit of the river banks wear the fame appearance : for as the river is always changing its prefent bed, and verging towards the fite of fome former one now obliterated; this muft neceffarily be the call.

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1. As astrong prefumptive prop of the oxindaring of the Gangos from the one fide of theidelta: to the nother, I mult obreire, thait there is no appearange, of vingirtearth between the Tipcrah:Hillsion the eaft, and the iprowince of Burdwan' on the weft; nor on the north, till we arfize-at peacci and Baudeah. In all the fections of the numerous creeks:and riyers inf the detta, nothing appears but fand and black mould in regular Atrata, till we arrive at the clay that forms the lower part of their beds. There is not any fubftance fo coarfe as gravel either in the delta or nearer the fea: than 400 milfs *, where a rocky point; a part of the bafe of the neighbduring bill ${ }^{2}$ pergiects into the river: but out of the vicinityiof tute great rivers the foil is, either red, yellow, or of a deep brownin . As
I come now the the particulars of the annual fwelling and overd flowing of the Gangestit.
 in the mountains contiguous to its fource, and to the fources of the great morthern rivers that fall into it, as to that which'falk in the plaipe of Hindooitan; for it rifes fifteen feet and ahalf out of thirty-two (abe, fum zotal of its rifing) by the latter end ofis a fardy and it is well known, that the rainy feafon does, not begin in ment of the flat countries till about that time. In the mountalfisite begins early in $\ddagger$ April; and by the latter end of that month, whent the rain'water has reached Bengal, the rivers begin to rife; thoulgh by: sefy flow degrees; for the increafe is only about an intichisptre

- At Oudanulla.
+ An opinion has long prevailed, that the fwelling of the Ganges, previous to the commencement of the raing feafon in the flat countries, is in a great mealitre owing to the melting of the fnow in the mountains. I will not go fo far as totally to difillow the fact; but can by no means fappofe; that the quantity of frow water bears any proportion to the increafe of the river.
$\ddagger$ The vaft collection of vapours, wafted from the fea by the foutherly or fouth-wiet tionfoon, are fuddenly fopped by the lofty ridge of thountains that runs from eaft to wett through Thiber. It is obvious, that the accumulation and condenfation of thefe vapours, miff firrt happen in the neighhourhood of the obdaale; and fuccefively in places more remote,' as freeth fupplies arrive to fill the atmofphere. Hence the priority of commencement of the taing seaion in places that lie nearcht the mountains.


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 thase inches before any quantidy of reinh falls in "the "flat countries '; and. when the rain becomes "general, the iffreafe on a mediuin is five inches per day. By the kater en llof Juily all the lower parts of Bengal, contiguous to the Gangé and Burrampooter; are overflow: ed, and form an inundation of more than a funfred ritiles in width'; nothing appearing but villages and trees, excepting very rarely the top of an elevated fpot (the artificial moand of fome deferted village) appearing like an inland.

The inundations in Bengal differ from thofe in Egyist in this particular, that the Nile owes its floods entirely to the ${ }^{\circ}$ rainlidiader that falls in the mountains near its fource; bat the inuritations the Bengal are as much occafioned by the rain'that walls'there, as 'by the waters of the Ganges; and as a proof of it, the enads in getierm ate oyetlowed to a confiderable height long before the bed of the siver is filled., It muft be remarked, that the groithd atyacent to' the river bank, to the extent of fome miles, is confiderably highter' than the reft of the country *, and ferves to feparate the waters of the inundation from thofe of the river until it dverflow's. This high ground is in fome feafons covered a foot or more'; but the height of the inundation within, varies, of courfe, according to the irregularities of the ground, and is in fome places twelve feet.

Evera when the inundation becomes general, the river fill fhews itfelf, as. well by the grafs and reeds on its banks, as by its rapid arid muddy fream; for the water of the inundation acquires a blackih

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## [1270.]

hufers by hanying been fodongintgnint amongligufvizindrother vegei tables : fingr dpen it rever dofe this oingasintrich is a prodf of the pree dopainancy, of the main wateroever sthation the river; as the flow rate
 hgut) if is of the remarkabla fatnofs of thie conntry.

Therfa are particular traftopof linds, which, from the nature of their culture, and fpecies of productions, requires lefs moifture thas athersp and yet, by the lownefs of their fituation would remain too long inundated, were they not guarded by dikes or dame, from to copioys an inundation as would otherwife happen, from the great eleyation of $\mathrm{f}_{\mathrm{y}}$ the, furface of the river above them. Thefe dikes are kept, up at an enormpous expence; and yet do not adways fucceed; for, want of tenacity in the foil of which they are compofed. 'It' is calfulated, that the length of thefe dikes collectively, amounts to more than a 1 IDOD Engligh miles. Some of them, at the ${ }^{\text {bibaft }}$ are equal top the, thicknefs of an ordinary rampart. One partictilant branfh of the Gangeq, (pavigable only during the raing feafon:: but then equal to the Thames at Chelfea) is conducted between two of thefe dikes, for about 70 miles: and when furt, the paifiengers in the boats, look down on, the adjacent country, as from tant eminence.

During the fwoln ftate of the river, the tide totally lofes its effect. of counteracting the ftream; and in a great meafure that of ebbing and flowing, except very near the fea. It is not uncommon, for a ftrong wind, that blows up the river for any continuance, to fwell the waters two feet above the ordinary level at that feafon: and fuch accidents have occafioned the lofs of whole crops of rice,*. A very tragical event happened at Luckipour + in 1763 , by a frong

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gale of wind confpiring with a highfifinig tide, at a feafon when the periodical flood was withiri a footiand half of its highert pitch. It is faid that the waters rofe fix feet above the ordinary level. Certain it is, that the inhabitants of a confiderable diftrict, with thieir houres and cattle, were totally foept anday's and, to aggravate their diftrefs, it happened in a part of the country which fcarce produces a fingle tree for a drowning man to efcape to.

Embarkations of every kind traverfe the inundation: thofe bound upwards, availing themrelves of a direct courfe and ftill water, at a feaion when every fream rufhes like a torrent. The wind too, which at this reafon blows regularly from the foüth eedt *, favours' their progrefs; infomuch, that 2 voyage, which takes up nine or ten days by the courfe of the river when confined within its banks, is now effected in fix. Hapbatadry and grazing are bott fufpended; and the peafant traverfes in his boat, thote feld which in andother Cearon he was wont to plow; happy that the efedated lite of the river banks place the herbage they contain, within his reach, otherwife his cattle muft perih.

The following is a table of the gradual incóreare of the Uanges' and its branches, according to obfervationis made at Jellinghy and Dacca.

At Jellinghy, . . . . At Dacca 1 .


## [ 272.$]$

Thefe obleryations were made in a feafon, when : the waters wofs. rather bigher, than ufual a fo, that we may take 31 feet for the medium of the increafe.

It muft be obferved, that the Ganges rifes in a more ponfiderable: degree than the northern riyerg, thet communicate with it, in the lower parts of its courfe (the Burrampooter excepted) and this : is: evident by the different circumftances that take place on the mixing of the waters of the Ganges and Teefta rivers, in the different feafons. The Teefta is a large river which runs almoft parallel to the the Ganges, for neat 150 miles. During the dry fearon, the :MPaterts of the 'reefta run into thofe of the Ganges by two diftinch qhapnedess: fituated about 29 miles from each other; and a third channel, at! fame time difcharges iffelf into the Megna. But during the ferfolsof the floods the Ganges runs into the Teefta, .whofe quthet is 势en $n_{7}$ confined to they channel, that communicates with the Megme worfir, alone, is fufficient to thew how trifling the defcent of theferfiversi; mult be, whofe courfes are thus regulated (not by the declixity gf: their beds, but) by their heights in refpect to each other ${ }_{\mathrm{a}}$ which, like the flux and reflux, of, the tide, have the effect of giving sopt. trary directions to the ftream, at different feafons , a n maib loso:

The inundation is nearly at a ftand for fome days precedingtson, middle of Augurt, when it begins to run off; for although great, l quaptities of rain fall in the flat countries, during Auguft and sfptember, yef, by a partial ceffation of the rains in the mpprafeipso, there happens a deficiency in the fupplies meceflary to keepmipithe:: inundation *. The quantity of the, daity decreafe of the siver: is; nearly in the following proportion; during the latter hadf of $\mathrm{Au}_{-}$: guft, and all September, from three to faur inches; from Seppemp $^{2}$

[^127]
## $\left[\begin{array}{ll}273\end{array}\right]$

ber to the end of Novembtr, it gradually leflens' from three thoties to an inch and a half;' and from 'November'to the latter end"of April, it is only half an inch per day at a medium: 'Thefe propora tions mult be underfood to relate to fuch parts of the river as are removed from the influence of the tides; of which more will be Giid prefently. The decreafe of the inundation does not always keep pace with that of the river, by reafon of the height of the banks; but after the beginning of October; when the rain has nearly ceafed; the remainder of the inundation goes off quickly by evaporation; leaving the lands highly manured, and in a ftate fit to receive the foed, after the fimple operation of plowing.

There is a circumftance attending the increafe the Ganges, and which, I believe, is little known or attended to ; becaufe few people have made experiments on the heights to which the periodil: cal flood rifes in different places. The circumftrice I athude to, 1 s ,' the difference of the quantity of the increafe yas expreffed in the foregoing table) in places more or lefs remote from the fea. "It is a" fact, confirmed by repeated experiments, that from about the place where the tide commences, to the fea, the height of the perlodical". increafe diminifhes gradually, until it totally diadppears at the point of confluence: : Indeed,' this is perfectly conformable to the known. kiws of Altids: the ocean preferves the fame level at all 'feafons (under fimilar circumftances' of tide) and neceffarily influences the level: of ath the waters that communicate with it, unlefs precipitated in the form of a cataract. Could we fuppofe, for a moment, that the increafed column of water, of 31 feet perpendicular, was continued all the way to the fea, by fome preternatural agency: whenever that agency was removed, the head of the column would diffure itfelf over the ocean, and the remaining part would follow, from as far hank an, tharinfuevet of the ocean extended; forming a Appe, whote, perpepdicnlar hoight would be $3^{3}$ feet. This, is the precife fate in which we find it. At the point of junction with the N. $n$
fea

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Sean the height is the fame in both feafons at equal times of the tide, At Luckipour there is a difference of about fix feet between the heights in the different feafons; at Dacca, and places adjacent, 14 ; and at Curtee, 31 feet. Here then is a regular llope; for the diftances between the places bear a proportion to the refpective heights. This Alppe muft add to the rapidity of the ftream; fors fuppofing the defcent to have been originally four inches per mile, this will increafe it to about five and a half. . Cuftee is about 240 miles from the fea, by the courfe of the river; and the furface of the river there, during the dry feafon, is about 80 feet above the leveh of the fea at high water*. Thus far does the ocean manifeft its dominion in bath feafons: in the one by the ebbing and flowing of its tides; and in the other by deprefing the periodical flood, till the furface of it coincides as nearly with its own, as the defcent of the channel of the, river will admit $\dagger$.

Similar circumfances take place in the Jellinghy, Hoogly, and Burrampooter rivers; and, I fuppofe, in all others that are fubject either to periodical or occafional fwellings.

Not only does the flood diminifh near the fea, but the river banks diminih in the fame proportion; fo that in the dry feafon the height of the periodical flood may be known by that of the bank.

I am aware of an objection that may be made to the above folution ; which is, that the lownefs of the banks in places pear the fee is the true reafon why the floods do not attain fo confidemble a

[^128]heigh't

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height, as in places farther removed from it, and where the batiks are high; for that the river, wantitig a bank to confine it, diffufes itfelf over the furface of the country: In anfiwer to this, Ifmallobl ferve, that it is proved by experiment,' that'at any given time, 'the quantity of the increafe in different places, bears a juft proportion to The fum total of the increare in each place refpectively: or, in other words, that when the river has rifen three feet at Dacca, where the whole rifing is about 14 feet; it will have rofe upwards of fix feet and a half at Cuftee, where it rifes 31 feet in all:

The quantity of water difcharged by the Ganges, int one fecond of time, during the dry feafon, is 80,000 cubic feet; But thie river, when full, having thrice the volume of ${ }^{\prime}$ 'water in it thatt it had at the time when the experiment was made; and its motion being alfo. accelerated in the proportion of 5 to' 3 ; the quantity difcharged in a fecond at that feafon is 405,000 cubic feet. " If we take the medium the whole year through, it'will be nearly $180 ; 000$. cubic feet in a fecond.

THE Burrampooter, which has its fource from the oppofite fide of the fame mountains that give rife to the Ganges, firft takes its courfe eaftward (or-directly oppofite to that of the Ganges) through the country of Thibet, where it is named Sanpoo or Zanciu, which bears the fame interpretation as the Gonga of Hindooftan; namely, The River. The courfe of it through Thibet, as given By Father Dư Halde, and formed into a map by Mr. D'Anville, though fufficiently exact for the purpofes of general geography, is not particular enough to afcertair the precife length of its courfe. After winding with a rapid current through Thibet; it wafhes the

## [ 48 ]



 9f. Chinas , Hereit appeets, is if undetormined whether to attempt
 fecmingly detercoltaing on the latter, it turns fuddenly to the wert tharough; Apiapa, and enters Bengal on the north-eaft. I have mot heep able to lease the exact place. Whare it changes its name; but as the people of iAttam call it Burrampoot, it would appeac, that it salfost this -naperea its entering Affam. After its entry into Bengals
 minfor and thea, shleming its oourfo to fouth, it moets the Gangis Abpat 40 milns fremorthe fea.

Father Du Halde expreffes his doubts concerning the cobrée that, the fanppop takem afogy loaving Thibet, and ooly fuppofes didinerally : hhat itgellf ipto the gulf of Bengal. M. D'Anvilile, thit geographer, :or without reafon, fuppofed the Sabpeo and Ava tives totbe the fame; being juftified by the information which his materials afforded bint for the Burrampooter was reprefented to him, as one of the inferior fteegms that contributed its waters to the Ganges; and not as its equal or fuperior; and this was fufficient to direethis refearches, after the mouth of the Sanpoo river, to fome other quarter. The Ava river, as well from its bulk, as the bent of its courfe for fome hundred miles above its mouth, appeared to him to be a continuation of the river in queftion: and it was accordingly defcribed as fuch in his maps, the authority of which was juftly efteemed as decifive; and, till the year 1765, the Burrampooter, as a capital river, was unknown in Europe.

On tracing this river in 1 \$6.5b I was no lefs furprized, at finding it rather larger than the Ganges, than at its courfe previous to its entering, Bengal, This I found to be from the ealt; although all the former accounts reprefented it as from the north; and this une niod

## [ 277 ]

 ar: account of its general courfe to wowhin! inol maites (of the plate were Du Halde left the Sampoo: I could nuelonget doubt; thit the, Busrampooter and Sanpoo: where one, and thre fawnef niver: and to this was added the pofitive affiviances of the Affamery, wr Thit thetion S!. miver came 'from the north-woft, through the \$cootan modintains." And to place it beyond a doubt, that the Sanpoo tiver is not the fame with the river of Ava, but that this laft is the great Nouk Kidn of Yunas ; I have in my poffefion a manufcript draught of the Ava
 the Nou Kian, in its courfe towards Ava; togetheriwith thentic information that this river (aamed Irabatidey by the peopleifor Ava) is navigable from the city of Ava.into the province of Yuidh in Chima*.

$$
\therefore \text { Ul }
$$

 bears fo intimate a refemblance to the Gangess: exeepte in oire part ticular, that one defcription may ferve for both. "The exceeption I mean, is, that during the laft 60 miles before its junction with the Ganges, it forms a Arearn which is regularly from four to fivermiles wides and but for its freftnefs might pafs for an arm of the fea. Common defcription fails in an attempt to convey an adequate idea of the grandeur of this magnificent object; for,

- Scarce the mure

Dares fretch her wing o'er this enormous mafs
$\because$ Of ruhhing water ; to whofe dread expanfe, Continuous depth, and wond'rous length of coarfe, Our floods are rills

> Тң्амson’s Searons.

[^129]
## ( 278 )

Thate already endeavoured to account for the fingular breadth of the Negna, by fuppoling that the Ganges once joined it where the Iffamutty now does; and that their joint waters fcooped out its prefent bed. The prefent junction of thefe two mighty rivers below Luckipour, produces a body of running frefh water, hardly to be equalled in the old hemifphere; and, perhaps, not exceeded in the new. It now forms a gulf interfperfed with iflands, fome of which rival, in fize and fertility, our ifle of Wight: The water at ordinary times is hardly brackifh at the extremities of thefe inlands; and, in the rainy feafon, the fea (or at leaft the furface of it)- is perfety fref to the diftance of many leagues out:

The bore (which is known to be a fudden and abrupt influx of the tide into a river or narrow ftrait) prevails in the principal branches of the Ganges, and in the Megna; but the Hoogly river; and the paffages between the iflands and fands fituated in the gulf, formed by the confluence of the Ganges and Megna, are more fub-iect to it than the other rivers. This may be owing partly, to their having greater emboucbures in proportion to their channels, than the others have, by which means a larger proportion of tide is forced through a paffage comparatively fmaller, and partly, to there being no capital openings near them, to draw off any confiderable portion of the accumulating tide. In the Hoogly or Calcutta river, the bore commences at Hoogly Point (the place where the river firf contracts itfelf) and is perceptible above Hoogly town; and fo quick is its motion, that it hardly employs four hours in travelling from one to the other, although the diftance is near 70 miles. At Calcutta, it fometimes occafions an inftantaneous rife of five feet: and both here, and in every other part of its track, the boats, on its approach, immediately quit the fhore, and make for fafety to the middle of the river.

In the channels; between the inlands in the mouth of the Megna, orc. the height of tho bore is faid to exceed twelve feet ; and is fo
terrific in its appearance, and dangerous in its confequences, that no boat will venture to pafo at fpring tide. After the tide is fairly paft the iflands, no veftige of a bore is feen, which may be owing to the great width of the Megna, in comparifon with the paffiges between the iflands; but the effects of it are vifible enough, by the fudden rifing of the tides.

THE rivers are in a tranquil fate, from the time of the change of the monfoon in October, to the middle of March; when the nortbweflers begin in the eaftern parts of Bengal fthough later as we advance weftwards) and may be expected once in three or four days until the commencement of the rainy feafon. Thefe nortbweflers, which have their denomination from the quarter they ufuatly originate in, are the moft formidable enemies that are met with in this inland navigation; they being fudden and violent fqualls of wind and rain ; and though of no long duration, are often attended with fatal effects, if not carefully guarded againft; whole fleets of trading-boats having been funk by them, almont inftantaneoully. They are more frequent in the eaftern, than in the weftern part of Bengal; and happen oftner towards the clofe of the day, than at any other time. As they are indicated fome hours before they, arrive, by the rifing and very fingular appearance of the clouds, the traveller has commonly time enough to feek a place of fheltor. It is in the great rivers alone, that they are fo truely formidable: and that about the latter end of May, and beginning of June, when the rivers are much increafed in width.

After the commencement of the rainy feafon (which period varies in different parts, from the middle, to the end of June) tempeftuous weather mult be occafionally expeted. Places of Dhelter are more

## [. 280 ]

ammon at this feafon, than at any other, by the filling of the crecks and injets, as the river iacreales: and, on the other hand, the bad weather, when it happens, is of longer continuance than' dering the feation of the notthweftert. The rivers being now fpread to the breadth of fexeral miles, a atrong. wind has the power of mifing large waves on them, and particularly when blowing in a contrary direction to the rapid parts of the ftream; which at fuch times fhould be avoided, as much from motives of conveniency, as of fafety.

During the long interval between the end of the rainy feafon, and the boginning of the northwefters, one proceeds in fectrit with refpect to weather, and has only to obferve a commori degtot of attention to the piloting the boat clear of fhallows, and ftumps of treca. Thefo widigenecally be avoided by keeping neareft to the fade that-bus the fleop bank; but not fo near, as to be'within wilie verge of ite infesior.flope. This fleep bank (fee page 26i) has thie doeper water, and the ftrongeft current near it; ${ }^{i}$ and is therefore; io both iaccoonints, the propet fide to keep on, when going down with the fream s as its rete of motion mut principalily determitie that of the boat; for the motion acquired by the oars' of 'a laige budgerowo " hardly excoeds 8 miles a day, at ordinary times." ... in

From the beginning of November to the middle of latter end of May, the ufual rate of going with the fream, is forty miles in a day of iz houms ; and during the reft of the year, from 50 to $y 0$ miles. The cugrent is Atrongen while the waters of the inundatiof tite draining off ; which happens in part of Augurt and September.!

In :many of the fhallow tivers, the current is exceectingty flow during the dry months; infontach, that the track-rope is frequently wed in going downwards.

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## [ 28: ]

In towing againft the ftream, the fteep fide is alfo generally pres ferred, on account of the depth of water; alchough the current runs fo much fronger there, than on the oppofite fide. On thefe occafions, one ought to be provided with a very long track-rope, as well to avoid the falling pieces of the fteep bank on the one fide, as the fhallow water on the other, when it becomes neceffary to change fides, through the badnefs of the tracking ground. The anchor fhould always be kept ready for dropping, in cafe the track-rope breaks.

Seventeen, to twenty miles a day, according to the ground, and the number of impediments, is the greateft diftance that a large budgerow can be towed againft the ftream, during the fair feafon; and to accomplịh this, the boat muft be drawn at the rate of four miles and a half per hour, through the water, for 12 hours. Whent the waters are high, a greater progrefs will be made, notwithftanding the increafed velocity of the current; becaufe the filling of the river-bed gives many opportunities of cutting off angles and turnings; and fometimes even large windings, by going through creeks: And as the wind at this feafon, blows upwards in moft of the rivers; opportunities of ufing the fail frequently occur.

In the very fingular navigation acrofs the feek, or inundation, between Dacca and Nattore, \&cc. in which 100 miles or more, are fiiled on nearly a ftraight courfe, leaving the villages and groves to the right and left; little difficulty occurs, unlefs the wind fhould fail : for while it continues to blow, it is always fair, during the feafon of the inundation. The current prefents only a trifling obftacle; fince its motion (which is nearly parallel to the courfe of the Ganges) is feldom half a mile per hour.

The feafon of the nortbweffers, is, above all others, that which requires the moft attention and care. Should one of thofe fqualls approach, and no creek or inlet offer for Chelter, when in the wide

## [2kg]

 pgeferred to the, fay $\quad$ Rne, whether in lie, to mind ward or leowdrd. sdf the bank be in, a crumpling ftate, eq arforeat, tpa fitmo part of it, f which is moft likgly to he foundin the ftraightert parts of the river) howld be, attempted. But if this campot dee done, the flat fide mufthe taken up, with, gand if it be a Lee-foare, the anchor hoquld be thrown opt to preyent drixing on it. : In thefe cafes the maft is always fuppofed to be frauck, and provided this be done, and the carga judit cioully difpofed, it is probable that a well-conftructed budgerodr will be in no danger of overfetting by the mere ferge of the wind
 may be fo mufh expofed to the waves, as to be fulediand, finderky them. At this feafon, every traveller fhould be particularly atteram tive to the nature off, ther riyer-bank, as well as to the appearanate of the horizon, during the laft hoprss of the afternoonis : and if ine a place of chelter, f he fhpuld fop for the night ; andi not hefitated about lofing time, which may be retrieved the next mornidge byy fetting, out $f_{0}$ much earlier. The boatmen work with nuch pogpa alacrity on this, plan; becaufe they have day-light before them ton fecure their boat, provide fewel, and drefs and eat their protvifionss $y$

As the water is always either rifing or falling within the beds of the rivers, it is impoffible for a map to aflign precifely where a place of thelter thall be found, at any given time. Thus much, however, may be concluded, that in a place where the junction of two confiderable channels is effected when the rivers are upis there: will be an inlet, or deep bay, throughout the dry fealon, although one of the channels fhould be dried up. . The waters : as we have faid before) are rifing from the latter end of April, to the maiddle of Auguft: and falling during the reft of the year.

The navigation through THE $N$ OODs, for SUNDE\&bunas, is effected chiefly by means of the tide.

[^131]that

## $\left[\begin{array}{ll}283\end{array}\right]$

that communicate immediately with the tea, the circumftances of the tide are more analagous' to the trlainday coute of 'tt, than in the fmall laterah channels whieh fervet to "connect' the great rivers togother ; the motion of the tide in thofe fmall charinels, being regulated by the pofitions of their openirigs into the rivers. For if twó sivers of equal bed and patallet courfe, are united by a lateral or crofs canal, the flood tide will enter that opening of the canal which lies neareft to the fea, and run through it into the other river; and the ebb tide vice verfa. But as the arrival of the tide depends on the capacity and formation of the rivers, as well as on the abfolate diftance it has to run, it will not be an eary matter to determine its direction at any given time, even with the help of a map.

There are awo diftinet paffages through the Suinderbinds, the one minmed the fouthern or Sunderbund Passioe, "the other the Balingot Pissage, The firf is the farthert abbut, aind leads ${ }^{\text {s }}$ through the deepeft and wideft rivers; and is of courfe, the moft expofed during tempeftuous weather. It opens into the Calcutta river, thro' Channel-creek *, about 65 miles below the town 'The Baliagot Paffage opens into a lake on the ehft fite of eatcutta'; fom whence, within'a very few years, a fmall canal has" been cut to join the lake with the river.

There paffages prefent to the imagination both a grand and a curi-? ous fpectacle : a navigation of more than 200 miles through a foreft, divided into numberlefs iflands by a continued labyrinth of channels, fo various in point of width that a veffel has at one time" her mafts almof eritangled in the trees :and at another, fails uninter:ruptedly on a capacious river, beautifully fkirted with woods, and affording a vifta of many thites each way. The water is every where falt ; and the whole extent of the foreft abandoned to wild beafts: fo that the fhore is fildom vifited but in cafes of neceffity; except

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## [ 284 ]

by the wood-cutters and falt-makers whofe *dreadfut trade" is exercifed at the conftant peril of their lives: for the tygers not oply-appear on the margin in queft of prey, but-eften, in-the night time, fwim to the boats that lie at anchor in the middle of the river.

Thefe paffages are ufed during the whole year, by thofe who go to and from the 1 bwer parts of the Ganges and Calcutta, \&ce : and during the feafon when the weftern branch of, the Ganges is almoft dried up, the whole trade of Bengal (the weftern provinces excepted) paffes either by Channel-creek, or Baliagot, but chiefly by the former ; fome articles of the Company's cargoes being brought more than 900 miles by water, at this feafon.

$$
\text { Explanation of PLATE, } \mathrm{N}^{\circ} \text {. I. }
$$

A. A. A. Steep Banks, corroded by the current; the fragments of, which are depofited, and form the Banks B. B. B.
C. A fand Bank, accumulating to an Inand. This once joined to D; till infulated by a breach of the river.
E. An Ifland, formed and inhabited. This alfo was a fand-bank, thrown up round the point $F$.
G. An Inand accumulating in the midet of the Cliannel.

H . The line of the ftrongeft current.
I. A Gulf occafioned by the force of the current, from the oppofite fide, ftriking againft the Bank : the origin of a future branch iffuing from the great river. In a courfe of time, the firft reach of it becomes retrogade to the courfe of the river (fee note, page $2_{3} 6_{3}$ as at K apd L .
N. B. The fection of the Branch of the Ganges is exactly fimilas to that of the Ganges itfelf, except in the article of width.





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## P O S T S C R I PT.

## Correction of the Gbography of the Indus, and itst

 Delta, ©oc.SIN CE the Memoir was printed, fome better information refpecting the country of Sindy, and the river Sinde * (or Inducs; than what appears in page 80, has been moft obligingly communicated by a perfon of character, who refided fome time in that country, in the fervice of the Eaft India Company. The detta, and courfe of the river, have in confequence, been corrected in the map: but the form of the coaft has undergone no change,; although the pofition of $\mathrm{it}_{\text {, }}$ has; for Ritchel and Cape Monze aro removed feveral miles further to the fouth, while their former diftance from Jigat Point is preferved. Cape Monze now ftands in lat. $24^{\circ} 55^{\prime}$, lon. $65^{\circ} 46^{\prime}$ : Ritchel, in lat. $24^{\circ} 14^{\prime}$ (it was $24^{\circ} 12^{\prime}$ by Capt. Scott's obfervations), and the mouth of Larry-Bundex river, which was the principal channel of the Indus, during the laft century, and early in the prefent one, is in lat. $24^{\circ} 44^{\prime}$; being within one minute of the parallel affigned it, by the India pilot.

The city of Tatta, the capital. of the province of Sindy, and fuppofed to be near the fite of the Pattala $\dagger$ of the ancients; is fituated, according to the idea of the abovementioned gentleman $n_{2}$ about $3^{8}$ G. miles to the north of Ritchel, and 50 , to the: eaft of

[^133]it : fo that it ought to be in lat. $24^{\circ}: 50^{\prime}$, lon. $67^{\circ} 37^{\prime}$; and about 125 miles from the fea, by the courfe of the river *. According to $M$. Thevenot, it is three days journey from Larry-Bunder town; which according to Capt. Hamilton, is 5 or 6 leagues from the fea. M. Thevenot's 3 days journey may be taken at 54 G. miles of horizontal diftance; and: the whole diftance of Tatta, from the mouth of Larry-Bunder river, at about 68 G . miles: and this does not difagree with the account given above.

According to a MS. itinerary (kept by N. Whittington, no date to it) Tatta is about 180 coffes from Radimpour on the Puddar river:; and 228 from Amedabad, paffing through Radimpour? This lan rown is placed in the new map, chiefly on the authority of Mr. Hornby's ASS. map of Guzerat, mentioned in page' 149: and 180 cofles, laid off from it, would place Tatta about 22 G . miles further to the weft, than the pofition affigned it above, prod vided that the general direction of the road, was fraight': but it appears by the ideas of Janfen and Blaeu, who have feverally defcribed this road, that it bends greatly to the fouth; and therefore will accord very well with the above data: and it may be concludedd; on the whole, that the longitudes of Tatta and of Cape Monees are not far from the truth. The route in queftion; goes by the village of 'Negar-Parkar, and by the town of Nuraquimire;' and through part of the territory of Cutch: it croffes the great andy defert alfo.

It is not to be expected that any particular account of the nifnber and pofitions of the feiteral branches and mouths of the indus, fhould exift, unlefs a furvey of them had previounly been made: All the information that I have been able to obtain on the fubject;

[^134]refpects three of them only; and is as follows. " About 170 miles from the fea, by the courre of the river, the Indus divides into two branches; of which the wefternmolt is by much the largett. This branch, after a courfe of about sol miles, to the $S W$, divides into two more; the fmalleft of which romis on a W SW courfe, to Larry-Bunder, and Darraway: and the largeft, taking the name of the Ritchel river, runs on a more fouthwardly courfe to the town or village of Ritchel, on the fea coaft. (Tatta is fituated within this inferior delta, and about five miles below the' upper angle of it.) The third branch remains to be mentioned, and is that which bounds the eaftern fide of the fuperior delta; feparating as is faid above, at about 170 miles from the fea. It is fmaller than the Ritchel river, but larger than that of Larry-Bunder; and by circumfances, and by report, it opens into the mouth of the gulf of Cutch, nearly oppofite to Jigat Point; its courfe' being fomewhat to the eaftward of fouth.

From theefe data, together with the aid of the chart of the coaff, it may be collectect, that the delta of the Indus is about 150 Britiif miles in length, along the fea coaft; and about 115 in dépth, from the place of feparation of the fluperior branches of the river, to the moft prominent point of the fea coaft. Arrian (after Nearctrius) reckons the firt diftance 1800* ftadia; and Pliny 220 Roman miles: that is, he seckoned about' 8 of thofe ftades to a mile.

The lower part of this deita is interfected by rivers and creeks, in almoof every direction, like the delta of the Ganges: but 'unlike' that; it has no trees on it ; the dry' parts being covered with brufhwood; and the remminder, by much the greateft part, being noifome fwamps, or muddy lakes. A minaret, at the mouth of Ritchel river; ferves for a mark for the road; which, from the flathefs and famenefs of the appearance of the coaft, could not other-

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wife be diforiminated se. Thenapper partofi: ahe: doted is whill cultio valads and yields abundance' of ride.
fFom the ideas generallylantertained concerning the nature, and treatment of carnels, it would not be expected that this delta, ands ofpeciadly that part of it, neartilito the fea, chould be fet apart for the bneeding: of :hofe ansmalsc; It is, however the cafe; and the tender parts of the brufh-wood ferve them for fodder.

If is a ramarkable circumftance that the tide chould not be vifi-: ble in this river, at a greater diftance than 60 or 65 miles. fromi the feag oTheikorgs, are high and dangerous in the mouths of the rizer: (SRee the fntraductiog page xxiv.)
ot Ther Jofegdth of the Ritchel branch is eftimated at one milo, juft abpove the tide; ;iand, at Tatta, at only half a mile *. It is certaim thata the Induat is seryy confiderably lefs than the Ganges. Theive-i
 feafon; which I hould fuppofe to be over-rated, unlefs the attell e vity be much more: than II have an idea of: though indeed; the Ghort courfe af the tide, upwards, feems to require fomed-fuclis caufe.
The province of Sindy in many particulars of troil and ctimpter and in the general appearance of its furface, refembles Egypt: $: 1$ the lower part of it being compofed of rich vegetuble mould, andritio tended into a wide delta; while the upper part of it, is: a narrowit Hip of country, confined on one fide by a ridge, or ridges of mouns tains, and op the other by a fandy defert; the river Indars, equalkat leart; to the Nile, winding through the midft of this level, paliey; and annually overflowing it. During great part of the S.W. monfoon, or at leaft in the months of July, Auguft, and part of September, which is the rainy feafon in moft other parts of Inding the atmofehere, is here; gendrally donded, but ino rain falls, except very near to the fea. Indeed very few fhowers fall during the

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whole year. Capt. Hamiloon Cqps, that when he wifted Tate', no rain had fallen for 3 years before Owing to this, and to the neighbourhood of the fandy deferts," which bound it on the eait, and on the north-weft, the heats are fowiolent, and the winds from: thofe quarters fo pernicious, thiat the houfes are contrived fo as to be. occafionally ventilated by means of apertures on the tops of them, refembling the funnels of fmall chimnies. When the hot winds prevail, the windows are clofely thut, by which the hotteft part of the current of air (that neareft the furface, of courfe) is excloded : and a cooler part, becaufe more elevated; defcends into the! houfe, through the funnels. By this means alfo; valt chould of duft are excluded, the entry of which alone would be fufficient to render the houfes uninhabitable. The roofs ard compored of thick layers of earth, intead of terraces. Few countries 'ate more uni wholfome to European conftitutions ef particubaty the lower part of the delta.

Sindy extends along the courfe of the Indus from its emboxcbure to Behker or Bhakor on the frontiers of Moultan; and may be reckoned at leaft 300 B. miles in length, that way. Its breadth is very irregular: it may be about 160 miles in the wideft part. On the N.E, lie the territories of the Seiks; and on the north, thofe of the King of Candahar ; on the weft is Makran *, a province of Perfia, whofe Prince is tribatary to the King of Candahar. A fandy defert bounds Sindy on the eaft, and extends the whole way from the territory of Cutch, to the confines of Moultan; being near 550 B. miles in length, and from 100 to 150 wide. P. Wendell in his account of the Rajpoot's country (or Rajpootana) fays, that the country begins to grow fandy, immodiately on the weft of Agimere: fo that the defert muft bee exceedingly wide in that part. This is the fandy defert mentioned by' $\mathbf{I J}$ erodotus. See page xxii

[^137]of the Introduction. The fort of Ammercot the retreat of the Emperor Humaioon, and the birth place of his fon Acbar (pago lyii) is fituated within this defert. In the Ayin Acbarea, it is clafed as belonging to the Nufferpour divifion, of tho prowince of Sindy : Ferilhta reckions it about. 100 coffes from Tatta. Be mays reafonably be fuppofed that this defert contains many habitablo tracts or idands, within it, like the Oases* of the Lybbiam deferts.

The city of Tatta, the pofition of which we have deferibed above, was, in the laft century, very extenfive and populous, and was a place of great trade ; poffeffing manufactures of filk, carmapia wool, and cotton: and was alfo celebrated for its cabinet ware. Little of thefe now remain; and the limits of the city are very much circumfcribed. On the fhores of the Indus, above the delta, cóngiderable quantities of faltpetre are made: and within the hilly tract, which commences about three miles on the N W of Tattan are founde mines of iron, and falt. The rains of a oity, fuppofed to be Braminabad, lie within 4 miles of Tatta,

The river Indus and:its. branches, admit of an uninterrupted navigation from Tatta to Moultan, Lahore, and Cathmere, for veffels of near 200 tons; and a very extenfive.trade was carried on betmeen thofa places, in the time of Aurungzebe: but at-prefent. very little of this trade remains, owing. to a badigovernmont in Sipdy; and probably to the hoftile difpofition of the Seiko, the prefent poffeffors; of Moultan, and Lahore. Capt. Hamiloon fays that boats cane from bahove to Tatta, in i2 dgys. Had Ferefe'sicanall been, completed, thare would have beenian inland navigation fromTatta to Bengal; and Affiam. (See page. 72.).

The reader will recollect that Nadir Shah, in 1739, obtained a: ceffion of the province of. Sindy, as well as the reft of the Indian provinces, lying on the weft of the Indus: and he even vifited

Tatta. Abedalla, when he feized on the provinces, which comT pore prefent empire, retained the fovereignty of Sindy alfo : and the Prince of this province,' is accordingly, tributary to the prefent King of Candahar, Timur Shah *. The Prince is a Mahomedan, and of Abaffynian extraction : his ufual place of refidence is at the fort of Hydrabad, fituated on the Indus; not far above the head of the delta; and in the neighbourhood of the city of Nuflerpour. The Hindoos, who were the original inhabitants of Sindy, and were reckoned to outnumber the Mahomedans, in the proportion of 10 fo 1 , in Capt. Hamilton's time, are treated with great rigour by their Mahomedan Governors; and are not permitted to erect any pagodas, or other places of wor!hip: and this reverity drives valt numbers of them into other countries.

The gentleman from whom I had my information concerning, the delta of the Indus, \&c. went up the Indus as far as the city of. Briakor (or Behker) which is about two-thirds of the way to Moultan. He oblerved the moveable towns or villages on the banks of the river (noticed by Nearchus, and the Ayin Acbaree : fee Introduction page $\mathbf{x} \mathbf{x x}$ ). Some of there are the habitations of fithermen, and others of graziers ? and they are conftantly changing their pofitions like a camp. Few rivers abound more with firh than the Indus does; and amonig thefe, are fome very delicious forts.
'Athong the rafious tribes, that inhabit the hilly tracts bordering on the weftern fide of the Indus, there is according to my friend's, account, one of the name of Nomirdy. They are of the Mahomedan religion; are freebooters, and very troublefome to the villagers, and travellers. The Ayin Acbaree alfo takes particular notice of this tribe; and ftates its frength to be 7000 infantry, and 300 horfemen (about the year 1560 ). This being a part of the tract,

[^138]named
named Indo-Scy tinia by the ancients, a doubt arifes whether they may not be the defcendants of the Scythian Nomades; if the Scythians on the borders of Mount Imaus, did really call themfelves by that name; and that it was not a term applied to them by the Greeks*, alone. It may alfo be a queftion whether the graziers abovementioned, may not have derived their cuftom of moving their habitations, from Scythian anceftors : for the cuftom, as far as I know, does not prevail in the reft of India.

The upper part of the courfe of the Indus, is taken from M. D'Anville's map of Afia; as I know of no better authority. The towns on its banks are taken chiefly from the itinerary, mentioned in page 68; as is alfo the point of conflux of the Setlege (or Suttuluz) with the Indus. The latitude of Behker is given at $27^{\circ} 12^{\prime}$ in this itinerary, which I have corrected to $27^{\circ} 32^{\prime}$; for reafons given in pages 68 and 80 . Finding Hajykan mentioned as one of the diftricts belonging to Sindy, in the Ayin Acbaree, and it being very clear that a large province of the fame name, lies on the weft of the Indus oppofite to Moultan, I can no otherwife reconcile thefe two accounts, than by fuppofing that Hajykan extends fouthward, along the Indus, until it meets the borders of Sindy; and that a fmall part of it was fubject to Sindy. In this cafe, the province of Behker muft be confined chiefly to the caft fide of the Indus. No part of Hajykan is reckoned to belong either to Moultan or Candahar ; in the Ayin Acbaree:

Cutch, is a territory of confiderable extent, fituated on the fouthcaft of Sindy; the eaftern branch of the Indus reparating the two

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countries. It extends along the northern coat of the gukfiof Cutch, and is feparated from Guzerat, by the Puddat river, of one of its branches. The' prefent capital, and refidence of its Rajah, is Boodge-boodge; and appears to bethe place named Booz in Mr. Hornby's map, where it is placedlabout 34 G. miles to the eaftward or ESE of the eaftern branch of the Indus. Cutch is compofed chiefly of hills, woods, and fandy wilds : and we are utterly ignorant of any particulars retating to the interior part of it. The mouths of feveral rivers appear in the map of its coaft : and the ancient maps defcribe the Puddar river as difcharging itfelf into the gulf of Cutch, through thefe openings. It is poffible that the river formed by the Caggar and other ftreams, may difcharget iterff by one or more of thefe openings; unlefs it lofes itfelf in the fands of the defert, which borders on the north of Cutchi. ? : Op the fbuth coant of the gulf of Cutch is a diffrict tifabited by a piratical tribe named Sangarians, who crulfe for merchant ihips, as far to the weft as the entrance of the gulfo of Perfia. The capis tal of this ftate; is Noanagur ; and Bate (or Bait) and Aramroy, are its prioncipal ports. The Ayin Acbatee takes notice of thé foundirig of Noanagur, by a Rajah who was driverr out of Cutch ; about, 280 years ago: and fays that the territory'in which it is fituated, is named Little Cutch. No mention is made of Sanga: xians; in the fame book : nor of any piracies being committed by the people of Noanagur.

Nearchus names certain parts of the country between the mouth of the Indus and the river Arabius, Sangada and Saranga; but the tract was too confined, to be the abode of a nation. M. D'Anville fuppofes that the country of Sangada*, was the fame, with the modern Santgra': if fo, the Sangarians muft firft have removed from the weftern, to the eallern fide, of the Indus; and aftervards


Qq $\because \quad \therefore$ mift
muft alfo have croffed the gulf of Cutch. The latter fact, feems verified by the Ayin Acbaree.

I cannot omit to obferve, in this place, how exactly the pofition and defcription of the haven, named by Nearchus, the port of Alexander; and which had an ifland near it, named Crocola; agrees with that of Crotchey: and proves inconteftibly, by the circumftance of the proximity of the mountains to the fea coaft, when the fleet had advanced only 150 ftadia from the mouth of the Indus, that Nearchus failed out of the weftern branch of that river. However, one might conclude, from Arrian's account of Alexander's voyage down the two branches below Pattala, that he fixed on the eafternmoft branch, for Nearchus's fleet to proceed through, to the ocean; as Arrian calls it the left branch : but the circumftance of Alexander's landing, with a party of borfe, and proceeding three days along the coaft, in the direction that his fleet was to fail, that is, weftward, overthrows fuch a fuppofition entirely: for no one will fuppofe that he chofe to march a party of horfe three days, along the coaft of the delta, where he muft have been continually interrupted by deep rivers and creeks.

## Correction of the Coast of Orissa, in the Map.

THE arrival of Capt. Ritchie in England, has enabled me to correct that part of the coaft, between the mouth of the Kannaka river (on the north of Point Palmiras) and the moft fouthern branch of the Mahanuddy, or Cattack river; from a tracing of that coaft, made by Capt. Ritchie, by order of Mr. Haftings. From this chart it appears, that Point Palmiras is further to the caftward, in refpect of Jagarnaut and Balafore, than is warranted by the materials,
difcuffed in page 11: for by the late obfervations, it ought to be placed (at leaft) in $87^{\circ} 5^{\prime}$ longitude, inftead of $87^{\circ} 1^{\prime} 30^{\prime \prime}$. A reference to the map will beft explain the rcfpective pofitions of the principal mouths of the Mahanuddy, and other rivers, between the black pagoda and Kannaka. It is proper to obferve, that the coaft was not traced home to the black pagoda; fo that the exact pofition of Point Palmiras, is yet a defideratum. Capt. Ritchie was informed, when at the fouthmoft opening of the Mahanuddy, that the black pagoda, was very near, on the fouth-weft. It was, however, out of fight; but this may be accounted for, by the form of the coaft, which projects in a very large turve, and might intercept the view of the pagoda, from a perfon clofe under the fhore, as Mr . Ritchie was : although the pagoda might not be many miles off. The fouthmoft mouth or opening of the Mahanuddy is in lat. $19^{\circ} 54^{\prime}$ : and is fuppofed to be about 19 miles to the eaftward of Jagarnaut pagoda. The object of this examination, was, to enable the Government of Bengal, to fix on a proper fpot for a light houfe, for the direction of hips round Point Palmiras, and into Balafore road. Capt. Ritchie gave the preference to the point itfelf (named Mayaparah by the natives) but no light-houfe is yet erected. I believe the matter refted with the merchants of Calcutta. The reef extends near 10 miles to the E N E of Point Palmiras, in the new chart. There was too much furf on the coaft to allow his boat to land, fo that he could not learn the names of the few villages that are difperfed along the coaft. He is pretty certain that no large river falls in between Point Palmiras and the falfe point.
$\therefore$
ogames,Google

# $\begin{array}{lllll}\mathbf{I} & \mathbf{N} & \mathbf{D} & \mathbf{E} & \mathbf{X}\end{array}$ <br> TOTHE <br> $\begin{array}{llllll}\mathbf{M} & \mathrm{E} & \mathbf{M} & \mathbf{O} & \mathbf{I} & \mathbf{R} .\end{array}$ 

* The Names of Countries, or Nations, are in Roman Capitals ; and the Names, or Titles of Princes, Rajahs, or Chiefs, in Italic ones. The Titles of Books, and the Names of Authors, as well as of other Perfons whofe Authorities are quoted, or whofe Affiftance has been acknowledged in the Courfe of the Work, are in Italics : and the Names of Places belonging to Ancient Geography, have an * prefixed to them. The Roman Figures, refer to the Introduction; and the Arabic ones, to the Memoir, and Appendix.

ttt Abbreviations. Terrs. Territories. I. IRand. R. Biver. Pt. Point. Mt. or Mis. Mountain, or Mountains.

A. Page Adamas river . Page

| ge | - Adamas river AD7IDSING Rajab, Terr. of |
| :---: | :---: |
| B to Delhi, xx fo feq. His grand bat | Adoni |
|  | AFGHAN or PAFAN dynally of Emperors |
| the kingdom or Candahor - exxin | ndooftan, origin of - xlviii |
| BDALLI, meaning the fubjects of the King | * Agara of Ptolemy, not Agra - 64 |
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## INDEX ro the MEMOIR.



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$$
\begin{array}{lccc}
\mathbf{I} & \mathbf{N} & \mathbf{D} & \mathbf{E} \\
& & \mathbf{X O} \\
& \mathbf{T H E} & \\
& \mathbf{M} & \mathbf{A} & \mathbf{P}
\end{array}
$$

The whole Map being divided into Squares, or Spaces, by the Interfoctiom of the Parallels of Latitade wirh the Meridians, each particular Square is pointed out by Letters of Keference, alphabetically arranged along the Margins of the Map; the fide Margins having Capital Letters, and the top and boutom ones, fmall Lattous. For inflance, the City of Delel is given in the Index under the Lefters E o: and if the eye be guided along horizontally in the Map, from $E$, until it comes under $O$, the Square which contains $\mathrm{D}_{\mathrm{slb}}$ will be found.

* The Names of Countries, or Nations, are in Roman Capitals; andithofe of. Princes, Rajabs, or Chiefs, it Italic Capitals : and fuch Places as have their. Situations defcribed in the Index ondy, and not in the Map (owing to want of room) are in Italics. Others have only a Part of their Names written in the Map: and the Part wanting, is. alfo diftinguifhed by Italics in this Index. The Places wfehout Names, in the Mapa are left, in expectation of being able to fupply the Names, hereafter.
tt.t Abbreviations. Terry. Tersitories. I. Inand. R. River. Pt. Point Mtar Mpr. Mountain, or Mountains. F. Fort. G. Gaut, or Pafs.


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| Oedapour－KH | MISHWAH of the MAH： | Pxelihah |
| Odandoor－Xq | Rattas，Teifs．of Ql | Panwell－${ }^{\text {a }}$ |
| Oolpar－Mi | Palamcotta－$A^{\circ}$ | Papanaud－Mossmey |
| Oongonda－Rq | X | Papamow－$\quad$ H |
| Oorey－H q | Paiamerdy－ $\mathbf{Z}_{\mathrm{p}}$ | Paracho－ $\mathrm{H}_{\mathrm{p}}$ |
| Oorgaum－Om | Palamow | Pextachurceoil－Y |
| Ootamally ．－Yo | Palapetty－$\quad \begin{array}{r}\text { P }\end{array}$ | Pritadanga－H6 |
| Ootampaliam－Zo | Pahatchy $\quad-\quad \mathbf{y}$ | Parthgr ruins－${ }^{\text {P }} \mathrm{p}$ |
| Ootatore－ $\mathrm{X}_{\mathrm{p}}$ | Palavai－$\quad \therefore$ 仡 | Patiomboor |
| Oercour－Uo | Pala：afeny－Gl | Paramonfera－${ }^{\text {S }}$ |
| Ooterawoody－Yo | Palcoor－Ao | Paramutty |
| Ootramalore－ $\mathbf{W}_{\mathbf{q}}$ | Palcote－L．w | Parafacli－ |
| Orangabad－FP | Palgunge－I y | Paratella－－${ }^{\text {a }}$ |
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| ORISSA－${ }^{\text {w }}$ | Paliar R．－．Wr | Paitgow－ $0 \subset 10$ |
| Oruenny－P n | Paliacar－ $\mathrm{Z}_{\mathrm{r}}$ | Extidrong or Paridiong E． |
| Offra－LY | Paliapado－${ }_{\text {q }}$ | Paxkel |
| Offorah－Kz | Paliconda－So | Paflagow |
| Ofunpour－Ic |  | Pardie－－chmwn |
| Ottingbah－ $\mathrm{If}^{\text {f }}$ |  | Pafmenalore ${ }^{\text {a }}$ |
| Oudanulla－${ }^{\text {dz }}$ | Palicaudchery－${ }^{\text {an }}$ | Paxtafa－Crisy ${ }^{\text {a }}$ |
| OUDE－Fs | Palighery－T P | Paffel－moty |
| Oude－G t | Palindi－$\quad$ zn | Patone－wity ${ }^{\text {ma }}$ |
| OUDIPOUR－Il | PALL－ | Pappal－91040 |
| Oddipour－it． | Palligoram－${ }^{\text {a }}$（ $\mathbf{q}^{\prime}$ | Mappooty |
| Oudgah－il $x$ | Palmiras Pr．－No | E4toah－－menmity |
| Oudighir | PALNAUD－Rq | Pathepatnam |
| Ougein | Patedygur－t it． | Parioi |
| Ougly－．R I | Palté lake－Dc | Particoty－． 09 |
| Oupoulinké－${ }^{\text {c }}$ c | Palvarya | Partilcotty－Co |
| Oulaguinagere－ $\mathbf{X q}_{\mathbf{q}}$ | Palwall－Eo | Parur I． |
|  | Pamada－Of | Pafir－－ |
| Quple－ $\mathbf{P n}^{\text {n }}$ | Pamandoor－Ap | Paplawar－$\quad$ H0 |
| Oufgoor ．．a $\mathbf{R}_{\mathbf{o}}$ | Pambu－Diz | Patada $2 \cdots 6{ }^{\text {a }}$ |
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| Oufcotta－S m | Pamodurte－Tp | Pattoom－ $\mathrm{K}^{\text {a }}$ |
| U0 | Panagur－K ${ }^{\text {r }}$ | Pategow－lo |
| Oiffor－W | Paramgoody－Ao | Pateagur－R |
| Outapallam－ X － | Pazangoody－${ }_{\text {Pp }}$ | Patieta－${ }^{\text {H\％}}$ |
| Outch－ $\mathbf{C g}_{\mathbf{g}}$ | Pamarcourchi－ $\mathbf{X q}_{\text {q }}$ | Pareli，or Putala |
| Ouior－Ri | Panatallah－Lis | Patenode－Eves |
| Owferah u．${ }^{\text {a u }}$ | Pancawir－Im |  |
|  | Paitchgong－On | Patala ${ }^{\text {a }}$－ $\mathrm{Mab}_{\text {m }}$ |
|  | Panchpara－－Mu | Patinoor－：${ }^{\text {ep }}$ |
| P． | Pander＇a－${ }^{\text {ap }}$ | Patmour－${ }^{\text {Pr }}$ |
|  | Pandonfer－Pl | Patna－皿交 |
| Paslavanke | Panere－Bq | Patnoura |
| Pacherry－．${ }^{\text {Kb }}$ | Paneture－ $\boldsymbol{C}$ q | Patokak |
| Pachere－enty | Pamiany－Ym |  |
| Dadhore－：Hep | PANJAB－${ }^{\text {a }}$ i | Patoual |
| Hada－Amme | Rarkira－Nt | Patte |
| Paddar Te：See Paddayt | Rainlang－${ }^{\text {－}}$ | Pattis－Mron |
| Padepa nam － $\mathrm{V}^{\text {a }}$ | Panaah or Purnah $\because$ Ir | Patrowra－comit |
| Padongmew－ OL | Parmela $\quad \cdots \mathrm{CH}$ | Patrah－ |
| Padram－$\cdots$ Fix | Panhiput－$\because \cdot \mathrm{D} \boldsymbol{n}$ | PATTAN ROHILLAS＇T． |
| Padieah－Miv | Patnolah－N 1 | Patan－versex |
| Ka Shabpour－，mio | Pamanah－ $30 \times \mathrm{M}$ |  |
|  |  | $\mathrm{Xx} \times 2$ |




ITNDIE XITOT:THid M:A:P.

| Poolapauk Pooltada | $W$ $P t$ | Pulticate lake Pullumnare | $=2 \pi n 6!$ $700$ | Radianagus Radawair. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Poolgoury | 20 |  |  |  |  |  |
| Pooloo | R $b$ | Punchenee | - :1... Ca $^{\text {a }}$ | Radimpour | - | 1-H |
| Paol pour | Ht | Pundipour | - Git | Raepour |  |  |
| Poolytopu | A0 | Pundua | - H d | Ragamme |  | $c \geqslant$ |
| Poonacamada | Qs | Punganore | $\therefore \quad \mathbf{U p}$ | Raguapour |  | - . $\mathbf{F} \times$ |
| Poonah | Pk | Pungnam | $\therefore \mathrm{I}$ | Rahny |  | H |
| Poonamalee | U $\mathbf{r}$ | Punje | M 0 | Rahion | - | - C.m |
| Poondy | P ${ }^{\text {w }}$ | Punjeree | I* | Rajacotty | - | B ${ }^{\text {o }}$ |
| Poonkur. | H6 | Punwary | Hr. |  |  | B. $\mathbf{p}$ |
| Poor Bunder | Me | Purarya | E r | Rajägunge | - | $\therefore 1.8$ |
| Poorub | G s | Pureewar | $\mathrm{F}_{5}$ | Rajagur |  | I ${ }^{\text {\% }}$ |
| Pcorundar | P1 | Purefil | Pw | Rajahum |  | $\boldsymbol{H}$ |
| Poorvah | G 3 | Purgatty | Pu | Rajakeera | - | Fp |
| Pootgaut | EP | Purgot | X $n$ | RAjAMUND | DRY | $\therefore$ R ${ }^{\text {s }}$ |
| Pootlapafta | $Q$ | Puogow | Ok | Rajamundry |  | $\cdots 0^{3}{ }^{\text {a }}$ |
| Pootya | Ia | Purki | $1 \times$ | Rajanãgur | - | $\underline{K}$ |
| Poppergaut | Gt | Purnah | 1 r |  |  | - reme |
| Porcah | 2 n | Purneah | Hz | Raja pilla | - | vinnme |
| Porrogong | F 6 | Purrongur | $\mathbf{K} \mathbf{p}$ | Rajapour |  | -ncas ${ }^{1}$ |
| Portonovo | $\mathbf{X} \mathbf{q}$ | Purrownah | Gw |  | - | ALaber ${ }^{\text {k }}$ |
| Porur | 1 P | Purruah | Ha | -1.- |  | ${ }^{2} \mathrm{~F} \cdot \mathrm{H}$ |
| Pofchalaraja | $C \mathrm{P}$ | Purfah | H.w | Rajaporum | - | $\cdots \mathbf{x}^{\text { }}$ |
| Poffella | $\mathrm{K}^{\mathbf{r}}$ | Purfauinmah | - ${ }^{\text {d }}$ | Rajefe |  |  |
| Poudingory | X m | Purfoyah | . $\mathbf{N}$ | Rafaferai |  | - Difl |
| Porvear | 4 n | Parfur | - + | Rtaibaug |  | 3 unhen |
| Poulcotty | B $n$ | Purwar | B't | Rputee |  | रinotrw |
| Poulmady | S p | Putala | C d | Raplurgan |  | s-um? |
| Pourimitaila | A | Putcabary | K 6 | Raje-Bederu |  | - A |
| POURONKE | E 6 | Putbroad | 10 | Raje-Behtoo |  | - Abs |
| Pourubcotty | B 0 | Putelam | $B q$ | Rajbulhaut |  | $\cdots \mathrm{Ca}$ |
| Powrangur | Lk | Putimahry | K | Rajeeata | , | andig |
| Poway | G t | Puttan | - ${ }^{\text {- }}$ | Rhjegaut |  | - bamm! |
| Prela | Ir | Puttan Sumna | at $\quad$ Mf | Rajegur | - | -1. 40 |
| Prela | X | Putterahee | - Gq |  |  | Fo and ${ }^{\text {e }}$ |
| Preparis I. | Tf | Puttyram | Ha | - | - | $\cdots \mathrm{c}$ |
| Prane | 0.6 | Putyajury | Id | $\xrightarrow{\text { L }}$ | - | $\cdots \mathbf{L}$ |
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| Pryggee | Q. 6 |  |  | Rajehaut | - | K |
| Prbina | 16 | Q | Q | Rajemal | - | - Hz |
| Puccaferi | Lz |  |  | Rajematchy | - | $\therefore$ P ${ }^{\text {e }}$ |
| Puoculoe | 1 l | Quenga | P 6 | Rajemungulam |  | $\because 1$ |
| Puckar R. | K d | Queckmi pago | oda - Sh | Raje Seid Sube | beb | $\therefore \mathbf{B r}^{\mathbf{m}}$ ! |
| Paddambally | N/ | Quilon | - $A_{\text {n }}$ | Raje Sugat ${ }^{\text {dita }}$ | ming ${ }^{\circ}$ |  |
| Paddampour | N. y | Quivifa | G w | Rajgiri |  | $\therefore$ QP |
| Puddamtola | Nw | Qaondanga | Oi | Raigur |  | Mi |
| Pudangarde | $Y \mathrm{ra}$ |  |  | Rajoorah |  | - Oo |
| Puddar R. | H |  |  | Rajuapour | - | Fw |
| Padgdargong | M $q$ | R | R. | Raimpour |  | F ${ }_{\text {q }}$ |
| Pudicotta (Tondeman's | refic |  |  | Rain |  | $1{ }^{\text {c }}$ |
| dence) | YP | Raxt | 崖9 | Kaifeen | - | K O |
|  | ${ }^{1} \mathrm{O}$ | Rabrabad | - Lix | Raith pour |  | Q ${ }^{\text {c }}$ |
| Paducaud | Y0 | $\underline{\text { Lin I. }}$ | Atc | Rakypora |  | 1.4 |
| Puker | Fk | Ragaißone | On | Raliciote | - . | K $n$ |
| Pulanfa | 1 h | Rachot | Sk | Ramagirry |  | $Y_{p}$ |
| Pulka | $1{ }^{1}$ | Rachour | - Lit | Ramanad pofu |  |  |
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| Setioor - | P1 |  | HP | Silah |
| Segris | I w |  | 1 n | Silcola |
| :Seriynautja | 11 | Sheer Mohamed Pett | R ${ }_{\text {r }}$ | Silhet - $1 d$ |
| Serfah | Enom | 6 heerpoar | Ep | Sillee - K |
| Serwar | Ho |  | Fp | Simar - $\quad$ q |
| vill | M | Sbrevaja Mally | Y ${ }_{\text {P }}$ | Simlya - ${ }^{\text {w }}$ |
| y | R 0 | Shehinkot | Ag | Simmooah - It |
| tlana | Hk | Shelopgur | W ${ }^{\text {q }}$ | Simoga - U m |
| Setlege R. | Di | Sheik Parreid's tomb | D | Simulcandy - Ic |
| tiaveram | Qt | Shekoabad | Fq | Sindejua - Fw |
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| Seven pagodas | Wr | Shengana | $i 6$. | Sinde R. or Indus G f |
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| Sewalick Mts. | Co | Sheteru | X | 1 |
| -Sewan | G w | Shevagunga | U 0 | SINDIA, MADAJEE, Terrs. |
| Sewary | K u | Shevagunga | ${ }_{2} \mathrm{P}$ | of - Ho |
| SEWEE | E e | Shevagurry | 20 | Sindole - Na |
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| Sewnaddy | Mt | Shevalpettore | 20 | SINDY - Id |
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| Shababad | $F \mathrm{~F}$ |  | R ${ }^{\text {i }}$ | Singerbill -- K |
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| Shajehan | Hx | Sholavanden | ${ }^{i 6}$. | Singpour |
| Shajehanpour | Fn | Sholingur | $\mathrm{U}^{\mathbf{q}}$ | Singramow |
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|  | Gt | Shoor | Ch | Singreco:a - ${ }^{\text {a }}$ |
|  | K | Shoray | Ip | SINGROWLAH. . K |
| Shainymalley | X 0 | Shukera | An | Singum $\quad$ Y |
| Shambypatam | Y $q$ | Shumfhabad | Ag | Singar Ixand Pk |
| Shandamungalum | X ${ }_{\text {p }}$ | Shyuparé | Bf | Siocotriclay . . $A_{0}$ |
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| - Shapary | M w | Sialacoory | Y | Siondelar |
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| Shaye | Lg | Sidgur | 0 O | Siffuar .- H |
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| Arfewe - Lu | Davagoodam - $\mathbf{R t}_{\text {t }}$ |  |
| Bajetpour - $\mathrm{K}_{\mathbf{z}}$ | Diainper. The fame as Ude- | Yanam |
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| page 102. | Hendowne or Hindia G o | Singhole - K |
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| at page 102. Chamulgoody | Inevarum - ib. | Tentamoody - $\mathrm{R}^{\text {a }}$ |
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| Condrapatty - $\mathrm{R}_{\mathrm{t}}$ | Loagbur. In the neighbour- | Tomarum |
| Coringa - Rt | hood of Macowal Cra |  |

ADDENDA:

# A D DENDA, \& ERRATA. alcomeliotbalpgo 

## INTRODUCTION.

Page xxiv. line 2 from bottom, read, and it zuill alfo prove, \&ec.

- xivii. line i , read tben.-line 10 , for Mabratias, read, foundor of the Mabratta State. which about, \&c.
_ xlix. line 11 , for 80 , read 25 .
—— lii. line 9 from bottom, after Mabrattas, read (or rather tbat of MARHAI)
_- liii. line 11, read 13i6.
—— Ivi. add a note on Ferißta ", line 14. ["That is to Gay, in his hifory of Hindoostan; for in that of the Deccas, he fpeaks very fully on the fubjeat but this.
latter has never yet been publifhed in any European language. See note p. Ixxix.]
- lvii. line 7, read furn $\beta$
- Iviii. line 18, after Mogul, dele the comma
- Ix. line 9 from bottom, for 1627 , read 1628
- Ixi. Aurungzebe was the third fon of Shah Jehan
_ibid. and throughout, for Sevagee read Sevajee
_- Ixini line 8, read exceeded
—— Ixxiv. The note refers to Jewan Bucbt; not Shab Aulwn
- lxxx. line 5 from bottom, dele [he]
- lixxxv. line 19, read afierwards
__ cxi. line 9, read fanbab
—— cxiii. note, for 21,650 , read 41,650
- cxiv. line 3 , to the fum, add $l$. for pounds fterling
——cxix. note on "extending bis conquefs "," line 6. [ "The laft accounts from India, inform us, that Sindia had been defeated by the confederated Rajpoots, on the fide of Jyenagur mad Joodypour : and that in confequence, he had retreated fouthward to Gwalior. They add, moreover, that the nominal Mogul, Shah Aulum, had taken the opportunity of efcaping from Sindia's camp, to the Rohilla Chief of Sehaurunpour.]
—_ cxxxvii. line 10 from bottom, read per aunum


## MEMOIR.

Page 10. line 2, after longitude, read, tbe meafuremeat giving fo mucb morc, \&c.

- 13 line 4, re:d, a flat coaft, nearly fraigbs
ibid. latt line, for them, read it

14. line 1, for tbeir, read its

15, note, read Werjebe

- 22. line 20 , read thoje
-- 32 note, read otber tcmples cus out of tbe rock
- 62. line 7 from bottom, read Pryaug, or Praig

16. line 9. [It appears that ancient Delhi itood on the fame fide of the Jumna, with t:e prefent city of that name. B.]

- 68. line 16. [The map in queftion, was drawn by Lieut. Rind, of the Bengal eftablifhment : as well as that of the roads in the Dooab, mentioned in page 66. B.]

70. line 19, dele [weflern]

- 78. line 9 from boit m . [Moultan city, has been garrifoned by the King of Candahar, fince 1 79. B.]
—— 81. and throughost, read M. Petis de la Croix
Page 89.


## ADDENDA, \& RRRATA.

Page 89. Batnir. [This place is allo named Batinda, by the people of the Panjab. It is fituated in a country famous for paftures; and fine horics. B] For th:s, and for the reft of the noies marked B, 1 am indebted to Major James B.owne of the Bengal effabliohment.
90. line 2, for thew, tead then Is
96. line 9, for in, read on

- 97 line 6, read [was now divided]
- 102. In the map, read Rauree river

115. fecond nore, read the ancient
116. line 5, Gurcus. There is a diftrict of the name of Gurders, in this quarter.

125 line the laft, read as tbe Parbiaian bourdarize:

- 144: line 19, read and berween Babor, \&c:
- 155 line 6 from bottom, read between Buijả and Parnab
-161. line 7 from bottom, for tbe river, read it
- 174. laft line, pat a period, after authority
- 175. line 19, read journyy
- 178. line 3, after jea, read in the next
—_ 182. line 12, for are read is
_190. line 8, read comm. ffoners
- 193. line 21, for Nozv, read But

283. line 3, for fervas, read ferve
284. laft line, read Gedrofia



- ibid. note, line 1 , for this, read the.

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$u$
Ogivireab, Google


[^0]:    *Whatever charges may be imputable to the Managers for the Company, the neglect: of ufeful Science, however, is not among the number. The employing of Geographers, and furveying Pilots in India; and the providing of aftronomical inffruments, and the holding out of encouragement to fuch as fhould ufe them ; indicate, at leaft, a fpirit fomewhat above the mere confideration of Gain: but above all, the eftablifhment of an office at home, for the improvement of hydrography and navigation, and their judicious choice of a fuperintendant for it, reflects the higheft honour on their adminiftration; and ought to convince us, that in a free country, a body of fubjects may accomplif, what the State itfelf defpairs even to attempt. For, however furprifing it may appear, it is neverthelefs true, that the firf maritime nation in the world, has no good chart to direct its fleets towards its own coafts : nor even a criterion. by which the public may be enabled to judge of the merit of any hydrographical production whatfoever. So that the foundings on the coaft of Bengal, are better known than thofe in the Britifh channel; of which, no tolerable chart exifts, even at this day. During the late war, an Eaft India thip owed her fafety to the knowledge obtained from a chart of the mouths of the Ganges (made, and publifhed by order of the Company) into one of which the efcaped from two French cruifers; and afterwards came into the Hoogly river by the inland navigation. We had juft become mafters of the hydrography of America, when we loft the fovereignty of it. I hope no one will think omi-. nounty of our Indian poffeffions from this circumftance: but even if he docs, he may. make himfelf eafy on the fcore of Great Britain.

[^1]:    - To Mr. James Anderion, $\mathbf{I}$ am, in particthlar, indebted, for the account of the derivation of the term Mahratta, and for that of the anceftry of Sevajee: as alfo for the fubject matter of the notes that accompany thefe articles. Ant to him, and to his brother, Mr. David Anderfon (each of whom, at differeut times, refided in a public Capacity with Madajee Sindia) I owe the moft valuable part of the information, refpecting. the geographical divifion of the Mahratta States, and their tribuearies.

[^2]:    -     - See the notes to the Heetopacies cr Fables, recently tranflated from the Sanicrit for Sanfcreet) by Mr. Wilkins, page 332. This gentleman has the merit of being the firtt European who acqutired the knowledge of the Sanfcrit language : whick was that of ancient Hindootan (or Bharata) but which ceafed to be the vernacular tongue, foon after the Mahomedan conqueft, in the 11 th century A few years ago, it was known only to the Pundits or learned Bramins; whorelieiguly kept it fram the knowledge of all but their own order: it being the facred depofitary of their religious inflitutions, and mylteries; and which it was inconvenient to communicate to the rulgar, otherwife than through the medium of their own comments, and interpretations. The honour dune Mr . Wibkins on this occafion, reminds us of the communicationf. made to Hirodot पSy by the Egyptian Priefts: and it is a fair inference, that the perfonal merit of both of thefe men, bad, a primcipal bare in obtaining fo diftinguifhed a pre: Eersace.

[^3]:    - The term Ly asa belonged at firfionly to the countries of Aftion, that werie collonizet ty the Greeks: but was afterwards applied by them to the whole continent. The Romans, in a flmilar manner, extended the name of Arrica, which originally belonged only to the territories of Carthage, to the whole continent: or, at leak, to as much as they knew of it.. Assia was applied at firt only to Natolia; which took the name of Lessen: Asia, afterwards, when Assa was applied to all the known parts of that continent.

[^4]:    - The country watered by the 5 eaftern branches of the Indus. See page 80 of the Memoir.
    

[^5]:    a I conclude that Paflya, is the modern Pchkcly. See pages 109 and it 6 of the Memoir. Some have fuppofed Cajpatyrus to mean Cafimere: but this is impobabie, from its fituation, which is remote from the Indus.

[^6]:    - The tide in the Indus is penceptible at about 65 miles above its mouth; according to the information of Mr . Callander, who refided a confiderable time at Tatta, near the head of the delta of the Indus. In the Ganges the tides are perceptible at $24^{\circ}$ miles $4 p:$ and in the diver Amazods, at 600 .

[^7]:    - Here it would appear, that Arrian followed the geography of Alexander; who fuppofed India to be the mof eaftern part of Afia; and that the fhore of the ocean, irom the mouth of. the Ganges, took a quick turn to the north and northweft: for he fuppofed the Cafpian lalce: to be a gulf of it. (Vide his fpeech on the banks of the Hyphafis.) But Ptolemy, as we are given to undertand; had, before the time of Arrian, defcribed Serica, and the bordert of SiNe: that is, the countries bordering on the welt and NW of Chins ; the country of the Eluthe; and part of Tartary, to the latitude of 50 degrees north.

[^8]:    - The Venetian trade to the eaft, was by the channeb of the Red fee, and Alexandica.

[^9]:    - No part of the Roman empire, was diftant from its capital, by the moft circoitons route, zore than 2800 miles.

[^10]:    - The reader is requefted to confult the map at page $: 02$, for the countries lying between she Indus and the Cafpian fea.

[^11]:    - For the dates of the reigns of the Emperors of Hindooitan, the reader is referred to 3. Chronological Table, at the end of the Introduction.

[^12]:    * It is to he regretted that Col. Dow, did not give a literal tranflation of Ferifhta, as a text ; and add his own matter, ore explanations, in the fotm of notes. © We Aould then thened betn able to diftinguinh the one from the other.

[^13]:    - Properly fpeaking, the Mogul Empire was that, over which Tamerlane and his immediate fucceffors reigned; and in which, India was not inclnded. Cuftom, however, has transferred the name to the empire held by the defcendants of Tamerlane, in Hindooftap and the Deccan.

[^14]:    - The reader may Gnd in the 4 gith note *o Mr. Orme's Hifterical Fragmente of be Mogep empire, a letter written by Jefwont Sing, Rajah of Joudypour, to Aurangzebe, expoftula with him on the unjuft meafures he was purfuing, with refpeet to the Hindoos. This detter breathes the moft perfect firit of philanthropy, and of toleration in matters of religion : together with the moft determined refolution to oppofe the meditated attack on the civil and relisious rights of the Hindoos. The elegant trandation of this letter was miade by Mr. Boughtoo Roufe.

[^15]:    - Memoirs of Eradut Khan, tranflated from the Perfian by Capt. J. Scott, 1786. Thie titluable fragment of Magul hittory, contains an aecount of the revolutions that happened in the Mogul empire, from the death of Aurungzebe, in 1707, to the acceffion of Ferokfere, in 1712. It contains mach curions matter; and fally develepes the political charafter of 2 .Mogul courtier.
    $\pm$ Thefe letters are preferved in one of the notes to the above work (page 8) and furnith this ftriking leffon to frail mortality; that, however men may forget themfelves, during the tide of peofferity, a day of recelizction will inevitably come, fooner or tater. Here wee are trefented with the dying confefion of an aged monarch, who made his way to the throne, by: the murder of this brethren, and the imprifonment of his father: and who, after bsing in pasceable poffeffion of it, perfecuted the molt inofenfive pairt of his tubjetts, either throutsh thy gotry, of hypocrify. Here we behold him in the act of religning that, to obtain' poffieflion of which, he incurred his guilt : and prefented to as, a mere finful mad, trembling on the verge of eternity; equaliy deploring the paft, and dreading the future. How awful mult his fitua. - ion appear to him, when he fays, "l"bereer I.took, Iffe wothing hut, the diviniry."

[^16]:    - He was ro4 years odd. He left ; fons; Gazi o'dien, Nafirjung, Salabidjung, Niza-

[^17]:    - The geographical pofition of the circars, and the origin of the application of the term northern, to them, will be found in the latter part of this Interoduction.

[^18]:     have feen before, in the capacity of Vizier to Mahomed Shah; but his fon. But this is the Gazi, who is fo famous, or rather infamous, for affaffinations and crimes of almoft every other kind. Theneldercaciuperithet in an attempt to recover the poffefion of the Deccan from his
    

[^19]:    'This is the perfon who vifited Mr. Haftings at Lucknow, in 1784 . He was about 13 years old at the time of Abdalla's latt sifit to Delhi.

[^20]:    - This information occurs not only in Ferifhta's hifory of Hindooftan, but in that of the Deccan, \&ec. likewiie. The former we have before fpoken of, as being trandated by Col. Dow: but the latter has never yet made its appearance in any Eurnpean language. It is expected, however, that the public will foon be in poffeffion of it, from the hands of Capt. Jonathian Scott, who has already exhibited a fpecimen of one part of his intended work ; and has engaged to complete it, on conditions, which the public, on their part, appear to have performed. Ferifhta lived in the Court of Ibrahim Audil Shah, King ot Vititpour ; who was cotemporary with Jehanguire in the beginning of the laft century Ferifata's hittory of the Deccan, \&ec. cpens to our view, the knowledge of an empire that has fcarcely been heard of, in Europe. Its limperors of the Bahmineah dynafty (which commenced with Haffan Caco, A. D. 1347) appear to have exceeded in power and fplendour, thofe of Delhi; even at the maft floarihing periods of their hifory. The feat of government was at Calberga (fee Orme'sHiftorical Fragments p. cxxxvi.) which was centrical to the great body of the empire; and is at this day a confiderable city. Like other overgrown empires, it fell to pieces with its own: weight: and out of it were formed four potent kingdoms, under the names of Vifiapour (properly Bejapour) Golconda, Berar, and Amednagur ; whote particular limits, and inferiot merabers, we are not well informed of. Each of thefe lisbfifted with a confiderable degree of power, until the Mogul conqueit; and the two firit, as we have feen above, preferved their independency until the time of Aurungzebe. It is worthy of remark; that the four Monarchs of thefe kingdoms, like the Ciclaus and Polemies, had each of them a name, or title, common to the dynafty to which he belonged; and which were derived from the refpective Eounders. Thus, the Kings of Vifiapour, were Ityled Audil (or Adil) Shah ; thofe of Gols conda, Cuttub Shah; and thofe of Berar and Amednagur, Nizam Shah, and Amad Shah.

[^21]:    - Nizam-nl-Deen, was an officer in the court of Acbar; and wrote a general hiftory of Hindoollar, which he brought down to the 40th year of that Emperor.
    $\dagger$ This alfo occurs in Ferifhta's hiftory of Hindooftan. It was in the reign of Alla I. A. D. 1312. See alfo page lii, of the Introfuction.

[^22]:    - The French obtained the grant of Pondicherry in 1674, from a Rajah of Gingee, who acknowledged the King of Narfinga as his fuperior; but this latter, was at the fame time, dependant on Vifrapour. Sevajee took poffeffion of Gingee, about the year 1677; and confirmed the above grant, in 1680.
    + I am ignorant of the period, when the Malratta Prince, whofe defcendants now hold T'anjore, came into the poffeffion of it.

[^23]:    - The city of Moorfhedabad is fitmacedion the wefternmoft branch of the Gaoges: which branch is navigable only during a part of the year. See Appendix, page 259s

[^24]:    - Some believe that a Rajak of Sevajee's line is fill fiving; thint up in the fortrefs of Sattarah. It is certain that the new Paifhwahs go thither, to receive the inveriture of sheir ofice: as ©tiey were accuftomed to do, in former times: whether fuch a Rajah be in exifténce, or ocherxitif; is of no importance to the ftate, as matuers are now contituted.

[^25]:    ' I am far from being well informed concerning the early hiftory of the Portuguefe in India: but by a paffage in Mr. Orme's Hiforical Fragments, page 175 , it would appear that they had not, in 883 , trained the patives to regular difcipline. He fays, "The Viceroy of "Goa took the field (againft Sambajee) with 1200 Enropeans, and 25,000 natives of bis owin "tarigary." From the confined limits of the Portuguefe territories, we may conclude that thefe were the ordinary inhabitaints only.

[^26]:    - Capt. Robfon's, and M. M. L. D. T.'s Lives of Hyder Atly, '\&c. \&c.

[^27]:    - It hat been faisd, that Nudjuff Cawn, who in latter times eregted for himfelf $\quad$ pripicipalíty in the Soabah of Agra, made a fifth party in this confederacy. Of this circumftance, 1 qumpq Sufficiently infornsed.

[^28]:    - That is, the Carnatic bying already the property of antother. No arte can doubt but thit it would be more for our advantage to have the largelt part of the Carnatic in our own hands, than
     But the Carnatic is-our weak fide, in more respeets than onc.
    . + The ptorince of Benares, in which a Rebetlion happent in 1781 , is 'iiftinct from the Bengat pravinces. It was ceded to the Britich, as has heet obferved above, in 1.7 .5 .1

[^29]:    - It is with pleafure I inform the reader, that an Engliph tranilation of the whole Ayin Acbarer has been made, and publifhed in Bengal, by Mr. Gladwin; and was begun under the patronage of Mr. Haftings; to whofe munificence, and attention to ufefut literature, the world will be indebted for the means of accefs to a moft valuable repofitory of intelligence refpecting the former fate of Hindooftan.

    An account of the contents of the Ayin Acbarce, will be found at the end of Mrr. Frafer's Mifory of Nadir Shah. -Catalogue of Oricutal MSS. page 12.
    ' It is probable that Acbar might have changed the boundaries of fome of the old foubahss by adding or taking away certain circars, by way of rendering each province more compact, and the provincial capital more centrical to the feveral parts of it.

[^30]:    - Few circars are of lefs extent than the larget Englift connties.
    + Culled alfa Htahabad.
    $\ddagger$ Guzerat is by fome of the Hiodoos confidered as lying withoat the-limits offitieddondend Vide Berar Rajah's letters.
    
     eld namef.

[^31]:    *The capital of this foubah being originally eftablihed at the city of Amedaagur, it give name to the whole province, but the name of the fortrefs of Dowlatabad has in curn fuperfeded it. In like manner the name of Tellingana has now given way to that of Golconda.

    + Called Arinkill by Ferifhta. The rampart of this place can fill be traced, and Ohews that it muit have been:a place of vate extent.

[^32]:    - Id not mean to infincate that the country in queftion firf obtained its name of Decd
     earlieft times. It fignifiés the South; as Poorub does the East; when applied to Bengál
    
     zete, as sfitows:
    

    Toras- 30 crores, 18 lacks of ficca rupees, or about 32 millions of pounds fterifing.

    - Bengal is rated in the Ayin Acbaree (towards the clofe of the 16 h century) at $149 \frac{1}{2}$ lacks; in Sujah Cawn's Nabobfip, A.D. 1727, at $142 \frac{1}{2}$; and in 1778 , at 197 lacks, net geverme.

[^33]:    - This circumftance was afcertained by the late Colonel Camac.
    + The following is an account of (nearly) the quantity of land contained in the countries fubject to the Britih Government, and to the Britifh Allies in Hindoofan.

    British Possessions.
    

    British Allies.
    : niti : Opde, Allahabad and Corah - 33,770
    Robilcund, and Fyzoolah Cawn's - 11,036 Doo-Ab

    Carnatic in general - . $h_{1,65}$
    Tanjore - . . . 4,350
    bitants.

[^34]:    It appears that the aggregate fum of the territorial revenue of the Eaf Iadia Company, together with the cuitoms, falt, \&c. is equal to $4,6+0,0001$. per annum. The fubfidies from the Nabobs of Oude, and the Carnatic; and the Rajah of Tanjore; are, of courfie, notincluded in this fum. The Company's military eftablithment in India, in time of peace, is about 10,000 Europeans, and 52,000 regular fepoy infantry. It appeare alfo, that the fum total of the fales of Eaft India and China merchandite, imported into this kingdom in one year, has amounted to five millions and a quarter ferling. Confidoring the magnitude of the fums, in the above ftatement, one is led to fuppofe that fuch an imperiwm in ixplerio, as the Baglinh Eaft India Company; never before exilted: or, at leaft, never was created, without gauch greater affiftance from the collective ftrength and refources of the fate, in which it was comprifed, than this Company has ever received.

    - It may appear paradoxical to fome perfons, but I am really of opinion that it is pofible to have 100 great a proportion of European troops, to froys, in our Iedian fettlements.

[^35]:    - Dooab or Doabah fignicies a trate of lend formed by the approximation and junction of two rivers: that formed le Ganges and Jumna rivera is called by way of eminence The Dooab.

[^36]:    - The reader may with eafe reduce any furm in rapees, to fterling, by cakculating roundly, at the rate of a lack of rupees to ten choufand pounds.

[^37]:    

[^38]:    - The celebrated Sir William Jones very ingeniounly remarks, that or it is ufual with the ciAffatics to give the fame names to the courtries which lie on both fides of any confiderable "f river.". Thus the province of 'Sindy is divided by the Indus; Bergal by the Ganges; and Pegt by the lrabatty. Egypt, in like manner, is divided by the Nile. Probably, the facility of accefs to either fide, by meamo of a navigable river and an occafionzl inuindation, fubjected each of the divifions, formed by the courfe of the river, to the conitant depredations of its oppefiteineighbour ; till neceffity produced a compromife, which ended in joining them in one community.

[^39]:    - Jagbire, means a grant of land from a Sovereign to a fubject, revakable at pleafure; buf. generally, or almoft always, for a life rent.
    + The exact geographical pofition of this important fortrefs and city, is not afeertained ; but. it is with great reafon fuppofed to be the fame with Mirje or Mirdji, of Mandeloe's route, drawn by P. du Val : which is fituated near the north bank of the Kiftua river, about 70 road miles $S W$ from Vifiapour; and 130 from Poonah. It is alfo, moft unqueltionably, the fame place with Merrick; a place of confequence, in Aurungzebe's wars with Sambajee. In the Select Committee's reports, it is named indifferently, Merrick and Meritz. It may be col-: lected from thofe reports,' and from Mr. Orme's hiftorical fragments, that this place is fituated on the north bank of the Kiltnah; on the NW of Sanore-Bancapour, and on the SW of. Vifiapour; and its difance from the former, ought to be very confiderable; for part of the Circars of Nourgal, Azimabad, and Raibaug, intervens between thofe of Bancapour and. Meritz. And this is the cafe with Mirjé on the map, which is about 108 G . miles from Bancapour. There is alfo a fortrefs of great note in Aurengzebe's, and in Hyder Ally's wats, named Darwar, or Danwar. This appears to be comprehended in the Circar of Bancapour, and about 30 colles on the S E of Meritz. I have not ventured to place Darwar in the map : but both the pofition of it, and of Hubely, make it appear ftill more probable that Mirje is the fame with Meritz, Meritch, or Merrick.

[^40]:    - If is probable that this irregular divifion, arofe from fome accidental circumfances at the time when the congueft was made; and which cannot now be traced : but as it has the appearance of an expedient, calculated to check and reffrain the power of the different Jagiiredars, it is generally fuppofed to be the effect of policy and defign.

[^41]:    - Gaut, or Gheut, fignifies either a pafs through mourtains, or a landing-place on the bank of a river. In the former fenfe, the term has been applied to the Carnatic, which is divided by ridges of mountains, abounding with paffes and defiles.

[^42]:    *Thefe territories have formerly yielded 3 or 4 crores per annum: but they are now in a ftate of defolation, which it is impoffible to form any idea of, without having actually beheld them. A. [This note is by a gentleman, who has been on the fpor.] See alfor page lxxvidi. + Oriff, is nominally one of the Britilh provinces, but we have obierved in another place, that'only a very fmall part of it, is fubject to the Bengal government.

[^43]:    - The whole revenue of the forbath of Agimere, in the time of Acbar, appears to have: been only about 75 lacks. Aurungzebe is faid to have doubled the land-tax on the R.jpcots : and Agimere is accordingly ftated in Mr. Frafer's accoumt, at 163 lacks of rupees.

[^44]:    - Thefe circars, or provinces, were origimally idenomisated from their porsion in refpeat to Madras, on which they depend: and the term nortbern circars has at length been adopted by the Engliih in general.

[^45]:    - He began his reign in Ghizni, A. D. 977.
    $\dagger$ Tamerlane's Invafion happened in this reign;
    $\ddagger$ And Nadir Shah's in this reign.

[^46]:    - This is M. D'Anville's idea, p. 4 jand 46 of his Confidérations Géographiques.

[^47]:    - Thofe who wifh for a general rule for changing borizontal diftance into road diftance, in their common references to maps; may break the line of difance, (if very long) into portions of not more than 100 or 150 miles; and then add to the whole fum of the dirtances, fo obrained, owe eighth part. Thefe portions mould be contrived, fo as feverally to include the spaces, betweew the points, that diverge moft from the general line of direction of the whole road. By this means, the errors arifing from the compound wiading, will be avoided.
    t Eclairciffemens, p. 14.

[^48]:    - All the latitudes mentioned in this work; being north of the Equator, and all the longitudes eaft of the meridian of Greenwich, I fhall in future mention only the terms latitude and longitude, leaving the fecies of each, to be anderitood,
    $t$ I have made ufe of Geographic miles, or thofe of 60 to a degree, in the account of the conftruction of the map; and of Britim ftatute miles in giving the comparative extent of coun $\boldsymbol{a}$ tries. They are diftinguiged by G., miles, and B, miles.

[^49]:    - I have allowed Point Pennar to be 16 G . mites to the cafl of Nellore : moft of the M\&. maps make is lefa.
    $\left.\begin{array}{lllll}\text { Con. de Temps } & - & - & 79^{\circ} & 57^{\circ} \\ \text { Gentil } & - & 79 & 53 \\ \text { Topping } & - & - & - & 79 \\ 57\end{array}\right\}$ Medium $79^{\circ} 55^{\circ} 40^{\circ \circ}$
    tonovas

[^50]:    - A map, drawn by Baron Wérebe (of the Hanoverian corps) accords in this particular, and indeed, in every other material one, with that of Col. Kelly: but I have no knowledge how Baron W. procured his materials.

[^51]:    - The bearing between Cotate and Poolytopu, is inferred from fome MS. maps of no great authority, to be about $S W{ }_{i} W_{\text {a }}$. The whole diftance being only 8 G . miles, the difference of longitude would be but little affected, by any error that might reafonably be expected in the bearing.

[^52]:    - One of there bearings was NW $!\mathrm{W}$. at $\frac{3}{}$ of a mile off fhore: the other, faid to be $2^{\prime}$ off Ghore, was N W by W. By reference to a plan of the road, it appears that the fatter fation could have been only $1 \frac{1}{4}$ off thore, as the depth of water, was no more than $5 ?$ fathoms. We may obferve that Mount Dilla fhould have bore more wefterly from the oblerver that was nearcht the flore, than the one fartheft off: but there is feldom mnch nicety obferved in taking bearings on thipboard, although fo much depends on it. By calculation, the difference of the angle between an obferver at $7^{\prime}$ off finre, and another at Mahé, would have been $3^{\circ} 15^{\prime}$; and that at $1^{\frac{1}{4}}$ off more, $3^{\circ} 3^{\circ}$. So that Mount Dilla would bear from Mahe by the firft compafs W. $36^{\circ} \mathrm{N}$. ; and by the fecond, $\mathrm{W} 30^{\circ} 30^{\prime} \mathrm{N}$. : the mediunn of which, is $\mathrm{W} 33^{\circ} \cdot 15^{\circ} \mathrm{N}$.

[^53]:    - It thould be a rule obferved in all plans, to note how the feale was obtained; whether by actual $m$ afurement ; difference of latitude ; or ctimation of diftances: to which may be added; that the meridian line or parallel thould be drawn acrofs the whole Tpace in the plan, to prevent errors in meafuring the angles of bearing.

[^54]:    - At Elora near Dowlatabad, more than ara miles to the ealt of Salfette, are other temples of the Gume kind. For an account of thefe, fee 'Thevenot: and for the former, Anque.il du Perron.

[^55]:    - The Joagitade of this Cape was reckoned by M. Dr Anville only $93^{\circ} 16^{\circ \prime}$ : 50 tiat the New Map increafes the diftance between the mouth of the Sinde (pr Indus) and Cape Negrais, 2 degrees and 7 minutes of longitude. ${ }^{-}$

[^56]:    - Deduced from Bombay, which is reckoned in $72^{\circ} 40^{\circ}$.
    + Capt. Weft reckoned from Sadras, which I place in $80^{\circ} 24^{\circ}$. He reckoned it $80^{\circ} 19^{\prime}$; and of courfe, Point de Galle in $80^{\circ} 2 z^{\prime}$.

[^57]:    - The different readings are Caryfobora, and Cyrifberca.

[^58]:    －The olympic ftade can hardly be taken at a furlong，but probably at 200. yards，；Then the dimenfions will be about 9 B．miles in length，and $1 \frac{3}{4}$ in width．

    + The empire of the Prafii feems to have included mon of the trait through which the
    

[^59]:    - Blackwall.
    $\dagger$ Taxila or Tapila, and: the Indus, are mentioned as one and the fame place by Pliny: Ad flumen Indermet oppiduran Fiaxila. Book VI.
    i Here we may remark, by the way, that ifiany capital ciry had ftood at the confurx of thefe rivers, it is likely that Pliny would have taken notice of it.

[^60]:    - M. D'Anville is of opinion that Pliny turned the Greck flades into miles, at the rate of 8 to a mile; and thus accounts for their mortnefs. M. D'Anville, who has gone deeply into the fubject, thinks that it requires 1050 itinerary ftades (of horizontal meafure, I apprehend) $\$ 0$ make a degree of a great circle. See his Eclairciffemens, page 5 ;

[^61]:    - Philofophical Tranfadions, Yol. lxxi, page 99.

[^62]:    - See page 52 where 1050 to 2 degree is the proportion fxxed on by M. D'Anville. + Latitude $27^{\circ} 3^{\prime}$, Longitude $80^{\circ} 19^{\circ}$.
    $\ddagger$ Before Chrift 326 years.

[^63]:    - Latitude $2 \ddagger^{\circ} 53^{\circ}$, longitude $88^{\circ} 14^{\circ}$. $\quad$ Dow ift. 6. $\ddagger$ A. D. 1575.
    $\$$ This is Ferifha's account ; but fonte of its prefent inhabitants told me that it was deferted in confequence of a peftilence.

[^64]:    - See Introduction.

[^65]:    - As it may gratify the cariofity of fome of my readers, I have here inferted the dimenfions and weight of this gun. I took the meafures very carefully throughouts: and calculated each part feparately. It was made of hammered iron; it being an immenfe tube formed of 14 bars, with rings of 2 or 3 inches wide driven over them, and hammered down intolaifinooth furface; fo that its appearance was equal to that of the beft executed piece of brafs ordnance, although its proportions were faulty.

[^66]:    - Latitude $27^{\circ} 15^{\prime}$, longitude $78^{\circ} 29^{\prime}$ by Claud Bcudier : $78^{\circ} 28^{\prime}$ in the map.

[^67]:    - Ferifhta. The Ayin Acbaree fays that the ancient name of Delhi, was Inderput.

[^68]:     $s$ tureen the 5 caftern:brainglef of the Indus.
    $\dagger$ This itinerary was obligingly communicated by the late Mr. George Perry, "and applets -to have been kept by 2 -milionary who traedibed from Delhi to Perfiay by way of the Prgifb and Sindy. It mould be observed, that an the latitudes in it are too far fourth. The latitude of Agra. is ret down at $26^{\circ} 45^{\prime}$, though its true latitude is $27^{\circ} 15^{\prime}$. And Moultan in $29^{\circ} 3 \mathbf{z}^{\prime}$, sat Tanta in $24^{\circ} 20^{\prime}$; which places are conmennly taken at $29^{\circ} 52^{\prime}$, and $24^{\circ} 40^{\prime}$. $x$ The map in question. war craven by Lien Bind, d the Bengal Lahore establutiments at well ar that of the road, wi he Dooab mentioned mp 66 B.

[^69]:    $\therefore \quad \therefore \quad$ See an explination of the term Dooab, in the Introdution.

[^70]:    - It is probable that the fevere indifpofition to which Col. Muir was conftantly fubject, from the moment of his arrival, to the time of his death, left him no leifure to recollect that fuch materials were in his poffefion. This excellent officer, and moft worthy character, died in 1786.

[^71]:    - Ptolemy's latitude of Taxila, which I fuppofe to be nearly on the fite of Attock, is $32^{\circ} 20^{\circ}$.

[^72]:    - The name Sinde was not unknown to the Romans: Indus incolis Sindus appellatus,. Pliny, Book VI.
    $t$ The ancients reckoned ocherwife: the fame Pliny contioues to fays: in jugo Caucafi montis, quod vocatur Paropamifus, adversus Solis ortum effusus.
    $\ddagger$ Superftition gave birth to this law, among the Hindoos : a precept nearly allied to that which forbids their eating any food dreffed on ioard a boat or veniel. Ferifhta calls the river on which Attock is built, Nilab; anglici, the blue river. There is fo much confufion in the Indian hiftories, refpetting the names of the branches of the Indus, that I cannot refer the name Nilab to any particular river, unlefs it be another name for the Indus or Sinde.

[^73]:    - Pliny reckone the length of the Patale, or Pelta of the Indus, at 220 Roman miles; in which the wes very near the truth, it being aboui $z_{10}$.

[^74]:    - The Ayin Acbaree does not give the ancient name of the Jenaub, Ptolemy names it Sandabalis.
    $t$ Said by the Ayin Acbaree to be anciently named Iyrawutty (Mr. Gladwin's tranflation). Mr. Bodyhton Roufe tranflates it from his copy of the Ayin Acbaree, Iravati.

[^75]:    - Sherefeddin.

[^76]:     mountain near the Indus, a very little below, and on the Qppofite fide to Atrock, ie marked
     Gelali croffed the Indus, io his flight from Gengis Cawn in 1221. When Tinptr had geoffod to the eaff fide of the Attock, or Indus, he was faid to be arrived in the Defert of Gelati: therefore I have no doubt but that they both croffed nearly at the fame place. Gengis Cawn temained on the weft fide of the rever.
    $\dagger$ Written by M. de la Croixa

[^77]:    - Oetaber 11, 1398. The chronology of this event is differently flated: I have followed M. de la Croix's tranflation. $t$ The term Doab or Doabah has been explained before. See the Index.

[^78]:    - Two days marches are mentioned, one day 14 or 15 coffes; another 18 coffer. In is not eafy to collect the diftance from Sherefeddin's account of Timur's marches : bat we find he was eight days on the march.
    $\dagger$ Sherefeddin.

[^79]:    WQintus Curtius:
     body of torte with tim (and indeed the extraordinary length of one of his marches seems to prove it). Did he reduce the place tuthoit warilifery i
    $\ddagger$ At the time of Timur's conquelt ( 1398 ) the Britifh nation had fcarely been announced 20 the people of Hindooftan; nor was it till 209 years afterwards, that they found their way thichori. Who could have believed that the Britifh conquefts would meet thole of Tamerlane, in a p pint equidiftant from the moth's of the Ganges and Indus, in 1774?
    § The Gickers of Dow.
     mi s corentin faroe for postures \& fine horses. B. Ios the id for the zest have The notes meshed B. San indebted to Major former Browne of the Aonjal establikment.

[^80]:    - By Mr. Forfter's jonrnal.

[^81]:    - Sir William Jones's Nadir Shah.

[^82]:    - Turmequirin Cawn, a defoendarit of Gengif, or Bingir Cawn, made an irruptipnjine Hindooftan about the year 1240 ; but the particulars of his route are wanting. Sherefeddin hehtions, in one plaee'; that he crofed the Jenaub at Toulomba; and in another, that he!befreised the city of Merat in the Dooab But Ferifhta confines the exploits of this defcendant of Zingis "(for' his mamte is not mentioned) to the Panjab country.
    $\pm$ About 327 years before Chrift, according to Uher: and in the month of May.
    $\ddagger$ See the notes, page 51. Taxila mult neceffarily have been very near the Indus; to allow of its being 120 miles from the Hydafpes (or Chelump). See Fliny's Indiaa itinerary, Book VI.

[^83]:    - Although Diodorus and Curtius do not give the name Sangala, yet the city stetent by 'Azrien, wios that. names, is pointedily dercribed by them.

[^84]:    - Imäus, incolarum lingua nivofum fignificante. Pliny Book VI,

[^85]:    1 The Ayin Acbarce reckops 27 caffes, or $51:$ B. miless, betwiten the two carlitiences of the Hydarpes and Hydraotes with the Acefines; but this account includes the windings of the channel,

    + One of thefe was a town of Brachmans or Bramins. Some of them burnt themfelves, together with their houres; and few came alive into the enemies hands. This mode of conduct. has been practifed in our own times. See Orme's Indoftan, Vol. II. p. 255.
    $\ddagger$ Itinerary 1 GGz.

[^86]:    *. A comparifon of the modern names with the ancient, in many parts of Afia, leads.me to conclude, that had they been faithfully written by the Greeks, meh lees difference would be found between them, than we now experience: and Ian inclined to think that the names of therivers, in particular, are fcarcely changed fence the time of the Greeks. Vanity has no flare in new naming of rivers.

[^87]:    - Alexander had 120,000 mens and 200 elephants. Arrian.

[^88]:    - See the Introduction. + ibid.
    $\ddagger$ The Etefian winds blew from the NE in the Mediterranean, in the months of July and Augeft; and the ancients thought proper to apply the fame term to the periocical winds of the fame feafon in the Indian feas, although they blew from the oppofite quarter.
    § The firft of October O.S. according to UTher.
    If Pliny gives it 220 miles, fo that he reckoned nearly 8 fadeot to one of his miles.

[^89]:    - In Ptolemy.

[^90]:    - This work is very fcarce, and might be reprinted, with Emolument to the priblifher. $t$ The names of places in the map, at page 102, are given according tonancient, as wall:as moderi acceptation of them. The ancient names have a daff under them.

[^91]:    - Ayin Acbaree Vol. II. p. 195.

    む. Reckoning 10 Atades to ap pile.

[^92]:    - See the Index, article Gwallor.

[^93]:    - The whole number, fummed up, is 276 ; but there is an omiffion of the diftance of a flage between Nafirabad and Shawroot ; and this I have allowed 4 farfangs for.

[^94]:    - That long diftances may be accurately meafured by a perambulator, I need only manticn that during the Bengal furvey, I meaturcd a meridian line of 3 dezrees, with a perambulator, and found it to agrec minutely with the oblervations of latitude. Hovever, due allowange whs mide fer the irregularities of the ground, whenever they occured. The country indeed, was. flat the whole way.
    t A fepoy officer fent by Col. Camac, in 1774, to explore the roads and country of the Deccan, and to gain intelligence concerning the Mahratta powers.

[^95]:    - M. D'Anville reckons the fame difference of latitude between the two places, but he has placed both of them too far north by 24 minutes; following I apprehend, the latitude of Burbanpour, given in the Ayin Acbarce.

[^96]:    - General Smith's proportion of coffes to a degree, is $51^{\frac{1}{2}}$; Col. Upton's, $52^{\frac{1}{4}}$; and the map by the native 55 .

[^97]:    - The termination, conda, or hond, fignifies fortrefs, and often occurs in the fouth. part of India; as cotta, and cote, which have the fame fignification, do in the north. Gur is ured in the fame fenfe occafionally in every part.

[^98]:    - In juatice to General Goddard's memory, I think it incumbent on me to obferve that the athor of the Fiftory of Hyder Ally (publifhed in 1784) though feemingly inclined to compliment him, has depreciated the merits of the undertaking, by over-ratingthe numbers and quality of General Goddard's troops. M. D. L. T. flates the fitrength of the army at 8000 ; of which, fays he, 1200 were Europeans. The truth is, that the detachment connfifted of 103 European commiffioned officers, and $662+$ native troops of all deneminations; and without a lingle corps of Europeans. In the return from whence this was copied, the fervants and followers of this little army, amount to no lefis number, than 19,779: befides the bazar or market people, not included in the return: and thefe are eftimated at 12,000 more : in all, more than 4 followers to each fighting man.
    + This muit not be confounded with a city of the fame name, which food near the fite of Dowlatábad.

[^99]:    - The number of ertimated coffes between Burwah and Nagpour, was 196, and from thence to Aurungabad, $163 \frac{1}{2}$; total $359 \frac{1}{2}$. And the diffance on the map is $517 \frac{1}{2}$ G. miles; or at the rate of $41, \bar{y}$ coffes to a degrec : agreeing with the fcale of coffes, within threc-tenths of a cofs, in a degree.

[^100]:    * The ©hip or veffel is built with her keel parallel to the fhore; and, as it may happen, from 200 to 300 feet from low water mark. When compleated, fhe is placed on tivo itrong' pieces of timber, called dogs (in the nature of a fledge of enormous dimenfions) and on thefe, a fort of moveable cradle is conftructed, to keep the veffel upright. 'Two long Palmyra trees,' as levers of the fecond kind, are then applied to the ends of the dogs, and by means of thefe powers, they, together with the veffel that refts on them, are gradually pufhed forwards over a platform of logs, until they arrive at the loweft pitch of low water; or as far beyond it, as the.levers can be ufed. Tackles are applied to the ends of the levers, to increafe the power : the fulcrums, are wreaths of rope, faftened to the logs on which the veffel תides: and are removed forwards as the advances. Two cables from the land fide, are faftened to the veffel, to prevent her from fiding too rapidty; and thefe are gradually let out, as the advances.

    It is commonly the work of two days to tranfport the veffel to the margin of lav water. If the tide does not rife high enough to float her from thence (which it feldom does if the veffel be of any confiderable burthent part of the cradle is taken away, and the fbip lefts chiefly to the fupport of the cables till high water, when they are fuddenly let go, and the veffel falls on her fide: and with the fall, difengages herfelf from the remains of the cradle, and at the fame time, plunges into deeper water. A thip of 500 tons has been launched in this manner.

[^101]:    - His bearing is corrected by the compafs of Col. Pearfe's map, from whick it differed $2^{\circ} \frac{1}{5} 5^{\circ}$.

[^102]:    A. 2
    con--

[^103]:    - The reader will find in my friend Mr. Mat(den's very exceltent hifory of Sumatra, an account of the SURF: a phenomenon which I do not recollect ever to have feen difcuffed in a philofophical manner, in any formet treatife. The account will be found in page 28; to 33. . + The term Jaghire means generally, a grant of land from a fovereign to a fubject, revokaple at pleafure; but generally for a life rent. The Jaghire in queftion, is, I believe, andettood to be held in perpetuity. It contains 24.40 fquare miles, and its revenue is reckoned at about 150,000 . per annum.

[^104]:    * Other accounts are as follow : a large map, which I confider as the firt that was conftructed from the materials, collected during the war of $1767-\delta$; and which may be fyled the parent of moft of the others, that appear on different (cales; gives 99,3 G. miles, weft from Kifnagheri ; and $2^{\prime}$ north of its parallel. This would place Scringapatam 6' weft of its pofition, in the new map. Montrefor's map, gives 66 G . miles from Bangaiore, and Mr. Sulivan's, $58 \frac{1}{2}$. The firt goes $9 \frac{1}{2}$ beyond it ; the other only 2.

[^105]:    - The name Barra-mahal, or Barra-maul, anglice the twelve places, was given it becaufe it contained 12 fortreffes of fome note, (viz.) Kittnagheri, Gegadivy, Candely, Congoonda, Vaniambady, Mahrauzegur, Cockingur, Cooturagur, Bazingur, Tripatore, Tadcull, and Sigangurry.

[^106]:    - Meaning thofe on the fouth of the Cauvery river. And the countries betwoen the Cauvery and Guntoor, are here named Tbc Carnatic, in a particular fense : and this is again fubdivided into N and S as the parts refpect Madras.

[^107]:    - As it may affir fome other perfon, who may undertake to correat this geography, I have inferted the following particulars, collected from different authorities: Mr. Sulivan's map places Attore, $S^{4} 40^{\circ} 30^{\prime} \mathrm{W}, 31^{1} \mathrm{G}$. miles from Darempoury; and $\mathrm{E} 10^{\circ} 20^{\circ} \mathrm{N}, 29^{\frac{1}{2}}$ from Salem. D'Anville's map of pofitions, $\mathrm{N} 37^{\circ} 40^{\circ} \mathrm{W}, 24^{\frac{1}{2}}$ from Volconda. And Montrefor, $E_{4} 3^{\circ} 50^{\prime} \mathrm{S}, 18$ from Darempoury.

[^108]:    - If we are to judge of the degree of turpitude of a crime, by the mode of punithing it, rivalhip in commerce fhould be one of the noit heinous crimes in nature: for nothing lefs than the moit fagitious, and univerfal criminality, can authorize the cellrucition of the habitations, and the confequent difperfion of the inh:bitants, of a great city. 'I ne fate of Rome might be involved in the exiftence of Carthage: but the queftion inere, was only which of the two partic's fhould puch.ife cailicoes at the cheapet rate, or fell theal at the deareft.

[^109]:    - Or Pen-aur. I believe the term aur, for river, which prevails generally throughout the Carnatic, is not found any farther to the north than Nellore.

[^110]:    - I fuppofe the termination badra in the name of this river, means the fame as the budda or. buddar in Merbudda, and Soanbudda; in the north part of the Deccan, and in Hindooftan. If the fuppofition be true, that the names of large rivers undergo little alteration, the language to which Gonga or Gang belonged, muft have had a wide range : fince we find it applied both in Ceylon, and at the foot of mount Himmaleh.

[^111]:    - Lama fignifies a Prieft, or Minifter of Religion; and Lamifla is the feminine of Lama.

[^112]:    - Sanpos, in the language of Thibet, meape $T^{\prime}$ be River.
    +1 take it for granted that he means Itaiian feet.

[^113]:    - The proper name of this river in the language of Hindooftan (or Indoftan) is Pudda or Padda. It is alfo named Burra Gonga, or the Great River; and Gonga, the River, by way of eminence; and from this, doubtlefs, the European names of the river are derived.
    $\dagger$ The orthography of this word, as given here, is according to the common pronunciation in Bengal ; but it is faid to be written in the Shanfcrit language, Brabma-pootar ; which figuifies the Son of Brabma.
    $\ddagger$ The embarkations made ufe of, vary in bulk from 180 tons down to the fize of a wherry. Thafe from 30 to 50 tons are reckoned the moft eligible for tranfporting merchandize.

[^114]:    * There are among the higheft of the mountains of the oid hemifphere. I was not able to dretrmine their height; but it may in fome meafure be gueffed, by the circumitance of ther rifing contiderably above the horizon, when viewed from the plains of Bengal, at the cifance of 150 miles.
    $\dagger$ The fatulous aceount of the origin of the Ganges (as communicated by my learned and ingenious friend C. W. Boughton Rouse, Efq.) is, that it flows out of the foot of Blischan (the fame with Vifnou, the Preserving Deity) from whence, fay the Bramins, it has ifs name Padda; that word fignifying foot in the Shanfcrit language : and that in in is courfe to the plains of Hindooftan, it paffes through an immenfe rock haped like a Cow'so head.

    The allegory is highly expreffive of the veneration which the Hindoos have for this famous fream ; and no lefs fo of their gratitude to the Author of Nature for beftowing it : for it defcribes the blefling as flowing purely from his bounty and goodnefs.

    The rock before mentioned has, I believe, never been vifited by any European; and is even allowed by moit of the natives to bear no refemblance to the object from whence it is denominated. However, as the effects of fuperfition do often long furvive the illufions that gave it birth, the rock or cavern fill preferves its original name. (This note was written before it was known that $M$. Tieffentaller had vifited it).

[^115]:    - The proportional lengths of courfe of fome of the moft noted rivers in the world are fhewn nearly by the following numbers ;
    

    The

[^116]:    - This will be' explainect when the"windings of the river are treated of.

[^117]:    - The Hoogly river, or wefternmoft branch of the Ganges, has a much deeper outbet to the fea than the principal branch. Probably this may be owing to its precipitating a lefs quantity of mud than the other; the quantity of the Ganges water difcharged here being lefs than in the other in the proportion of one to fix. From the difficulties that occur in navigating the entrance of the Hoogly river, many are led to fuppofe, that the channels are: thallow. The difficulties, however, arife from bringing the fhips acrofs fome of the fandbanks, which project fo far into the fea, that the channels between them cannot eafily be traced from without.

[^118]:    - M. De Condamine found the defcent of the river Amazons, in a frraight courfe of about 1860 miles, to be about 1020 Englifh feet, or $6 \frac{1}{3}$ inches in a mile. If we allow for the windings (which in the Ganges are about one mile and $\frac{1}{9}$ in 3 , taking its whole courfe shrough the plains) it probably would not exceed 4 inches in a mile.

[^119]:    - Hence it is, that the fection of a river, that winds through a loofe foil, approaches nearly. to an obtafe angled-triangle, one of whofe fides is exceedingly hort and difproportioned to the other two But when a river perfeveres in a ftraight courfe, the tection becomes nearly the half of an ellipfis divided longitudinally $\square$. See Plate I.
    t In the dry feafon fome of thefe banks, are more than 30 feet high, and often fall down in: pieces of many tons weight, and occaition fo fudden and violent an agitation of the water, as, founctimes to fink large boats that happen to be near the fhore.

[^120]:    - It is more than probable, that the fraight parts owe their exiftence to the tenacity of the soil of which their banks are compofed. Whatever the caufe may be, the effeet very clearly points out fuch fituations as the propereft for placing towns in.

[^121]:    - The Count De Burfon advifes the digging of foch gulfs in the banks of ordinary rivers, with a view to divert the current, when bridges or other buildings are endangered by it.
    $t$ The courfes of thefe branches at the efflux, generally, if not always, become retrograde to the courfe of the river; for, a fand bank accumulating at the upper point of feparation, gives an oblique direction upivards, to the fream, which would otherwile run out at right angles. This fand bank being always on the increafe, occafions a corrofion of the appofite bank; and by this means all, or moft of the outlets, have a progreffive motion downwards; as I have before remarked of the Jellinghy river, in the foregoing page.

[^122]:    - It has been remarked, that the courfes of rivers become more winding as they approach the fea. This, I believe, will only hold good in fuch as take the latter part of their courfe through a fandy foil. In the Ganges, and other rivers fubject to confiderable watiationis in the bulk of their freams, the beft marks of the vicinity of the fea, arep, the downefeof the tiver banks, and the increnfing muddinefs of the fhallows in its bed.

[^123]:    - The Mootyjyl take is one of the wisdings of a former channel of the Coffimbuzar river.
    + Mogna and Burnowpower are names belonging to the fame river in different parts of its courfe. The Megna falls into the Burrampooter; and, though a much fmaller river, comanunicates in mame to the other daring the reft of its courfe.

[^124]:    - This evidently points out the means for preventing encroachments on a river bank in the staight pata ofits counfe, wix. to remove the fhaflows that accumulate in the middle of its channel.
    t A glafs of water taken out of the Ganges, when at its height, yields about one part in four of mud. . No mondiar them that the finbriding waters. fhould quickly form a fratum of earth; or that the delta. fhould encroach upon the fea!

[^125]:    All the rivers that are fituated within the linits of the monionns, or fhiffing trade winds, are fubject to oyerfowings at annually ftated periods, like the Ganges: and theie periods retorn during the feafon of the wind that brings vapours from the fea (which in Bengal, \&cc. is the foutherly one) and this being periodical, the falls of rain mult neceffarily be fo too.
    The northerly wind, which blows only over the land, is dry; for no rain (except cafual thowers) falls during the continuance of that pupproob.

    - This property of the bank is well accounted for by Count Bubron, who imputes it to the precipitation of mad made by the waters: of the river, when it overfows. The iaundation, fays he, purifics iffelf as it flows over the pluin; fo that the precipitation maft be greateft on ype parts neareft to the margin of the fiver.

[^126]:    - The rice I fpeak of is of a partioular kind; for the growth of its ftalk keeps pace with the increafe of the flood at ordinary times, but is deftroyed by a too fudden rife of the water. The harveft is often reaped in boats. There is alfo a kind of grafs which overtops the flood in the fame manner, and at a fmall diftance tas the appearance of a field of che richet verdurze:: + About iffy miles from the fea.

[^127]:     in genieral it happens with as much regularity as the viciffitudes of the feafons do. © But theren?
     time.

[^128]:    - The tides in the river Amazons are perceptible at 600 miles above its mouth; but at an elevation of only 90 feet, according to M . $\mathrm{De}^{-} \mathrm{Contamini}$. It remains to be totd what the Itate of the river was at the time of making the experiment; becaule the land-floods have the effect of hortening the limits of the tide's way.
    $\therefore$. The Count De Bupfon has lightly mentioned this circumfance attending the fwelling of rivers; but imputes it to the increaled velocity of the current, as the river approaches the fea: which, fays hes. carries off the inundation foqpisk, as to abate its height.. Mov a with the utmof deference to fo great an authority) I couid never perceive, that the current, eithet in the Ganges, or 'any other river, was itronger nearithe tea than + at a difthace from ity Even if twe admjt an acceleration of the currept during the ebb-tide, the flux retards it in fo confiderable'a degree; 'at at lealt to cqunter-balunce' the 'effects produced by the termotary increafe of xefocity.

[^129]:    * My information comes from a perfon who had refided at Aya. See the Memoir, page 216, and-alionthe Modetn Univethal Hiitory, vod 6, page zo5. The courfes of the Buriampooter and Ganges, as well as that of the Ara river from Yunan to the fea, are defcribed in the map of Hirn nootran.

[^130]:    
    

[^131]:    * See page 207, and the fecond note in the fame page.

[^132]:    - A part of this Creck forms the place known of late by the name of Nsw-Har squr.

[^133]:    - Mr. Wilkins makes the proper name of this river to be Seendlow. Heempades. page 333 a
    + It is ingpoffible to fix, the exand fiee of Protala; :2s there are properly two deitas, a fuperici and an inferior one ; exclufive of the many.ifaeds.ffirned by, the lndus when it approaches the fea. Tatta is near the head of the inferior delta; and the ancient. accounts mention only one great delta, having Pattala at the upper angle of it. In Ptolemy's map (Afix Tab. XX) Pat. tala is placed very far below the place, where the Indus firt begiss to Separate into branches.

[^134]:    - Thefe are the particnlars : Brom Ritchel to Shahbinder, iabout 40 miles by the conefi of the river, the bearing, much eaftwardly. Thence to Aurungabunder, 25 mora (but by land, only 10 or 12) the courfe formewhat mbre nortiwardly. . Thence to Tata, 60 miles, NME, or NEbN. The windings of the river are fuppofed to reduce the diftance, on a ftraight fine, to 63 G. miles. The latitude of Tatta, is fuppofed to $\mathrm{bc}_{\mathrm{i}}$ fompthing more then , axt unti the cbnitruction, according to thefe date, makes it $24^{\circ} 50^{\circ}$.

[^135]:    - It iappoass, fromi 8mabie, that Arittobulas allowed only 1000 ftadia for the bafis of the: delta.

    $$
    \mathbf{P} \cdot \mathbf{p} 2 \quad \text { wife }
    $$

[^136]:    2. Hennithon reckoned it $n$ inlle brond, in $169 g^{\circ}$; hand fays it was 6 fathom deep, and that the inundations are in April, May, and June.
[^137]:    - Makran, or Mocran, is the ancient Gedrosia. One of its modern names is Kectb or Kedge, and is often prefixed to the other, as Ketch-Makran. If Katch was in ure ancienty, it is likely to have given birth to the name Gedrofia.

[^138]:    - Mr. Frafer, in his account of Nadir Shah, gives a copy of the partition treaty, by which the Nulla Sunkra, or Sunkra river was to be the common boundary between Hindooftan and the Perfian prorinces, near the mouth of the Indab. It rasy thert, be inferred, that the ea. ikrn branch of the Indus is named the Sunkra river.

[^139]:    - The following paffage eccurs in M. D'Anville's Eclairciffemens Giognaphiques furs la Carte do I'Inde, p. 42. "On ignore le temps auquel les Scythes font venus occuper le Sindi. Dans le Périple de la mer Erythrće *, la ville de Minnagara, la même que Manfora t, eft qualifiée de capitale de la Scythic. Denys Périegète dit, que les Scythes méridionaux, habitent fur le Ieuve Indes. Euftathe les nomme Indo-Scythes: \& ce que Ptolémée appelle Indo-Scychie remonte le long de l'Indus jufqu' au fleuve Coas. $\ddagger$.
    - The Arabian Sea, or fea of Omman.
    t Bhakor or Behker, is the fame with the ancient Manfora-Ayin Acbaree.
    IThat which runs by Nagaz, and falls into the Indus a confiderable diftance below Autock: and which, according to my idea, is the Hir of the Perfians..

