# THE "UNKNOWN LANGUAGES" OF EASTERN TURKESTAN. 

BY
A. F. RUDOLF HOERNLE.

Fol 3. Reverse.




Fol 31. Reverse.


Fol 32. Obverse.


Fol 44. Reverse.


## XXXI

## THE "UNKNOWN LANGUAGES" OF EASTERN TURKESTAN

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IN the July number of this Journal, p. 836, I promised to publish the text of the Aparimitāyul Sütra. As I have not yet received the Cambridge manuscripts of that Sūtra, I must defer the fulfilment of my promise to a later issue of the Journal. In the meantime I have compared the Sanskrit text of the Vajracchedikū, in Max Müller's edition, with the "unknown language" text in Dr. Stein's manuscript; and I may now present two extended " bilingual" extracts from the two texts. So far as I am able to judge at present, the East-Turkestani text does not appear to be a translation, throughout, of the Sanskrit text, as published by Max Miuller. It is so, however, quite clearly in certain portions; and it is some of these portions that I am now presenting as a preliminary contribution. I may add that'I have compared the EastTurkestani text of Dr. Stein's manuscript also with the Sanskrit text preserved in the manuscript of Dr. Stein's first collection (1900-1), of which I gave a short notice in this Journal for 1903, p. 364. That manuscript is incomplete, and the second extract, given below, is not found in it, having stood on its fol. 12, now missing. A portion of the first extract occurs in it, but its Sanskrit text is rather shorter than the Sanskrit text printed in Max Miiller's edition, and, to that extent, differs also from the East-Turkestani text.

I take this opportunity also to reprint corrected versions of the extracts from the Vajracchedika and the Aparimitāyulı Sūtra, given on pp. 837-8 of my previous communication. Not having had the originals to refer to
when I wrote from Wiesbaden, certain letters had been wrongly transcribed.

The Sanskrit text is printed in italics, interlinearly and verbatim, under the lines (in roman) of the "unknown language" text. In either case the words of the text are printed in the exact sequence (with two or three exceptions, duly indicated by numerals) of the originals. Where the East-Turkestani text differs, or is not intelligible, the syllables (aksara) are printed discretely.

## Vajracchedikā: First Extract.

Stein MS., fol. $3 b^{\text {iii }}=$ M.M. ed., p. $9, \S 1$.
Nta-nta ${ }^{1}$ maṁmä pyūṣṭä śe snye (śe snye ${ }^{2}$ ) tä gyastānä
Evain mayā śrutam| ekasmin samaye - -_ gyastä- ${ }^{\text {i }}$ b⿹aysä ${ }^{3}$ Śrāvastä-kṣirä āstä-vyä ${ }^{4}$ Jīvärispuräbāșa bhagavān Śr $r$ āvastyāin viharati-sma Jetavane Anā[4a $\left.{ }^{\text {i }}\right]$ thapiṇ̣̦ī-hārū samkhyerma mistäna ${ }^{5}$ bil-sägäna ${ }^{6}$

Anāthapindasya
ārāme
mahatā bhiksu-samighena
haṁtsa| dvāsi-pamjjsā
sārdham ardha-trayodaśabhir bhiksı -śataih saìba
—————n ntī ——_ gyastānä
hulaiś ca bodhisattvair mahāsattvaih| atha khatu -__ gyasta-baysä bṛū-haḍāna ${ }^{7}$ ———_ vāysye iii pāntarä -
bhagavān pūrv-āhna -kāla-samaye nivāsya pātracīvara pananāti Śrāvasta mistä-kītha piṇ̣̄ā tramda cīvaram ādāya Śrāvastī̀in mahā-nagarīin pinḍāya prāviksat|

[^0]${ }^{i v} n t i ̄$ _gyastä-baysüa (nti gyastä-baysäa ${ }^{1}$ ) kū Śrāvastü atha khalu bhagavān

Śrāvastī̀n mästä-kītha piṇ̣ā $\quad\left[4 b^{i}\right] \quad$ vātsuta-hamye ${ }^{2}$ tä kū mahä-nagarīin pinḍāya
caritivä
khāysta-kirä-yuḍä-yuḍe hvaḍä khāysiä ${ }^{3}$ kū ${ }^{\text {ii }}$ scetä-
bhakta _ krta-krtyalı paścād bhakta- - pindapāta paryeta-hamye ${ }^{2}$ pāntara-cīvarä pajsī byi-pāha ${ }^{4}$ pratikrāntah pātra - cīvarain pratiśāmya pādau ysnātä ——— iii prañavyi — āysam vīra nastä ${ }^{5}$ bastä praksalya nyasīdat prajñapta eva āsane palaṅgä (ra-sṭä nta ram da ir ra na vi snā tä paryainkam (ābhajya rju kāyain pranidhāya pyam tsä ntū sā nte tä byā ta jä va e vyetäl) ${ }^{6}$ pratimukhīin smrtim upasthāpya|) ${ }^{6}$

Ntī tä $\left[5 \alpha^{i}\right]$ pharāka áśirya ${ }^{7}$ kamma hālai Atha khalu samibahulā bhiksavo yena gyastānä gyastä-baysä vyeta ${ }^{8}$ hāș̣ä tsuāmínä kū ——bhagavān —— (tena) upasainkraman -vara-hamya gyastānä gyastä-baysä pā ntiräjsa (upasainkramya) ${ }^{9}$ bhagavatah pädau śirobhir namasyā $\bar{a}^{\text {iiidä }}$ gyastä-baysä drai tcīra-hvaram ${ }^{10}$-cai-ñäabhivandya bhagavantain tris pradaksiniñ - krtya tvanä tsuāmdä ${ }^{11}$ u śau-hāiv ${ }^{\text {lvaimi }}{ }^{12}$ nastal —— - ek - ānte nyasïdan\|

[^1]Ntye (scera vā-tcii) ${ }^{1}$ —__ ásírī Subhūta vara ${ }^{\text {² }}$
Tena (khalu punah!) ${ }^{1}$ samayena āyussmän Subhūtis -ntiña parsaña [5bi] hamgri vyitä ${ }^{3}{ }^{4}$ nastä tasyäin parsadi sainnipatito 'bhüt - saninisamnalu| nti —— āşiri Subhūta ãysañ napatata iiśau - sve atha khalu äyusmān Subhütir àsanād utthāya ek-ānisain civvarä prahausṭị ${ }^{5} \mathrm{u}^{4}$ hvaran dai ysānṇu uttarāsañgain kṛtvā daksiṇain - jänu-mandalain
sadya pārauiiinti kāṁma hālai ${ }^{6}$ gyastä-baysä prthivyāain pratiṣthāpya yena - bhagavān áș̣ä ${ }^{7}$ hāsṭä ajamläa ${ }^{8}$ dastä ${ }^{\text {ivy }}$ yuḍai ${ }^{0}$ u gyastä-baysä - (tena) ainjalini pranamya - bhagavantam nta hve sä ${ }^{10}$-duṣkarä miḍannna gyasta-baysa [6ai] ctad avocat $\mid$ - àscaryani - bhagavan
—————cu ntira gyastānä gyastä-
(param-äscaryain Sugata) ${ }^{11}$ yâvad eva
baysäna ntāhirauhvāñākänä (pa-jsa-iimānä ā ṣa ṇna ṛatathāgatena (arhatā samyak-
șṭa bi-sä hā lā bi ysā dä a hu jsa $)^{12}$ baiiidhisatva sainbuddhena) ${ }^{12}$
bodhisattvā
${ }^{1}$ The two texts differ ; the E. Turk. may mean Skt. pindapätain cāritıā ; cf. fols. $4 a^{\mathrm{iv}}, b^{\mathrm{i}},{ }^{\text {i }}$.
${ }^{2}$ See fol. $5 a^{\mathrm{ii}}$, vara-hamya; 'Sanskrit equivalent unknown.
${ }^{3}$ Apparently vyitä = vyeta, fol. $5 a^{i}$, foot-note $1 \overline{5}$.
${ }^{4}$ Here, and elsewhere, $\mathrm{u}=$ Skt. $c a$, resolving Skt. conj. participles into finite verbs.
${ }^{5}$ Probably śau-sve cīvarä prahauṣṭi lit. = Skt. ekūnıs̄̄̀c cīcaram apanīya, having withdrawn the robe from one shoulder.
${ }^{6}$ Hālaimi, loc. sg. of häla, " locality" = Skt. anta=sthāna; cf. fol. $5 \alpha$, hālai.
${ }^{7}$ Perhaps Skt. abhūt or $\bar{a} \bar{s} \bar{l} t$; cf. āstä-vya, fol. $3 b^{\mathrm{iv}}$, and aśtä, fol. $32 \alpha^{i v}$.
${ }^{8}$ Probably wrong for anjalä.
${ }^{9}$ Apparently lit. Skt. hastā̃̃jalini kṛtē̄ ; cf. yuḍä-yuḍe, fol. $4 b^{i}$, and clastä =hasta. Regarding the whole passage, see Professor Leumann's remarks in JGOS., lxii, p. 107.
${ }^{10}$ Perhaps sä = Skt. parama.
${ }^{11}$ Bracketed phrase omitted in E. Turk. text.
${ }^{12}$ The equivalence of the two bracketed texts is not intelligible.

# mistä-baysum ñavuysāa ${ }^{1}$ ham̉dādana biṣäpīrmāivntamye ${ }^{\text {² }}$ $m a h \bar{a}-s a t t v \bar{a}$ anugrchītāh. <br> paramena 

haṁdāräjsa —__ ___ cu ntarä gyastä-baysäna anugrahena | āścaryain bhagavan yāvad eva ntāharātsukana [6b ${ }^{\text {i}}$ ] (tkhai ṣī nām nä sā nām nä tvỉ ṣä tathägatena
ya nā-kä-na sa mna bi-sáṁ nä hi rām nä ii va ma sā-samyak-sainbuddhena) ${ }^{3}$
ka-na $u$ hu jsa) ${ }^{3}$ baudhisatvä mistä-baysum ñavuysā ${ }^{1}$ bodhisattv $\bar{a}$ maha-sattvāh
$\begin{array}{ccc}\text { ysiiiinīyahauḍi }^{\text {in }} & \text { biśapirmāntamye }^{2} & \text { ysīnīyahaurāmómejsa } \\ \text { parīndítāh. } & \text { paramayā } & \text { parīndanayāl }\end{array}$
nta $k{ }^{\text {iv }}{ }^{\mathrm{i}} \mathrm{va}$ miḍāmnna gyasta-baysä baysu ${ }^{4}$ navuysaina ${ }^{1}$
tat kathain —bhagavan
baudhisatva-yāmina- [7a $a^{i}$ ] hamjjsadaina mara ${ }^{5}$
bodhisattva - yāna- samiprasthitena kulaputrena vā mahāyāmiñä _ viṣṭãña u khvai
kuladuhitrā $v \bar{a}$ sthātavyain kathain pratipattavyaim - kathain aysmu baysaṁjāminna
cittain pragrahītavyam \|
iiNtye hvaye-hvañai gyastānä gyastä-baysä āşirī Evam ukte ——_bhagavān āyusmantain

[^2]Subhūta ${ }^{\text {iiin }}$ nta hve sirrä śirä Subhūta nta nta sịi-häriä ${ }^{1}$ Subhütin etad avocat sädhu sädhu Subhūte evain ctad
Subhūta $\qquad$ - - haridādä ${ }^{\text {iv }}$ gyasta-baysäna Subhūte evam etad yathā vadasi |anugrhītās tathägatena
 bisäpirmāntamye ${ }^{3}$ [ $\left.7 b^{\mathrm{i}}\right]$ haṁdārajsa
> parame?a anugrahena

${ }^{4} \mathrm{cu}$ ntirä gyastabaysäna ntāhirautsukana tsai ș̣ī nám nä sā nām nä tvī ṣä ya nā-kä na sa mna ba-śán̆ na hi rạ̄̉ ${ }^{\text {iii nä va ma }}$ sā-kä-na u hu jsa baudhisatva mistä-baysum ñavuysai ${ }^{\text {ir na }}$ na yiniyyhauḍä biśäpīrmāntamye ysīnīyähaurāmmejsa [ $8 a^{i}$ ] nta khuvā miḍām̉nä gyastä-baysä baysu ñavuysaina baudhisatva-yām̉ iiña-hamijsadaina mara mahāyāmñ̃a visṭāña u khuai aysmu nāiis ${ }^{\text {miñääa }}{ }^{4}$ ntye hvaye-hvañai gyasta-baysa āşirī Subhūta nta hve ${ }^{\text {iv }}$ śirä sirä Subhūta nta nta sii-hirä Subhūta hamdãạa baysana ${ }^{5}$ bau $\left[8 b^{i}\right]$ dhisatvä bisäpīirmāntamä hamdäräjsa
ysinihauḍäa ${ }^{6}$ gyastä-baysäna bauiidhisatva
parīnditāas tathägatena bodhisattvā mahāsattvāh. bišäpīrmāntamä ysīnīhaurāmmejsa ta ntina Subhūta pyū paramayā parīndanayā ${ }_{\text {hi }}^{2}$ tena Subhūte šrmu iiiśiri - subijī - aysmayayam asye hvāñi mä khu sädhu ca sussthu ca manasi kuru|bhāsisye ahain yathā baysu ${ }^{7}$ ñavu ${ }^{i v} y s a i n a \quad$ baudhisatva-yāmiña-hadaina

[^3]mara $^{1}$ mahāyāmina - viṣṭãñä u khui $\left[9 a^{i}\right]$ mara $^{2}$ sthātavyam yathā pratipattavya $\dot{m}-y a t h \bar{a}$ aysmu nāsāñä nta nta sirä ${ }^{3}$ gyasta-baysa cittaim pragrahitavyam $\mid$ evam ——_bhagavan iti ntūnäjsaḍä āśiiirī Subhūta gyasta-baysäna pyūṣte āyussmän Subhūtir bhagavatah pratyaśrausīt \| Gyastä-baysi nta hve mara iiiSubhūta baysu ${ }^{4}$ Bhagavān etad avocat| iha Subhūte ñavuysaina ${ }^{5}$ baudhisatva-yāmiña-hamjsaṁdai ${ }^{\text {iv }}$ na nta __ bodhisattva-yāna-samprasthitena evam (nta ${ }^{6}$ ) aysmu upevāññä cu-burä ——_ satva

- cittam utpädayitavyaím yāvantal̆. Subhūte sattvāh sattva——— satvām்-nāsāmejsa ham்[9bi]khiśaysāya ${ }^{7}$ u āhyadhātau sattva-sam̈grahena sam் grhīta - andaysāta wa purāmñä-ysāta cu ${ }^{8}$ ganiśtä-ysāiita - ūvavā
$j \bar{a} \quad v \bar{a} \quad j a r a ̄ y u-j \bar{a}$ va sainsveda $-j \bar{a}$ vā upapāduk $\bar{a}$ $c^{8}{ }^{8}$ haḿtsa-rūvina ${ }^{9}$ (rūvana ${ }^{10}$ ) - anau-rūväna ${ }^{11} \mathrm{cu}^{8}$ $v \bar{a}$ rūpino vā a-rūpino va ham ${ }^{\text {iii }}$ tsa-syāmejsa cu ${ }^{8}$ anau-syāmejsa cu-vā ${ }^{8}$ nti satva cu saminñino $v \bar{a}$ asamjjñino $v \bar{a}$ eva ni hami ${ }^{\text {ivtsa-syāmejsa - anau-syāmijsa - ku-burä }}$ na samijñino na asaṁjñino vā yāvan-kascit satva-dāta-prañavāña $\quad\left[10 \alpha^{i}\right]$ ma-ta-ñā-pī-ya nti -sattva-dhātu-prajñapyamānah prajñapyate te ca satva muhujsa harbiśä
aharina
nirvāña mayā sarve anupadhiśeṣe nirvāṇa-dhätau

[^4]${ }^{9}$ Lit. Skt. sārdhani-rüpinah. ${ }^{10}$ Wrongly repeated.
${ }^{11}$ Lit. Skt. vinā-rüpinah.


#### Abstract

paiiranirvāña| dädirä avamāta satva ku parinirvāpayitavyāh! evam aparimānān satvān api parinirvāye ${ }^{\text {ii }}$ hamāti $^{1}$ | na haḍi ${ }^{2}$ kāmujä ṣai śau ${ }^{3}$ satva parinirvāpya  paranirvāye ${ }^{\text {iv hämä| nta ci-härä kiḍna - cī Subhūta }}$ parinirväpito bhavatil tat kasya hetoh| sa cet Subhūte baudhisatva ——samna [10bi] hämātä ni ṣä bodhisattvasya sattva-samjñā pravarteta na sa baudhisatvä - hvañai nta ci-härä kiḍna| ni ṣi Subhūta bodhisatva iti vaktavyah| tat kasya hetoh| na sa Subhūte bauidhisatvä hvañai ci satvä-virra-samiña hamätä bodhisattvo vaktavyo yasya sattva — sainjñā pravarteta wa jvākä ${ }^{4}$-vīra- ${ }^{\text {iii }}$ samiña wa pudgalä-vīra-samiña $j \bar{v} v a-s a \dot{m j} \tilde{n} \bar{a} \quad v \bar{a} \quad$ pudgala — $\operatorname{samjj\tilde {n}} \bar{a} \quad v \bar{a}$ häme pravarteta $\mid$ Here four folios are missing, Nos. 11-14.


## Second Extract.

Stein MS., fol. $31 \alpha^{\text {iii }}=$ M.M. ed., p. 35, l. 18, § 17.
Ntī vā āşirī Subhūtä gya ${ }^{\text {iv }}$ sta-baysä nta hve Atha khalu āyusmān Subhūtir bhagavantam etad avocat i khuvā miḍàmna gyasta - baysä baudhisatvä - yāmni kathain - bhagavan bodhisattva-yāna
marä $^{5} \quad\left[31 b^{i}\right]$
samprasthitena
mahāyãña ${ }^{6}$
sthātavyain kathain pratipattavyam
-——aysmu biysaṁjāmiñä gyastä-baysī nta hve kathain cittain pragrahītavyam $\mid$ bhagavān - āha|

[^5]mara Subhūta baudhisaiitva- mästäiha Subhūte bodhisattva-yãna-sämprasthitena baysum ñavuysaina ${ }^{1}$ nta-nta aysmu upevāñä bis̈ä __ evain cittain utpādayitavyain sarve satva - aharïiina _—— paranirvāyāmiñal sattvā mayā anupadhisesese nirvạ̄a-dhatau parinirvāpayitavyāh
——— —— ni haḍi ${ }^{2}$ kāmujä satva paranirvāña ${ }^{3}$ ivhämä| nta ci-härä ${ }^{4}$ kiṇa| - cī Subhūta parinirväpito bhavati| tat kasya, hetolulsa cet Subhūte baudhisatvä satva-saṁña hamāti [32 $\left.\alpha^{\mathrm{i}}\right]$ ni sa bodhisattvasya sattva-sainjña pravarteta na sa baudhisatvä - hvañai wa ātma-samina wa vā jīvabodhisattva iti vaktavyaḥ| [vā ātma-samjina $\bar{a}^{5}$ ] va $-j \bar{i} v a$. samña __ wa pudgalä-samina — iihamāti ni ṣi saminjn̄a yāvat vā pudgala-samijña $v \bar{a}$ pravarteta na sa baudhisatva - hvañai nta ci-härä kiṇa ni-stä —__ bodhisattva itivaktavyah! tat kasya hetol!|nāsti Subhüte și dharmä iiikāmujä - baudhisatva-yāmñä-hamjsedai āya ! sadharmal̆ kaśsit yo bodhisattva-yāna-samprasthito nāmal| - ——_ aśtä nai si Subhūta ___

Tat kiin manasye Subhūte asti _ sa _ kaścid ${ }^{\text {iv }}$ dharma cu ${ }^{4}$ gyasta-baysäna Dīpamkarä gyasta-baysä dharmo yas tathāgatena Dīpainkarasya tathāgatasya
iñaka
antik $\bar{a} d$ anuttarāin

| bustä | āya | ntye | hvaye-hvanai | āSirī |
| :---: | :---: | :---: | :---: | :---: |
| sambuddhath | [nāma] | cuam | ukte | $\bar{a} y u \underbrace{\text { man }}$ |
| Subhūta | gyastä-baysä | ${ }^{\text {iinta }}$ | hve |  |
| Subhütir | bhagavantain | etad | avocat 1 | yathäha |

[^6]${ }^{2}$ The colophon of the MS. has hadi = Skt. $\bar{a} r y a$, fol. $44 b$.
${ }^{3}$ Read paranirvāye, as in fol. $10 a^{\text {iii }}$; for paranirvāña $=$ Skt. parinirrāpayitarya see fol. 10a ${ }^{\text {iii }}$.
${ }^{4}$ See n. 1, p. 1288.
${ }^{5}$ For the Sanskrit version see foot-note 1 on p. 21 of M.M. edition.

samyak - sambuddhasya antik $\bar{a} d$
anuttarāin
biŝapirmāntama ${ }^{2}$-baysu-stä bustä āya) ${ }^{3}$ ntye hvaye-hvanai samyak-sambodhim sambuddhah|) ${ }^{3}$ evam ukte gyasta-ba ${ }^{\text {iv } y s a ̈ ~ a ̄ s ̧ i r i ̄ ~ S u b h u ̄ t a ̈ ~ n t a ~ h v e ~ n t a ~ n t a ~}$ bhagavān āyussmantaim Subhūtim etad avocat | evam etad

 dharmä cu ${ }^{1}$ [33a $\left.{ }^{\mathrm{i}}\right]$ gyasta-baysna Dipam்karä dharmo yas tathāgatena Dīpaìkarasya $\begin{array}{cll}\begin{array}{c}\text { gyasta-baysana } \\ \text { tathāgatasya }\end{array} & (- & \\ \text { (arhatal. } & \\ \text { samyak-sambuddhasya }\end{array}$
————— baysu-stä bustä āya ${ }^{3}$ - antikād anuttarāin samyak-sainbodhim sambuddhah|| ${ }^{3}$ sa
 $\begin{array}{ccccc}\text { gyasta-baysana } & \text { baysuśtäbustä } & \text { vya } & \text { ni } & \text { muhu } \\ \text { tathägatena } & \text { abhisambbuddho } & \text { abhavisyat } & n a & \text { mãin }\end{array}$ __ _iiivyirasä hamathu —_ mānavā Dīpaimkaras tathāgato vyākarisyat bhavisyasi tvaim mānavān
${ }^{1}$ See n. l, p. 1288.
${ }^{2}$ This represents here Skt. samyak, and in fols. $6 a^{\mathrm{iii}}, b^{\mathrm{iii}}, 7 a^{\mathrm{iv}}, 8 b^{\mathrm{i}}$, Skt. parumena or paramayā ; and biśä by itself represents Skt. sarve (properly viśvăh) in fol. $31 b^{\text {ii }}$; hence biśä-pīrmāntama perhaps lit. = Skt. sarva-prakāre?a, or some similar phrase.
${ }^{3}$ In the bracketed portion the two texts do not agree.
${ }^{4}$ Perhaps wrong for gyasta-baysä, for the form ending in na usually stands for the instrumental case.
${ }^{5}$ Vya cu $=$ Skt. abhavisyad yah, missing in the Sanskrit text.
ustamājsī bāḍä Śākya-munä nāma gyaivsta-baysä | āgate adhvani Śākya-munir nāma tathāgato
arhan samyak-saimbuddha itill
The continuation does not seem to agree in the two texts.

Aparimitāyuh Sūtra, fol. $1 b$.
Saddham nta nta muhumjsa pyūṣṭa siña $^{1}$ beḍa Siddham | eva $\dot{m}$ - mayā śrutam | ekasmin samaye gyastä-baysä Srāvastä āsta-vye Jīväṛispuräbāsa bhagavān Śāvastyā̀n viharati-sma Jetavane


|  | dvāsse-pamjjsā | sau | āŝiryaujsa _u |
| :---: | :---: | :---: | :---: |
| sārdham | ardha-trayodaśabhir |  | bhikssu - śataih ca | pharākyau baudhisatvau mistyau-baysu ñavu ${ }^{\text {iii }}$ ysyaujsa ${ }^{2}$ saimbahulais bodhisattvair mahā-sattvaih hatsa ${ }^{3} \mid$ Ntiña ${ }^{4}$ _ beḍamí gyastä-baysä Mamjuśrí __ Tatra khalu _—_bhagavān Mä̀jjuśriyá̀ eysāxam ${ }^{5}$-gursṭe untaipastisa aścä ${ }^{6}$ Mamjuśryu kumāra-bhūtam āmantrayate-smal asti Mamjuśrīh.

${ }^{\text {iv sarbam̉dä-hālai guṇa }}{ }^{7}$ Aparamintā-samicayä nām̀ma upariṣt̄̄yām aparimita-guna-saìcayo nāma lova-dāvara ${ }^{8}$ loka-dhātuh |
${ }^{1}$ Loc. sg. of śau = Skt. eka.
${ }^{2}$ Cf. ñavuysaina in Vajracchedikã, fol. 31 $b^{i i}$; i.e. ñavuysai with instrumental suffix na or jsa.
${ }^{3}$ Hatsa = Skt. sārdham, placed earlier after sainghena .
${ }^{+}$Loc. sg. of nta $=$Skt. tat.
${ }^{5}$ The consonant ( $x$ ) of the final syllable is broken off.
${ }^{6}$ Perhaps an error for aśtä ; see fol. $32 a^{\text {ir }}$.
${ }^{7}$ Guna is placed differently in the two texts.
${ }^{8}$ Dāvara may be a clerical error for dātara, for $v$ and $t$ are not unfrequently confounded, and dāta $=$ Skt. dhātu, see fol. $9 b^{\text {ir }}$; dātara would seem to be the plural of dāta: see my "Report", JASB., 1901, Extra No. 1, p. 34.

## Remarks.

1. The term " E. Turk.", occasionally used in this paper, is not to be taken to prejudge the question of the identity of the " unknown language", but is simply a convenient way of indicating the language as coming to us from Eastern Turkestan.
2. A peculiar diacritical mark occurs in the original manuscript under certain syllables (aksara). It resembles a rough semicircle, opening upwards (see Plate, fol. 3, l. 4, in baysä and bāśa, and in fol. 32, l. 1, sa and l. 2, si). In the transcript it is indicated similarly. "The syllables, with which, so far, I have found it, are na (in nastä), ba (in baysa), sa (e.g. in parssa), ha (e.g. in hadaina, fol. $8 b^{\mathrm{iv}}$ ), and once pā, fol. $5 a^{\mathrm{ii}}$; again, ssi, fols. $32 a^{\mathrm{ii}}, b^{\mathrm{ii}}$, and ssil (e.g. in āśiri). It will be seen that it usually occurs in syllables containing a short vowel, which, as a rule, is $a$, though it may be $i$. The single case of a long vowel is pā. The significance of the mark has, so far as I know, not yet been discovered ; nor whether it is concerned with the consonant or the vowel of the syllable. I may, however, draw attention to the curious circumstance attending the spelling of the word which I have transcribed baysä, as possibly throwing light on the phonetic value of the mark. The circumstance I refer to is detailed below in No. 11.
3. Another peculiar diacritical mark, now well known, is the double dot over a syllable containing the short ("inherent") vowel $a$. I have never found it with any other vowel, save an exceptional $\vec{a}$. Its significance is not exactly known, but it appears to indicate an indistinct, or "neutral", vowel : for some words are found spelled indifferently with $\ddot{a}$ or $i$, e.g., mistä or mästä, hamāti or hamātä, hirä or härä, ssi or ssä ; similarly, munä for Skt. muni, rūvina or rūväna for Skt. rūpinah. The exceptions of $\bar{a}$ are hamāti or hamätä, fol. $10 b^{\mathrm{ii}}$, and hamdārajsa, fol. $7 b^{\mathrm{i}}$, or hamdäräjsa, fol. $8 b^{i}$. It may be observed that in both these cases the usual $\ddot{a}$ occurs also in the adjoining syllable.
4. There occur two peculiar consonantal signs. One appears in wa $=$ Skt. $v \bar{a}$, fols. $9 b^{\mathrm{i}}, 10 b^{\mathrm{i}}, \mathrm{ii}, 32 a^{\mathrm{i}}$; the other, as a conjunct, in drai $=$ Skt. tri, and, as a non-conjunct, in rasṭä $=$ Skt. $\bar{a} b h u j y a$, fol. $4 b^{i i i}$, etc. The latter I take to represent the cerebral consonant $r$ (as in Hindi). Its form may be seen in ri, in the accompanying Plate, fol. 3, l. 4, aksara 7 from the right. ${ }^{1}$ The other was identified by Drs. Sieg and Siegling in Sitzungsberichte, K. Preuss. Alkademie der Wissenschaften, No. xxix of 1908, p. 918, where its form is shown in facsimile. Its form may also be seen in the accompanying Plate, fol. 32, l. 1.2
5. Other peculiarities are an occasional disaspiration in Sanskritic words, such as dāta for Skt. dluātu, fol. $9 b^{\mathrm{iv}}$, and sägä for Skt. saingha, fol. $4 a^{i}$; and an occasional suppression of the vowel $a$, as in baysna (Skt. sattvena) for baysana or baysäna, fol. $33 a^{\text {i }}$; perhaps also in harbisä, fol. $10 a^{\text {i }}$, for hara-biśä, for biśä by itself means Skt. sarva (properly viśva), fol. $31 b^{\mathrm{ii}}$; and in bilsägäna, fol. $1 a^{\mathrm{ii}}$, for bila-sägäna, Skt. bhikṣu-sam்ghena.
6. Mere scribal errors are the repetition of se snye, fol. $3 b^{\mathrm{iii}}$, of ntī gyastä-baysä, fol. $4 a^{\mathrm{iv}}$, of rūvana, fol. $9 b^{\mathrm{ii}}$, of the long paragraph on fol. $7 b$, and probably of nta, fol. $9 a^{\text {iv }}$; so also probably the misspellings ajamlä for amjalä, fol. $5 b^{\text {iii }}$, ysinnīhauḍä for ysinīyahauḍä, fol. $8 b^{\text {i }}$; and perhaps also jvākä for jīvä, fol. $10 b^{i i}$.
7. Regarding the inflection of nouns: na or jsa indicate the instrumental case, e.g., gyasta-baysäna $=$ Skt. bhagavata $\bar{a}$ (or tathāgatena), by the Blessed; mistäna bilsägäna, Skt. mahat $\bar{\alpha}$ bhiksu-samghena, by a great congregation of friars; brū-haḍāna $=$ Skt. pūrvāhna, by (or in) the forenoon.
[^7]Again, e.g., sg., muhujsa $=$ Skt. mayā, by me, nāsāmejsa $=$ Skt. samigrahena, by the complex, hamdāräjsa $=$ Skt. anugrahena, by the grace; or pl., ásiryaujsa $=$ Skt. bhiksubhilh, by the friars, ntiräjsa, Skt. Sirobhih, with the heads. Na indicates also the genitive, in sg. gyastabaysana $=$ Skt. bhagavatah, of the Blessed, and in pl. gyastānä $=$ Skt. devānām, of the gods. The suffixes mye, or mi, or ma, or mä indicate indifferently the locative or instrumental case ; e.g., sau-hālaimī $=$ Skt. ekānte, in a solitary place, and biŝä-pirmāntamye $=$ Skt. paramena (lit. sarva-prakārena), in every way, thoroughly. Härä (or hirä) or hārū seem to indicate the genitive, as in cihärä $=$ Skt. kasya, of which, Anāthapinḍīhārū = Skt. Anāthapindasya, of Anāthapiṇda.
8. Regarding the inflection of verbs : we have 3rd sg. pres. ind., hämä $=$ Skt. bhavati, he is, fol. $10 a^{\text {iv }}$; 3rd sg. pres. subj., hamāti or häme $=$ Skt. pravarteta (or bhavet), fols. $31 b^{\text {iv }}, 10 b^{\text {iii }}$; 2nd sg. fut. (or perhaps rather the 2 nd sg. pres.), hamathu $=$ Skt. bhavisyasi, fol. $33 a^{\text {iii }}$. To the same series apparently belongs hamye, fol. $4 b^{\mathrm{i}}$, ii. To another auxiliary verb seems to point vya $=$ Skt. abhavisyat, fol. $32 a^{\text {iii }}$; in fol. $3 b^{\text {iv }}$ it seems simply to mark past time, being attached to the part. āstä, he was staying (see below) ; it would seem to be an abbreviation of vyetä or vyitä $=$ Skt. abhūt, fols. $4 b^{\mathrm{i} v}, 5 b^{\mathrm{i}} . \quad$ Again, another is aśtä $=$ Skt. asti, fol. $32 a^{\text {iv }}$, ni-stä $=$ Skt. $n \bar{a} s t i$, fol. $32 a^{i \mathrm{i}}$. The suffix of the part. fut. pass. is ñã, or ñai ; e.g., upevāmnña $=$ Skt. utpādayitavya, fol. $9 a^{\text {iv }}$; nāsāñã $=$ Skt. pragrahītavya, fol. $9 a^{i}$; paranirvāña $=$ Skt. parinirvāpayitavya, fol. $10 a^{\mathrm{ii}}$; biysamjjām̄ñä $=$ Skt. pragrahītavya, fol. $31 b^{\mathrm{i}}$; mahāyāmĩäa $=$ Skt. sthātavya, fol. $7 a^{i}$; visṭãñä $=$ Skt. pratipattavya, fol. $8 b^{i v}$; hvañai $=$ Skt. valktavya, fol. $10 b^{\text {i }}$. To the last-mentioned verb belong the 3 rd sg. past, hve $=$ Skt. avocat or $\bar{a} h a$, fols. $5 b^{\mathrm{iv}}, 31 b^{\mathrm{i}}$, the 1 st sg. fut., hvãñi $=$ Skt. bhāsisye, fol. $8 b^{\text {iii }}$, and the part. past, hvane-hvanai $=$ Skt. ukte, fol. $7 a^{\mathrm{i}}$. Forms of the participle, or of the
imperfect, in tä (ta) or dä, seem to be nastä $=$ Skt. nisanna or nyasīdat, fols. $5 a^{\text {iv }}, b^{\mathrm{i}}$; paryeta $=$ Skt. pratikrānta, fol. $4 b^{\mathrm{ii}} ; \overline{\text { ästä }}=$ Skt. viharan ( $\bar{a} s a n$ ), fol. $5 b^{\mathrm{iv}}$; vātsuta $=$ Skt. caran, walking, fol. $4 b^{i}$; namasyādä $=$ Skt. abhivandya (lit. namaskrtya); tsuamdä $=$ Skt. upasamikraman or upasamkramya, fol. $5 a^{\text {i }}$, iii.
9. Regarding pronouns, we have the personal, 1st nom. sg., mä $=$ Skt. aham, fol. $8 b^{\text {iii }}$; acc. sg., muhu =Skt. mā $m$, fol. $33 a^{\mathrm{ii}}$; instr. sg., mamma, fol. $3 b^{\mathrm{iii}}$, or muhujsa, fol. $10 a^{\mathrm{i}}$ $=$ Skt. may $\bar{a}$. Again, the demonstrative, nom. sg. masc., ssa or ssi=Skr. sah, fol. $10 b^{i}$, or sai, fol. $10 a^{i v}$, and neut., $\overline{\mathrm{nta}}=\dot{\text { Sk }} \mathrm{j}$. tat, or etat, fols. $31 \overline{a^{\mathrm{iii}}}, b^{\mathrm{ii}}$; instr. sg., ntye, fol. $5 a^{\text {iv }}$, or ntina, fol. $8 b^{\text {ii }}=$ Skt. tena ; gen. sg., sii-härä ( $=$ Skt. tasya), fol. $7 a^{\text {iii }}$; loc. sg. fem., ntiña, Skt. tasyām, fol. $5 a^{\text {iv }}$, and Ap., fol. $7 b^{i i i i}$; nom. pl. masc., nti $=$ Skt. $t e$, fol. $10 a^{\mathrm{i}}$. Again, the relative, nom. sg. masc., $\mathrm{cu}=$ Skt. $y a h$, fols. $32 a^{\mathrm{iv}}, b^{\mathrm{i}}$; instr. sg., kāmma $=$ Skt. yena, fol. $5 a^{\mathrm{i}}$; gen. sg., ci (perhaps wrong for ci-härä) = Skt. yasya, fol. $10 b^{\mathrm{ii}}$, and quantitatively, nom. pl. masc., cu-burä $=$ Skt. yāvantah, fol. $9 a^{\text {iv. }}$. Again, the interrogative, gen. sg., ci-härä = Skt. kasya, fol. $10 a^{\text {iv }}$, or adverbially, khuvā $(k u v a ̄ ?)=$ Skt. katham, fol. 6biii. Again, the indefinite, nom. sg. masc., kāmujä $=$ Skt. kaścit, fol. $10 a^{\text {iii }}$, or quantitatively, ku-burä = Skt. yāvan kaścit, fol. $9 b^{i \mathrm{i}}$. That both the relative and interrogative pronouns equally show forms with initial $c$ and $k$ appears noteworthy.
10. Of numerals we have sau $=$ Skt. eka, one, fols. $4 a^{i i}$, $5 a^{\text {iii }}, b^{\mathrm{if}}$; loc. sg., Se or śiña $=$ Skt. ekasmin; and drāsipamjsāa, fol. $4 a^{\mathrm{i}}$, which corresponds to Skt. ardha-trayodaśabhik, "with half-thirteen," but which literally seems to mean "with twelve and half " (Skt. dvādaśa-ardhaih). ${ }^{1}$
11. The word baysä has hitherto been transcribed as balsä by myself, as well as by Dr. Sten Konow in a dissertation

[^8]and transcript of some manuscript fragments in the " unknown language" supplied to me by him in 1906 (see JGOS., vol. lxii, p. 92, foot-note), and as balysä by Professor Leumann (see ibid., p. 107). The fact is that the word is written in two different ways in different texts. In the two texts of the Vajracchectilia and Aparimitāyulh Sūtra its first syllable ba is written with the semicircular mark under it, and its second syllable ysä is written with exactly the same conjunct sign as ysa in the word ñavuysaina. On the other hand, in other texts its first syllable is written ba, without the subscribed semicircle, and its second syllable is written with a conjunct sign which suggests the presence of some $l$-consonant, and which has been variously read as llsä or lysä. These two signs, l lsa (lysa) and ysa, may be seen, in juxtaposition, in the second line of the obv. fol. 8 (D. iii, 1) in plate cx of Dr. Stein's Ancient Khotan, vol. ii, in the phrase mästäbalysū ñavūysai, as transcribed by Professor Leumann (see JGOS., vol. lxii, p. 107). Exactly the same phrase occurs in our Vajracchedika text, fol. $31 b^{\mathrm{ii}}, 1.2$ in the accompanying Plate, mästäbaysum ñavuysaina, as transcribed by me in the second extract; but here the identical conjunct sign $y s$ is found in both words baysum and ñavuysaina. This state of things seems to suggest some connexion between the semicircular mark and the $l$-sound. Might the mark not signify the cerebral consonant $l$ when it occurs as the second, or lower, part of a conjunct. consonant, so that we should have to read the word in question as blaysä? The existence, in these " unknown languages" of Eastern Turkestan, of the cerebral l, as a consonant, was first discovered by Professor Leumann; see his paper, "Ueber eine von den Unbekannten Literatursprachen Mittelasiens," in the Transactions of the Russian Imperiai Academy, vol. iv, No. 8 (1900), p. 10. Its form, as non-conjunct, may be seen very clearly, e.g., in sukṣmel (formerly read by me wrongly sukṣmeu), fig. 5 , line 2 , of
plate iii in my " Report on the Weber MSS." in the JASB., vol. lxii, p. 36, 1893. It resembles closely enough the form of the semicircular mark. Indeed, if it were not for the fact that the mark is occasionally found with syllables containing the vowel $i$, it might be suggested that it simply indicates the cerebral $l$ as a rowel.
12. As regards the word gyastä, its correspondence to the Skt. deva was first pointed out by Dr. Sten Konow, in the dissertation above referred to, from its occurrence in the standing phrase gyasta-nāga-aysura, etc. $=$ Skt. deva-nāga-asura, etc. But though thus its positional parity is assured, it is not necessarily so with its connotional equivalence. In that respect gyastä might still be = Skt. blagavat, the well-known Indian epithet of the Divine being. Similarly, it remains to discover the connotional equivalent of ásirī, which takes the place of both Skt. bhiksu and $\bar{a} y u s m a t$.
13. So far as I can judge at present, the language seems, in the main, to be identical with the language of the "Brāhmi Documents", published by me, in 1902, in my "Report on the British Collection of Antiquities from Central Asia", in the JASB., Extra No. 1 to vol. lxx, pp. 30 ff . For example, both have had $\bar{a}$, day, hämä, he is, hamitsa, with, pami, half (see foot-note to No. 10), plearālea, many, si, that, $u$, and, ciburä, as many, beda, time. On this point I am now disposed to agree with Drs. Sieg and Siegling (see their paper "Tocharisch, die Sprache der Indoskythen," in Sitz. Ber., K. Preuss. Akad. der Wiss., xxxix, pp. 915 ff., 1908), and Professor Leumann, who has fully gone into the question in his paper on the "Arische Textsprache" (JGOS., vol. lxii, pp. 83-110, 1908). To the latter scholar, who has been working for some time with great acuteness and success, notwithstanding the absence, hitherto, of any bilingual text, on fragments of "unknown language" texts from my own collection as well as from that of Dr. Stein's first tour of exploration (1900-1), we may look for the
elucidation of those phrases and passages which, even with the now available Sanskrit version, remain obscure or unintelligible. In my "Report", p. 33, I connected the language with "the so-called Ghalchah dialects of the Pamir". As a fact, the people who spoke it appear to have lived (speaking roughly) in the south of Eastern Turkestan, while the people living in the north spoke the other " unknown language", which Drs. Sieg and Siegling, following herein Dr. F. W. K. Müller (Sitz. Ber. P. Ak. W., liii, p. 960, 1907), call Tokharī ("Tocharisch," l.c., p. 916). The character, common to it and the Ghalchah dialects, appears to be that, while being Indo-European, there is no direct affinity with either the Iranian or the Indo-Aryan class of languages.

# The "Unknown Languages" of Eastern Turkestan. II 

A. F. RUDOLF HOERNLE

## XIII

## THE "UNKNOWN LANGUAGES" OF EASTERN TURKESTAN. II

By A. F. RUDOLF HOERNLE

sINCE writing the article in the October number of the Journal for 1910 (pp. 1283 ft .), I have been further examining some of the manuscript treasures which Dr. Stein succeeded in recovering from the immured Temple Library near Tun-huang. In that article I gave extracts from two "bilingual" texts which I discovered among those treasures, and which promised to furnish us with the key to the southern of the two unknown languages of Eastern 'Turkestan. ${ }^{1}$ In the present article I propose to report another discovery, which seems to throw light on some phonetic peculiarities of that language.

Among the Stein MSS. there are a number of rolls, varying in length from about 2 to 23 feet, and in breadth from about 10 to 12 inches. They are inscribed on one side with Chinese and on the other with Eastern Turkestani characters. ${ }^{2}$ The latter are not that species of upright Gupta characters of the essentially Indian type in which the two "bilingual" texts are written, and of which a specimen is shown in the Plate accompanying my article in the Journal for 1910. They rather constitute a development from the Indian Gupta characters, which has never been found in India, but which appears to have originated among the Eastern Turkestanis themselves. Moreover, in our present state of knowledge, this

[^9]essentinily Eastern Turkestani species of Gupta characters, which in my early report on them, in 1897, in the Journal of the Asiatic Society of Bengal (vol. lxvi), I have named "cursive", appears to have been restricted to that relatively southern area of Eastern Turkestan in which the language of the two "bilingual "texts was current. In the relatively northern area of the other "unknown" language of Eastern Turkestan, to which the Berlin savants propose to give the name of Tokhari, the Indian Gupta developed what, in my still earlier report on the Weber MSS., in 1893 (ibid., vol. lxii, p. 4), I named the "slanting" species of it; and this species appears to have been limited to that area. We have, therefore, in Eastern Turkestan three species of Gupta characters: (1) the upright Gupta of the Indian type, (2) the "slanting" Gupta, and (3) the "cursive" Guptia, both these latter species being of Eastern Turkestani origin, and apparently restricted to the relatively northern and southern parts of Eastern Turkestan respectively. In the sequel, I shall, for the sake of brevity, provisionally distinguish the two still undefined languages of these two areas as the "northern unknown" and the "southern unknown".

Further, according to our present knowledge, the "slanting" species originated at a very early period (circa fourth century A.D.); for it appears in manuscripts which, so far as we know, are practically contemporary with the earliest written in the upright Gupta species. ${ }^{1}$ On the other hand, the "cursive" species appears to have originated at a much later period, about the sixth or seventh century A.D., ${ }^{2}$ if we may judge from the
${ }^{1}$ e.g., in the Weber MSS., and in Dr. Stein's palm-leaf MS. from Miran, of the third or fourth century a.d.
${ }^{2}$ According to the testimony of Chinese pilgrims of the sixth and seventh centuries, the script of Khotan and its district was that of the Brahmans. This, however, may, and probably does, refer to the upright Gupta script, which was current in those parts of Eastern Turkestan alongside of the "cursive" (xupta. See Dr. Stein's Ancient Khotan, vol. i, p. 90 , where the authorities are quoted.
age of the Chinese documents, together with which the documents in "cursive" Gupta have been found, and which belong to the eighth century (see Dr. Stein's Ancient Khotan, vol. i, p. 271). There is a curiously suggestive similarity of ductus between the Kharoshthi and "cursive" Gupta types of writing found in Eastern Turkestan. Both favour an elongated form of letters, as compared with the squat form of the upright or Indian Gupta. This similarity suggests that the "cursive" Gupta may have developed under the influence of the Kharoshṭhi script, which was current in the same area at a much earlier period, and that the "cursive" Gupta came in when the Kharoshthi went out of fashion.

Our acquaintance with the "cursive" Gupta script dates from the year 1895, when the Godfrey MSS. fell into my hands. The first specimens of it were published by me from those manuscripts in 1897, in the Journal of the Asiatic Society of Bengal (vol. lxvi, pp. 225 ff ., pls. ivvii). Additional specimens from them were published in 1901 in my "Report on the British Collection of Central Asian Antiquities", pt. ii (published as an Extra Number of JASB., lxx, pp. 30 ff ., pls. vi, vii), and by Dr. Stein in his Ancient Khotan, vol. ii, pl: cx (D. iii, 12). In my description of the documents in which the script occurred, I said that " the characters of the writing are evidently Brāhmi of a very cursive type" (JASB., vol. lxvi, p. 229), and in my Report (p. 32) I spoke of the script as " a species of cursive Brāhmi". The main reason for thus designating the script was that it represented a very degraded type of the upright Gupta script, and that its use seemed to be confined to documents, public or private, semi-religious or secular, to the exclusion of all literature proper, whether religious or secular. The latter distinction still holds good. Even now, with all the mass of manuscripts, literary and documentary,
which Dr. Stein has brought back from his last tour of exploration, the "cursive" Gupta script has not been found employed in any literary work, nor in any pothi. The single exception $I$ know of are the two folios, 7 and 8, which have been inserted into the poth $\bar{i}$ of the Aparimitūyuly Sūtra, to replace two lost folios which had been written in the ordinary literary upright Gupta of the rest of the work (see this Journal for 1910, p. 834). Still, though provisionally I retain it, because of its convenience, the term "cursive" is hardly appropriate, because the letters of the script, however quickly or badly written, are not "running", that is, not connected with one another. In this respect they do not differ from the letters of the upright or slanting species of Gupta. Moreover, as may be seen from the illustrative plates accompanying this article, they may be written with any variety of neatness or coarseness.

The initial difficulty in reading the letters of the "cursive" Gupta script was that some of them had grown so similar to one another and others had wandered so far away from their original Gupta form that their identity became almost unrecognizable. As explained in my Report of 1901 (loc. cit., p. 32), it took some years before the identity, e.g. of the signs for ma and blue, was recognized. In these circumstances it was a most welcome discovery to find on the back of some of the rolls, which Dr. Stein submitted to me for examination, more or less complete tables of the Eastern Turkestani cursive alphabet and its syllabaries, which were evidently modelled on the similar tables current in India. For an account of the latter I may refer to Biihler's Origin of the Indian Brahma Alphabet (2nd ed., 1898, pp. 27 ff.), and of their Eastern 'Turkestani counterparts, to Watters' remarks in his Yuan Chwang's Iravels in India, vol. i, pp. 154 ft., and to Dr. Rosthorn's letter in the Vienna Oriental Journal,
vol. x, pp. 280 ff ., also to Dr. Takakusu's Translation of Itsing, pp. 170-1. From the report of the Chinese writers about these tables, which they call si-t'an-chang,i.e.siddhamsections, it appears that they commenced with the word siddham, followed by the alphabet, or series of radical signs (Sanskrit mātrk $\bar{a}$ ), that is, the twelve (so-called) vowels, $a \bar{a} i \bar{\imath} u \bar{u} e$ ai o au am ah, and the thirty-four
 $n, p p h b b l m, y r l v, s s s, l, k s ̣$. Huilin, a native of Kashgar, who wrote his account at some time between 788 and 810 A.D., adds the four vowels $r \bar{p} \underline{l}$, , which he calls supplementary. From this it may perhaps be inferred that the rolls, none of the alphabets of which includes these four supplementary vowels, must be referred to a date earlier than Huilin. The alphabet was followed by a set of syllabaries, the first of which gave the combinations of the consonants, singly, with the vowels, while the others gave the same vowel-combinations with the consonants in various ligatures. All Chinese accounts agree with regard to the first syllabary, which comprised thirty-four series of combinations, beginning with the series ko kā, li kī, lu kū, ke kai, ko kau, kam, kal, and ending with the series $k s a, k s \bar{u}$, $k s i k s \bar{i}$, etc. Regarding the other syllabaries the accounts do not agree. Hiuen Tsiang (seventh century) gives their number as twelve; but the number usually given (e.g., by Itsing, seventh century, Huilin, ninth century) is eighteen. The precise reason for this difference does not clearly appear from the accounts; but according to Buhler the tabulated ligatures included those made with $y, r, l, v$, and the five nasals: and that much the rolls tend to confirm. The whole siddham-chang, then, would appear to have been a long statement, consisting of a number of "sections" (chang), which began with the alphabet and continued with a varying number of syllabaries, the whole statement being headed by the word siddham, which served as its
name. The term siddham-chany, accordingly, would mean " the sections of the siddham ". ${ }^{1}$

Now the rolls discovered by Dr. Stein in the main confirm those Chinese accounts. The most important, for our immediate purpose, is the Roll Ch. cviii, 007, which is 10 ft .9 in . long by $10 \frac{3}{8}$ inches wide. On its back it is inscribed with a very long statement, which practically covers its entire length. It is divided into three sections, the first of which gives the alphabet, while the two others contain syllabaries. See Plate I, which shows the alphabet in ll. 1-6, and the commencements of the two syllabaries in 11. $8-10,42$, and 1l. 43,44 . Of the two syllabaries, the first gives the vowel combinations of the single consonants (l. 9), kea keā lei kei lku kī, and so forth, down to (l. 42) $k s a \operatorname{kss} \bar{a} k s i \operatorname{ksi} \bar{i}$, etc., while the second gives the syllabary of the conjuncts made with $y$, that is (1.43), kya ky $\bar{a}$ kyi kyi, and so forth down to lya lya $l y i l y \bar{\imath}$, etc. It is not complete ; the series of vowel combinations of the last six ligatures, $v y, s y, s y, s y, h y, k s y$, are wanting. Why they should have been omitted is not apparent, for there is just sufficient blank space left at the bottom of the roll to have taken them. But whatever the reason may have been, the omitted six series are found at the extreme top of the back of another roll, Ch. xc, 002 . See Plate II, ll. 1-6 (the original size of the portion shown is 19 by $10 \frac{1}{2}$ inches). The line of the first series (vya vyā $v y i v y \bar{\imath}$, etc.) stands so close upon the upper margin of the roll that its edge cuts through some of the vowel marks, thus proving that at one time the roll must have been somewhat larger than it is at present, its present length being only 6 ft .5 in . (with a width of $10 \frac{1}{2}$ inches). As, however, the papers of the two rolls are of entirely different make-Roll 002

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is soft, while Roll 007 is hard-they cannot have constituted two portions of a single roll torn asunder. At the same time, the handwriting in the syllabaries on the two rolls is so strikingly alike as to make it impossible to doubt the identity of their writers. Roll 002 is so short that it may be suggested that originally it was some 10 feet longer, and that the portion now missing carried the alphabet and the complement of the syllabary. The upper portion being torn away and lost, the missing portion of the statement was rewritten on Roll 007. This would explain the abrupt ending of the second syllabary on the latter roll. Following immediately on the completion of the syllabary of the conjuncts with $y$, on the back of Roll 002 , there comes the syllabary of the conjuncts with $r$. It begins (l. 7) with the series kra krākrikrī, etc., and ends (1. 39) with the series $k s s a \operatorname{c} s s r \bar{a} k s r i k s r \bar{u}$, etc., each series occupying a separate line. There are, however, only thirty-three lines instead of thirty-four, because the series with the vowel notations of the conjunct $b h r$ is omittedwhether intentionally or not will be considered in the sequel (p. 464). At the end of this third syllabary there is appended the following remark :-

> vimijilaki byañ di ni tsa nrvī (?) hā yani ñi dau la ni pa ja dra ā ysā ja ga tca sni pī ka sadham

This remark concludes the statement of the alphabet and syllabaries, which commences on the back of Roll 007 and continues on the back of Roll 002; for what follows the remark on the back of the latter roll is written in an entirely different hand, and refers to a different statement, which will be explained further on (p. 457).

The precise meaning of the remark is at present not intelligible, but one point is fairly certain, namely, that the term vimjilaki must denote the preceding "statement", and is probably equivalent to the Chinese term chang or siddham-chang, " sections of the siddham." For we meet with that term, variously spelled vajalaka or vaijalaka, also
on other rolls, but always in immediate reference to statements of the alphabet and syllabaries. Thus (below, p. 457) it occurs twice on the back of Roll Ch. 0042, by way of introducing a siddham statement. It is found also in a like connexion on three minute fragments of the Roll Ch. 0046 in the phrase
(1) eysa vaijalaka sūhamika,
(2) . . . vaijalaka sūhanika,
(3) eysa sūhaninka vaijalaka.

We have, then, here on the back of the Rolls 007 and 002 an example of the siddlum-chany as described by the Chinese witnesses, comprising the initial siddham, the alphabet, and a varying number of syllabaries, in the present case only three. But our example amplifies their testimony in two particulars. In the first place, the word siddham stands at the head, not only of the whole statement, but introduces also each of the "sections" (chang). In fact, our example interpolates a sentence between the alphabet and the series of three syllabaries. The latter are introduced thus (Pl. I, l. 7) :-

> sidham nta nta mahājsa pyū, i.e. "listen to this siddham from me".

In the second place, the alphabet includes not only the radical signs of the letters, but also those of the numerals. It runs as follows (Pl. I, 11. 1-6) :-

1. 1, sidham a a e ī $\overline{\mathrm{c}} \mathrm{u}$ e aio oun ani a

l. 3, dh $!\cdot n$ nth $d \mathrm{dh} n \cdot \mathrm{p}$ ph b bh m
2. 4, yrlvśsshks $\infty$
l. 5, ṭā 123456789102030
l. 6, 40507060

There are some peculiarities in this scheme of radical signs, to which I shall return later on. With regard to my transcript of the radical signs of the consonants, it should be observed that, as written in the original (viz., without the virāma attachment), they represent, considered from the Sanskrit point of view, not radicals

सक्ष 4 का कु से श \&








 "




( $k k h$, etc.), but syllables ( $c k s a r a, k e k h a$, etc.). But the Chinese accounts explain that in the alphabet the signs express "half-sounds", while in the syllabaries they express "full-sounds" (VOJ., x, 281). Thus the "fullsound" of a syllable (clara), egg. of ka, consists of the two "half-sounds", the consonantal element $k$, and the vocalic element a.

The second peculiarity, regarding the composition of the alphabetical table, is fully confirmed by another roll. This is Roll Ch. xe, 003. It is very long, measuring 22 feet, with a width of 10 inches ; but with the exception of the small space (about four inches) at the top of the roll, occupied by the alphabetical table, the remainder is blank. The table is shown in Fig. 1, reduced to about onethird of the original.

Fig. I.




## 

It runs as follows :-
l. 1 , sidham a : uk nh g ghin $\cdot \mathrm{c}$ ch j jh ne $\operatorname{t}$ t th
l. 2, nd ḍlı 1 : nt th d dhn:pphblhm: y

l. 4, 102030405060708090100100010000100000

It will be observed that in this table the series of the numeral radicals is more extended : and that it places the radicals for 60 and 70 in their proper order: In the table of Roll 007 they are misplaced, probably by a mere scribal error. The syllable ter which introduces the series of the numeral radicals in both tables may possibly be the

Eastern Turkestani term (or the initial syllable of it) for " numeral". On the other hand, our present table apparently omits the vocalic radicals altogether; for the two solitary radicals $a$ and $u$ probably represent merely the mystic syllable orm (i.e. aumi).

Attention may be called to the calligraphic execution of the "cursive" Gupta writing in the alphabet and syllabaries of the rolls 002, 003, and 007. They were evidently written by a practised hand. The appearance of the writing is very different in the rolls to which we now proceed. In them it is exceedingly coarse, and points to an illiterate person or to one who was quite unfamiliar with the " cursive" Gupta script.

This coarse handwriting may be seen on the back of Roll Ch. 0042 . The roll measures 6 ft .5 in . in length by 10 inches in width; but only about 16 inches (from the top) are inscribed ; the remainder is blank : see Plate III. ${ }^{1}$ The inscribed portion commences with seven lines of most disorderly writing. Then follow five lines (ll. 8-12) of more orderly writing, beginning with-

1. l, Sidham nta nta majsa vā pyūṣta he bye khu spa naman
2. 2, diśabhala (ca) ${ }^{1}$ cakravantri Śakyamuni gyistibaysi, etc.
i.e. "Siddham. Thus it has been heard by me. Salutation to Dasabala, Chakravartin, Sakyamuni, the Blessed ", etc.
After this comes (ll. 13, 14) an attempt at the table of radical signs, which reads as follows:-

$$
\begin{aligned}
& \text { 1. l, abaya dani vaijalaka Sadham a }(\mathrm{u})^{2} \mathrm{uk} \mathrm{kh} g \mathrm{gh}
\end{aligned}
$$

(̣̣h

Then follow other five lines of text (1l. 15-19), commencing with-

1. 1, Sidhama ūma śava budārave suhī
i.e. "Siddham Om̀ to all Buddhas svāhā"",
 buja suha.

[^11]

The term vaijalaka (l. 13), the probable meaning of which has been referred to previously (p. 453), occurs also among the disorderly lines, in the statement in the upper right-hand corner, which runs as follows:--

1. 1, dani vaja(la) ${ }^{1}$ laka
2. 2, sidhama a $u k k^{g} g$
l. 3 , gh í c ch j jh $\tilde{n}$

The same, or a very similar, coarse handwriting appears on the back of Roll 002, immediately below the remark, above referred to ( p .453 ), with which the three syllabaries conclude. It consists of an exceedingly ill-executed and incomplete siddham-chang (Pl. II, 11. 42-6), which runs as follows:-

1. l, sidhama a $\bar{a} \overline{\mathrm{u}} \mathrm{k}(\mathrm{kh})^{1} \mathrm{kh} \mathrm{g}$ gh ǹ c ch j jh

l. $3, \mathrm{myrlv}_{\mathrm{s}}^{\mathrm{s}} \mathrm{sh} \mathrm{kes} \|$ sadhama
2. 4, ka kā (ka) ${ }^{1}$ ki kī ku kū ke kai ko kau kain ka kha khā
3. 5, khi khì (kha) khu khu khe khai kho khau (kha) ${ }^{1}$
4. 6, khaḿ kha ga gā gi gì gu gū go gau ganì ga gha ghā
5. 7, ghi ghì ghu pu ghe (gha) ${ }^{1}$ ghai gho ghau ghani

6. 9, ci cī cu cu ce cai co ${ }^{2}$ cau carì cà cha chā chi chī chu
7. 10 , chu cho chau che chai cham cha ja jā ji ji ju ju je
8. l1, jai jo jau jañ ja jha (jha) jhā jhi jhī jhu jhū
9. 12, jhe jhai jho jhau jhani pasa(| dha) ${ }^{\text {l }}$ dhama a

That this statement was written by an illiterate person is shown not only by its coarse execution, but also by its numerous errors: ge gai is omitted in l. 6, cho chau and che chai are misplaced in 1. 10, khu, $\dot{n} a$, and jha are superfluously repeated in ll. 5,8 , and 11 ; khu khu, $\quad$ u $u$ $m u$, cu cu, chu chu, ju ju stand for khu khū, $\quad$ ? $u$ u, etc., in ll. 5, 8-10; pu and pu are wrongly written for $g h \bar{u}$ and jlet in ll. 7 and 12 ; the virama is omitted in sidhama in 11. 1 and 12. Occasionally $i$ is hardly distinguishable from $e$, as in khi, 1. 5 ; it is better in chi, 1. $9, j h i, 1.11 .{ }^{3}$
${ }^{1}$ See 1.2 on p. 456.
$\because$ co had originally been written c"ll afterwards " was crossed through, and $o$ substituted.
${ }^{3}$ After the siddham-chang there comes a short text, in twelve lines, at present not intelligible, which, however, is written again in fairly good cursive Gupta characters.

There is still another roll, Ch. 0046, which deserves notice on account of the striking peculiarities in its scheme of the alphabet and syllabary. It is a mere fragment of a roll, measuring 15 by 10 inches. The inscription on its back has the unusual arrangement that it commences with the simple syllabary, and then proceeds, in the concluding three lines, to the alphabet. The latter (Pl. IV, ll. 17-19) runs as follows :-
l. 1 , Sidham a $\bar{a} \mathrm{e} \overline{\mathrm{j}} \overline{\mathrm{a}} \overline{\mathrm{u}} \mathrm{e}$ va ai au va au a ak $\mathrm{kh} g \mathrm{~g}$-h in c ch
l. 2 , j j j-h nint th d dhnpphbomyrlvass sh
l. 3,
ks
Here the following points are noticeable: (1) The entire omission of the group of cerebral radicals; (2) the dissociation of the aspiration in $g-h$ for $g h$, and in $j-h$ for $j h$; (3) the identity, or practical identity, of $\dot{x}$ with $j$, and of $d$ with $s$. Turning to the syllabary (ll. 1-16), the most striking point is that the radical elements of the several syllabic series are arranged in a very unusual and apparently fanciful way, ${ }^{1}$ and that some of them apparently are wanting. This may best be seen from the subjoined table, in which the radicals are placed in their normal order, while the raised numbers indicate their actual order on Roll 0046. The missing radicals are within brackets.

$$
\begin{aligned}
& \mathrm{nt}^{23} \mathrm{th}^{21} \mathrm{~d}^{24} \mathrm{dh}^{19} \mathrm{n}^{26}\left|\mathrm{P}^{12} \mathrm{ph}^{20} \mathrm{~b}^{8} \mathrm{bh}{ }^{25}(\mathrm{~m})\right| \mathrm{y}^{3} \mathrm{r}^{10} \mathrm{l}^{6} \mathrm{v}^{2} \text { । } \\
& \mathrm{s}^{11} \mathrm{~s}^{14}(\mathrm{~s})\left|\mathrm{h}^{17}\right| \mathrm{ks}^{16} \mid \mathrm{ys}^{7} \|
\end{aligned}
$$

It will be noticed that (1) the cerebrals are entirely omitted, (2) the aspirates $g h$ and $j h$ are omitted; but they are so only in appearance, for owing to the dissociation of their aspiration in the table of radicals there was no need of showing $g h$ and $j h$ in the syllabary, seeing that their dissociated elements, $!, j$, and $h$, were already exhibited; moreover, as we shall see (p. 464), the

[^12]
existence of $g h$ and $j h$ seems doubtful in the "southern unknown " language, which appears to have an aversion to aspirates. (3) For a similar reason, $\dot{n}, m$, and $s$ are omitted, for their forms are practically not distinguishable from those of $j, b$, and $d$ respectively. (4) $b l$ has the same peculiar form as in the table of radicals: and (5) ${ }^{\circ}$, $\bar{a}$, and $\omega u$ are substituted for $i, u$, and $"$ respectively in the alphabet; but in the syllabary $u$ and $e$ are omitter
 yai yau yau yami ya instead of ya yā yi yī yu yu ye yai yo yau yam ya. Substantially therefore in all the five points the syllabary agrees with, and contirms, the evidence of the alphabet. The only strikiug point of difference is that the syllabary adds a series of vowel notations for the conjunct $y s$ (ll. 4 and 5), apparently treating that conjunct as a radical exactly as the conjunct ks.

What precisely the significance of the substitution of ${ }^{4}$, $\bar{a}, a u$, and $a$, for $i, u, o$, and all. may be, remains to be discovered. The full tale of radicals is shown only in Rolls 007 and 0046. The others apparently onit the vowels entirely, for their mention of " $u$ may have reference to the mystic syllable onit. The substitution of $a$ for $a l l$ is probably a mere formality ; for the Sanskrit visarga, in all probability, did not exist in the languages of Eastern Turkestan, as little as it does in the vemacular languages of India; thus we have, e.g., nama sarva for namuly sarvå, in l. 10 of the Dhàraṇi on Roll 0041 (p. 462 ). The omission of the $u$-syllables from the syllabary of Roll 0046, and the substitution of $c$ and $a u$ for $i$ and " respectively, would seem to indicate that the southern unknown language of Eastern Turkestan did not distinguish particularly between the sounds of $u$ and $\bar{\pi}, e$ and $i, o$ and $u u$; and this explanation would seem to be confirmed by the fact that in their proper places the $e$-syllables are omitted in the syllabary, so that in it the single e.
represents both $i$ and $e$. Somewhat similar phenomena may be observed in the vernaculars of India. Numerous illustrations, on all these points, are furnished by the Dhārani on Roll 0041. The curious interpolation of ve (or $v$ ?) in the vocalic series of radicals on Roll 0046 is also a point, the explanation of which remains to be discovered.

The most striking point in all the alphabetic and syllabic tables is that they uniformly write ud and nt in the place of the simple cerebral $d$ and dental $t$ respectively. It seems to me probable that the intention is not so much to indicate a nasal conjunct consonant, as a simple consonant nasalized, or in some other way modified; but I must leave it to experts in phonetics to determine what the precise significance of the graphic notation may be. ${ }^{1}$ All with which I am now concerned is to show that those tables really represent a truth, namely, that the people who spoke the language which is now under discussion always spoke $n d$ and $n t$, where others (e.g. Sanskrit speakers) pronounced $d$ and $t$. Among Dr. Stein's rolls there is one, Ch. 0041, measuring 10 ft .10 in . by $10 \frac{1}{2}$ inches, the back of which is covered, from top to bottom, with a long Buddhist Dhāraṇī, or rather with a pair of Dhāraṇīs, or mystical litanies for protection from evils, which extend to 1.51 lines. The first ends in the middle of the tenth line, and bears no name. It is, however, the well-known Usmisa-vijaya-dhāranī, the Sanskrit text of which has been published by Max Müller in the Anecdota Oxoniensia, vol. i, pt. iii, pp. 9, 22, 35, 36 ; and a copy of which exists also in the Hodgson Collection of the Royal Asiatic Society, No. 79, pt. iv. The second comprises the

[^13]remainder of the Dhārani, from the middle of 1.10 to the end of l. 151. Its name occurs repeatedly in the body of Dharaṇi, e.g. on 11. 105 and 126, where it reads ntathā-gantauṣ̣īṣa-saintāntapantra-nāmāparājanta-mahāprantyagarā, i.e. Skt. tath $\bar{a} y(a t-o s n \bar{i} s a-s i t \bar{a} t a p a t r a-n a \bar{a} \bar{a}$ Aparijitā mahāpratyangirā. A Sanskrit copy of this Dhāraṇi exists in the same Hodgson Collection, No. 77, as well as in the gigantic roll of Dr. Stein's collection, which will be noticed in the sequel (p. 471). The Eastern 'Turkestani text, however, appears to be mutilated in two places, and in some others it differs not inconsiderably from the Sanskrit text of the Hodgson MS. Both the Dhāraṇis were originally written in Sanskrit (of a kind), but on Roll Ch. 0041 they appear in the form in which their Sanskrit was "transmogrified" in the mouth of the natives of Eastern 'Turkestan. It is this transmogrification which constitutes their interest, for they are written, one might say, phonetically, and thus illustrate the phonetics of the language. Plate $V$ shows the initial twenty-three lines, which give the whole of the $U_{s!i} s a-\tau \ddot{j} \mu y(1)$ and the commencement of the Aparājitamahāaratyarigirā Dhāraṇi. I give the Eastern Turkestani text from the roll, and below it, in italics, the Sanskrit text from the Anecdote Oxoniensia and the Hodgson MS., No. 77.
[l. 1] Sadhahama Namau rahua-ntrīyāya namau bagavante ntraile(Namo ratna-trayāya) ${ }^{1}$ namas (bhagarate) ${ }^{1}$ trailokyanta prọntaviśaisṭāyai luādhā[l. 2]ya bagavante ntadyathā auma
 rissaudī̀a riśaudiýa sama sama samantāvabāsa [l. 3] (spha)" spharaṇa risodhaya risóodhaya sama sama samantã cabhãsa spharaya ganta gahana svabāva viśsuclhe abaṣaicantū mā suganta vara vante:" !gati-gahana srabhāmerisuddht abhisincatu män sugata-mara-racana

[^14]all. 4]mṛuntīluaṣaikai: ${ }^{1}$ nahā madra pad̄̄ āhāra ${ }^{2}$ āhāra āyū sādārane •' amrtābhisekaiḷ mahui-mudrā-padaiḷ cihara āhara āyul!-sandhūrani
 sodhaya sodhaya gayana-viśuddhe uṣisa-vijaya-viśuddhe sahasraraśmi sacāda[1. 6]nte sarva ntathāganta hṛadayādhesṭhānādheṣṭānta raśmi saricodite sarva-tathāgata hrdayādhisṭhänādhiṣ!hite mādre vajra kāya sagāntanavī́sú[l. 7]dhe sarvāvaraṇa vísūdhe prantanarmudre vajra-kāya-sanighatana-ciśuddhe sarvāvaraṇa-viśuddhe pratinirvarntaya āyū vísūudhi. ${ }^{1}$ samayādhiṣṭhānte mahā[l.8]mane ntadyathā rartaya $\bar{\theta} y u r-v i s ́ u d d h e ~ s a m a y a ̄ d h i s t h i t e ~ m a h \bar{a}-m m i \quad$ tadyath $\overline{\boldsymbol{\theta}}$ būnta kauṭi paraśūdhi vaisphuṭinta būdha sū̄dhi he he jīya vajīya bhüta-koti-purisulddhe visphutita buddhi-śuddhe he he jaya vijaya vill. 9]jeya smara smara sarva ntathāgantā büdhādhesṭhau śūdhī rijaya smara smara sarva-(tathāyata) butdhādhisthite śuddhe vajre vajre va paraśūdhi sarva ntathā [l. 10] gantā hṛadayādhiṣthaunrajre vajre - pariśuddhe sarva-tathägata hṛdayādhisṭthānālheṣthaunta mūdre svāhā || Sadhama namau rahna-trīyāya nama ӣdhiṣ!thite mudre scūhī̈|| (Sidham namo ratna-trayāya namal!. sa[l.1l]rva-bādha-baudhasatvebya| namau baudhāya namau dharmāya sarva-budha-bodhisattvebhyah|) ${ }^{6}$ namo buddhāya namo dharmäya numau sagāya namau sapntānā [1. 12] samya sabaudha kauṭīnā namau
 like arhantānā namau ${ }^{7}$ srē̄ntāpannānā namau sakṛantāgau[l. 13]mīnā loke arhantān̄̄̄ii namaḥ śrautāpannānūmin namah sakṛdāgūminān namau añāgaumīnā namau lake samya gantānā samya prantapanānā namo anāgāminān namo loke samyag-gatānā̀in samyak-pratipannānān namau de[l. 14]va raṣīn̄ā śāpānā gra(ha) ${ }^{4}$ ha samarthānā namau saidha namo deva-?sīnā̄in (śāpān(̄ain) graha-samarthānān namo siddha-
${ }^{1}$ The double dot and single dot appear to be marks of interpunctuation ; they do not signify the visarga and anusvara respectively.
${ }^{2}$ Note the peculiar serpentine mark under h in $11.4,15,17$. It seems to correspond to the semicircular mark which is found in the upright ('upta script.
:" Wrong for uṣnīṣa.
${ }^{4}$ See n. 2 on p. 456.
${ }^{5}$ See n. l on p. 461.
${ }^{6}$ The bracketed passage is not found in the Hodgson MS., No. 77. lnstead, it has the usual conventional opening : evam mayá srutain kısmir samaye bhagavān deves!a-trayastrinśesu viharati sma|sadharmāyānu teva-sabhāyän mahatā bhiksu-samghena mahatā bodhisattva-sanghhena s'akrena devänäm Indrena sārdhain $\|$
${ }^{7} n a$ is inserted below the line ; and the insertion is marked by a cross above the line.
${ }^{3}$ The Hodgson MS., No. 77, has sāpāyüdhānā̀in namo sāyãnuyrahu․
vidyādhara raṣiṇā namau brāhma[l. lía]ṇa uamau Aidrūyi namau nidyädhara-(rsị̄ā̄n) namo brähmaneblhyah namo Indräya nano bagavante Rau(dra)drāya Umāpanta-sih ${ }^{3}$ āya namau bagavante [1. 16] bhagavate Rudrāya Umāpati-sahitāya namo bha!favate
Nārāyaṇapa4 ca mahāmūdra namasḳ̣antāya namıu bagavante Närāyaṇäya ca mahämūdra-namaskrtāya namo bhatgavvte. mahākālāya ntra[l. 17]pura vekṣaupaṇā karāya adhimūh ${ }^{3}$ anta śamáūña
 vāsane māntṛa gaṇa nama(skra)"skṛantā [1. 18]ya namau lohagavante sūsine mātr-(fana-(namaskrtāya ${ }^{7} \quad$ namo l,hagavate ntathāganta kūlāya namau padma kūlāya nanan vaj̣̣a kūlāya [1. 19] tathāyata-kulasya . namo padma-kulasya namo rajra-kulasya
namau maṇā kūlāya namau gaja kūlāya namau kūmāra kūlāya namau namo mani-kulasya namo rāja-kulasya namo kumāra-kulusya namo nāga kūlāya [l. 20] namau bagavante draiṇ̣i śūrasena praharaṇa rājāya

 $\begin{array}{ccc}\text { ntathāgantāyārahente } & \text { samya }[1.21] \text { sabaudhāya } & \text { namau } \\ \text { tathāgatāyār-hate } & \text { samyak-sainbuddhāya } & \text { namo }\end{array}$ Amīntābāya ntathāgantāya rahente samya sabādhā[l. 2.2]ya naman (Amitābhāya tathāgatāya arhate samyak-sambuddhāya namo bagavante Akṣubyāya ntathāgantāyārahente samya sabā (dha) ${ }^{2}$ dhāya bhagavate Akşobhyāya tathāgatāyārhate samyak-sambutudhäya naman ba[l. 23]gavante baisaja gūrū vaiṇ̣arya praba rājāya ntathānamo bha!garate bhaisajya-gur"-mitūrya-prabiha-rījāya tathögantāyārahente samya sabaudhā[1.24]ya, etc. gatāyā-hate samyak-saribuddhäya, rtc.). ${ }^{8}$

It will be seen from the preceding extract that every Sanskrit $t$ becomes nt in Eastern Turkestani. Either singly or in ligature, $t$ occurs upwards of 400 times in the Dhārani, and with two exceptions it is in every case
${ }^{1}$ Hodgson MS., No. 77, om. the lracketed words.
$\because$ See 11.2 on p. 456.
${ }^{3}$ See n. 2, p. 46:.
${ }^{+}$Wrong for Nārāyanaya.
${ }^{5}$ Hodgson MS. reads cidrōpana for riksepama.
${ }^{6}$ The full reading of the Hodgson MS., No. 77, is : adhimuktika
 udhimukta, with ${ }^{\circ}$ hanta for kata $=k t a$.

7 The Hodgson MS., No. 77, reads rendita-sahitāya for namaskrtāya.
${ }^{8}$ The Hodgson MS., No. 77, omits the bracketed final three clauses. 1)r. Stein's gigantic roll omits the first and second clauses, but it has the third clanse referring to lhaisajya-!pm\%.
spelled $n t$. The two exceptional cases are the conjuncts $t v$ and st. In these the simple $t$ appears to be preserved regularly; thus we haveFiti. II.

## 1373 3刀n 3 <br> 2 $63 \%{ }^{3}$ :ncurgo

1. 11 (Plate V), baudhasatvebya $=$ todhisatvebhyah.
2. 101 (Fig. II, 1), namas $=$ tathāganta ${ }^{\circ}=$ namas $=$ tathüydata ${ }^{\circ}$.
3. 114 (Fig. II, 2), vasta-śul: ${ }^{\circ}=$ vasti-sílla.

The cerebral $d$ does not occur so often, but whenever it does occur it appears as $n d$. Thus we have-

1. 23 (Plate V), vainḍarya $=$ vaidūrya.
2. 52 (Fig. II, 3), garunda-grahā $=$ garuta-gruha.
3. 102, vaintāndī-nḍākanı̄ = vetād̄̄-dākanū.

Another example, garonda $=$ garudu, occurs in the passage quoted above (p. 456) from Roll 0042.

Another striking point, which however is not so prominently indicated in the alphabetic and syllabic tables, is the loss of aspiration in $b$ for $b h$; c.g. in Plate $V$,
l. 1, bagavante $=$ bhagavate.

1. 3, svabāva $=$ scabhāu $\cdot a$.
2. 8 , būnta-kauṭi $=$ bhūta-koti, etc.

This loss of aspiration is practically absolute in the Dhāraṇi, for in a total of about 150 cases there are only two exceptions ; these are-

1. $\mathbf{1 8}$ (Plate V$)$, bhagavante $=$ bhayavate.
2. 118, bhayaupadravebya = bhayopadravebhyal.

In this connexion it may perhaps be not without significance that in the syllabary on Roll 002 (as noticed on p. 453) the line referring to the vowel notations of the conjunct $l h r$ is entirely omitted, though, of course, the omission may be due to an error.

In the case of $g h$ and $j h$, probably disaspiration was equally regular; still, those two aspirates are of infrequent occurrence, and hence examples are rare; but we have, e.g.,

1. 6 (Plate V), sagāntana $=$ sarighotam,
l. 11 (Plate V), sagāya $=$ sainghaya.
2. 130, vaigna-vanāya $=$ righna-rinayf.

##  <br>  <br> 



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The case of $d h$ is peculiar. It is often disaspirated, as in

1. 2 (Plate V), vỉ́audīya = visodhaya,
2. 4 (Plate V), sädāraṇe $=$ saniudhüraun ;
but equally often aspiration is retained, as in
3. 6, 9, 10 (Plate V), adhesṭhãna $=$ adhisṭhäna,
4. 11 (Plate V), dharmāya = dharmäya,
5. 14 (Plate V), vaidyādhara = cidyüdhara, specially when $d l$ stands for Skt. $d d h$, as in
ll. $3,5,7$ (Plate V), vīsúndhe $=$ risiuddhe.
6. 9 (Plate V), būdha . . sūdhe $=$ luddhi . . suddhi.
l. 10 (Plate V), sadhama $=$ siddham.

On the other hand, occasionally $d h$ is introduced in the place of $d$, e.g.


1. 50 (Fig. III, 1), udhaka-bay $\bar{a}=$ udaka-bhaya.
2. 51 (Fig. III, 3), rāja-dhandī-bayā = rāja-dan! ${ }_{i}-$-bhaya.
3. 134 (Fig. III, 5), gagā-nadhī-vālak $\bar{a}=$ yaing $\bar{a}-n a d \bar{i}-v \bar{a} l u k u \bar{u}$.

Altogether the treatment of aspiration in the case of $d$ and $d h$ appears to be very capricious; thus we have, e.g.,

1. 73 (Fig. III, 6), vaidyädaraibya $=$ vidyödharehhyal.
2. 85 (Fig. III, 4), kāla-dandiye $=k e ̈ l c t$-dandine.
3. 104 (Fig. III, 2), udaka $=$ udaka.

Of the dissociation of aspiration we have an example in I. 1, sadhahama for siddlam, where one would rather expect sadaham, to represent the usual spelling sadham.

The Dhāraṇi illustrates also some other curiosities of spelling in the southern unknown language of Eastern Turkestan previously noticed, such as the substitution of $e, \bar{a}$, and $a u$ for $i, u$, and $o$ respectively. Thus, $i$ occurs eight times in the 23 lines shown in Pl. V, viz.,

1．5，uṣni and raśmi ；l．7，vīs̄ūdhi and samayādhi ；l．8， paraśūdhi and būdha－śūdhi ；l．10，hṛadayādhi；l．17， adhimūhanta．In some cases the writing is not sufficiently distinct；e．g．，l．8，kauṭi or kauṭi ；l．20，draiṇ̣i or drainḍi， etc．Generally long $\bar{\imath}$ takes its place，as in 1.5 ，vījaya－ vísüdhe（ $=$ vijaya－viśuddllee），etc．；but occasionally $c$ ，as in II．6，9，10，adheșthānādheṣ̦hānta（＝adiṣ̣thānādliistlıita）， or（ $\iota i$ ，as in I．1，viśaisṭāya（ $=$ viśisṭāya）；1．3，abaṣaicantu （＝ublisisincatu）；1．8，vaisphuṭinta（＝visplıutita）；l．14， saidha－vaidyādhara（ $=$ siddlle－vidy $\bar{\alpha} d l u a r a) ; 1.15$ ，Aidrāyī （＝Indrāya）．Not uncommonly it is represented by （ ，as in ll．1，7，pranta（＝pruti）；l．15，Umāpanta （＝Uma $\bar{d} u t i$ ），etc．；exceptionally also by $\bar{a}$ or au，as in l．6，adhesṭhānta，and l．10，adheṣthaunta（＝adhisṭhita）． Again，o never occurs at all；we have，e．g．，regularly namau and auma（＝namo and óm）；l．8，kauṭi（＝koti）， etc．；and in l． 1 even ntrailekyanta apparently represents a barbarous Sanskrit trailokita（for trailokya）．Again， $\bar{a}$ takes the place of $u$ in ll．11，21，22，bādhāya （＝buddha $\bar{a} y a)$ ，and occasionally of $o$ ，as in ll．4， 5 ， sádīya（＝sodllaya），and，as above noted，even of $i$ ．But occasionally $u$ is represented also by $\tilde{u}$ or $a u$ ，as in ll．8，9， būdha（ $=$ buddha），ll．18，19，kūlāya（＝kulāya）；or ll．11， 21，baudhāya（＝buddllā̄ya），l．15，Raudrāya（Rudrāya）．

A noticeable curiosity is the spelling $g n$ for Skt．$j \tilde{n}$ ， as shown below．

## Fig．IV． <br> ソヒテアから


This may be compared with the pronunciation of Skt．$j$ i in the rernaculats of India，e．g．$g y$ in Hindi and $g n y$ in Gujarāti．

Finally，attention may be drawn to the peculiar form of lik in all the rolls，and of $b h$ in Roll 0046．The more
original form of $k h$ may still be seen in the syllables khu and $k l u \bar{u}$. Both forms of $k l l$ occur in the Dhāranī, but $b l$, as already observed, never occurs but twice, and in those cases it is the ordinary form of $b l$ (Fig. I, 1. 2, as in Pl. V, l. 18, bhagavante).

When I published, in the October number of the Journal for 1910, the extracts from the two "bilingual" texts, I had not yet seen the rolls. The information of the latter on the phonetics of the southern unknown language of Eastern Turkestan is borne out to a considerable extent, though not altogether, by those two texts. Thus the pronunciation $n t$ for $t$ is illustrated by the pronouns nta, ntye, ntina, etc., the nouns ntirä-jsa, pantarii, bisäpīrmānta; the verbs paraunta, untaipastisa, etc. Per contra, the spelling of the conjuncts $t v$ and st (without the nasal) is illustrated by the words baudlisatva, gyasta, mista, dasta, etc. On the other hand, in certain words, $t$ is preserved, where one would expect $n t$, as e.g. in napatata (for napantanta?). The nasalization of $d$ (as $u d$ ) is entirely absent, e.g., in yudai, havida dana, bedamiz, etc. What the true explanation of this discrepancy may be has yet to be ascertained. Further research among the manuscript treasures, brought back by Dr. Stein from his recent tour of exploration, may furnish us with the answer. In the meanwhile I suspect that the discrepancy may be due to the fact that the rolls were inscribed by natives of Eastern Turkestan, who wrote exactly as they spoke, while the translations from the Sanskrit which we have in the "bilingual" texts were written by "pandits", men from India, who wrote under the spell of Sanskrit phonetics rather than Eastern Turkestani, a suggestion which is supported by the fact that the Eastern Turkestani "bilingual" texts are written in the upright Indian Gupta characters, while the rolls are inscribed in the peculiar Eastern Turkestani "cursive" script. There is also another possibility, viz. that of clerical
errors. For example, the word (above referred to) which I have transcribed napatata (JRAS., 1910, p. 1286, 1. 5), is transcribed napanatio from another manuscript by Professor Leumann (JGOS., Ixii, p. 107, 1. 32). Both transcriptions, as such, are undoubtedly correct, but obviously the original spellings cannot both be correct: there must be a scribal error in one of the two manuscripts. The graphic signs for $n$ and $t$, in the upright Gupta script as current in Eastern Turkestan, are, in some manuscripts, rather difficult to distinguish. They are so in the manuscript fragment (Dr. Stein's Ancient Khotan, vol. ii, pl. cx, D. iii, 1, obv. of fol. 8, l. 2) from which Professor Leumann transcribed. His transcription I believe to be correct; yet the $n$ and $t$ are so nearly alike that the real reading might be napananä. In the Vajracchedikā manuscripts, from which my transcription was made, the signs for $n$ and $t$ are easily distinguishable, for $t$ is written with a very elongated left limb, while $n$ has two short and equal limbs. ${ }^{1}$ There can be no doubt, therefore, that the reading of the Vajraccheclika manuscript, as it now stands, is correctly represented by napatata. Yet, after all, there might be a clerical error, and the true form of the word might be napanana; and if that were so, there would be no violation of the rule that $t$ becomes nt in Eastern Turkestani.

Some confirmation of the view above expressed is afforded by the fact that the two folios 7 and 8 of the Aparimitāyuh Sūtra, which are written in "cursive" character (of a rather slovenly kind), absolutely agree with the Dhāraṇi and alphabetic and syllabic tables of the rolls with respect to the spelling nt. There is also much agreement with reference to the treatment of the vowels. The main difference from the Dhārani is in

[^15]Fol 7 Obverse


Reverse





Fol. 8 Obverse





Reverse


respect of the aspirate $b h$, which is regularly preserved, as in the tables. All the other folios of the manuscript are written in well-formed Indian Gupta characters, and exhibit all the peculiarities of the Vajracchedik $\bar{a}$ manuscript. 'The two folios 7 and 8 were evidently added subsequently by a native of Eastern Turkestan in order to supply a lacuna. They are shown in Plate VI, and read as follows, Sanskrit equivalents being added occasionally in bracketed italics:-
[Fol. 7a, l. 1] samāṅdaganta (samudgate) • sūbhāva vaḿśūde mahāniyariı paramivare svāhā: ntī vā pā nca spam ra (nca) ${ }^{1}$ cai ṣna na yū [l. 2] nta ja sna be ysa hani mye a-ysmūń-jsa ha mye bī jā ṣnta ntū Aparani. mīntāyam sūntra (Aparimitūyuh sūtra) hvāmda: namau bhagavante iparani [l. 3]mintāyū jñāniñana sūvanaiścinta ntejām (suriniścitatejo) rājāyam ntathāgintāyańn (tathāgatāya) rahente samyańsabaudhāyamं ntadyethā [l. 4] auma sarva saskāri paśūmde (sarva-sainskāra-parisúuldhe) darmante gaganine (gagana) samānidagaṅnta sūbhāva sūde mahānīya parvare
[Fol. 7b, l. 1] svāhā: ntī vā pā nca gagañāyani grī nce sye jsa hañ ma gi na yū nta ja sua be ysami ha mye a-ysmū-jsa ha [l. 2] ha mye bī jā ṣnta ntū apañramintāyani sūntra hvāda namau ${ }^{2}$ bhagavante aparamintāyū jñamina sūvanai[l. 3]ścanta ntcjāyani ntathāgantāyani rahenta samyari sabaudhāyaṅi ntadyethā auma sava skāra paśūde: [l. 4] dharmanta gagana samimāmdagantani sūbhāva vaśūde mahānīya parvare svāhā:
[Fol. $8 \alpha$, l. l] kām ma şa ha mā ve cani ntū apaniramīntāyam sūntra pī rī ntye ja ștāńm na jsī na šamsanilī pa skyā ș̣ta u kha [l. 2] ysde : namau ${ }^{2}$ lhagavanta aparimīntāyam jñām̉na sūvarinaiścanta ntejāya rājāyani ntathāgantāyū [1. 3] rahente samya sambauchāyani ntadyethā auma saskāra paśūde darmante gagana sanimãnda gagana sūbhāva [l. 4] vaśūde mahānīyań parvare svāhā
[Fol. 8b, l. 1] kau ma şa haḿ mā ve nca ntū aparamantāyaǹ sūntra pī ye: ntū na dà jsā ve ú na brị yvā [l. 2] nañ ntrai śū u na ha sḍā a ha kṣa:

In order to complete the present preliminary account of the rolls, I may add a few interesting particulars of a different kind.
I. Four of the rolls contain dated statements. Thus at the bottom of the back of Roll Ch. 0042 there are six
${ }^{1}$ Apparently cancelled.
2 The original text seems to read namām, but the apparent $\bar{a} \dot{m}$ is merely a very crudely formed cursive au.
or seven very brief entries, one of which gives the following date, three times repeated :-
iśi silya (so twice, but once aśa salya) badyaja māste kṣausimya haḍe ( $\overline{\text { rabīici }})$
i.e. "in the first year, in the badyaja month, on the sixth (or sixteenth? day ". Signature in oval.

Again, the back of Roll. Ch. 0048 is inscribed with a Buddhist text in seventy-one lines, which begins with the following date :-
ssa salya cūvija māśte nāmai haḍa
i.e. "in the sixth year, the cūvija month, the ninth day".

Again, on the back of Roll. Ch. cvi, 001, there is some text, which begins with the following date :-
maḍala (?) salya cvāvaja māśti bistimye haḍai
i.e. " in the madala year, the cīavaja month, the twentieth day ".

Again, among Dr. Stein's manuscripts there is a gigantic roll, about 70 feet long, entirely covered on one side with 1,108 lines of writing. On it there occur the following four dates :-
(1) On ll. 196-7, sahaicä salya puhye māśti paḍauyse ${ }^{1}$ haḍai ārdrii nakṣanträ
i.e. " in the sahaicä year, the fifth month, the first day, the ārdrä lunar asterism ".
(2) l. 846, sí sūntri pūhye ${ }^{1}$ māśti 20 mye hadai
i.e. "this sūtra, in the fifth month, the 20th day".
(3) l. 1058, sahaici sulya naumye māśti pūhye haḍai
i.e. "in the sahaici year, the ninth month, the fifth day".
(4) 1. 1102, sahaici salya dasamye māśte 8 hadaai purva-bhadriva nakṣatri
i.e. "in the sahaici year, the tenth month, the 8th day, the pūrva-bhādrapāda lunar asterism".
In the foregoing series of dates we have the mention of the following two months, (1) Hadyaja, (2) Cvāvaja or Cūvija. The names of other nine months are quoted in my " Report on the British Collection of Antiquities from Central Asia", pt. ii, p. 35 (Extra Number 1 to JASB., vol. lxx, pt. i, 1901), and shown there in pls. ii, 6 ; vi;

[^16]and vii, 1, 2 (see also JASB., vol. lxvi, pl. v). They are (1) Skarhvāri or Skarihvāri, (2) Cvābhaja or Cvuābhaja, (3) Mūñamja, (4) Khahsāja or Khahsā̄, (5) Handyaja (6) Nahahaja or Ñaha, (7) Jeri, (8) Kaja, (9) Pāîīja (or Mãñija?). ${ }^{1}$ The names of three months are mutilated, viz., (10) . . khaja or . . caja, (11) . i . ija (12) . vāraja. As the names hadyaja and hamdyaja, and the names crãvaja (or cūvija) and crābhaja (cvuābhajja) are evidently identical respectively, we thus have the names of twelve months, nine complete and three mutilated. The months in the four dates of the gigantic roll are not named, but numbered, viz., pūhya or pulya, fifth : naumya, ninth; and dasamya, tenth. Among the names Skarhväri is clearly identical with the old Persian Ksatravairya, and the modern Persian Shahrivār ; but none of the others has as yet been equated. The days ( $h a d a$ ) in the dates are always indicated by numbers; so also the years (salya, modern Persian $s \bar{a} l)$. The term $i s ́ i$, or $a \dot{s} a$, in the date of Roll. Ch. 0042 I take to be connected with sau, one (see JRAS. for 1910, p. 1297, note 10), and ssu to be six ; but sahaicä and madala (the reading is not quite certain) I cannot explain for the present. Two naksatras, or lunar asterisms, are mentioned in the date of the gigantic roll, viz. $\bar{a} r d r \bar{a}$ and $p \bar{u} r v a-b l \bar{a} d r a p \bar{a} d a$.
II. The gigantic roll, above referred to, is one of the proceeds from the Temple library of Tun-huang. It is made of tough buff-coloured paper, and measures, in its present condition, 70 ft .10 in . by $11 \frac{1}{\underline{2}}$ inches, but about 3 or 4 inches are torn off at the top. The interior side is entirely covered with 1,108 lines of writing. The exterior side is blank with the exception of a parti-coloured figure at the top. This figure consists of two geese, standing on two open lotuses, facing each other, and holding in their bills flowering tendrils. The whole of the writing is in fair upright Gupta script, excepting three interspersed

[^17]paragraphs which are written in "cursive" Gupta characters. 'The contents are as follows :-
11. 1-197 are a long Dhāraṇi, in corrupt Sanskrit, named, in 1l. 193-4, tathāgatauṣnīṣa sidhām parājita mahāpratyagirā, i.e. Skt. tuthāgutosṇ̣̂sa-sitātapatreөì nāma apurājitā mahāpratyañgirā. A manuscript of this Dhárani is in the possession of the Royal Asiatic Society, No. 77 in its Catalogue. Another is described in R. Mitra's Cutalogue of Sanskrit Buddluist Literature, No. B, 46, p. 227. It is practically identical with the long Dhāraṇi, in "cursive" Gupta script, on the back of Roll Ch. 0041, but the opening passage, down to the middle of l. 5 (uṣ̣̣i vijaya vīsūdhe), is torn away. It ends with the first of the four dates above quoted. Its name is spelled variously sitãtapatra, or white umbrella, in 1. 178, or sitāmtapatra in 11. 91, 158, 169, or setāmtapatra in l. 190, or satantapatra in l. 136, or sidhāntapatra (apparently Skt. siddh-ātapatra) in ll. 58, 72, 193, or sūdhāntapantri (Skt. śuddh-ātapatra) in 1. 841.
ll. 198-220 are a story of the communication of the 1,000 names of Buddha, in the southern unknown language, and in upright Gupta script.

1l. 221-728 contain the enumeration of the 1,000 names, in corrupt Sanskrit and upright Gupta script. At the end, however, in l. 728, there are the numeral figures for 1,000 and 5 (i.e. 1,005 ), though the names actually enumerated are only 1,000 .
ll. 728-754 give the text of the Buddha pitai bhadra-kalpya-suntrā, i.e. Skt. bleadra-kalpa-sütra, followed in
ll. 755-840 by an enumeration of classes of superhuman beings (such as 12 koṭi of Ratnottama, 18 koṭi of Ratnāvabhāsa, etc.) ; the whole in the southern unknown language and in upright Gupta script.
ll. 841-8 contain a short statement with reference to the preceding two texts (the sitätaputra and the bhadralalpa with its enumeration), including the second date
previously mentioned; the whole in the southern unknown language and in cursive Gupta script.
ll.848-1058 give the text of Sumuliha-n̄̄ma-mahāyānasūtra, in the southern unknown language and in upright Gupta script.
ll. 1058-60 contain a statement referring to the preceding (third) text, with the third, above-quoted date, in the southern unknown language and cursive Gupta script.
ll. 1060-1100 practically repeat the enumeration of classes of superhuman beings which was given in ll. 75.5840 , in the same language and script.
ll. 1100-5 contain a statement refering to the preceding enumeration, nearly alike to that in 11.841 ff ., with the fourth above-quoted date, also in the southem unknown language and cursive script.
11. 1106-8 conclude with a few salutations to Rutnatraya, etc., in corrupt Sanskrit language and in upright Gupta script.

As a curiosity it may be noted that the frequently occurring term gyasta is once (l. 841) spelt jasta, while in other places it has the usual spelling gyasta.
III. On the upper portion (about 5 feet) of the back of Roll Ch. 0044 , which measures 23 ft .10 in . by 10 inches, there are seventy lines of writing in cursive Gupta script and in corrupt Sanskrit language. They contain the text of the Kauśaki $\operatorname{Praj} \tilde{n} \bar{a} p \bar{a} r a m i t \bar{a}$, the end of which may be compared with the ending of the Prajāapa $\begin{gathered}\text { ramita } \\ \text { - }\end{gathered}$ hrdaya-sūtra, printed in the Anecdota Oxoniensia, vol. i, pt. iii, pp. 50, 54, and in R. Mitra's Catalogue of Sanskrit Buddhist Literature, No. A, 15, p. 192. It rums as follows, the Sanskrit version being in italics :-

[^18]āyūṣmā Sārapūntra Śakrau devāñ[l. 68]nām idra nte ca baudhisatvā āyuṣā̄n Sāriputraḷ Śakro devānām indral̆ te ca bodhisattroa mahāsatvā sā ca sarvāvantī parṣa sa-de[l. 69]va-gamiddharva-mānūinṣmahāsattriē sā ca sarrī̀cat̄ parṣat sa-deva-yandharva-mānusyīsūniraś ca lokau bhagavantau bhāṣintam abhyanamida | kauśaki [1. 70] àsuras ca loko bhagavato bhāsitam abhyanandan|kauśakī
nānimā prajñāpāramintā samāpnta\||
màmà prajñāpāramitiō samāptā\|
Notice the invariable substitution of $n t$ for $t$.
IV. Roll Ch. 0048 is one of the smallest. It measures only 7 ft .11 in . by $12 \frac{3}{8}$ inches. Its back bears seventy-one lines of writing in the southern unknown language and in exceedingly crude cursive Gupta script. The initial thirteen lines are introductory prose, and are followed on II. $14-71$ by a Buddhist story which opens in the conventional way, except that here the opening statement is not in the usual prose, but in verses (one and a half), as follows :-
[1. 14] Siddham Nta pyūṣti śau bām de baysi - Śrāvasti kṣīi şa mūñ de • jintị̣ispūri udāmiña • pharām̀kye [1.1号] parsijša hansa•l Dharmi sai nāva misti • Śāripūntra sthīríntū kāñ la.

After these verses the story proceeds in prose. In the prose portion the word baysi appears several times spelled biysi. Perhaps the versified opening may hereafter lead to the identification of the Sanskrit version of the story.
V. Roll Ch. cvi, 001, which is only a sheet of thick, tough, dun-coloured paper, measuring $24 \frac{1}{2} \times 13$ inches, is remarkable also on account of being inscribed, not in Chinese, but in Tibetan. The obverse, or what appears to be the principal side, is covered entirely with thirty-one lines of writing in extremely crude cursive Gupta script, and in the southern unknown language. It opens with the date, above quoted, and is continued on the reverse side with eight lines of similar writing. This is followed by fifteen lines of fair writing in Tibetan script and apparently Tibetan language, which runs, however, in the
opposite direction to the cursive Gupta inscribed above it. Below this again, and finishing the reverse side, there is another Tibetan inscription of nine lines, which again runs in the opposite direction to the Tibetan above it, and therefore in the same direction as the cursive Gupta inscription at the top of the reverse side.

On the obverse side, on the eighth and ninth lines from the bottom, there is a cancelment of eleven syllables (aksara) of the cursive writing (crossed through), and below is written interlinearly, in Tibetan script, manam" with an unintelligible mark after it. On the same side, on the ninth line from the top, there is what looks like the indication of a fresh paragraph in the cursive writing which here begins with $u \dot{m}$, and below it is written, interlinearly, am (or ama) in Tibetan. The corrections in Tibetan seem to indicate that the Tibetan inscription on the sheet was made at a date subsequent to the inscription in cursive script. If that be so, and if the Tibetan inscription contain a date (which I have not been able to make out), it may furnish a key to the identification of the era and the system of dating of the documents in cursive script.
VI. 'Towards the end of the Apurājitā Pratyangirä Dhārane there occurs a curious clause enumerating the different kinds of writing material which was in use at that period of time. The clause runs as follows :-
(1) Roll Ch. 0041 , ll. 125 ff ., ya īmā ntathāgantausuinsa-saintāntapantra-
(2) ( (igantic Roll, ll. 158 ff , ya imāni tathāgatauṣnịanin sitāntapatrañ
(3) Hodgson, No. 77, fol. $17 b$, - imā tathāgatoṣ̣iṣa-sitatapatrā
(4) Sanskrit:
ya imā̀ir tathäyatosnīsa-sitütupatra-
(1) nāma-parājanta prantyagarā lakhatrī huryū-pantrai vā vastre vā
(2) nām̄nāparājitani pratyangirā likhitvā bhāja-patre vā vastre vā
(3) nāmāparājitā pratyangirā likhitvā bhūrja-patre và vastre vā

(1) kalke vā kāyagante vā karyagante vā likhatwà dhāryasyante |
(2) kalke vā kāyagate vā kanthagate vā likhitvā dhārayesvate ।
(3) bhūvatkare vā kāyagatūn và kathegatā vā kṛtrà dhārayiṣaniti $\mid$
(4) kalke rā kīyagate rà kantha-gatāin rē krtcè dhäruyisyati
(1) ntasya yāva-jīva vaşa na kramaisyante, etc.
(2) tasya yāva-jivam viṣain na kṛameşate, etc.
(3) tasya yāvaj-jīvan vise na kramisyanti, etc.
(4) tasya yanaj-júain misani na kramisyati, etc.
i.e. " who, having written this powerful Pratyangirirā (Dhāraṇì), named the white sunshade of the 'Tathāgata's crown, either on birch-bark, or on cloth, or on paste, or on paper, or having committed it to memory, makes use of it ; him throughout life no poison will injure ", etc.

This clause names four kinds of writing material(1) blū̄гj(e-putrce or birch-bark, (2) vastra or cloth, (3) lalka or paste, and (4) kāyagata or paper. There can be no question about the identity of the words for birch-bark and cloth. The form buvy $\bar{u}$, if the reading is correct, would seem to be the name of the birch in the southern unknown language. As to kāyagata or kāyaganta, it is clearly identical with the Arabic word kaghadh, or, as it is pronounced in India, la $\bar{q} h \mathrm{~h} a \underline{z}$ (Ưrdu) or kāgad (Hindī). This word, as I have shown in this Journal for 1903, p. 669, on the authority of Professor Karabacek, is a mere loan-word in Arabic, into which it was introduced from the Chinese kok-dz' through Eastern 'Turkestan in the middle of the eighth century. Dr. Stein's rolls would show that, by the natives of Eastern Turkestan, the Chinese word was pronounced kāyaganta (or k $\bar{a} g a n t a$, p. 477) ; and in that case the Arabic pronunciation of it, as liaghcadli, might throw light on how the Eastern Turkestanis pronounced their liaymganta. Of kallia I am unable to make anything, unless it may be an error for valke, and unless the latter may signify skin or parchment. The ordinary meaning of the word is "paste" (e.g., made of powdered dry, or crushed fresh drugs, in medicine). Might it here refer to mortar, or beton, which when plastered on a wall would make an inscribable surface? The
 equally puzzling. The reference of the fifth alternative to memorizing seems clear from its version in the gigantic roll and the Hodgson MS. That version, however, is the
lectio fucilior, and the version in Roll 0041 seems to point rather to a fifth kind of writing material, but what that material might be I ain unable to suggest. It seems possible that the name of paper should be kāganta or liagata, the existing reading liāya-ganta, or kāya-yuta. lit. "gone into the body", being erroneously due tr, the following phrase kantlea-gata, or "gone into the throat", the well-known Sanskrit idiom for "committed to memory".


[^0]:    ${ }^{1}$ Lit. Skt. evam etad; see fol. $7 a^{\text {iii. }}$.

    - Wrongly repeated ; se is loc. sg. of śau = Skt. eka ; see fol. $5 b^{\mathrm{ii}}$.
    ;See Remark 11, below.
    + Apparently lit. Skt. viharan abhūt ; see vya in fol. 33aii.
    ${ }^{5}$ Cf. Skt. mahisth $a=$ mistä, of which mistäna is the instr. case.
    ${ }^{6}$ Sägä $=$ Skt. samigha with disaspirated $g h$, as in darma $=$ Skt. clharma.
    ${ }^{7}$ Haḍāna, loc. sg. of haḍā, Skt. ahan; see below, in Remarks 7 and 13.

[^1]:    ${ }^{1}$ The bracketed phrase is wrongly repeated.
    ${ }^{2}$ Apparently lit. Skt. caran bhūtvā, pratikrāman bhütvā.
    ${ }^{3}$ Probably wrong for khāystä.

    * Apparently Skt. deau pädau.
    ${ }^{5}$ Nastä $=$ Skt. nyasidat is transplaced ; see fols. $5 a^{\mathrm{iv}}, b^{\mathrm{i}}$.
    ${ }^{6}$ Apparently in the bracketed portion the two texts differ.
    ${ }^{7}$ Apparently âśsirì sg., āśirya pl. $=$ Skt. bhiksuh, bhiksavah.
    ${ }^{s}$ Apparently vyeta $=$ Skt. abhūt or some similar word ; cf. fol. $4 b^{\text {ir }}$; ante foot-note 4 , infra foot-note 22.
    ${ }^{9}$ The bracketed equations are doubtful.
    ${ }^{10}$ Hvaram = Skt. daksinam; cf. fol. $5 b^{\mathrm{i}}$.
    ${ }^{11}$ Repeated from above.
    ${ }^{12}$ Hālaimi, loc. sg. of häla, " locality" = Skt. anta = sthāna; cf. fol. $5 a^{\text {i }}$, hālai.

[^2]:    ${ }^{1}$ Here mistä-baysum $=$ Skt. mahä-satt $\bar{a}$, but the two texts really do not agree. In the Sanskrit text mahasattvàh goes with bodhisattuăh, both being nom. plur., but in the E. Turk. text mistid-baysuni ñavuysā seems to stand by itself, for some of the parallel passages have only baysum ñavuysä (fols. $66^{i \mathrm{ir}}, 7 \mathrm{ai}^{\mathrm{iv}}, 8 a^{\mathrm{i}}, b^{\mathrm{iii}}, 9 a^{\mathrm{iii}}$ ), though what the word ñavuysï may exactly mean is not clear. See Professor Leumann's remarks in JGOS., lxii, p. 109, with which, however, I do not agree.
    ${ }^{2}$ Mye, or ma, is an inflectional suffix, like mī in hālaimĩ, fol. $5 a^{i r}$.
    ${ }^{3}$ The equivalence of the two bracketed texts is not intelligible.
    ${ }^{4}$ Probably wrong for baysum.
    ${ }^{5}$ Apparently mara corresponds to the technical term jära, Skt. yārat of Jaina texts, used to indicate omitted standing formulæ, such as kulaputrena, etc. It means also Skt. iha, fols. $9 a^{\mathrm{ii}}, 31 b^{\mathrm{i}}$.

[^3]:     strative pron., corresponding to ci-härä $=S k \check{t}$. kasya, interrog. pron., fols. $10 a^{i v}, b^{\mathrm{i}}, 31 b^{\mathrm{iv}}, 32 a^{i \mathrm{i}}, 37 a^{\mathrm{iv}}$; the rel. pron. is cu $=$ Skt. yah, nom. sg., fols. $9 b^{\mathrm{i}}$, ii, iii, $32 a^{\mathrm{iv}}, b^{\mathrm{ii}}$, iv, $33 a^{\mathrm{i}}$, ii.

    2 See n. 1, p. 1287.
    ${ }^{3}$ Mye, or ma, is an inflectional suffix, like mī in hālaimī, fol. $5 \alpha^{\text {iv }}$.
    4 Apparently by the copyist's carelessness this paragraph has been repeated from fol. $6 \alpha^{i}$, the only point of difference being nāsāñä $=$ Skt. pragrahītavyain for baysamjānña, introduced from fol. $9 a^{i}$.

    5 Read gyasta-baysäna, as above, fol. $7 a^{\text {ir. }}$.
    ${ }^{6}$ Apparently wrong for ysīnīyahauḍä ; see fol. $6 b^{\mathrm{iii}}$.
    7 Probably wrong for baysum.

[^4]:    ${ }^{1}$ See n. 5, p. 1287.
    ${ }^{2}$ Mara, if it is $=j \bar{a} v a=y \bar{a} v a t$, seems to be here superfluous.
    ${ }^{3}$ The Sanskrit equivalent of the E. Turk. text would be evam etad sādhu.
    ${ }^{4}$ Probably wrong for baysum. $\quad{ }^{5}$ See n. 1, p. 1287.
    ${ }^{6}$ Apparently nta has been wrongly repeated.
    7 Reading doubtful, folio damaged.
    ${ }^{8}$ The Sanskrit text has $v \bar{a}$, but the E. Turk. cu would rather be $=$ Skt. yah, rel. pron.

[^5]:    ${ }^{1}$ The two texts seem to differ in this passage ; dädirä is hardly $=$ Skt. evam, which is nta, and ku parinirvāye hamāti would mean Skt. kall (or katham) parinirvāpital pravarteta; see fols. $10 a^{\mathrm{iii}}, b^{\mathrm{i}}, 31 b^{\mathrm{i}}, 32 a^{\mathrm{ii}}$.
    ${ }^{2}$ The colophon of the MS. has hadi $=$ Skt. $\bar{u} r y a$, fol. $44 b^{i}$.
    " Lit. kāmujà ṣai sau = Skt. kaśsit sa ekal.
    ${ }^{4}$ Perhaps a mere clerical blunder for jiva ; see fol. $32 a$.
    ${ }^{5}$ See n. 5, p. 1287.
    ${ }^{6}$ Read mahāyāniña ; cf. fol. $7 a^{\text {i }}$.

[^6]:    ${ }^{1}$ Here the two texts do not quite agree ; see fols. $6 b^{i r}$, etc.

[^7]:    ${ }^{1}$ See also No. iv, l. 4, räa (formerly read by me cä) of pl. iv in my "Report on Three Further Collections" in the JASB., vol. lxvi, p. 234, 1897.
    ${ }^{2}$ See also fig. 4, l. 3, wa (formerly read by me first as kha, afterwards as na), of pl. iii in my "Report on the Weber MSS." in the JASB., vol. lxii, p. 35, 1893, also in the same Journal, vol. lxx, Extra No. 1, Appendix, pp. 1, 15, leaf $33 b^{\text {iii, }} 1902$.

[^8]:    ${ }^{1}$ See my "Report" in JASB., lixx, Extra No. 1, pp. 34 ff. In Document 5, 1. 4, p. 38, occurs trai-se pami-saya, i.e. three hundred (and) half-hundred (350) ; also l. 5, śau, one; and in Document 8, l. 3, puri-hsäro, halfthousand (500). In the list on p. 34, " 500 " should be " 50 ".

[^9]:    ${ }^{1}$ It is the "Sprache II" of Professor Leumann: see his articles in JGOS., lxi, p. 651 ; lxii, p. 83. His "Sprache $I$ ";is the Tokhari of the German savants mentioned below.

    2 They present, however, in no case anything bilingual; so I am informed by Dr. Stein, who has had the Chinese writing examined by M. Chavannes.

[^10]:    ${ }^{1}$ There has been some dispute as to the precise meaning of the Chinese word chang, whether it means " table" (Legge) or " section " (Julien) or "chapter"(Watters) or "composition" (Takakusu). The evidence of the rolls supports the meaning "section". But the translation "table", if not literal, is at least more suggestive of what the thing really was.

[^11]:    ${ }^{1}$ The roll is in a very soiled condition, and has not come out in the photograph as clearly as one could wish.
    ${ }^{2}$ Bracketed letters are badly written and cancelled.

[^12]:    ${ }^{1}$ On a still smaller fragment of the same roll, measuring only 6 by 4 inches, the commencement of a syllabary in precisely the same peculiar order is repeated, viz., $k a$, ra, ya, $k h a, c a, l a$.

[^13]:    ${ }^{1}$ In this connection it may be worth noting that, as Dr. Waddell points out in his Buddhism in Tibet, p. 353, in Japanese Skt. vaidüryar becomes binzura. The southern unknown language has vaindarya (ser pl. v, l. 23 of the Dhārani on Roll Ch. 0(141).

[^14]:    ${ }^{1}$ Anec. Oxon. om. bracketed words.
    $\because$ See n. 2 on p. 456.

    * Apparently wrong for vara-racane.

[^15]:    ${ }^{1}$ Compare, e.g., tï̈ and nï̈, sixth and third letters from the right, on l. 3 of fol. 3 rev. on the accompanying plate; or $t i$ and $n i$, third and fourth letters from the left, on 1.2 of fol. 32 obv.

[^16]:    ${ }^{1}$ See Professor Leumann’s remarks in JGOS., vol. lxii, p. 87, footnote 1.

[^17]:    ${ }^{1}$ My readings of the names in JASB. have to le amended as above.

[^18]:    Namaḷ prajñāpā[l. 66]ramintāyai ntadyathā gante gante pāragante Namaḷ prajñāpāramitūyai tadyathē gate gate pāragate: pārasagante baudhi svāhā [l.67] idam avaucant bhagavārin āmtamana pārasamigate bodhi srāhā| idam arocat bhagavīn àtmamanä

