Geographical Magazine Grand Magazine Magazine

Jovian atmospherics

Founded by Michael Hu: G29/

v.52 1979/80

olume LII

October 1979 – September 1980

Kensington Gore, London SW7 2AR

litor: Derek Weber 't Editor: Ashley Pope isistent Art Editor: ian Lidbrooke

ntents: November 1979

est in China

I formations in a young Republic

Assistant Editor (Production): Rosalvnde Cossev

Assistant Editor (Features): Isin Bain

Sub-editor: Charles Piggott

Ivertisement Manager: Terry Pond

ie-half of all dividends on the Ordinary Shares of THE GEOGRAPHICAL AGAZINE LIMITED are assigned to a fund for the advancement of ploration and research and the promotion of geographical knowledge, e fund is administered by a Board of Trustees, whose Chairman is the esident of the Royal Geographical Society or his nominee.

ntents: October 1979	Volume LII Number 1	
viet nuclear energy without restraint inhibited progress in Soviet Europe	Henry Ratnieks	
eath of a department old reality of education cuts	Bryan Waites	22
e next 'quake will be ence of earthquake prediction	Susanna van Rose	25
agellan and his Grand Design otivation for an epic voyage	Arthur Davies	31
st continent with a simple layout shioning the American landscape, 1	G. H. Dury	37
arm call for the Broads		
ecosystem out of phase licy for survival	Brian Moss Timothy O'Riordan	47 50
ecial four-page fold-out diagram		56
aciations future and past Age Earth, 12 cial eight-page atlas	D. Q. Bowen	60
E POSSIBLE DREAM leisure by Lake Toba	D. J. Dwyer	68
iter - the basic resource tract from the Atlas of Earth Resources		75
ws and reviews		81

Volume LII Number 2

89

Zhang Zhiyi

Peter Francis	105
Russell King	117
David Turnock	125
Edward F. Noack	132
Karl W. Butzer	140
Jane Taylor	149
Allan Stacey	154
Iain Bain	156
	162
Volume L11 Number :	3
John M. Reynolds	177
Anna John	
	186
Charles Piggott	186
Charles Piggott Philip Ogden	
	192
Philip Ogden	192
	Russell King David Turnock Edward F. Noack Karl W. Butzer Jane Taylor Allan Stacey Iain Bain

Apa Tani tribe on the road to prosperity by Christoph von Fürer-Haimendorf



Apa Tanis have the same racial characteristics as the other inhabitants of Arunachal Pradesh Traditional dress (above) differs only slightly from that of neighbouring tribes and comprises a hair knot with brass needle, a cane hat, cane rings worn around the waist, and a sword and dagger. A distinct culture and social system unite them as a group despite division into village communities. Wide valley (above right) is covered by irrigated rice fields and organized into large villages which have well-maintained and individually owned pine, bamboo and fruit tree groves. Villages contain many hundreds of houses and have several wards. Each village has a large ceremonial wooden platform in al.11 High masts are used for a game of acrebatics. The mast is pulled to make it swing and people are lifted into the air. Against this traditional. background a dramatic economic anal segual revolution has occurred during the past twenty five years. Modern township of Ziro dar. right) is its administrative an Ecommercial centre

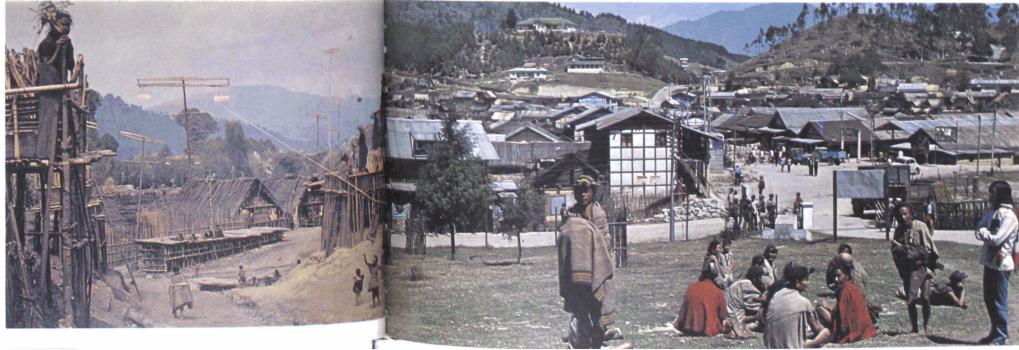
In the remote valleys of Arunachal Pradesh in the former North-Eastern Frontier Agency between Assam and Tibet some tribes prosper uninfluenced by Hindu and Buddhist cultures. The author describes the lifestyle and explains the spectacular economic success of the most remarkable of these, the Apa Tani

THE HIMALAYAS form a natural barrier which for centuries separated the civilizations of the Indian subcontinent from the peoples and cultures of the windswept plateaux of Inner Asia. But whereas the Central Himalayas were traversed by a number of trade-routes along which caravans of pack animals maintained a trickle of trade between Nepal and Tibet, the tangle of pathless wooded hills stretching from Eastern Bhutan to the extreme north-east corner of India served as a refuge for primitive tribal communities. There archaic styles of life and culture could persist in the isolation of secluded valleys unaffected by the march of progress in neighbouring countries.

In this region, formerly known as the North East Frontier Agency and now constituting the Union Territory of Arunachal Pradesh, there are no caravan routes as the precipitate gorges of rivers which break through the Great Himalayan range prevented trade which was dependent on animal transport. Rainfall many times heavier than that of the Central Himalayas sustains thorny thickets and forest which discourage all but the most intrepid traveller. Difficulties of communication rather than the nature of the neighbouring regions of Tibet and India seem to be responsible for the fact that the tribal populations which inhabit the mountainous tracts extending between Assam and Tibet have remained for centuries untouched by Hindu as well as Buddhist civilization.

Isolation by physical factors persisted even until the middle of the 20th century because of political decisions taken by the Government of India during British rule. The area between the northern fringe of the Assam plains and the crest of the Great Himalayan range, traditionally





regarded as the border between India and Tibet, remained outside the administrative control of the Government of Assam. Until 1944 this tribal country was as strange to the Assamese of the plains as to the Tibetans beyond the Himalayan passes. It was inhabited by a number of tribes of Mongoloid race and Tibeto-Burman language who were virtually ignored by the outside world.

The most remarkable of these tribes are the Apa Tanis of the Subansiri region. They live in a single valley lying at an altitude of 1500 metres and ringed by wooded mountains rising to heights of more than 2400 metres. Within the confines of this valley - ten kilometres long by three kilometres wide - a civilization has developed which is different from that of all the surrounding tribes.

When in 1944 my wife and I first entered this valley after a strenuous trek through the pathless forests of the outer ranges, we found ourselves among people who had seldom, if ever, encountered an outsider. The Indian rupee coins we had brought with us were of little use, for the Apa Tanis were unfamiliar with money, and all transactions had to proceed on the basis of barter. The two commodities most eagerly accepted were salt and cotton cloth, while tobacco and matches, which the Apa Tanis rapidly learnt to use, served as small change. As skilled cultivators the Apa Tanis were self-sufficent in foodgrains and used their surplus rice to barter cattle and pigs from neighbouring Nishi tribesmen who, though more numerous than Apa Tanis, were noticeably less advanced in material development.

Neither the Apa Tanis nor the Nishis recognized at that time any outside authority, but the Apa Tanis had clanheads who formed village-councils with judicial powers. Relations with neighbouring tribal groups fluctuated from friendly trade-contacts to open hostility in the form of

raids, kidnappings and even the murder of captives in cold blood. Although absence of any superior authority of territorial organization gave free range to conflicting interests, traditional Apa Tani society had a high degree of stability. A feeling of tribal solidarity based on common language and habitat was expressed by an unquestioning acceptance of certain forms of social conduct which distinguished the Apa Tanis from their neighbours. Apart from the division of Apa Tani society into village com. munities and clans there was a horizontal division into two social classes. The members of the upper class, who married only among themselves, owned the greater part of the land, and occupied the leading positions on the village councils. Not all of them were rich, but even patricians of modest means enjoyed privileges. Among the commoners there were free men, some of whom had acquired considerable property, but a good many were domestic slaves living and working in the houses of their patrician owners Apa Tani valley. There were many who had either been captured in war or who had been bought from the Nishis. society, and their children grew up as Apa Tanis and often married local commoners.

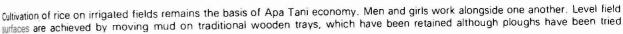
When I returned to the Apa Tani valley for a few weeks vants posted to that part of Arunachal Pradesh. in 1962 the scene had begun to change. Tentative steps taken towards the establishment of an administration in the last three years of the British Raj had been reinforced: by actions of the government of independent India. The emergence of an expansionist Chinese regime on the northern side of the Himalayan main range had induced the Indian government to improve communications and to station army units'in the Apa Tani valley. At the southern

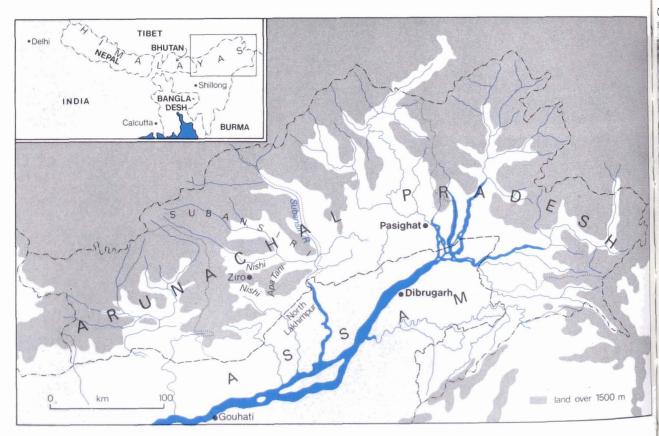


Slaves inherited by their masters and treated as family High school in Ziro provides Apa Tani children with an English language education which enables them to enter Indian retainers formed only part of the slave-population of the universities. Graduates are currently obtaining positions in Government service, defence forces, the police and the professions

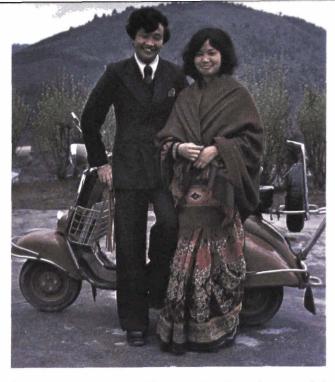
end of the valley modern buildings were constructed to These slaves were gradually integrated within Apa Tani | house the adminstrative headquarters of the Subansiri district and in this new settlement, known as Ziro, Apa Tanis mingled with the numerous Indian government ser-

By 1978, when I last stayed among the Apa Tanis, they had undergone a far-reaching transformation. The linking of Ziro by an all-weather road with North Lakhimpur in the plains of Assam has been the main factor in the transformation of the local economy. The Apa Tanis, who had always been enterprising and skilful traders, made full use of the new link with the outside world, and within a few vears Ziro became an important commercial centre. Today there are fifty-nine shops at Ziro, all but two owned by Apa Tanis, and these shops cater for the needs of the Apa Tanis, the many government employees stationed in the valley, and to a lesser extent for those of Nishi tribesmen who have to pass through Ziro when visiting the plains. The establishment of most of the commercial enterprises has been made possible by the influx of large sums of money, partly by way of government contracts taken by Apa Tanis, and partly through the salaries and wages paid to government servants who are both Apa Tanis and outsiders. Another source of income is the import of cattle for slaughter as well as for sale to the Nishis. The cattle, mainly old bullocks and infertile cows, available at cheap









rates in the plains of Assam are driven along the motor road, and usually grazed for some time in the Apa Tani country before being sold to Nishis from neighbouring villages. The old barter system has almost totally been replaced by a money economy and many Apa Tanis have accounts at the Ziro branch of the State Bank of India.

How can the commercial success of the Apa Tanis which contrasts so sharply with the dismal economic position of most of the tribal populations of peninsular India be explained? The principal reason for their ability to take full advantage of the opening up of their country was and still is the virtual absence of competition. The so-called 'Inner-Line' policy of the Government of India requires that even Indian citizens have entry permits to Arunachal Pradesh, No outsider is allowed to establish a business, and though a few non-tribals, including the Assamese and Nepalis, are employed as salesmen in shops owned by Apa Tanis, they do not represent a threat to the local businessmen. The Apa Tanis are favoured even in the granting of public contracts, although in major projects the exclusion of outsiders is not possible because the local tribesmen do not have as yet the experience and resources to take on contracts for such works as bridge-building or the construction of modern buildings. Even so, their present share of public works has enabled some Apa Tanis to acquire



 $\epsilon_{adiamientary}$ democracy was introduced to Arunachal ϵ_{adiash} in 1978. Meeting celebrates the election of an Apa ϵ_{am} , who is now Speaker of the Legislative Assembly

Accessibility and commercial success have brought many of the products of Western technology within reach of the Apa Tariis Indian fighter pilot and his wife, a pharmacy manageress, (above) own a scooter and (below) some Apa Tanis now own legis



considerable wealth. It is not unusual for businessmen to own motor-scooters, trucks, jeeps or even cars. Some of their homes are lit by electricity and a few have telephones. Far from proving detrimental to the tribesmen the protective seclusion of their habitat has proved a boon, and the policy of restricting the entry of potential competitors has been vindicated.

The spectacular economic development of the Apa Tanis could hardly have taken place without rapid educational progress among many sections of the tribe. The first primary schools were established in the 1950s. At first Assamese was the medium of instruction, and this was later changed to Hindi. However, an agitation among Apa land and other tribal students and politicians in favour of English brought further change, and today English is the fficial medium of instruction and the language of the adinistration. In the Ziro high school, Apa Tani boys and ark study side by side with Nishis as well as some of the hildren of non-tribal government employees. Many of the fudents have gained admission to universities and colleges Pasighat, Dibrugarh, Gouhati and Shillong, and some lave gone as far as Calcutta and Delhi. In 1978 there were aready thirty-three Apa Tani graduates, and among these were fifteen senior government officials, a pilot in the ndian Air Force and two doctors. There were also 342 nen in junior government posts, the defence services and dice force. Compared to developments among tribal opulations of peninsular India this is impressive progress. The fortunes of an educated élite and the material ogress of successful traders must not be taken as an inication that Apa Tani society as a whole is in a state of urmoil and rapid transformation. In some spheres of fibal life including agriculture there have been few hanges, and traditional values and practices persist with mly minor modifications. The Apa Tanis have always men extremely industrious and skilful cultivators of rice mirrigated terrace-fields. Those fields were tilled by hand with the help of iron hoes and various wooden implements, and there was never a question of using ploughs and inimal traction. Even when government experimented with the introduction of ploughs and plough-bullocks, the Apa Tanis stuck to their traditional methods and con-

tinued to grow their staple crops of rice and millet in the same way as they had always done. They did readily adopt the cultivation of newly introduced vegetables, both for their own consumption and for sale in the market of Ziro. Indeed this is one of the ways in which women can earn the cash required for the purchase of novel commodities.

One significant change in the Apa Tanis' agricultural economy has occurred. Previously men and women took equal shares in the cultivation of the land, and labourgangs working on the rice-fields consisted usually of both young girls and young men. Nowadays many gangs are made up only of girls, and men working on the fields are mainly old or middle-aged. Young men prefer to engage in trade, government employment or contract work. Another change which may not be for the better is the replacement of the products of local crafts by imported machine-made goods. Weaving, a craft in which Apa Tani women were expert, has declined, largely because mill-made cloth obtainable in the Ziro bazaar is cheaper than the much superior hand woven textiles. Moreover college educated men tend to dress in shirts, trousers, pullovers and sometimes tailored coats. Similarly iron pots have replaced the earthern pots formerly made by Apa Tani women.

The basic structure of Apa Tani society has withstood recent economic changes remarkably well. The division of the tribe into two hereditary classes has remained unaltered, but slavery was abolished in the early-1960s and slaves have been absorbed into the mass of free commoners. Inter-marriage of the two classes persists as an ideal and many patricians still consider mixed marriages as objectionable. In practice, however, such marriages take place and are tolerated although they create for the spouses some difficulties in the performance of rituals. Some of the young educated Apa Tanis advocate the liberalization of marriage rules to permit unions even between Apa Tanis and members of other tribes such as Nishis. A few such marriages have already taken place but the couples do not live in Apa Tani villages, where they would still encounter opposition and exclusion from rituals, but have settled either at Ziro or even outside the Apa Tani valley.

The most important factor in the development of social stability is the establishment of peace not only within Apa Tani society, which was always well ordered, but also between Apa Tanis and their martial neighbours. Raiding, kidnapping and the holding to ransom of hostages are things of the past, and today Apa Tanis can travel far afield in the pursuance of trade without running any risk to their life and freedom. Disputes within villages or between inhabitants of different villages are settled by councils derived partly from the old system of clan-representatives and partly of elected members of village panchayats, the smallest units in the new system of grass-root democracy.

In 1978 fully fledged parliamentary democracy was introduced in Arunachal Pradesh, and several Apa Tanis contested a seat in the Legislative Assembly. The winner in the contest is the son of one of the richest and most prominent Apa Tanis, who was once a famous war-leader and later devoted his organizational talent to building up extensive business interests. His son, who belongs to the educated élite, now holds the position of Speaker in the Legislative Assembly. Modernization has affected many aspects of Apa Tani life, and there is every prospect that this relatively small tribe with a total population of about 15,000 will make a significant contribution to the development of the Subansiri District and possibly the whole of Arunachal Pradesh. Unlike many other tribal people who suddenly came face to face with the modern world Apa Tanis have retained their self-confidence and optimism.