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1947

THE MATRIX OF INDIAN CULTURE

THE MATRIX OF INDIAN CULTURE

Sri Mahadeo Hari Wathodkar Foundation
Lectures, Nagpur University, 1946

By

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TO

My pupils of the M A. Final
Class in Anthropology, 1947
whose love and loyalty
I sincerely reciprocate.

BY THE SAME AUTHOR

A Tribe In Transition (Longmans)

The Fortunes of Primitive Tribes Vol. I (Universal Publishers Ltd.)

Races and Cultures of India English Edition (Kitabistan)

French Edition (Adonis & Sons)

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INTRODUCTION

I have no particular claims to make for this Volume of Lectures I delivered at the invitation of the Nagpur University in the winter of 1946, under the Sri Mahadeo Hari Wathodkar Memorial Foundation. On the otherhand, I feel that some sort of apology is needed for putting the lectures into print. The University of Nagpur are largely responsible for this as it is they who invited me to deliver the series of lectures and it is also at the request of the University that the material is put in the form presented in this Volume. For my part, I may only add that I accepted the invitation of the University of Nagpur, not because I was competent to deliver the goods but because I did not want to forego an offer which rarely comes to an anthropologist in India, there being few Chairs in anthropology in Indian Universities and fewer endowments for lectures on anthropology, a situation which is not likely to improve in the immediate future.

To most people, laymen and scientists alike, anthropology is still the Science of primitive culture, of savage and semi-savage races whose cumbersome existence in this atomic age is considered of doubtful gain. Racial biology is still considered amateurish and politically fraught with uncanny consequences, while in its physical aspect, anthropology has been regarded as a curio-hunting, digging-up of bones and crania to prove or disprove fashionable hypotheses about creation and the origin of species. The study of primitive culture which has formed the main scope of cultural anthropology must have an appeal in a country

with thirty millions of aboriginal and semi-aboriginal population whose life and habits bear the stamp of neglect and of centuries of callous apathy on the part of their neighbours. Today, when a new wave of optimism is thrilling the countryside, the fate of these voiceless millions must be simultaneously worked out for there can be no two futures for the people of the same country. These primitive tribes are living their life in inaccessible and remote hills and fastnesses and their problems which were not known or even heard of must be assessed today in the interest of social justice if not for the strength that their number implies. But mere study of primitive tribes and backward castes, does not exhaust the scope or interest of the science of man. It was a historic necessity that anthropology had to begin with the study of savage and semi-savage races. Being a new Science, a hundred years'old discipline, anthropology could not embark on a war against the other sciences for spoils, nor could it encroach on the allied social sciences more established than itself. Besides, it was then considered expedient to study the savage peoples in different parts of the world, for two reasons; (1) As most of the savage races were rapidly thinning out, and their exit became so certain that immediate attention had to be directed to the study of savage cultures: their legacies needed to be competently assessed before the people finally disappeared altogether (2) The parochial attitude of the time, the assumption of vital differences in the make-up as well as in cultural life between the *sapiens* and the *ferus* or *monstrous*, the civilised and the savage, made possible a more or less objective evaluation of

savage cultures and thus a science of culture was worked out which today lays claim to a wider scope and greater usefulness. Anthropology has succeeded in its objective. It has produced a rich literature on culture, it has thrown light on problems of life and living and what is more important, it has developed a scientific technique of study of culture, so that the latter can be used profitably to assess the value and competence of the various items of our cultural life to which we are merely habituated without even understanding their significance or implications. To-day, it has been possible to compare the cultural life of our times with that of earlier days and an anthropological standpoint in the study of society has been developed which may provide solutions to most of our social ills, while the developed technique of study is being increasingly used to unravel the ethos and patterns of complex cultural life.

Like most other sciences, anthropology has a history though the 'alchemy' of anthropology was a nebulous formation which provided the back-ground for both serious and non-serious theories of culture. Even where a knowledge of biology was considered essential, pseudo-scientific dogmas about race and racial relations have produced a mush-room of superstitions in the mind of the average man. These, however, are slowly giving place to scientific thought and practice and the future of anthropology may be viewed without misgivings. The need today is for better knowledge, more trained personnel better techniques and standardisation of methods

While it is realised that anthropology must be pursued as a science and not as a hobby, while it is recognised that an anthropologist must have

the necessary training in methodology, competent knowledge of the literature on the subject and at least a working knowledge of the language or dialect of the people he decides to study, paradoxically enough, it is the easiest thing to become an anthropologist. Mere writing an account of a tribe or some aspect of its cultural life does not make the author an anthropologist just as a protest against the infringement of the civic rights of man, does not make the man who protests, a politician. That is why a lady asked an anthropologist when introduced to her, 'Now do tell me, is anthropology very much prevalent in your part of the country?' Certainly it is not as prevalent as measles, pox or plague but it is in a way. I should not however be taken as advocating some sort of trade unionism in science, but I do think the time has come when our universities should take up the scientific study of man, so that much of what we know today of our neighbours may be correctly known, known better and known for the purpose of doing good to those we want to know. Before a large scale transition from one economy to the other is effected in our country, the conditions prevailing in the various culture areas must be evaluated with accuracy and insight for mere political expediency may not be enough justification for a policy or program when the interests of millions of people are involved. I should therefore plead for a thorough examination and study of the social, economic and agrarian conditions prevailing in tribal and backward tracts excluded or partially excluded, before any policy with regard to them is finally adopted, the purpose is and must be the safe transition of backward communities to a more advanced and integrated

social economy. In all works of European authors, unfortunately enough, and we value their sympathy for our people, the primitive tribes are described as living a happy and contented life so that they may not be disturbed in their blissful ignorance: that is how their hardships and discomforts have been perpetuated till they are today groaning under the shackles of slavery and agrestic serfdom

So long there was not much of political consciousness among the masses in India, the hierarchical social organisation represented by the caste system provided a bulwark against disaffection and the social groups in various levels of culture and decay aspired for a place in the caste order however insignificant it may seem to-day. Islam and Christianity in India consciously or unconsciously subscribed to the self-same pattern of social structure and there developed a hiatus between practice and profession till the cleavage became real. With the growth of political conciousness among the rank and file in the country and prospects of political power for the people in the offing, the various social groups again closed their ranks, combined and consolidated till schismatic forces are pulling the major groups into divergent directions the resultant of which is not clearly perceptible. Fission and Fusion have been the perpetual trends of Indian cultural dynamics, fusion ultimately shaping the destiny of Indian culture. No where, perhaps such differences of race, creed, language and levels of culture are found as in India and nowhere do we find such spirit of toleration and accommodation as has been noticed in this land of races, cultures, and faiths. The transition that is overtaking us today, is probably following the ethos of Indian culture and there need be no misgivings

in the minds of anybody about the shape of Indian culture that must eventually emerge.

It would be ungrateful to end this note without recording my thanks to the University of Nagpur for inviting me to deliver the lectures and permitting these to be put into print. Some of the lectures are based as they must necessarily be on earlier publications in the shape of articles in Journals and periodicals while most of the material refers to first-hand investigations I had carried on during many years preceding. The Second chapter "Indian Anthropology through the Decades" has been reprinted partly from a memorandum I submitted to the Indian Science Congress in 1947, and partly from a similiar memorandum on Indian Anthropology during the Global War published in the American Anthropologist. The latter memorandum was submitted by me at the invitation of the Committee on Anthropology of the National Research Council, U. S. A., (American Anthropologist, April, 1947). I am also grateful to my friends Prof. A. K. Das Gupta of Bareilly College and Mr. P. Mukerjee of the Finance Department, U. P. Secratariat for reading the manuscript and suggesting changes. My pupil Miss Esther Newton, M. A. has made the diagrams and my wife Mrs. Madhuri Devi. B.A. has helped me in the preparation of the index. My students of the M.A.Final(1947) class whom space does not permit me to refer to individually, have earned my gratitude by their loyalty and love for me and it is their encouragement that finally made it possible for me to put the volume in print. If this volume in any way helps to maintain the interest my students have shown for anthropology, I shall feel amply compensated for my efforts. I am also grateful to

the Gujarat Research Society for permission to include some paragraphs detailing the results of the recent Racial and Serological Survey of Gujarat.

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PART ONE

CHAPTER 1

THE MARCH OF CULTURAL ANTHROPOLOGY

Anthropology has passed its adolescence and today claims to be a major discipline. The 'formulative' and 'constructive' periods of its career are over, and it can critically look back on its past and even take a bold step towards the future. It has passed the descriptive stage, and now can base its theories on concrete data, factual presentation and objective evaluation of problems affecting the life and living of people both Primitive and advanced. It has thrown considerable light on principles, ethos and aspirations, patterns of primitive culture and has already settled many of the moot points, as regards general perspective. In other words, 'anthropology' is now on the way to free itself from the control of pre-scientific interest.

Anthropology started as an attempt to interpret the culture of the human race but its materials were mostly based on reports of amusing trips into savage countries and of 'amateur handling of bones dug out of ancient graves'. Its point of view as Wissler put it, was that of 'the European observing the rest of mankind'. With the discovery of the Americas and the explorations of new lands for settlement or exploitation, the European races came in touch with the savage and semi-savage peoples whose life and institutions appeared 'quaint and grotesque to a people whose outlook was at that time decidedly narrow and parochial'. The monogenist view of

creation, the belief in the descent of man from a single pair, for example, raised a problem of the greatest significance that of harmonising the knowledge about the primitive world with the established notions of life and conduct of the age. Various theories about the relation of the savage people with the civilized races were suggested, and for a long time, anthropological studies became quite popular. The explorers, missionaries, traders, merchants and colonists who were in contact with primitive races, started writing about people and produced a rich crop of literature on savage society. As such accounts multiplied, the conviction grew that there were fundamental differences between the savage and advanced societies. The church came forward to reclaim these newly discovered people and thus religion, politics, trade and commerce combined to build up the foundation of anthropological studies. How difficult it is to sift the mass of heterogeneous material on primitive life and institutions collected by the pioneers in anthropology, will be evident from the classic attempt of Sir James Frazer to interpret them in the Golden Bough. He tried to combine the strangest, the exotic and rude and savage traits and read order and uniformity in them. The literary genius of Frazer has made his accounts tell and the humanistic touch in his treatment has appealed to a larger section of people than was probably intended for. In 'The Mothers', Briffault has not advanced ethnographical knowledge to any appreciable extent by his elaborate and painstaking methods of collection of data from all sources, some of which are no doubt of dubious value.

As the data about primitive peoples began to accumulate, their interpretation was taken up by

anthropologists and social psychologists. It is not necessary that the data should be collected only by trained anthropologists. As Mrs. Seligman put it 'workers whose real interests lie either in history, psychology, evolution, even in mechanics (how a thing works) or social reform, can all become good anthropologists if they will be honest observers and not restrict their field of vision only to their personal interests' (Man Vol. XXIX No. 6. 84), The earlier accounts of savage life and culture were permeated by crudely developed theories of the form of 'conjectural history', evolutionary or historical so much so that the field worker started with a lot of pseudo-scientific assumptions, prejudices and preconceptions, which he tried to substantiate without attempting a morphological or physiological study of savage cultures.

The large mass of anthropological data of dubious value attracted theoretical interest. Herbert Spencer's attempt to apply the theory of evolution to explain cultural data may be said to have laid the foundation of evolutionary anthropology. The historical reconstruction of man's hypothetical past encouraged an indiscriminate use of anthropological data and the chaotic sources were cleverly manipulated to weave a chequered career of cultural development. Bastian, Tylor, Pitt-Rivers, Ratzel and others developed scientific theories of cultural progress to help interpretation of human life and institutions. For the principal social institutions, for example, Morgan postulated an elaborate scheme of hypothetical stages of human progress. Regarding the evolution of government, he laid it down as an axiom that monarchy was incompatible with clan organisation, that it appeared only in civilisation, that is, in the period of phonetic writing and

literary records. Aristocracy according to Morgan did not develop before that 'later period of barbarism', that is, not before the age of iron. Further, exogamy was taken as preceding incest and the former was characteristic of Greek *Genos*, and Roman *Gens*. Though admitting that female descent could not be proved in the Grecian and Latin *Gens* he assumed that it once existed. Morgan took the clan organisation as universal and also because of its abstruse character, he postulated a single origin. Morgan's investigations into property, proved the communistic character of the primitive community, individual ownership in land was preceded by common ownership, a theory with which many contemporary sociologists agreed. He discovered the classificatory system of nomenclature and studied the principles of primitive kinship.

The basic idea of all evolutionary schemes of social or cultural progress is that of a regular series of gradually advancing stages based on the uniformity of the working of the human mind, 'which enabled different human groups to produce in similar conditions the same inventions and to develop similar institutions' from the same 'germs of thought' or 'elementary ideas'.

'Like the successive geological formations', says Morgan 'the tribes of mankind may be arranged according to their relative conditions into successive strata'. This stratification of human society rests largely on the application of the principle of survival. There are certain customs which are regarded as vestigial forms or remaining traces of earlier customs. They cannot be explained by their present utility but are only intelligible through their past history.

There are other customs which cannot be ex-

plained by present circumstances but persist in isolation from the original context. All these are treated as 'survivals' and through them the evolutionists have reconstructed hypothetical past ages. In our every day life we meet with customs and practices which are often useless from any utilitarian point of view and are mere expression of emotional states. The indiscriminate use of the principle of 'survival' has led to a crop of generalisations regarding the origin and development of social institutions and the field ethnologist today finds it increasingly difficult to uphold them in the light of his field experience. When a Majhwar woman gives birth to a child, her husband is congratulated by the neighbours and a decoction of leaves is immediately prepared and offered to the husband in consideration for his role in the episode. The poor woman may even go unattended. This custom is known as couvade. In other tribes where couvade is practised, the man is kept confined in his room for a couple of weeks, all his needs attended to by the members of the family and if need be, by the village, while the mother goes about and takes part in domestic activities. Couvade has been explained by some as a survival of the transitional stage of maternal-paternal descent. In the paternal stage, there is no excuse to treat the father so kindly, for patrilocal residence leaves no room for doubt concerning the paternity of the child. It is only in the maternal stage, that paternity is not likely to be known, neither is it considered important as the child takes the name of the mother's family and inheritance of property follows the uterine line of descent. In the maternal paternal stage where residence may be matriarchal, but inheritance paternal, or vice versa, that con-

ventional methods of ascertaining paternity are needed by keeping the father confined in a room or by the customary 'bow and arrow' ceremony. The difficulty is that couvade is found associated with patriarchal clans and there is hardly any evidence to show that these clans at any time followed any other system of inheritance other than patrilineal. Prof. Malinowski does not think that couvade does anything else than cement the marriage tie and secure paternal affection, but Lord Raglan thinks otherwise, it is to him, 'a wholly irrational belief which is probably older than the institution of individual marriage and possibly its cause'. (Man Vol. XXX. No. 3,44).

Morgan's scheme for the evolution of the family began with promiscuity and monogamy came last and the gap between was bridged by a number of intermediate stages; his matriarchal family was earlier than the patriarchal and as such the maternal form of polyandry among the Nairs was earlier than the fraternal form found in Tibet or in the Himalayan area. Various probable explanations of the forms of marital relationship found today and which were arranged sequentially by him, make it necessary to review the scheme of family evolution in the light of new data. For example, the maternal polyandry of the Nairs need not be considered as a stage in the evolution of marriage from promiscuity to monogamy, for the Nair polyandry arose not from promiscuity but in a monandrous society. The martial creed of the Nair males which caused a heavy toll on Nair manhood brought about a disparity in sex proportion and this naturally should have led to Polygyny rather than monogamy, but as matriarchal residence was incompatible with polygyny, the Nair reaction was

definitely against it. Numbutiri custom by which all the sons of Nambutiri except the eldest could live with Nair women as concubines did not bring the Nair women into disgrace; for, as the inheritance was matrilineal, the children of Nambutiri father and Nair mother suffered no social stigma but could inherit the property of the mother, a situation that encouraged polyandry and discouraged polygyny. This is however corroborated by L.K. Anantha Krishna Iyer who writes, 'the nonfraternal polyandry' of the Nairs, 'was, to a great extent due to the military organisation of the Nairs, and feudalism which then prevailed in Malabar'. Iyer quoted Warden who gave a similar explanation of the origin of polyandry and inheritance through the female line among the Nairs. The profession of arms by birth subjecting the males of a whole race to military service from the earliest youth to the decline of manhood was a system of policy utterly incompatible with the existence among them of marriage state.'

The fraternal polyandry of Tibet and of the cis-Himalayan tract which is still practised with pristine conservatism is not a dissociated phenomenon and exists along with monogamy, polygyny, even group marriage, where a group of brothers or collaterals marry a group of women related or not, without any exclusive right of any of the brothers to cohabitation with any one wife. This practice is commonly associated with Australian marital system which according to the evolutionists, has shaped the scheme of family evolution. There is no disparity in the proportion of the sexes in most parts of this culture area, though the conditions of life hardly encourage the setting up of independent establishments, a fact which is probably respon-

sible for the custom of joint living, and the peculiar laws of inheritance placing the eldest and the youngest born sons in an advantageous position with respect to their share in the ancestral property. This, I think, has conserved the polyandry of the Himalayan region, the feudal type of social organisation discouraging partition of property and consolidating the status of the patriarch or the eldest male member of the family. Elsewhere I have shown how a matriarchal matrix can be traced in these parts which must have provided the background of this type of marital adjustment.

The rigid determinism and the too absolute classification of the earlier evolutionist school which does not consider the 'effects of tribal migrations and the methods by which culture is transmitted from people to people' was soon found to be incompatible with known anthropological facts. Similar culture traits may not have sprung from the same cause or causes and the history of the world civilisation makes it abundantly clear that different racial groups have progressed in diverse directions while the same race partakes of different cultures in the same as well as different geographical environments. Polygyny may be due to or can be justified by the disproportion between the sexes as among the East African tribes, by considerations of prestige attaching to wealth or head-hunting as among the Nagas (where a man who shows his skill in head hunting and has already accounted for a number of human heads attracts more women who even agree to work for him and maintain him) or, by the peculiar condition of agrarian economy based on rice cultivation as in Muslims of Bengal. The peculiar condition of hypergamy prevailing

in India has encouraged polyandry at one end of the social scale and at the other has favoured plurality of wives, has encouraged exhorbitant bride-price in the lower section of the society and has put a premium on the bride-groom in the upper. If there are two sections in a society, M and N, one may be hypergamous to the other, M women would confine their marriages within M while M men have a larger field to choose their wives from, as they can also secure them from N. N women are similarly placed, so that they can get their husbands either from N or from M, but N men have to limit their choice to N alone. The consequence of such a state of affairs is that there is always a premium placed on bridegrooms in M, and on brides in N, so that marriage of women in M and of men in N becomes difficult. Of parents in M, those that want their daughters to be married, and no Hindu parents can escape this obligation, have to make tempting offers to the bridegroom while N men have to agree to higher brideprice to secure wives, a situation that has ptecipitated child marriage in M, and increased incidence of celebacy and late marriage among the men in N.

Study of social origins and continuities makes it abundantly clear that the doctrine of unilinear development of the human society from savagery to barbarism, barbarism to civilisation, from promiscuity to group marriage and group marriage to monogamous family life, from the hunting to pastoral, pastoral to agricultural, agricultural to handicraft, and to the industrial type of economic life, is untenable in view of our present knowledge of the social and economic life of simpler folks all over the world. In the biological sciences, the

rediscovery of Mendel's laws of inheritance provided a point of departure from Darwinism, and in the words of Marett 'the time of critical mood succeeded the constructive in anthropology'* Henceforth the notion of unilinear evolution was discredited. Cultural progress has not been uninterrupted but shows an irregular alternation between progress and retrogression. As Lowie puts it. 'Civilisation is a planless hodge-podge, a thing of shreads and patches to which its historian can no longer yield superstitious reverence.' Even if we take the treatment of kinship by Morgan who was the first to systematically study several nomenclatures to compare them with one another and to attempt a typology or interpretation, we would find that nomenclature of relationship is not one system, but the result of criss-cross currents. Kroeber's categories of relationship, for example, show the 'fallacy' of working on one category principle.

The unscientific habit of stretching evolutionary generalisations too far led to a revolt against the orthodox evolutionary school. A number of scholars prominent among whom were Fredrich Ratzel, E. Reclus, Graebner, Foy, Trobenious, Ehrenreich, Ankermann, and Pater Schmidt found that similarity of operations of the human mind could not account for all cultural resemblances or parallels. They, however, thought that mechanical transmission was more important than psychological interpretations. They therefore switched on emphasis on recorded facts of direct transmission from one group of people to another either through chance contact and borrowing' or through more intimate blending of cultures or

*Address delivered before the International Congress of Anthropology, 1934.

racial admixture leading ultimately to the concept of ' cultural areas'. The latter is based on distribution maps and bears out the impress of physical habitat and the possibilities of cultural transmission. The new school began to concentrate on differences rather than on similarities and did not consider parallels unless they could be definitely traced to borrowing.

Though Tylor in England did not deny the possibility of cultural contacts in the evolution of social institutions, Rivers has been the first to call attention to the insufficiency of the psychological hypothesis or the fundamental similarity of the working of human mind to explain by itself the uniformity of customs and institutions in different parts of the globe. He acknowledged the important part played by cultural contact and the mixture of races. Elliot Smith, Haddon and others in England have recognised the importance of racial miscegenation and the blending of cultures; Rivers, however, did not underestimate the importance of the psychological and historical perspectives-While not in principle spurning an ultimate psychological interpretation, Rivers insisted that 'sociological phenomena must be explained first in sociological terms', not in those of a science dealing with simpler data'. The French anthropologists generally agree with the evolutionist school, but the sociological school of France prefers to substitute the psychology of the group in place of the psychology of the individual. According to them, the origin and development of customs and institutions should be explained not by a reference to individual psychic phenomena, but to what they call the 'social mind'. Social tradition and public opinion exercise tremendous influence on the life

and conduct of the individual and thus all cultural and social phenomena and their development can best be understood through the 'adaptive processes of the social life implicit in the social mind'. Durkheim, one of the most celebrated of French sociologists, was an evolutionist but he did not accept the unilinear theory of cultural progress; he recognised the diversity of primitive culture and hence the absurdity of 'lumping together all savages and expressing them as forming a single identical whole.' Levy Bruhl, however, exaggerated the importance of social tradition moulding individual responses to experience and stressed the overwhelming significance of 'irrational factors not in the primitive but in human thought'.

Just as the comparative or the evolutionist school traced all cultural progress to simple and crude beginnings, the historical school or its counterpart, the diffusionist school, traced all culture to race admixture and borrowing. The extreme section of the latter refused to recognise the important role of the human mind and regarded the dogma of the similarity of the working of the human mind as an 'amazing psychological speculation' and a 'flimsy travesty of psychology'. The main planks of the diffusionist school as summarised by Lowie consist of the following dogmas. (1.) Man is uninventive, hence culture arises only in exceptionally favourable circumstances, practically never twice independently. (2.) Such circumstances existed only in ancient Egypt, hence elsewhere culture, except in some of its simple elements must have spread from Egypt with the rise of navigation. (3.) Civilisation is naturally diluted as it spreads to outposts hence decadence has played a

tremendous role in human history. It must, however be credited to the diffusionists that they did not hold the absolute impossibility of a custom or belief being invented twice independently, nor did they deny that similar culture elements might develop simultaneously or independently in different parts of the world; only they did not possess any evidence of such cases. Therefore, theoretically the diffusionists agree to the assumption of independent origins, yet they take it for granted that similar customs among different peoples living in the same neighbourhood or widely separated regions, must have been derived from isome common source and spread due to migrations or social intercourse. Elliot Smith and Perry insist on the universal spread of culture from Egypt, and as far as the data on which they have built up this exclusive hypothesis, anthropologists have found them to be not only unsatisfactory but unreliable in most cases. It is no doubt difficult to prove the simultaneous discovery of similar cultural traits of complex nature, though as Hutton has said in his correspondence on the subject of Perry's "The Children of the Sun", that 'it is commonplace that identical results may spring from entirely different origins'. Perry wanted 'real instances' and Hutton produced (1) the fire piston independently discovered in Asia and about 1800 in France; (2) the bull roarer discovered independently by Mr. N. W. Thomas, the Australians and whoever else use it. (3) The use of adrenalin as an arrow poison by certain Amazonian Indians. (4) the use of suggestion in medicine and magic. The last, Perry does not think an invention, as "suggestion is a natural psychological process that enters into the lives of all of us". The second,

Perry thinks has no value, 'most of us have swung bits of wood on the end of pieces of string when boys.' The use of the bull roarer is a serious matter to the Australians. It is bound up with complicated ritual and must be explained as part of ritual. The thread according to Perry is derivative, a variation in a craft. 'Differences' says Perry, 'in painted pottery are merely secondary differences' The fact that the modern people (he refers to Europeans) succeeded in rediscovering many mechanical appliances used by primitive people or that Europe has rediscovered certain anatomical knowledge possessed by the Egyptians, goes to show that the European 'lives in an atmosphere of inquiry' which gives him an advantage over others. If we accept Perry's explanation that the environment of the European has favoured duplication of inventions then similar atmosphere of inquiry, if it existed in the past, might have led to rediscovery of similar traits or processes. Setting aside the non-serious charge against Elliot Smith and Perry that they contended that the drinking of water came from Egypt, Perry has struck a note of optimism by saying, "It is certain nevertheless, that in the *vast majority* of cases (Italics mine) the common possession of the same element of culture by two or more peoples, is due to diffusion. The only possible working hypothesis is that discoveries and inventions take place once." (Man Sept, 1928 No, 123). We cannot ignore the fact that wheats already discovered 'fall into three distinct groups which can be crossed with great difficulty and which probably originated in Europe, Asia and Africa respectively', Writing about the origin of agriculture, Thurnwald said, 'Tilling of the soil, for instance probably had a two-fold origin, On

the one hand it may have arisen from the use of the digging stick to extract roots from the ground which would suggest the possibility of putting others in. On the other hand, it may have been furthered by the discovery that stray seeds and rubbish left at an old camping place would grow, and might furnish a supply of food in the future." (Thurnwald: Economics in Primitive Communities p. 5.) I would add that these two origins might not be spatially identical or chronologically simultaneous. The arguments against the diffusionist school have been ably summarised by Lowie and his conclusion that the diffusionist shows a lack of power of discrimination will be endorsed by many. So far as the larger and more complex inventions are concerned the diffusionists are on safe ground.

Even duplication of scientific research could not be pitted against the diffusionist hypothesis, for the fact that the discoveries have been inspired by the same literature, which is highly probable. Professor Kroeber writes, " if a trait is composed of several elements which stand in no necessary relation to each other and these several elements recur among distinct or remote peoples in the same combination, whereas on the basis of mere accident it could not be expected that the several elements would at times combine and at other times crop out separately, one can be reasonably sure of the real identity and common origin of the complex trait ". But what about the inventions of simpler kinds, inventions that can be explained by the logic of the material and the logic of the environment. Professor Westermarck says, " It seems to me truly grotesque to assume that borrowing is the case with such widespread or universal culture

elements as for instance the right of property, punishment, the blood feud, the various forms of marriage, the prohibition of marriage between parents and children and between brothers and sisters and other exogamous rules, slavery, a multitude of magical and religious practices and beliefs and so forth *ad infinitum*." It is possible that many of the elements which constitute the trait complexes referred to above could be attributed to borrowing. In our experience of field investigations we have found many alien traits incorporated into the traditional pattern of a culture in such a way that the traits, though introduced from some alien and highly developed culture, have lost their novelty and have acquired a primitive or 'infantile' character in the course of their assimilation by the adaptive cultures, so that the foreign origin of these traits could only be suggested with great difficulty. In Gujarat, for example, the Bhils have taken to many Hindu customs; they shave their head and face on the 13th day as a mortuary rite; perform the 'Sasthi' Puja on the 6th day of the birth of a child; while the offering of new earthen pots to the goddess presiding over small-pox or wooden swings by the Hindus is certainly a Bhil practice. The adoption of the Manasha cult by the Hos of Singhbhum and the mixed rites performed by the disciples of the goddess appear entirely indigenous to the Hos, though the conception and much of the paraphernalia used in the worship are of Hindu orgin.

Serious difficulty is encountered in the interpretation of economic facts due to the inadequacy of knowledge and ideas of anthropologists as evidenced in their treatment of the economic life of primitive communities when these are discussed

without taking into account differences produced by diverse factors, social, geographical, racial and even purely psychological. In the primitive stages of our art and civilisation, man has responded more to the environment and his life and habits bear the stamp of his habitat. In the grass lands of Central Asia, the nomad Khirghiz responds completely to his environment of which grass is the chief source. He takes to keeping domestic animals such as sheep, cows, horses or camels. Also since the grass in any one place is eaten up in a month or two and since the best kind of grass grows in the high plateaus which, except for three or four months in summer, are buried deep in snow, the practicable mode of life is pastoral nomadism. In summer, the Khirghiz is on the high plateaus among the mountains with his flocks and herds but as winter approaches the animals must gradually be driven downward to the lowest valleys and out upon the plains where hay has been stored and where relatively permanent camps are occupied for three or four months in mid-winter. The nomad Kukis living in the jungles of hill Tipperah to the southeast of Bengal, afford another example of the inter-dependence of habitat, economy and society. The large bamboo forests which constitute his country, supply him with materials for his shelter, the articles for his domestic use, his musical instruments, his weapons of offence and defence, and even his inspiration for religion. The virgin forests still make it possible for him to practise the 'wasteful' *Jhum* cultivation and his life and habits are the products of his environment. Thus each particular set of geographical factors nurtures a particular type of culture, because in the earlier stages of social organisation the difficulty of overcoming the

forces of the environment was indeed great. Thus similar economic life among the simpler folks in different regions may also be explained by the factors of human geography.

When we come to the non-material aspects of life we find resemblances which are mostly due to similar responses to like stimuli. Stories about creation, for example, and myths describing the role of divine personalities exist in all societies. The traditional origin of the unique social structure of India, viz., the caste system, the stories of creation in the Book of Enoch, all point to important phases of human culture. It is commonly supposed that these stories resulted from an innate craving for historical knowledge, but it is an erroneous assumption. All customs, myths, and inspired utterances serve some useful purpose and we can agree with G. Elliot Smith that the aim was to 'define how life was obtained in the beginning and how a fresh supply of vital energy could be secured in times of danger or emergency.' How far diffusion and acculturation are responsible for the spread of cosmogonic legends, myths and even fables and how far they have been evolved from within independently of external contacts, will always remain an academic question, but the possibility of similar beliefs existing among remote peoples cannot be ruled out, nor can we deny multiple causes for the self-same beliefs. According to a recent writer, Geoffrey Gorer (Himalyan Village, page 431), the imperialist development at the end of the nineteenth century produced two results, 'it developed a social theory of diffusion which was parallel to and a justification of imperialism and it also led to a more careful and accurate study of primitive races so that the imperialists, who at that epoch

discovered that colonial labour was of value, could govern the subject races without having to massacre them.' Gorer thinks that the theory of 'diffusionism that all social improvements were derived from a single source (usually Egypt) was a great justification for the repetition of this process by a single conquering power usually England or Germany.'

Recent studies of primitive cultures, of acculturation, the similar mental processes exhibited by the white with regard to the native races in the colonies in some of which the native is still regarded as half-an-animal, or such facts as Dr. Laubscher brought out viz., 'that the behaviour of the native who cannot stand the strain of coping with sexual antagonism or family conflicts, unprotected by the traditional custom and protective myths, or the study of a dissolving structure like that of the Hos (A Tribe in Transition, Majumdar, Longmans, 1937,) or disorganisation in its last stages and its effect on the individual (Laubscher, Sex, Custom and Psychopathology) all may be taken as an excuse for imperialism and as evidence of 'Britain's competence as a colonial power.' in the words of Anthony West.

Apart from the imperialist development, the sanction for diffusionism probably came from the theories of evolution that held the field towards the end of the nineteenth century and dominated the first two decades of the twentieth and from the emphasis that was placed on cultural traits in primitive society which appeared distinct and remote from those observed in European life of today. Certain societies were grouped into progressive stages and the traits were interpreted as characteristic of those societies. As field investigations

became popular and field techniques to measure and assess the function of primitive institutions were developed, the methodological vagaries of the exponents of diffusionism and their fanaticism in some cases, were more and more exposed, and a reaction against all hypothesis about the origins of social institutions became naturally manifest. This was exaggerated by difficulties that field investigators were finding when many of the traits known to be characteristic of primitive culture were absent in the people under investigation and the ethnographer had to rely on his ingenuity to interpret such absence. Soon "world wide analogies' as Professor Marett put it, (address delivered before the International Congress, 1934) became suspect, attention being rather paid to such similarities as are due to actual borrowing. If, however, there is a tendency to concentrate on special areas, this is offset by increasing insistence on a functional method that takes all the factors into account in estimating the interplay of forces which is the life of a people."

A new school of anthropology appeared which carefully avoided all discussion of hypotheses as to historical origins and rejected "as being no part of its task the hypothetical reconstruction of the unknown past". Prof. Radcliffe Brown says, 'theories of the form of conjectural history, whether evolutionary or diffusionist exert a very pernicious influence on the work of the field ethnologist.' (Man; March 1929 No. 35) The attention that was paid to the evolutionary theories, to totemism, exogamy, matriarchate and the like, aspects of life which were in contrast to the European society appeared grossly exaggerated and emphasis was directed to the functional study of cultures, noting as well the 'unformalised aspects of human life, the

large imponderables of culture, which give life into customs and practices.' This is today known as the functional school in anthropology which produced a new orientation in anthropological research and technique. The main plank of the functional school is that it looks at any culture as an integrated system and studies the functions of social institutions customs and beliefs of all kinds, as parts of such a system.

The methodology developed by the school enables a field worker to give an accurate picture of the individual in the whole complex and at all levels of society to which he affiliates himself. According to Prof. Radcliffe Brown the function of the anthropologist is to 'deduce and formulate general laws governing the structure of primitive societies rather than to collect and describe the peculiarities and antics of primitive and back-ward people.' 'Anthropology' as Professor Malinowski put it. "seeks to discover the role of specific customs and rites in primitive society in its particular environment.' Culture is a complicated machinery the various parts of which are interlocked and have to work in unison or else the machine becomes useless. Each part is also of no use by itself. It can do nothing except to assist the whole to function. Anthropology does not look at the details of culture in order to appraise them as details, 'but examines them to see how and why they work, how they fit into the whole pattern, what is the motive behind them and finally to reveal how these are coordinated in a working and living system.' Social institutions must be studied as they actually function in a concrete environment and in relation to the fundamental cultural needs they satisfy.

Another fact that justifies the stressing of

interrelation of institutions is the recognition that culture does change and has undergone great transformation from people to people both with regard to space and time. The evolutionists discussed the details of primitive culture which were typical of societies at a 'certain stage of development', as if these societies were static. Every anthropological investigation was a study at a certain point of time. Other things were considered equal and comparison made, but other things are never equal and every trait should, therefore, be studied in relation to this supreme fact of culture change. Changes come from outside or are conditioned from within. In some culture, changes touch the fringe only while in others they are material to their survival or disintegration. Long and durable contacts often have succeeded in transforming the pattern of primitive cultures, while there are cases in which contacts have only added to the complexity of life of the people concerned but have not materially affected the norms of tribal life. The effects of contacts with civilisation, which give a compulsive direction to cultures are being studied seriously enough and already we possess a good deal of knowledge about primitive people affected by contacts. The study of the effects of 'compulsives' of civilisation makes it abundantly clear that we need to view cultures as read in point both of space and time and at any given point a culture may orient itself to suit the conditions facing it. This makes the evolutionary approach to cultural problems more difficult, for the details which the evolutionary theories of society claimed as typical of primitive people were not genuinely so, or could be either.

The new interest created by functional treat-

ment of cultures has truly demonstrated that anthropology is no longer to be treated as an academic subject having purely theoretical interest but can and should be made a science of immediate practical value, more particularly in relation to the government and education of Primitive peoples.

The applied or practical anthropology today is in the words of Westermann, 'a purely scientific method of investigation, which however does not consider present day problems as unscientific and therefore overlook them) and which is not above presenting its results in such a way that the practical man can apply them to his problems'. Others would not agree that the business of anthropology is to 'propound remedies for the queer habits of their fellow subjects whatever their complexion.' But they agree that "their business is to see that such practices as forced labour, interference with black women, the fact that aboriginal evidence seldom gets credence when opposed to statements made on oath by whitemen in a court of law, intimidation and ill usage of native witnesses and other relics of barbarism as fashionable travellers used to call them are properly investigated and recorded if they are elements in 'our boasted civilisation, of the 20th century."

Applied anthropology has already succeeded in showing some important problems of adjustment of native races to white domination by an indirect system of administration made available to native groups, and plans are being speeded up to encourage education in relation to the actual circumstances of aboriginal life, to acquaint colonial service personnel with the primitive

man's attitude towards sorcery and magical beliefs and practices, in the study of effects of migratory labour on village organisation, and the systems of taxation on the socio-economic life of backward communities tied to land either as land owning groups or as tenants.

If it is the business of culture to organise the relations of man to man and to his environment, a fair understanding of how a culture works as a functioning whole would enable us to 'set about producing any particular modification that may be desired or avoided, bring harm or even disaster to the people themselves by our interference.' The actual problems of administration are not properly the 'field for the scientist' and that is why anthropologists have differed so much on the question of policies to be pursued in matters of administration of aboriginal races. Whether introduction of alien institutions would lead to the welfare of aboriginal people or whether before such institutions are planned and projected into their culture they must be preceded by a proper assessment of conditions necessary for successful cultural assimilation, will continue to trouble anthropologists. The global war has brought increased demands on anthropology as the various fields of applied anthropology, such as industrial relations, rehabilitation, war relocation and the like, require persons trained in the field of anthropology. It has also been gradually recognised that the anthropologist because of his special equipment in the techniques of his science can assist the administration to fulfil a socially useful function, viz., 'reducing both the monetary and the human costs which result from misunderstanding and maladministration', a recognition which has

made greater association of anthropologists with the planning of post-war reconstruction departments possible. While this development has resulted from the increased contribution of anthropology to the solution of practical problems of administration and socials relations, the attitude of anthopologists in government departments may not lull us to security as the claims of the former to represent the science may not stand scrutiny. As John F. Embree writes in the American Anthropologist (N. S. 47, 1945 p. 635) " No matter how much an anthropologist in government may rationalise his activity, it is essentially an application of techniques to carry out specific policies, and as such cannot be called true science, any more than medical practice or dentistry can be called a science." Though it is hoped that just as a medical doctor has as a basic doctrine that he should prevent disease and save life, so "the applied anthropologist tends to operate on a basic doctrine that he should prevent friction and violence in social relations, preserve the rights and dignity of administered groups and that he should save life." (*Ibid*)

The chief objection that may be put forward against functional interpretation of primitive culture is the difficulty of assessing true values of traits of culture which function in relation to other traits, a relativity that makes our search for function difficult. The whole is composed of parts, the study of parts without relation to the whole will not explain the function of each item in a culture. A synoptical attitude to culture must remain an ideal so long as the relative importance of the traits constituting the total culture of a people is not known. Here individual as well as group variability need to be ascertained, and I

think the difficulty of assessing the same has made functionalists study some aspect of culture, view it with respect to the whole and leave it at that. For example, Firth studied primitive economics and kinship; Malinowski, sex, crime, economics, and agriculture ; Audrey Richards studied hunger and work in savage society ; Hogben, law and order in Polynesia and other monographs of the Functional School deal with land tenure, sorcery and processes of transition from one kind of economy to another. Yet the treatment of these various aspects has thrown considerable light on primitive life and institutions. The emphasis on the functional method therefore should not mean that we can or need to ignore other methods. On the other hand, it is becoming more and more patent that the various methods we have developed in cultural anthropology are all complementary to one another and should be recognised as such if we have to unravel the mystery of social life in all its ramifications. That is why one wanted to pursue Graebnerian aims i.e. not to forge the reconstruction of human past but to clear the debris of unsound dogmas and undefinable concepts from the floor of historical reality.

In 1935, I remember an incident that happened during my stay in London which goes to show that a functionalist is not necessarily a blind addict to his theory or even to methodology. The late Prof. Malinowski in his seminar at the London School of Economics, celebrated the eightieth birth day of the late Sir Alfred Haddon and welcomed the distinguished guest as the 'father of functional anthropology,' which proved that the continuity of anthropological thought could not be ignored even if there were fundamental difference in approach

to cultural problems. Prof. Haddon did not refute this 'accusation' but hoped that the functional approach would not be the last one, though its emergence probably was a historical necessity. Alexander Lesser in his article on "Functionalism" in social anthropology' defined functional relations and showed the impossibility of divorcing methods of determining such relations from a recognition of historicity as a basic condition of events. Radcliffe-Brown's rejoinder restated his view of objective of the functional approach as the description of the relation of institutions to the maintenance of the organic or structural unity of society. This statement, however, should not be construed as precluding the necessity of pursuing the causal interpretation of cultural data or the diffusion of traits through contacts and migration. Later on Radcliffe Brown has developed his thesis that the primary aim of 'comparative sociology', his new name for 'anthropology', is to discover universal cultural laws, "they should be discovered on the historical level by the methods of anthropology plus the elucidation of meaning of culture elements by each field investigator and the comparisons of whole cultural systems with one another". Any culture can be understood by relating its characteristics to known sociological laws. According to Radcliffe Brown there exist universal cultural laws independent of those of psychology. But we have yet to prove that the laws that functional anthropologists have discovered were not known to anthropology. Both against the functional or comparative sociology school and the historical school it may be said that they have minimised the role of culture change and therefore any evaluation of the role of functional anthropology, of 'compa-

rative sociology' must be preceded by a thoroughgoing knowledge of the mechanism of culture change.

Thus the old method of constructing the history of human culture out of bits of evidence divorced from their natural settings and without consideration of time sequence or of spatial distribution or even the treatment of cultures as a single unit having an individual history, lost much of its hold on anthropologists and new techniques were evolved to interpret inter-relations of cultural forms within the framework of single cultures. While the latter method has been amply justified, particularly in its exposition of inter-relations of traits within a cultural milieu, the recognition of behaviour and institutions as integral cultural configurations provides yet another approach to the study of culture. This method is concerned rather with the discovery of the fundamental attitudes than with the functional relations of every culture item. For example, Ruth Benedict has pointed out that a culture, like an individual, is more or less a consistent pattern of thought and action and that within each culture there are characteristic purposes which stabilise behaviour and consolidate experience. The method of study is illustrated by picturing three primitive cultures as 'few' cultures understood as coherent organisations of behaviour are more enlightening than many touched upon only at their high spots. In other words, she preferred the 'many sided understanding of few cultures' to the general reading of all cultures.' Her's is an attempt to apply the *Gestalt* concept to culture. Benedict finds relatively constant differences in culture pattern, with the predominance of either of the two great types of feeling and behaviour

such as Dionysiac and Apollonian. In the case of three societies she analysed, she found definite contrasts, in temperamental differences such as love of moderation, a suspicious attitude to others or a desire to display. Professor C. G. Seligman (Man Vol. XXXVI no. 150) writing on the subject of Benedict's analysis of cultures points out that (except pathologically) there are no complete extraverts and introverts and to him the general reading of history suggests that any given people may at different times exhibit varying phases of or degrees of either quality. Dr. Richards thinks that it is valuable to emphasize ' the cultural relativity of human values ' but it cannot be said that the temperamental characteristics of a primitive people, as they first strike the observer, constitute a ' pattern ' integrating all other aspects of the culture. "They are themselves the product not only of biological and environmental factors, "but of a series of social facts, forms of kinship and local grouping legal, political, and economic institutions, native dogma, educational agencies, and in particular, forms of early infant training and the type of material culture reached." (Ibid No. 152). There is nothing to be said against the preference for a few cultures, but it must be pointed out that such an attitude to cultures yields positive results so long as the cultures are not highly complex or elaborate. So long we are discussing ' societies historically as related as possible to our own and to one another' we are bound to receive ' illumination ' on the whole culture. With the vast network of historical contacts which have spread the great civilisations over tremendous areas' it would certainly be an inadequate treatment if we concentrate on the configuration of any advanced culture.

There has been so much overlapping between cultures, so many cross-currents between cultures that it has grown in the words of Benedict herself 'too complex for adequate analysis except as it is broken up for the purpose into small artificial sections.' And these partial analyses cannot be controlled. In the case of present day European cultures, for example, our attempts to discover fundamental attitudes would fail due to various psychiatric concommitants and types of adjustments of personalities or of groups. This, I should think prescribes the limit to Benedict's method of analysis. Besides, we have yet to find a highly developed or complex culture as wholly integrated. Dr. Richards has suggested the analysis of the culture pattern concept to evaluate the purposes of such treatment of cultures. She writes, 'The term pattern might be used to describe either (a) the pattern of individual behaviour characteristic of members of the culture in certain typical situations; (b) the pattern of native beliefs as expressed in religious and magical dogma and reflected in the norms of human conduct admired by the group (c) the pattern of the social structure i.e. the most dominant social institutions of the culture, where such can be described, such as a form of political or economic organisation shaping the character of most other social relationships within the culture or an elaborate ritual absorbing the community's activities" (Man, July 1936, No. 153).

The difference between primitive man and modern man is not qualitative. The irrationality of savage mind is a 'myth' for it has been found to work in the same logical way as does our own. The study of primitive society today is not for 'refined curiosity' or for 'antiquarian interest' but has a

deeper motive. Many of the aspects of primitive culture have more than passing interest. The study of the economic life of savage communities helps us to evaluate man's economic disposition and is of value to those who wish to develop the resources of tropical countries, employ indigenous labour and trade with the natives. The study of the mental processes of savages has already proved of considerable importance to psychology and 'the study of the various forces which made for order, uniformity and cohesion in a savage tribe' may go a long way towards deciding the general principles of 'colonial legislation and administration.' But anthropology today cannot remain content with the study of primitive peoples; for as a science of man it must not ignore modern society. While this is so, Benedict's method of analysis may not be able to interpret institutions of advanced cultures, or those cultures greatly influenced by contacts with the former, though the foundations of these are to be traced in crude mores and customs gathered round common human interests and types of feeling and behaviour. Malinowski's methods and findings provoke 'parallel inquiries in other peoples, for functional analysis of any society, its institutions, is likely to produce a 'flesh and blood' picture of peoples as it stresses even the unformulated phases of culture what Malinowski called the 'imponderabilia' of actual life and of typical behaviour. His method of study has widened the outlook of anthropology by exhibiting the motives that underlie production and exchange among labour, wealth, money and value in correspondence with savage realities'. What he found in Trobriands' society will be eqally true of a modern society if similar torch of inquiry could be focussed

on institutions of modern life. Nobody would deny Benedict's contention that in comparison to 'changes of content of culture the configuration has often remarkable permanency.'

In a world which is becoming smaller and narrower, one in which the various peoples are conforming to common standards, configurations can not remain permanent nor can they maintain cultural barriers. How far racial admixtures and cultural miscegenation have destroyed the fundamental attitudes of life in a society must be assessed before we can admit the relevancy of Benedict's claims. When attitudes are found to determine cultural adjustments, the spirit of culture may indicate the degree of elasticity of a culture, and Gregory Bateson's attempt in 'Naven' to interpret the custom of 'Naven' on the basis of cultural ethos is a delightful change in emphasis. Bateson and Margaret Mead 'have shown in their study of Balinese character' how a psychological approach in anthropology may be productive of highly significant results. This may lead to a synthesis of psychoanalytic concepts with ethnographic findings, and if so, Bateson's method may not be as sterile as those of others who have attempted a reconciliation between psychology and ethnology. Gorer's analysis of Lepcha culture has brought to light the unusual stress laid on social passivity and the suppression of personality. He thinks that an impersonal attitude the Lepchas develop towards their fellows, 'is the chief operative factor for its suppression of competition and aggression in adult life'. The Lepchas stress constantly social behaviour and minimise individual character variations. They stress resemblance between individuals, they minimise difference. This makes for a low develop-

ment of the ego, a lack of internal competition a lack of contrast, The Lepchas minimise the most obvious contrasts between man and woman, between Lamas and illiterate laymen' to a great extent between adults and children " (Himalayan village: Gorer p, 45,) Although Gorer has stigmatised the lack of personal aggression as dysgenic in the Lepchas' state of social development, he thinks, the excess of personal and natural aggression in the present srate of social development of the world as equally dysgenic and a line must be drawn to put down the limits of personality development. In all psychoanalytic interpretations of cultural data there is a presumption that identical psychological situation exist in different societies distanced both in space and time so that what may be true of modern society, is also taken for granted of primitive communities. If this were so, it would not have been possible to distinguish the role of specific customs and practices in a matriarchal society from that commonly observed in the patriarchal.

But all said and done, the defect of the functional school has been its ' narrow and limited attack ' on cultures which though it enabled its adherants to probe intensively into simpler cultures and thus to bring out spectacular discoveries, did not provide any lasting solution to the major problems with which anthropology is concerned. While functionalism has demonstrated that ' magic interlocks with economic attitudes, that each phase of culture correspond to ' some fundamental tendency of the human organism. ' Marriage satisfies the sexual need ' and so on, no functionalist has shown that ' all the hundreds of descriptively separate traits ' have

definite part to play in tribal life and that all these are manifestations of 'one grand mystic unity' and that is probably because the functionalists study the trees with the forest as the goal, but they have been so impressed by the majesty of diversity, the wild luxuriance of the species of plants that constitute the forest, that the latter has remained a goal and may probably remain so.

Just as genetic principles alone do not explain race differences, the natural environment plays an important role in stabilising racial types, so also a culture is not the product of the social environment alone. The influence of biological factors must be estimated and the part played by race mixtures properly evaluated before the 'pattern' of culture could be properly appraised or the functional relations determined. This is the synoptical outlook in anthropological methodology and must be given a fair trial before we pronounce our verdict on anthropological theory and practice.

Radcliffe Browne's switch on to comparative sociology is probably due to his lack of interest in biometry or physical anthropology and archaeology, a lack or ignorance which has limited the scope of cultural anthropology and even engendered a scepticism among the workers. Prof. Marett's description of British anthropology as represented for instance by the systems of teaching in Oxford, Cambridge and London, as one that 'had always made a point of combining the physical and cultural sides of the subject, seeking to bring race and culture together in their common relation to environment and appealing to the whole complex of conditions in order to solve the enthnological problem, namely that of the formation and distribution of ethnic groups or peoples' would probably place anthropo-

logy on a higher serviceable plane; of course, we must guard against cheap and pseudo-scientific dogmas about heredity and the implications of biological arguments about race, for example, those that merely aim at justifying certain course of action, or even of the 'uncritical application of biological' or historical categories to observed social phenomena. There is need for caution in science and more so in a century old discipline which has so great potentiality, as anthropology has.

One of the most complex problems of applied anthropology today is that of the administration of primitive, and backward peoples. The aborigines and backward tribes and castes do not present a static culture. Every group has undergone cultural change which may be slow or even imperceptible. Diffusion has played an important role in the past as it is doing today. Probably we can understand the past history of any institution from 'an empirical study of contemporary diffusion', that is how comparative sociology may provide a point of departure in anthropological approach. Even if we study a social group at certain point of time, changes are perceptible, taking place inspite of the society being aware of. Contacts primary or secondary are bound to introduce changes, at first usually in material culture, then in other departments of life and if contacts are enduring a gradual blending of cultures or 'culture chemistry' may develop or in its place a rapid disorganisation may ensue leading even to extinction of the non-adapted group. There may be various types of contacts; contacts between groups and between individuals of the same groups. Such contacts provide the seeds of progress, for without any clash of personalities, the culture of a given group does not develop crisis. If

crisis is the cause of invention, and it is so, the personal disorganisation and integration both may work from within. Changes in culture may be due to temporary contacts between two groups, and if the duration is not long, the result may not be of abiding value. The material culture is first affected but if continuity of contacts is not maintained, the traits thus introduced may even die out, or be thrown out by the harmonious working of the culture pattern. If the contacts are enduring, there are two possibilities. One is the adjustment of the inferior culture to the superior, the latter viz., the dominant culture determining the loss of indigenous traits. The alternative possibility is a reaction against contacts which may lead to maladaptation and slow process of extinction of the group or a violent revolt against such contacts.

The Khasis offer an example to the point. They usually raised millet, Job's tears etc., on their hillsides 'each family taking up such clan and family land as they need more or less where they like.' The method of cultivation was 'Jhum' the usual form of shifting cultivation that one meets in the sparsely settled parts of north-eastern India. The need of the population was limited due to sparse settlements and much land remained fallow. When David Scott introduced the potato, 'with no thought in his mind but the good of Khasis', as Mills put it, 'the Khasis immediately discovered its potentialities, for potato was both palatable and nutritious and it was also a money crop.' More potatoes meant more money and every family began naturally to cultivate not such land as they needed for their own support and no more' but more than it was needed. This preference for potato had a disastrous effect on the Khasis. For 'immensely extended culti-

vation inevitably shortened the intervening periods of fallow and on the hill sides a vicious circle was established. Inadequate periods of fallow combined with a very heavy rainfall led to serious erosion and as good lands became scarcer and scarcer, it was more and more heavily overcropped in order to produce the money for luxuries soon regarded as indispensable. Poorer soil and lighter secondary growth in the fallow led to wider and wider clearings which only accentuated the evil. The overworked soil is turning alkaline and the crops are becoming more and more infected with disease every year, so much so that in 'some places attempts to grow potatoes have been abandoned in despair'. The importation of potato has changed the economic structure of the Khasis and ignorance of the history of potato cultivation might land the ethnographist in serious difficulty of interpreting new culture forms with reference to the social back ground. Christianity again has introduced problems among the Khasis particularly with regard to laws of inheritance and any study of Khasi laws of inheritance today must be historically based as otherwise the changes cannot be properly assessed.

In an article on applied anthropology C. W. Habley put forward some of the problems connected with it (Man February 1931 No. 22). It begins with the codification of native laws and customs. The requirements of native education, native economics, how they have undergone transformation through contact, land tenure, native health, position of native woman, African labour in its relation to social life, all these are subjects for specialised study and require first-hand treatment and where redress and readjustment are needed,

the cooperation of the anthropologist and the administration is likely to produce beneficent results. If we omit the word 'native' from the above context, the problems are the same in India which has a population in the neighbourhood of 30 million aboriginal tribes and double that number of exterior castes much of which has been recruited from the former.

Problems of administration of primitive and backward tribes are not taken seriously in India, as India possesses a hierarchical social organisation in which are distributed the various social groups in accordance with their cultural heritage or their economic importance, while friction between groups is reduced to slow and gradual transformation and even incorporation of tribes into 'exterior' castes and by transition from 'exterior' to 'interior' status. In Africa and other countries with aboriginal population, the disparity between the dominant white and the decadent native cultures has produced differential treatment to the native population and the absence of social groups with intermediate cultural status has accentuated friction or produced discomforts among the backward section of the population. That is why the 'native question' in Africa and Australia has assumed such importance and why 'imperialist development requires proper appreciation of the magnitude of the problems produced by contact'. In modern industrial countries such friction has become too loud between groupings, social, political, economic and religious with a developed class consciousness and thus the study of the integration and distintegration of cultures has assumed practical importance. India must liquidate the legacy of 'imperialist domination' in her cultural life and look at the

problems of contacts more from the point of view of the people themselves rather than from that of the administration. The aim should not merely be to reduce friction and allow the governmental agencies to function smoothly in tribal areas, but to shape the cultural life of the primitive and backward groups in such a way as to bring them in line with their more fortunate compatriots without destroying or degrading them in the process.' In this process, mere discovery of the functional interrelations or of the role of specific customs and rites, would not be enough, the historical relations of cultures both past and present, the contribution of physiographic factors and even an evaluation of cultures on the basis of fundamental attitudes, ethos or genius of cultures must be found proper place in the new methodology that anthropology must finally shape. More of it we shall have occassion to refer to in succeeding chapters.

CHAPTER 2

INDIAN ANTHROPOLOGY THROUGH THE DECADES.

Indian anthropological literature may be tentatively grouped into three periods. The first of these may be said to have ended with 1920. This may be called the 'formulative' period of Indian anthropology. Sir William Jones in 1774, in his inaugural address to the Asiatic Society of Bengal, defined the scope of its inquiries as comprising the entire field of studies concerned with 'man' and 'nature'. This may rightly be regarded as the beginning. This lead by the Asiatic Society, the emphasis laid by it on the collection of data on ethnology and ethnography and also of objects of anthropological interest, gave an impetus to anthropological research. The whole of the formulative period was characterised by increasing interest in the study of man but most of the work was done by European scholars in the professions and in the administrative services. While the former were more or less genuinely interested in the study of races and cultures of the country, the latter's interests were largely derivative.

As early as 1807, the court of directors of the Hon'ble East Indian Company initiated a statistical survey of the Presidency of Bengal, which they thought would be of great use in the future administration of the country. Accordingly, Dr. Francis Buchanon was appointed by the Governor General in Council, to undertake an Ethnographic Survey, 'to enquire into the condition

of the inhabitants of Bengal and their religion'. The results of this survey were not published before 1838, when out of the 25 volumes said to have been compiled by him, only three were published under the title of the 'History, Antiquities, Topography and Statistics of Eastern India'.

In a documented survey of anthropological research in India* the late S. C. Roy detailed the character of the data obtained in the earlier work of European writers. For example in 1820 Walter Hamilton published an ambitious work, styled 'A Geographical, Statistical and Historical Description of Hindustan and Adjacent Countries,' which we are told, the author prepared, 'by collecting all printed documents accessible to the public and all the manuscript records and Government reports deposited in the archives of the India Board. The two volumes of the work describe among other things the various castes and tribes of the country living in different parts of India, but the ethnographic data contained in them were only 'notes and scraps of information' which are of little scientific value. Hamilton wrote the following about Chota-Nagpur in 1820, 'The Khetauri, the Koeri and the Dhanger are still the principal inhabitants of Chota-Nagpur where it is said that the latter as probably also the former do not speak the Hindi language. The Dhangar are still impure and probably unconverted Mlechas". In 1820, Hamilton published another work. 'The East Indian Gazetteer' which was a companion volume to the first two referred to above and the only additional information he could give about this part was 'that Chota Nagpur con-

* Presidential Address, Anthropology Section. Indian Science Congress 1981. *Vide* Proceedings.

tains many strange tribes of whom the Coles of Tamar and the Lurca Coles of Singbhum were the two he could name. These two tribes were the Mundas and the Hos, who have formed the subject of important monographs by Roy and Majumdar respectively.

Thornton's Gazetteer published in 1854, and Campbell's Ethnology of India did not contain much ethnographic data, the purpose of the latter avowedly was in the words of Campbell 'to assist both Government officials and private persons in making classified and descriptive lists in such a uniform manner and with such a uniform nomenclature and arrangement that it may be afterwards possible to weld together the whole of the information thus obtained.' In 1859, Latham published his Ethnology of India. Unlike Campbell,Latham had no personal acquaintance with India and the statements he made about some of the tribes, as pointed out by Roy, were not only 'inadequate but also inaccurate.' Latham identified the 'Oraons' with the 'Uriyas', one an aboriginal tribe, the other a proud and cultured people whose contribution to Indian art and culture has been considerable.

The meagre and obviously inaccurate details contained in the various government publications and also in those of the early ethnographers who were interested in Indian life and culture were recognised by the Government of India and in a circular letter to the Provincial Governments and administrative units, suggested that 'steps should be taken on the basis of the statistics recorded in the census of 1891 towards collecting more precise information than at present exists regarding the castes and tribes of the people of India,' Sir Denzil

Ibbetson published an account of the social and religious usages of the Punjab in the Census Report of 1881, which was republished as an independent monograph on 'Punjab Ethnography'. In 1891, Risley published his Tribes and Castes of Bengal in four volumes, and Sir William Crooke followed up Risley by publishing 4 volumes, on the Tribes and Castes of North Western Provinces and Oudh. Risley was appointed the Census Commissioner of India for 1891 and his classical work on the People of India was based on the ethnographic data collected during the census operations of 1891. The Ethnographic Survey of India was finally initiated in 1905 and Risley became the Director of this Survey,

The Publication by the various Provincial Governments of glossaries of tribes and castes began and the first of these was by Edgar Thurston and T. Rangachari in 1909, in seven pretentious volumes. The Cochin Tribes and Castes were published at the same time by L. K. Ananthakrishna Iyer. The Madras volumes were followed by Rose's Tribes and Castes of the Punjab and the North Western Frontier Provinces and the volumes on the Central Provinces in 1912 by Russell and Hiralal. Although the information compiled in these surveys was of the Gazetteer type and was based on a questionnaire supposed to have been drawn up by Risley, Nesfield and Ibbetson, we have for the first time some detailed information on the various tribes and castes of India. During the 50 years from 1871 to 1920, Indian anthropologists contributed a few articles and books of which special mention may be made of Rev. Lal Behari Dey, B. A. Gupte, Mangal Das Nathubhoy, Jevonjee Jamshedjee Modi, L. K. Ananthakrishna Iyer

Natesha Shastri and a few others. Nathubhoy's lectures on Hindu caste, ceremonies, customs and inheritance and Gupte's Hindu Holidays and Ceremonies, were two of the outstanding contributions to Indian ethnographic literature and offer comparative material to Dubois's Hindu Manners and Customs, a book which captured the imagination of foreign scholars but which contains uninformed and scrappy accounts of Hindu rituals and ceremonies.

Of the European authors who had contributed much to Indian ethnographical literature during the period, mention must be made of V. Ball's Jungle Life in India, Lyall's Asiatic Studies, Forsyths Highlands of Central India, Grierson's Bihar Peasant Life, Rev. A. Campbell's Santal Folk Tales, Crooke's Introduction to the Religion and Folklore of Northern India, Major Waddell's 'Among the Himalyas, ' Bompass's ' Folk-lore of the Santhal Parganas,' and Brigg's ' Chamars,' The record of monographic studies of Indian tribes and castes during this period is also quite striking as some of the monographs on the Assam tribes rank very high in scholarship as well as for the information supplied. Col. Shakespeare published in 1912, his monographs on the Lushei Clans while Gordon's Khasis, Hodson's Meithies and Naga Tribes of Manipur, Playfair's, the Garos, are valuable addition to our tribal literature. Of the authors of important articles on tribal life mention must be made of A.D.S. Dunbar and J. Coggin Brown and S. W. Kelup (1915) which appeared as Memoirs of the Asiatic Society of Bengal. L. K. A. Iyer's study of the marriage customs of the Cochin State appeared in 1914 in the pages of the Bengal Asiatic Society's journal while K. M. Pannikar in 1918 contributed

an account of Nayar customs in the Journal of the Royal Anthropological Institute, (48,1918).

Monographs on Indian tribes and castes by Indian authors are not many and Roy broke the ice in 1912, by his study of the Mundas and their Country. This was followed by the 'Oraons of Chota Nagpur' in 1916. Roy's monographs maintained a high degree of objectivity in whatever he wrote and served to emphasise the value of field investigation and also the requirements of field research. Roy was the first Indian anthropologist who approached tribal cultures through the medium of tribal dialects, a procedure which few of the European authors on Indian tribal life and cultures were competent to follow. Roy's researches made it abundantly clear that without such a prerequisite the field worker is at the mercy of interpreters, a situation which is probably responsible for much of loose thinking and cheap generalisations on primitive cultures. The functional anthropologists in later years insisted on an adequate knowledge of the language or dialect of the people to be studied as otherwise the investigator is bound to lose sight of the imponderables of culture.

During the period, prehistory of India received recognition in the writings of N. C. Logan, Bruce Foote and Coggin Brown. Logan's 'Old Chipped Stones of India,' Bruce Foote's 'Indian Prehistoric and Protohistoric Antiquities' and the 'Ethnographic data for the Indian Museum' by Coggin Brown, besides a number of articles in the journals of the Asiatic Society of Bengal, of the Bihar and Orissa Research Society and in the Records of the Geological Survey of India, have given impetus and direction to the study of this aspect of

anthropology.

In craniometry and osteometry the most important contribution of the period was by Sir Arthur Keith whose account of prehistoric man, based on the Bayana and Sialkot finds was published in the Journal of the Bombay Anthropological Society (11, No. 6), while Sir William Turner's researches on Indian craniometry gave an impetus to this branch of anthropological studies. Sir Aurel Stein's survey of the North Western Frontiers of India is the first anthropological work done during this period. In the course of the three Archaeological Expeditions to Russia and Chinese Turkistan during the years 1900-1928, Sir Aurel found time to "measure over one thousand individuals belonging in the main to tribes living outside India's frontiers, but including also seven within her boundaries namely, the Baluch of Baluchistan, the Pathans of Swat and Torwal, the red Kaffirs, the Khos of Chitral and Musluj and the Hunzas of Gilghit", Dr. G. M. Morant has made a statistical analysis of Stein's data which are the 'chief and the only materials we have on many of these tribes'. (The Progress of Science in India during the past 25 years p. 316). Some measurements were taken by R. B. Dixon in1912 on the Buruskhaski people of Hunza-Nagar and G. Dainelli during the De Filipi Expeditions of the North Western Himalayas and Karakaram regions, measuresd over 500 people including the Kashmiri, the Ladokhi, the Dardik group and few Tibetan speaking people. R. P. Chanda published his measurements on 116 men belonging to Brahmin, Kayastha, Vaidya, Tili and Kaibarta castes. (Indo Aryan Race, 1916). The most important contributions of this formulative period of Indian anthropological research may be

said to be Risley's People of India, R. P. Chanda's Indo-Aryan Race, while the Linguistic Survey of India by Sir George Grierson may rank as a landmark in linguistic research in so vast a country like India.

Risley's analysis of anthropometric data collected under his supervision, formed the basis of his People of India and Chanda's learned study of prehistoric and historic sources, lined him up against Risley's seven fold classification of Indian races. While Chanda resuscitated the Nishadic hypothesis, he also brought weighty evidence in support of an Indo-Alpine element in India's population, a hypothesis which won subsequent support from the Racial Survey of India during 1930-33. Risley was, however, the first to claim a racial basis for the caste system on anthropometric evidence and indicated a scientific approach to the problem of caste origins. His lead in anthropometry was not followed up by Indian scholars though for many years raciological studies in India derived its sanction from Risley's analysis and interpretation of anthropometric data collected under his supervision.

THE CONSTRUCTIVE PERIOD

The next period of Indian anthropology which we may call 'constructive' in a sense began with the introduction of anthropology in the curricula of the Calcutta University in 1920. Sir Ashutosh Mukerjee with his characteristic foresight and initiative gathered round him a group of able and experienced workers, and planned and introduced an independent course in anthropology for the degree examinations of the university which latter on was extended to the intermediate stage as well. The people who were responsible for developing a school of anthropology at Calcutta were Rao Baha-

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dur L. K. A, Iyer, B. A, Gupte, R. P, Chanda, H. C. Chakladar and P. Mitra all well known workers in the various aspects of the study of man. The training provided at Calcutta during the formative years of the Department equipped a number of young men who took advantage of it, as competent field investigators, and their contributions to the various branches of anthropological studies were considerable indeed.

The war of 1914-18 had destroyed the self complacency of the European scholars and more interest was created among them in the study of alien peoples and cultures. The development of anthropological technique particularly of field surveys which can be fairly ascribed to the researches of Prof. Malinowski in the Trobriand Islands, produced a new attitude to anthropological studies, a new orientation in taking as the field of anthropological study, the entire culture and not merely the picturesque and formalised elements of it. 'Parallel advances in sociology and psychology' as pointed out by Gorer, 'notably Freudian psychoanalysis, gave the ethnologist new disciplines." This world outlook on anthropology created an enthusiasm in Indian scholars for anthropological studies and a new era of research was initiated among others by Roy, L. K. A. Iyer, J. H. Hutton and J. P. Mills. In social anthropology the importance of an adequate working knowledge of the dialects of the people was recognised and both Roy in Bihar and Hutton in Assam began their investigations through the dialects of the people they studied. In 1921 Hutton published two volumes on the Nagas, the Angami and the Sema. J. P. Mills added one more volume on the Nagas, the Lhota Nagas in 1922, which was followed by a similar

volume a few years later on the AO Nagas. Mills published his third monograph on the Rengma Nagas in 1937. W. C. Smith of the American Baptist Missionary Society and Dr. S. C. Majumdar, both published accounts of the AO Nagas and these and Mill's volumes on the Nagas emphasised the role of contacts with civilisation on the Nagas, a subject which has become of vital importance today to anthropologists, and administrators. C. V. Furer Haimendorf of the Vienna University who in collaboration with J. P. Mills made an intensive study of the Konyaks, published his results and his paper on the Dormitory Life of the Konyak Nagas (in the J. Roy. Anth. Institute of Great Britain and Ireland) is an useful exposition of dormitory life in some of its socio-economic aspects. Roy published his monograph on the Birhors in 1925, his account of the 'Oraon Religion and Customs' in 1928 and the Hill Bhuiyas of Orissa in 1935; two years later he with his son R. C. Roy who had his training at Calcutta, published 2 volumes on the Kharias. In 1937, Majumdar published his monograph on the Hos 'A Tribe in Transition' which for the first time dealt primarily with the forms of a dissolving social structure and which in the words of J. H. Hutton marked a 'new departure in Indian ethnological literature', Thus the two areas in India which have been systematically studied by anthropologists are the Chota Nagpur and Assam and though considerable work has been done, yet much remains to be done, and a critical estimate of existing literature is necessary, before we can assess the value of the researches done among the tribes of these parts. Grigson's Maria Gonds of Bastar is a welcome change in monographic delineation of tribal cultures in India, while T. C. Hodson's

'Primitive Culture' of India (1921), Morris's Gurkhas. E. A. H. Blunt's Caste System of Northern India (1931), G.H. Ghurye's Caste and Race in India (1931), N. K. Dutt's Origin and Growth of Caste in India (1931), are some of the important publications which have made a constructive approach to the problems of Indian culture. Of writers of articles and papers, who have contributed much to the understanding of cultural anthropology in India in relation to anthropological thought in general, mention may be made of Rev. P. O. Bodding, S. Rice, M. B. Emeneau and David. G. Mandelbaum, Baron Von. Ehrenfels, P. G. Shah, I. Karve and B. Bonnerjee.

The study of culture contacts has received scientific treatment in the hands of Dr. J. H. Hutton, J. P. Mills, S. C Roy and D. N. Majumdar. Hutton has demonstrated, in a series of papers the close affnities of Naga culture and that of Oceanian islands in the worship of the Baetylic stones, erection of the stone monument, the methods of the disposal of the dead and ideas on future life'. (The Progress of Science in India during the Past 25 years, 1938, page 330). In his Presidential Address to the British Association, Anthropology section, Sept, 1937, he carried the investigations further and suggested that the culture-strata of Assam hills consisting of the Oceanic canoe-culture, a matrilineal megalithic culture and the more recent patrilineal culture of the Kayan and the Kuki are best explained as due to 'migrations of cultures if not of people from some centre in or near the Indian Archipelago, one of which terminated in Assam.'

The Indian social structure was subjected to a thorough scientific analysis during the years

1931-35 and the various theories of caste origins were restated and reviewed in the light of new ethnographic data. In the Census Report of India Vol. I pt. I (1931) Dr. Hutton introduced a new hypothesis about caste, tracing the essential elements of the caste system to pre-Aryan origins. Ghurye traced caste system to the Indo-Aryans, to the priestly initiative in maintaining the purity of Indian blood, while Dutt accepted Risley's view with some reservation. E. A. Blunt traced caste system to the class divisions existing among the ancient Aryans while Roy did not think that 'we need to go outside the *varna* system for the origins of the important social structure.' In any case opinions seemed to suggest a clash of cultures as the cause of the unique social stratification in India, which provided the starting point for research on caste origins later on.

Kinship came for a good deal of analysis at the hands of Prof. K. P. Chattopadhaya and I. Karve, the latter's contribution to kinship study has provided considerable interest among cultural anthropologists. In the study of marriage forms a functional interpretation was given by Majumdar in an article in the Journal of the Asiatic Society of Bengal (J. A. S. B. Vol. XXII 1926 No. 3) and later on K. P. Chattopadhaya showed how 'economic forces in conjunction with social and sexual requirements tended to make certain forms of marriage more frequent than others.' T. C. Hodson discussed the origins of exogamy and some light was thrown on the matriarchy of the Garos and Khasis by some students of the Calcutta University. The various Census Reports of 1931, which included some ethnographic investigations within their scope published ethnographic notes on

important tribes and castes of the various provinces and these brief sketches served to bring the data on primitive tribes up-to-date, though no functional study of the tribal groups was attempted anywhere.

The second period of Indian anthropology initiated a scientific bias in physical anthropology, and Risley's racial theories were subjected to a good deal of informative criticism. The Calcutta University trained up a batch of students in craniometry, osteometry and anthropometry and the value of statistical methods in anthropometry was demonstrated by P. C. Mahalanobis whose analysis of the anthropometric data collected by N. Anandale gave a new lead in anthropometry. Of the Indian anthropologists who had taken anthropometric measurements on a large scale, mention may be made of B. S. Guha, P. C. Bose, D. N. Majumdar and B. N. Dutta. Dr. Guha was entrusted with the anthropological survey of India under the general supervision of Dr. J. H. Hutton, Census Commissioner of India 1931 and after Risley's work on Indian anthropometry, Guha's is certainly the next important racial survey undertaken during this period. While Risley's data were found to contain a number of mistakes in recording of individual measurements and in the calculation of average values, and his technique was not of any standard character, Guha's measurements were taken with standard techniques and his data appear to have been collected from different parts of India. Besides, during the interval between Risley's work and Guha's survey, anthropological technique had developed considerably and comparative material had become abundant so that the racial survey of 1931 could claim certain advantages that did not exist in Risley's

time. The anthropometric data collected from the 1931 Survey on 2511 persons, were statistically analysed by Guha with the help of a number of statistical assistants and a liberal use of Karl Pearson's 'Coefficient of Racial Likeness' formula helped him to come to the following conclusions, "The statistical analysis of data disclosed, that the basis of the Indian population in general as Eickstead also recognised, was a short dolichocephalic strain with high head and moderately broad nose, on which had superimposed a brachycephalic race of mostly plano-occipital type in Western and Eastern and a proto-Nordic in North Western India, the advent of the latter synchronising with the invasion of the Vedic Aryans. In addition, the tribal groups revealed a definitely Negrito strain, now mostly submerged and a Proto-Australoid element, which in combinations of various strengths made up the aboriginal population, except in the sub-Himalayan regions and the hills of Assam and Burma where the Mongoloid races of both the long-headed and the broad headed types formed the chief constituents of the population. Among minor strains, the 'Oriental' race also certainly entered, specially in the North Western parts." Risley recognised the role of racial admixture in the constitution of Indian population and he traced four mixed types, Turko-Iranian in Baluchistan and Afghanistan, Scytho-Dravidian in the Bombay Presidency, Aryo-Dravidian in the U. P. and Mongolo-Dravidian in Bengal. Both Hutton and Guha contested Risley's theory about the influence of the Mongolian races in India and the Dravidian type of Risley was also found to contain more than one racial types.

Other important contributions on Indian

anthropometry include those of Sir Aurel Stein, Myron Von Eickstedt, Ronald. B. Dixon. Eickstedt divided the population of India into three major groups viz. (1) the Weddid consisting of (a) Gondid or dark brown wavy haired race and (b) Malide or black brown curly haired race. (2) The Melanids made up of (a) southern or Tamilid and (b) Northern Decanid or Kolid races and lastly (3) the progressive New Indian or the Indid group divided into (a) brown graceful and (b) coarse light browned North Indian types.

Bloodgroup investigation which today form a new tool for racial classification started with Hirzfelds who examined soldiers of all nationalities including Indians during the first world war and since then attention has been directed to the study of blood group distribution in India. Hirzfelds found a very high incidence of B blood among Indian soldiers and Bais and Verhoef published the results of their serological investigations on the Tamil coolies in Sumatra tea gardens in 1927. The value of these groupings has been questioned by later investigators as the subjects investigated were lumped together without trying to present the data caste-wise, particularly when Indian castes are endogamous groups and have maintained their group purity by rigid rules regarding intermarriage. Malone and Lahiri tested more than two thousand samples from various parts of India but they also did not keep all the data on castes separate. Da Silva Correia, S. R. Pandit and E. J. W. Macfarlane studied the blood groups' distribution caste-wise. We owe much of our knowledge about the incidence of the various bloodgroups in Indian population to Mrs. Macfarlane. The study of growth cycles of school and college children was taken up

by the Universities and the Student Welfare Committee of the Calcutta University and several biochemists and Physiologists, W. R. Aykroid, H. E. C. Wilson and others have worked out growth curves of different Indian communities.

Thus what might be taken as the constructive period of Indian anthropology began with the inclusion of anthropology in the curricula of studies of the Calcutta University and continued to gain momentum as the years rolled on till the Silver Jubilee Session of the Indian Science Congress emphasised the need of a critical approach to anthropological problems by Indian Universities. The 'Man In India" edited by Rai Bahadur S.C. Roy of Ranchi appeared in 1921 and has continued its useful career for over two decades and is now being edited by R. C. Roy, the late Rai Bahadur's second son with the co-operation of W. G. Archer and Verrier Elwin. The Mythic Society of Bangalore was started in 1909 and the Bombay Anthropological Society completed its Jubilee in 1938, while the Journal of the Asiatic Society of Bengal, of the Bihar and Orissa Research Society, the Bulletins of the Madras Museum, the memoirs of the Archaeological survey, Indian Culture and various other periodicals though not primarily meant for anthropology have helped anthropology to put forth its youthful exuberance

In the matter of folkculture the names of S. C. Mitra, J. J. Modi, R. E, Enthoven, H, C. Das Gupta, P O. Bodding and W. G. Archer must not be ignored. In India the name of Ram Naresh Tewari is a household word in Northern India. In the famous Kavita-Kaumudi series edited by him, a large number of folk-songs have been recorded and his ' Gram Geet' or rural songs will ever remain an example of careful and painstaking piece of research in this line of

study. Mention also should be made of Devendra Satyarthi, Pandit Kshitimohan Sen Shastry of Santiniketan, Meghani in Gujarat, Parikh in Rajastan and Ram Iqbal Singh Raksh in Bihar. Ram Iqbal Singh has provided a very attractive collection of the Maithil folk songs of Bihar, and Surja Karan Parikh has recorded some very fascinating folk poetry of Rajastan.

THE CRITICAL PERIOD

In 1938, a joint session of the Indian Science Congress Association and the British Association on the occasion of the Silver Jubilee of the former body reviewed the progress of anthropology in India and eminent anthropologists from abroad deliberated with Indian anthropologists and discussed plans for future anthropological research in India. The University of Calcutta, Department of Anthropology took a keen interest in the proceedings of the Congress and since then anthropological research has shown a critical approach and much of the research in anthropology since then has been directed towards re-examining old theories and an evaluation of the existing literature on anthropology. New methods and techniques began to be employed by field investigators and Indian anthropology cut itself away from its conservative moorings and become a part of world literature on anthropology. At the Anthropology section of the 26th Session of the Indian Science Congress at Lahore a 'five year' plan of anthropological work was drawn up for the workers in the science and at a joint session of the Indian Science Congress Association, Anthropology Section and the Indian Statistical Conference, Prof. P. C. Mahalanobis discussed the importance of statistical analysis of anthropometric data and suggested a more intimate *liaison*

between statisticians an
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present and bore consider
subsequent events.

The war came too soon a
not directly a victim of enem
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measures for safety of life and p
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of libraries from Calcutta and o
safer places, some remote and othe
reduced the opportunities so far ava
manistic research. Anthropology su
as both the public and the administrati
research in social sciences except wel
neither urgent nor vital to the prosecutio
While a knowledge of the frontier tribe
customs, practices, attitudes and patterns
and thought was considered indispensible
moving any obstacle to understanding betwee
fighting forces and the tribal people, very
anthropologists were directly employed by t
administration or by the army authorities to collec
first hand information about tribal life and cultures.
In an article in the Times, December 1945, it was
pointed out that the attachment of the Nagas, the
Chins, the Karens and other hill warriors to the
allied cause is, the harvest of seed sown over the
course of long years, seed of justice, of sympathy,
of kindness of successive generations of British
officials' 'All through the Japanese invasion of
Burma and India' wrote J. H. Hutton 'the hill tribes
generally and particularly the Karen, Chin, Kuki and
Naga have remained constantly loyal and helpful.'

The years of the global war saw in India consi-
derable progress in anthropometry and racial bio-

gtiations that were begun
ee Session of the Indian
. W. E. Macfarlane were
ıe published a paper on
ests in the Deccan and
.. A. S. B. Science VI, 39-49,
ıcle on Blood Groups in India
.l of physical anthropology, Vol.
cember 1940), she reviewed the
.ropological serology. Two other
ın Tibetan and Bhotia Blood Group
(J. R. A. S. B. Vol. VII p 1-5, 1941)
.oups among Balahies (weavers) Bhils,
l Mundas witb note on Pardhis and
Blood Types (J. R. A. S. B. Vol. VII.
1941) showed the extensive character of
.al research done by Mrs. Macfarlane. Gre-
D. S.) and Chanda (S. N.) examined the
groups of several communities of Calcutta
J. Med Res. 27 pp 1109-16,1940). A compara-
. study of bloodgroup distributions of the
ngalis and of other Indian ethnic types or castes
.ı the basis of existing serological data was made
ɔy B. K. Chatterjee and A. K. Mitra (Indian Culture,
Vol. VIII, Nos. 2 and 3) and S. S. Sarkar reviewed
most of the existing blood groups data with special
reference to the Oraons (Trans. Bose, Res. Institute,
Calcutta Vol. V, pp, 1-15, 1942-43).

In 1941, the Census Commissioner for India initiated a scheme of an anthropological and serological survey for the United Provinces, and this was carried out by D. N. Majumdar. About 3500 people belonging to 21 social groups, castes and tribes, were measured and about 4000 people were blood-grouped. This was for the first time in India that a large scale serological tests were carried along with anthropo-

metric measurements. The data were analysed by P.C. Mahalanobis of the Indian Statistical Institute and the result put forwarded as a jointreport by Majumdar, Mahalanobis and C. R. Rao. Blood group distributions of a large number of tribes and castes were collected during 1940 and 1942 by Majumdar, the results of which were published in various scientific journals mostly in India. Mention may be made of the Blood Groups of the Criminal Tribes of the U. P. (Science and Culture Vol. VII No. 7, 1942). The Blood Groups of the Doms (Current Science 1942 No. 4, 1942) and Blood Groups of tribes and castes of the U. P. with special reference to the Korwas (J. R. A. S.B. Vol.IX, 1943). also The Tharus and their Blood groups, (J. R. A. S. B. Science 1942). The relation between race and caste was discussed in the U. P. Anthropological Survey Report and Majumdar and Mahalanobis indicated the racial basis, if any, of the caste system.

The statistical analysis of the bloodgroups data showed a close coincidence of the serological findings with the anthropometric, and indicated the possibility of serology as a suitable tool for anthropological taxonomy. From the point of view of homogeneity or otherwise among the estimated probability of A genes, the various castes or tribes whose blood was sampled during the U. P. Anthropometric Survey could be put into groups each having high p-values than the preceding, corresponding to the constellation found on the basis of anthropometry. The results of the U. P. Survey from the anthropometric and serological points of view raised high hopes among statisticians and anthropologists and at the suggestion of Prof. P. C. Mahalanobis, another racial survey of Bengal on the same lines as those of the

U.P. was organised and financed by the Indian Statistical Institute and carried out in 1945 by Majumdar. This time, 4000 men were measured representing Hindus and Muslims and all the important tribes of the Province, blood groups of 4000 People were tested and a large amount of data on the variation of haemoglobin percentages and blood pressure from occupation to occupation studied. The results are being analysed by Prof. P. C. Mahalanobis at the Indian Statistical Institute. The Gujarat Research Society also organised a similar anthrometric and serological survey for Gujarat financed by the Society which was carried out by D. N, Majumdar, also on the same lines as the other two Surveys. The measurements of several thousand people by the same investigator in the different provinces are expected to provide comparable data.

During the last five years, the University School of Economics and Sociology, Bombay, has continued its anthropological investigations by its students and although anthropology is not taught there as an independent subject of study for the degree examinations, a number of important invesgations have been carried out by the students of the Sociology Department some of which have not yet been printed due to the difficulty of securing paper and the restrictions on printing as wartime measures. Among the subjects of the thesis prepared at the School and approved for M.A. or Ph.D. Degree during the period under review, are 'the Untouchables of Kathiawar' 'A Socio-economic Survey of Desert Culture', A Study in Regionalism,' Economic and Demographic Study of Sind, A Hospital Study of Maternal Mortality in Bombay City, A study of Fertility in Middle Classes and 'Some of the Aboriginal Tribes of South Gujarat.'

'The Warlis, by T. N. Save is an important monograph on an interesting tribe of the Thana district published in 1945 (Padma Publications). One serious anthropological casualty in Western India has been the cessation of the Journal of the Bombay Anthropological Society, which was established in 1886 by E. T. Leith. Its journal used to be published twice a year. In 1936, the society celebrated its Jubilee and published a valuable index to the Journal for fifty years, 1886-1936. and also the Jubilee volume of the Society. The Society, has begun its activities again, and holds meetings and arranges lectures on anthropological subjects.* The Bombay University Journal occasionally publishes anthropological articles and some of its publications include Folksongs of Malwa, Mewar Marwar, Maharastra, and Punjabi, Tamil and Telugu folksongs. Some accounts of Rabaries. Kolis of Kathiawar, of Charas, Katkaris and Warlis also have appeared from time to time.

The Anthropological Institute of India which was started in 1938 under the chairmanship of Prof. J. H. Hutton and which published two issues of its journal at intervals,is being reorganised. In the United Provinces, an Ethnographic and Folk Culture Society was established with Sir Sitaram as its President in 1945. The Society has already published the first volume of a Folk Culture Series; Snow Balls of Garhwal. The Indian Civil Service Probationers at Dehradun were initiated into anthropology in 1942, by a special course of lectures on Indian 'Races and Cultures' by D. N. Majumdar which subsequently was published under the title 'Races and Cultures of India' (1945). In

* Since writing the note, I have received the first volume of the New Series of the journal

1943, Dr. B. S. Guha delivered another course of lectures to the next batch of trainees after which the recruitment to the service was stopped as a war measure and the lectures discontinued.

In 1943, in reply to a pamphlet on the Aborginals by Verrier Elwin, Prof. Ghurye published "The aborigines, 'so called', and Their Future" which sought to prove the extent of Hinduisation of the aboriginal tribes and contested the suggestion of Verrier Elwin that the millions of tribal people must be segregated so long as they could not be given a fair treatment by their advanced compatriots. The problem of the aboriginese was raised from the plane of anthropology to that of sociology, even of politics, though much confusion remains in the minds of the public regarding the system of administration to be set up in tribal areas. Dr. (Mrs.) Iravati Karve's studies on Ethnic Affinities of the Chitpavans have been followed by various contributions mostly published in the Bulletin of the Deccan College Research Institute of which mention may be made of 'Kinship Terminology and Usages of the Maratha Country and 'Some Folksongs of Maharastra'. The study of anthropology has been given new impetus by the Gujarat Research Society and antropologists in India must be grateful to Mr. P. G. Shah whose selfless and untiring devotion to the cause of anthropological research found response from the Gujarat public who have provided adequate funds for carrying out an Anthropological Survey of Gujarat. In addition to a number of papers on anthropological subjects by P. G. Shah, as for example, Anthropology in Gujarat, Original Inhabitants of Gujarat, Ethnological Origin of Solanki Rajputs, the G. R. Society had encouraged organised

anthropometric survey of the Bhils in 1942, '43 and '44 under D. N. Majumdar of Lucknow University. In two articles, on the Bhils of Gujarat, 'Preliminary remarks on the raciology of the Bhils' (J. G. R. S. December, 1942) and 'Racial affiliation of the Bhils of Gujarat, of the Panchmahal district and the Rajpipla State (J. G. R. S. October, 1944) Majumdar outlined a new approach to the study of Bhil culture. The Bhils who all along have been regarded as a branch of Munda speaking race were found on anthropometrical and serological evidence to belong to different racial stocks, some of whom could not be distinguished from the average Gujarat type.

Dr. Sankalia one of the members of the Gujarat Research Society with the help of the Director General of Achaeological Survey and the Deccan College Research Institute has broken new ground in the search of early man. The discoveries made by him of the remains of palaeolithic and neolithic periods were detailed and discussed in the Journal of the Gujarat Research Society for January 1943; if the stratigraphical evidence could be definitely proved, the antiquity of the skeletal remains would have created new interest in palaeontological research but uptil now no valuable proof of their antiquity has been found as the skeletal remains were discovered in sand-beds. The study of Bhils of Gujarat by Mr. Vanikar one of the life workers of Bhil Seva Mandal, published by the Gujarat Vernacular Society is another sign of the interest taken in anthropological studies in Western India.

In the South, A. Aiyappan published an interesting paper on Iravas and Culture Change (Government Museum, Madras 1945) and A. M. Somasundaram described how the criminal Lambadis have responded to changed economic

conditions (I. S. Cong. Procd. 1945). Aiyappan also published a catalogue of the many collections of Stone Age tools in the form of a Memoir of the Archaeological Survey of India, and had been continuing his study of the tribes of the Wynaad Plateau. Anthropological researches received an impetus in the recognition of anthropology as a subject for a Diploma Course by the Madras University and arrangements are in progress for inclusion of the subject for the degree examination of the same University. Aboriginal education has received some notice by its inclusion as section of the All India Educational Conference and in the Egmore museum, a new building for housing the anthropological collections has been sanctioned by the Madras Government. M. N. Srinivasa has completed a study of the Coorgs.

The death of Rai Bahadur Sarat Chandra Roy in 1943 has removed a distinguished anthropologist and field worker, and Indian anthropology has been poorer by his demise. The Indian Science Congress, Anthropology section 1942, appointed a committee to collect and present a volume of Essays in Anthropology in recognition of the very meritorious services to the cause of anthropology rendered by Roy and under the editorship of J. P. Mills, D. N. Majumdar, K. P. Chattopadhaya, B. S. Guha and A. Aiyappan, a volume of Essays was published and presented to him. This is the first anthropological *festschrift* in India and the essays in the volume maintained a high level and as Nature, (July 21, 1945.) remarked, 'if subsequent ones keep up to the standard set by it they will do well enough.' Another significant fact in Indian anthropology during this period was the initiation of Verrier Elwin once a missionary, into anthropology.

While a missionary in India, Father Elwin has written a number of books on aboriginal life in the form of stories, anecdotes and romance of aboriginal life and his facile pen and literary gifts had already brought him considerable reputation. Elwin severed his connections with the Church and started his Ashram among the Baigas of the Mandla district, and his first anthropological work was on the Baigas which he published in 1939. The sexual life of the Baigas was depicted in great details which created much interest in the psycho-sexual life of primitive people. The Agharias was the next tribe on which Elwin published his second monograph. Maria Murder and Suicide, and the 'Ghotul of the Marias' are the two other contributions by Elwin. Thus Elwin's conversion from religion to science has benefited anthropological field research in India and his interesting treatment of tribal cultures has a popular appeal. Elwin's plea for segregation of the aboriginal population (Loss of Nerves and the Oxford Pamphlet on the Aboriginals) on the ground that we need to reform our lawyers, our traders, our doctors and even anthropologists before these may attempt any reform among the aboriginals, has raised a flutter in political circles. Prof. Ghurye in his The Aboriginese, 'so called' and Their Future contested Elwin's plea for segregation on the ground that most of the tribes have already been assimilated into Hinduism and the others have so deeply been influenced by contacts that the question of segregation does not arise.

Another important work on the Gonds of the Central Provinces has been done by I. Singh. His treatment is different from that of Elwin and though both have described the same people, Dr.

Singh's treatment has been functional and his presentation of data factual. Grigson and Singh both have maintained an objectivity in all that they have written, the latter possessed adequate knowledge of the language of the people. Recently Elwin's collaborator Shamrao Hivale has published a monograph on the Pradhans written on the lines initiated by Elwin. A new attitude to the aboriginal problem in India was voiced by Simon Bera, himself an aboriginal convert who pleads for contact and acculturation but wants a 'missionary solution' of the aboriginal problem. If the missionaries have succeeded in raising the standard of life and comforts of millions of primitive and backward tribes it is in the missionary contacts alone lies the future of the aboriginals, a contention which may not stand scrutiny. In any case, during the years of the global war, anthropology in India has progressed from an attempt to construct the history of culture to a realisation of India's needs and requirements and the various aspects of tribal life and culture have received illumination and critical appraisement. A new emphasis on the study of disorganisation and maladaptation of tribal stock has been put by Majumdar who in his Fortunes of Primitive Tribes Vo. I (1945), analysed the beliefs and customs of a number of tribes of the United Provinces, and classified them into cortical and sub-cortical. The difference between one set of beliefs and another from the tribal point of view rests in the quality of vividness or the degree of illumination received by them from the society possessing those beliefs and customs. Some beliefs are dominant, they are manifest in live customs and rites, others are not sincerely regarded so they languish and the customs which spring from such beliefs also lose in-

tensity and vividness. The cortical beliefs are associated with cortical or conscious customs, the sub-cortical ones lower the guidance-giving value of customs and practices till the latter gradually disappear from the society. The first sign of disintegration of beliefs and customs is a detachment of functions of the less vivid ones, the gradual dropping of those of them which have accreted to the original cortical beliefs and customs. Beliefs and customs exist and persist because they are parts of the apparatus by which a society maintains its harmony, order and spontaneity.

PART TWO

CHAPTER 3

TRIBAL DEMOGRAPHY

No picture of any society can be at all complete, remarked Prof. Carr Saunders (Man, March 1937, Mo. 63,) that does not include some indication of density and distribution of the population: the same may be said with equal force about vital statistics. A description of a primitive tribe, a monograph on it, must therefore include reference to population and vital statistics of the people, for if the size of a population determines its cultural stage, it must be ascertained and the causes controlling population in tribal areas must be evaluated. In anthropological literature attention does not seem to have been focussed on the importance of vital statistics of primitive races. Ludwic Krzywicki, Professor of Social History in the University of Warsaw, was the first investigator who has answered this 'reproach to anthropologists' as Prof. Carr Saunders calls it, by his interesting and thoroughly documented account of primitive society and its vital statistics in a book bearing the same title and all anthropologists are in debt to him. It is hardly necessary to add that the subject has attracted some notice in recent years but all that we know about primitive population and its vital statistics is very meagre and it is time that anthropologists were alive to their responsibility in this matter.

We have in India a great diversity of races and cultures. We have people at every conceivable level of cultural development from the nomad hunters to the skilled factory hands, and 'men of steel'. We have literate and illiterate classes, castes, high and low, interior and exterior, tribes completely isolated from civilisation and those who have been most affected by contacts with it. There are differences in culture and also in fertility. Some information we do possess regarding differential fertility between the various castes, but this is neither very reliable nor exhaustive.

Contacts with civilisation of primitive races have produced social and moral depression and there is apparently a wide-spread apathy to life and all that it connotes. Some of the tribes have become extinct and others are suffering disintegration due to contacts. The fertility rate among many tribes both in India and outside has shown an adjustment to conditions of life so that social disintegration and moral depression have affected the fertility of women and that itself is a subject of vital interest in tribal demography.

The vital statistics in India are defective, they are probably so in all countries though centuries of education, and propaganda over decades and new statistical methods have made more reliable estimates possible. India and China and most of the Asiatic countries do not give so much importance to vital statistics. The organization that is set up periodically in India for collection and systematisation of such data from its very sporadic character, fails to provide us with either efficient supervision or with reliable estimates. Inquiries about the size of families, number of children born or reared cannot enthuse the people, and it is no

wonder that even as late as 1937, when the debate on the second reading of the Population (statistics) Bill in the house of Commons was held, Mr. A. P. Herbert representing the University of Oxford, contended that 'the Bill would set up an inquisitorial system of unnecessary enquiries.' His speech was in verse and innocently witty. The people's point of view on this subject will be clear when we know that not until 1800, a Census Bill could become law in England and that the first Census was taken as late as 1801. In India, Census estimates of population or the record of vital statistics suffer both from the lack of public interest verging on apathy and the vastness of the country. Illiteracy, ignorance and superstitions of the masses combine with the inefficient decennial machinery to confound the data and that is why scientific study of population has not been possible. Diametrically opposed conclusions regarding India's population problem have been put forward by competent authorities and that is probably the reason why a population policy for the country could not be evolved. Regarding the accuracy of vital statistics the public Health Commissioner with the Government of India once observed, 'Birth registration is notably defective and it is probable that the registration of female births suffers more than that of male.' Sir U. N. Brahmachary made a special enquiry about the accuracy of registration in some selected areas in Bengal, and he came to the significant conclusion that about 50% can beadded to recorded birth and death rates to obtain true rates for Bengal. The Public Health commissioner did not, however, think that this conclusion could be applicable to the whole of India, but the disparity between the recorded rates

and those disclosed by Brahmachary was indeed 'startling.' The Census Superintendent of Baroda upheld Brahmachary's conclusions. He found that the births were more unsatisfactory than deaths. According to the estimates made for Baroda, the registered annual births were far from correct by about 56 % excluding still births. If this is the case in areas studded with compact villages evidence about the size of primitive families could not be adequate or authentic.

Most of our data about primitive tribes are of a perfunctory nature. The statistical value of the accounts given by travellers, missionaries and amateur anthropologists are very dubious. Much of the evidence did not distinguish between fecundity and fertility of primitive people. No two accounts of a tribe agree with regard to fertility or fecundity. The data about primitive population are made more complicated by the various devices practised by primitive people to eliminate unwanted or excess births. Killing the old whose age might infect the spiritual force or *mana* possessed by them was practised in some of the islands of the Pacific. Witchcraft is responsible for a large number of deaths in tribal society, so much so that in some Munda-speaking tribes of Bihar annual expeditions are organised to hunt out supposed witches to whom they trace all their miseries. After the Kol revolt in Chota Nagpur the tribal Mundas put down their discomfiture to the witches and a simultaneous revolt against the latter in the Munda country was responsible for hundreds of deaths, the suspected persons were hacked to death and people even tore flesh from their bodies. Human sacrifice and cannibalism may not be big issues where they are practised, but Elwin recently

put the homicidal rate among the fierce Bondo Prajas of Jeypore as over 2,000 to the million (against 7 to the million in the United Kingdom, and 52 in the U. S. A.). When viewed in comparison with the tribal strength, the number of cases of homicide may not be considered alarming. Fertility in primitive society is checked by celebacy, by restrictions on the age of marriage, by the long periods during which mothers nurse their young and by various restrictions about sexual intercourse. The Mundas and Hos meet the requirements of heavy bride price by postponing marriage, so that girls can seldom marry before 20, and boys before they are twenty-five. Some cannot provide the required bride price and go without a wife, others dissipate themselves in company of aged girls, penalising the society by recourse to abortion and even to infanticide. Hundreds of girls bewail their lot, for the youngmen cannot secure the price demanded for them by their parents, and youngmen reciprocate by melancholy tunes which echo from field to forest but fail to solve the tragic problem of their life. Abortion is a universal practice among all primitive people, and various methods, even cruel ones, are known and practised by primitive women. Where premarital licence is allowed, and most primitive tribes do allow it, abortion is a necessary evil, for otherwise, the couple have to marry to remove the stigma of illegitimacy on the child born out of extra-marital intimacy. When the couple happen to belong to the same exogamous clan, marriage is not possible between them; the society has to arrange marriage of the girl to some other person on whom paternity is forced, or the couple may take the aid of old and experienced

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que Nagas for example, have produced unsettled conditions and marriage by capture itself a relic of predatory life, has made weaker clans kill their women, particularly young ones, to escape the attention of stronger clans whose frequent incursions for women or for cattle have been a constant source of terror to the weaker clans. Female infanticide provided an escape but it ultimately led groups with scarcity of women to meet their requirements of marriage by capture, and thus a sort of chaos reigned in the Naga country till pursuasion and threat by the administration succeeded in restoring peace in parts of the tribal land and saved the lives of many girls. Intermittent, if not constant, warfare still characterises the tribal life of India's north-eastern frontier, and female infanticide probably is still practised to avoid hostility, but the inducement towards it must now be less than before.

Infant mortality from epidemics and diseases must be enormously high in savage society and at any time, the number of children observed among primitive tribes must be smaller than those born to the tribe. Writing about the effects on some primitive tribes of Assam of contacts with civilisation, Mills has shown that improved comunications while 'they have immensely facilitated internal trade, have undoubtedly spread diseases'; not only have specific diseases such as venereal diseases and tuberculosis been introduced, but epidemics spread more quickly. Such spread of diseases has affected the growth of numbers in tribal areas and it is indeed difficult to arrive at proper estimates about the strength of primitive communities or their fertility rates.

There are two opposite views regarding the fecundity of primitive people. One view holds that the primitive people had not only an unrestricted but a very high fecundity, the other which is more recent, places primitive people at the bottom of the fecundity scale. For example, a recent writer traces the growth of fecundity from primitive to advanced peoples and he thinks that 'fecundity has increased with civilisation." He takes the Indians and Chinese as intermediate between prehistoric peoples and the Europeans, the latter he takes as modern civilised races. Since the time of prehistoric man fecundity is said to have increased, this being apparently in the nature of a modification due to the changed conditions of life. He also traces this increase as biologically determined for 'the reproductive organs of man have undergone change, those of the more primitive races of mankind being smaller and in all respects less developed than those of civilised races.' Of course, he does not mean any qualitative difference. In other words there is a connection between lesser development of the reproductive organs and a lower degree of fecundity. This is a statistical conclusion for which sanction has been sought from biology. It is not possible to prove with our present knowledge of human fecundity, that biological differences account for differential fecundity. Fecundity is the capacity of a woman to bear children while fertility is the actual number born. Under very exceptional circumstances, rarely enough, fertility of a woman corresponds with her absolute power of reproduction, so that the number of children born for which statistics may be available is no measure of fertility, much less of fecundity. The

other view is based on the supposed correlation between high standard of living and low birthrate or as Doubleday thinks, 'a deplethoric state is favourable to high fertility and a plethoric state is inversely correlated with fertility.' We shall examine this problem with reference to the data available, much of which has been collected by me and my students.

THE MENARCHE

The age of first menstruation is likely to vary from climate to climate and in tropical countries, girls are likely to menstruate earlier. There are no significant data on the age of menarche among tribal women and Elwin's data are probably the only ones available besides those collected by me. So far as Indian women in general are concerned we have some references. For example, the Age of Consent Committee investigated this problem and published data on 1752 cases examined by them. The figures published by the Committee show that 80% of Indian girls belonging to different races get their first menstruation between 12 to 15. J. Robertson found 12 years 4 months as the average age for the Menarche in Hindu women of Calcutta, 13 years 2 months in Madras and 13 years 3 months in Bombay. How far differences in diet account for such disparity is worth investigation. Bengal is a meat-and-fish-eating province while the other provinces investigated place more reliance on vegetarian diet. There is also some difference likely due to climate, and in a country so vast as ours, with varying climate and topography, such differences cannot be ruled out. Again, hard open air life coupled with cool climate of the hills is expected to make some difference

in the period of puberty, and though no authentic statistics exist in our country, investigations may reveal it. Elwin investigated fifty cases in Patan and its neighbourhood and found that his observation of the tribal women corroborated the findings of the Age of Consent Committee, i.e., the most likely age for the menarche is between 12 and 15.

In our investigations carried on among seven tribes of northern India, the Hos, the Korwas, and the Tharus provided most reliable data ; the first due to my long and intimate association with the tribe, the second due to the tribal disintegration in progress and the third on account of the dominance of women over men. A Korwa woman has nothing to conceal and is willing to answer straight questions. The Tharu women have no reticence in sex matters and are ever anxious to discuss them. It must, however, be admitted that we did not find such optimism about the appearance of menarche among the tribes we investigated as experienced by Elwin. He writes about the Baigas, "It is, however, a moment of great excitement and even of delight for a girl when the long awaited moment comes. She runs to her friends and whispers, 'It's begun' and in a few hours the news is round the village." On the contrary, my information is the other way about. The occasion is a matter of embarrassment to the girl, She does not know what to do, she communicates to her closest friends no doubt, but they always lead her to her mother who takes her into the house and instructs her in secret, the other girls know what the mother was going to say to her, but do not show much excitement. Nor do they run to the village to announce it either. Blood is always a thing of dread to pri-

mitive man, and the first sign of it is necessarily so; if women in their periods are tabooed as they are in savage society, even they are made to live in menstrual huts specially improvised for them as among the Gonds, I do not know how they should cause delight to the girl, excitement of course there must be. The following table will show the age at menarche among different tribes. The data were collected over many years:

TABLE I

Name of the tribes and Number of women examined in brackets	Locality.	Below 10	Age at the Menarche.			
			10 to 12	12 to 14	14 to 16	16 and above
Hos (110)	Kolhan (Singbhum)	...	20	61	25	4
Mundas (62)	Ranchi	1	10	38	9	4
Saoras (37)	Ganjam Agency tracts.	...	...	23	13	1
Kukis (24)	Hill Tipperah	3	16	4	1	...
Garos (11)	Susong—Mymensingh, Bengal.	2	8	1	...	...
Tharus (81)	Lakhimpur-Kheri Pilibhit	6	33	36	5	1
Cheros (44)	Mirzapur	...	10	28	5	1

Thus of the 367 women examined, all of them in their teens, only 12 girls had their first menstruation below 10 years, 97 had it between 10-12, 191 between 12 to 14, 56 between 14-16 and 11 at sixteen and above. Calculated on percentage basis, 3·3 % of the cases were below 10, 26·4 % of the cases between 10 and 12, 52·0% were between 12 and 14 and 15·3 % between 14 and 16, and only 3 % at 16 and above. In other words, in 78·40 % cases the ages at the menarche among the tribal girls were between 10 to 14 compared with 92·0 among girls of all races in India. The tribal girls therefore, have their menarche later than other girls, though in about 3 % cases it appeared much earlier even below 10. Considering the fact that age computation among the tribal people cannot be taken to be accurate, a shifting of the age group 10 and below may increase the percentage in the next age grade. The high percentage of women in the age grade 14 and above compared to that arrived at by 'The Age of Consent Committee' marks the real difference between the two samples. Another significant fact is the early age of menarche among the Mongoloid tribes, the Garos the Kukis, and the Tharus, which distinguish them from the Australoid or pre-Dravidian tribes like the Hos, the Mundas and others.

MARRIAGE AGE,

Between menstruation and motherhood there is a longer gap among the tribal women than is noticed among others. Marriage is usually late in tribal society. From the Census statistics we find that there are 687 wives per thousand females between the ages 15 to 20, as compared with 564 among Christians, 909 among the Hindus and similar number among the Muslims. Child marriage is

practically absent among the tribes, though contacts with Hindu castes have introduced child marriage among the substantial elements in tribal society. Even then the proportion is insignificant and is not likely to increase appreciably. Child marriage in the lower castes and tribes is not accompanied with cohabitation which unfortunately has increased the incidence of girl mothers among the higher castes in India with consequent disastrous effect on the health of young mothers and their immature children. Some tribes like the Hos and the Mundas of Chota Nagpur marry their girls pretty late. The high bride price necessary for marriage makes it difficult for youngmen to marry and marriage is postponed till late in life. Girls seldom marry before 18 and 20, and men seldom below 25 or even 30. Among the Rajbanshi of Rungpur, a tribe claiming Kshatriya origin, quite a numerous one, the age of marriage for the sexes is usually high for men. In most of the cases we examined, the difference in age between husband and wife is never below fifteen and there were cases when the wife could easily be regarded as the man's daughter if it were not known that such was the custom among them. Grey-haired men as among the Tasmanians now extinct or the Australian aboriginese, possess two to three wives aged thirty, twenty and even fifteen. The bride price is very high and a man seldom is able to secure the requisite amount of bride price before he is 30 to 40, while Hindu ideas about the sanctity of marrying girls before or immediately after puberty make it necessary that the girls should be married at comparatively young age. Tribal custom of late marriage with premarital license tacitly recognised by the tribe, did not produce any great problem

among the Rajbanshis but their acculturation to Hindu society has emphasised this disparity in age between husband and wife. Many of the cases of rape, abduction, elopement and widowhood are to be traced to this disparity in ages between husband and wife, and the elders of the tribe confided to me that the situation has deteriorated considerably due to economic hardships with which most of the Rajbanshis today have to put up. A man is married at the age of 35 to a girl of 15; when he is 50 the girl is 30. The psychosexual life of a woman demands her normal sexual life to continue, while the husband may feel it otherwise. This great difference in age between husband and wife reacts adversely on the fertility of the wife. This would not have mattered, but for the fact that a man does not live a controlled life before he marries, the presence of prostitutes in every village mostly in the bazars, and the incidence of venereal disease among them both causally connected, tell the tale, and many women married to elderly men have either run away from their husbands or have fallen a prey to tempting overtures. The large proportion of muslims in these districts is not due to natural increase as one would tell you.

Besides the Hos and the Rajbanshis, we have a large number of tribes where the average marriage age of girls does not fall below 15 or go above 20. The following table shows the age at which marriage takes place among certain tribes: of the 165 men in the four tribes examined in this connection, 17 % of the men married below 24. 37·5 % between 24 and 26, 24·9 % between 26-30 and 20·6 % above 30. Below 15, 17·4, % of the girls were married, between 15 and 20, 49·24 % were married, between 20-25, 25 % and above 8·34%

were married. Between 15 to 25,74·24 % of the girls married while between 24 and 30, 62·4 % of the boys married. Of the 22 Kuki males, 11 married between 20-24, and of 27 females, 19 married below 20. Thus the age at menarche has some correlation with the age of marriage, the earlier it is the earlier the marriage, though it is not necessary that it should be so in individual cases.

There is not much of a gap between the age at which a woman marries and the age when she attains motherhood. In most of the tribal societies we have studied, a woman gets her first child within a year or two after marriage, sometimes even earlier, and if she does not, the bridegroom's family has a demand on the family of the bride to compensate the former or offer another girl to provide children to the family. A man would ordinarily wait for two to three years, after which

TABLE II

Name of the tribe.	Age at which men married.				Age at which women married.			
	20–24	24–26	26–30	30 and above	15 and below	15–20	20–25	25 and above
Cheros ...	5	11	17	5	3	11	6	3
Saoras ...	9	13	7	8	...	10	16	4
Tharus ...	3	32	14	19	12	13	6	1
Kukis ...	11	6	3	2	8	11	5	3
Total ...	28	62	41	34	23	45	33	11
Grand Total ...	165				112			

he would seek the help of medicinemen or Ojha, should he fail to cure his wife, he would seek a new one, the former wife accepting the situation calmly and sometimes even without malice. Where a girl is married early, and a second ceremony like the 'Bandhparah' of the Hos or 'Gauna' of other tribes has to be performed, the husband or his family may wait till 3 or 4 years after the second ceremony but failing to get a child after this wait, the husband is morally justified in seeking a second wife. Where the incidence of sterility is high as among the Khasas of the cis-Himalayan tract, the wife is divorced after a reasonable wait following marriage, and such women often pass from man to man till they are declared totally incompetent. In Chota Nagpur barren women are regarded as anti-social and they are dreaded and despised as witches. Among the Korwas who are to all intents and purposes a dying tribe, incidence of sterility is pretty high, but as the tribe has little interest in life, barrenness does not entail any social stigma. The attitude to barrenness or sterility in women differs from tribe to tribe according to the interests a tribe has in life, though as a general rule it is traced to sins committed either in previous births or in the present.

The most difficult enquiry was to find out the incidence of abortion. Unless the field investigator is a woman or works with his wife, a tribal wife is a hundred percent success in such cases, it is indeed difficult to collect any reliable data. No straight question would bring about confession from women, and it is only old women who often act as informants and that too when the field investigator can persuade them to believe

in his bonafide. Once I was having an intimate chat with a group of Tharu women, most of them married, and I suddenly turned to one and enquired if abortion was practised by them. I had great difficulty in making myself understood what I wanted to know, and when they did know my question they burst into laughter, peals of it, and I felt so awkward about it. My innocence probably excited sympathy in some and one of them answered, "who has not done it?" again bursting into a loud laughter others joining in. This is among the Mongoloid Tharus where women are so dominant and even aggressive that husbands have to meekly submit to their women and pray to gods to redress the wrong committed by their wives against them. What I might call statistical evidence I could gather among the Hos and the Korwas, with whom I have been very intimate during my ethnographic investigations among them. The following table will give some idea about the incidence of abortion among the Hos, the Korwas and the Tharus. The data were collected through women by a whispering campaign.

TABLE III.

1	2	3	4	5
Name of the tribes	No of women discussed.	No. of women who did not reply.	No of women who admitted to have had abortion.	Unmarried among the women recorded in column 4.
The Hos ...	51	40	15	6
The Korwas ...	46	18	11	7
The Tharus ...	54	19	18	9

The fertility of women varies from tribe to tribe. Economic conditions are largely responsible for difference in fertility between tribes. In years of agricultural prosperity the number of marriages increases and within a couple of years the effect is manifest in large incidence of birth. In one village in Kolhan, the tribal society was placed in an awkward situation as the number of births increased at such a rate that names could not be found for children born. The custom is to name the children after some deceased ancestor, and they exhausted all the names they could give. The number of children living at any time is no indication of fertility as abortion is frequently taken recourse to among most of the tribes we have referred to. The tribal women usually age earlier than their colleagues in more favourable environment. A strong and healthy girl after a few years of married life grows prematurely old and is a broken down old hag. Her onerous duties in the household, her family obligations all weigh her down and she does not eagerly look forward to adding more burden to her. Many women have confided to my informants that they prefer not to have children after thirty and abortion comes handy to them to prevent motherhood. The Mongolian women work while their husbands loaf about. The Hos of Kolhan like to sit idle, so much so that they would rather while away their precious time in sport, cock fight and the like than help their women-folk, who literally have to maintain them. The tribal women always work hard and it is by their industry and thrift that they have succeeded in averting crises.

The data on fertility cannot be very reliable for reasons stated above, but those that could be

collected, are recorded for what they are worth.

The following table shows the number of children per completed family where the last child of the family was about 12 years or more. The data are from the Hos of Singbhum. The ages are approximate:

TABLE IV.

Name of the family head	Village	Age of father	Age of mother	No. of children	
				Male	Female
Lachman	Kamalpur	60	48	3	3
Baraker	,,	52	45	3	1
Disu	Pendasali	50	42	1	...
Mangu	Gorapukur	55	50	4	3
Kanpe	.	50	50	1	2
Bikram Senior	Amjora	65	58	4	4
Bikram	,	45	42	2	3
Reya	Kundarojora	59	53	1	4
Jitu	Kotgarh	43	40	2	7
Rengshaw	,,	50	44	2	5
Oybon	Dudhbile	48	43	2	3
Karji	Thakura	40	34	1	1

The average number of children per family among the Hos according to the above data is 5·16 per completed family. Further data about the number of children born per family and number surviving among six primitive tribes from different provinces will be found below :

TABLE V.

No. of families examined.	Duration of marriage with one wife	No. of children born	No per family	No. surviving	Average per family surviving
Hos (750)	18 to 45	4659	6·2	3147	4·10
Oraon (198)	15 to 45	1188	6·0	776	3·92
Kuki (36)	,,	235	6·5	146	4·0
Khonds (131)	,,	933	7·2	392	2·99
Tharus (142)	,,	937	6·59	487	3·43
Saoras (123)	,,	697	5·66	393	3·19

The fertility of tribal women in India appears to be higher than that of those outside India. For according to Boas, the average number of children born per mother among the Nass River Indians is 4·8 among the Kwakiutl 3·5, Utamkt 5·3, Ntlakyapamugnes 5·8 and among the NKamtcinamuq 5·8 (Fr. Boas : Fifth Report on the Indians of British Columbia and Tenth Report on the N. W. Tribes of Canada 549—551). The survival rate or the number of children living expressed in percentage of the total number of children born among the

Nass River Indians is 55·5%, Kwakiutl 26·6%, Utamk 64·6%, Ntlakyapamunques 41·4%. NKamtceinemuq 25·5% Compared with these tribes the figures for the Hos are 67% for the Oraons 65% for the Kuki 61% for the Khonds 41%, for the Tharus 52% and for the Saoras 56%. The fertility of some of the tribes in other parts of the world are given by Prof. Krzywicki. (Primitive Society and its Vital Statistics, p. 217) Except the Australians and the Negro figures others were not exact. Though the estimates, particularly those of Fr. Boas are based on few families, the general result may be taken as correct as these data according to Boas agreed 'with the relative number of children in the villages of the various groups'. Even if we take them on their merit, the fact remains that the Indian tribes are more fertile than their colleagues in other parts of the world, probably because the influence of contacts has not been as disastrous in India as elsewhere. Whereas in most other parts where the white people have colonised or settled for exploitation of new lands, the tribal people have become extinct or are tending towards extinction, in India either due to isolation or through non-interference, the tribes have maintained their prolific fertility, though the survival rate as found among the Khonds and a large incidence of still birth among them can be traced to the widespread prevalence of sexual diseases, syphilis being pretty common among them. In tribes of the cis-Himlayan area, the incidence of syphlis is very high, and this with polyandry explains large percentage of sterile marriages. Among the Korwas, an inbred group, sterility is quite common among women and the tribe is literally preparing for an exit. The lower survival rate which

is to be traced to high infant mortality has been brought about by changes in the economic base of the tribes, as many of the tribes originally in the hunting stage have been absorbed in the agricultural stage, and such adjustment has caused discomforts and disintegration of most of their tribal beliefs in prevention and cure, protective as well as productive magic, in their tribal medicine-men and indigenous pharmacopoea.

If we compare our tribal data on fertility with those arrived at by the Census Superintendent of Assam (1931) for the hill tribes we shall find that fertility among the tribal people is higher than that of the advanced groups. Thus in Assam, the average number of children per family among the tea garden cooly castes is 3·4 while that among the hill tribes is 4·7. At every period of marriage duration 'hill women' have more children than cooly women and that at the end of her reproductive life a cooly woman would normally have 6 children and a hill woman 7 to 8. If Hinduisation is a higher cultural stage, the Hinduised sections of the tribal population show a lower fertility than the tribal. Even the dying tribes have a high fertility. Westermark refers to some statements made by different investigators where primitive women are stated to be more or less prolific. N. W. Thomas writing about the Australian aborigines said ,"Although owing to infanticide, the number of children reared was probably small, there is no reason to suppose that the blacks who are dying out fast, thanks to the European vices, are at all unprolific. The largest family on record was borne by woman named Jenny who was the proud possessor of thirteen olive branches." We may tentatively conclude though this would

go against the assumption of Prof. Carr Saunders, that so far as fertility is concerned, the primitive and backward tribes have quite a high fertility. Geneological tables compiled by us indicate that this fertility was still higher in earlier generations, but has been lowered due to contacts with alien people or due to changed economic conditions. Where the tribes have adjusted themselves to the new economic base, the fertility has not slowed down. Where there is maladaptation in progress not only the fertility has been lowered but the incidence of sterility and abortion have put limit to the size of families.

Thus if some of the primitive tribes are declining in number or are manifesting a tendency towards it, it is not due to their lower fecundity but the conditions of life which discourage families and make rearing a large family almost impossible. That the vitality of the tribes has not been absolutely impaired will be evident from the proportion of masculinity in the population in different cultural stages. The proportion of masculinity among tribal population is much lower than among the higher castes, say Brahmins and others. The Brahmins have 902 females per thousand males of all ages, the Kayasthas 888, Rajputs 868, the Bhills 981, the Sonthals 998. Between the ages of 17 to 23, the Bhils have 1071 females per thousand males, the Sonthals 1196 while the Brahmins have 914, the Kayasthas 917, the Nai Brahmins (barbers) 900. Data from other tribes and castes would not give different results. If masculinity is a sign of low vitality as it has been assumed by some people, the decline of tribal people cannot be explained by these figures.

It is perhaps the high mortality in tribal

society, both among children and adults that needs comment. The figures for the rates of mortality at different age periods are not dependable and it would be unsafe to place too much reliance on these figures. But investigations in specified areas have brought to light the phenomenal absence of aged people among the primitive tribes. Old people provide the conservative element in the population and they are usually regarded as the depository of traditional 'lore'. Their influence has been highly exaggerated as among the Melanesians, but their low proportion in the tribal population today may be regarded as a substantial ground for disintegration of tribal cultures. From the Census figures we find that the percentages of persons aged 44 and above is higher among the Hindus and Muslims than among the tribes. The Brahmins, for example, have 19% of their total number between the age period 44 and above, the Kayasthas 17%, the Rajputs 17% but the Saoras 12%, the Bhils 12·8% and the tribal Kolis 10 %. Figures collected from a few villages in the Kolhan and in Mirzapur corroborate the Census statistics. While the proportion of aged people is comparatively small among the tribal people, that of children 0·5 years is decidedly higher than it is among the higher castes; among the Hindus it is 15% but among the tribal it is 19%. The high fertility among the tribal people is offset by a high infant mortality and therefore the number of children reared by tribal mothers at any time does not exceed those reared up by caste mothers.

Birth rates and death rates recorded among tribal people are not very reliable and we made a few inquiries to find out if we could estimate the vital index of some tribes. We selected one

dying tribe, viz., the Korwas of the U. P., and two tribes who have adapted themselves to changed economic condition viz., the Hos and the Tharus. A few villages were selected. The selection was made on the size of the village, for there must be a sufficient number of families in the village to give us statistically significant data. For every tribe we got about 100 families in which the wife was in the reproductive period between 18-45 except for the Korwas, where the data could be had for 56 families. The figures of birth and death are recorded in the table below:

TABLE VI.

The name of the tribe.	Number of children born to 100 families among the Hos and the Tharus and to 56 families among the Korwas.	Cases of death among 100 families of Hos and among 56 families of Korwas.	Vital Index
The Hos ...	20	13	154
The Tharus ...	26	18	144
The Korwas ...	17	16	106

Thus from the vital index it appears that even the dying Korwas are replacing their deaths and have a margin for increase, though it may not be true for all villages. The Hos and the Tharus have a pretty high vital index and this may be taken as correct for most of the tribes.

To sum up, if we do not want our data to speak more than what they can, the discomforts of tribal life though very real as most enthnogra-

phers will agree, have not so far engendered any great crisis, yet it is time that attention were paid to remedy the grievances of the primitive tribes. Most of the discomforts are remediable and it is probably true that many of these have been brought about in recent years, with the increase of contacts of the tribal people with the 'so-called' civilisation. Throughout the historic age, primitive and backward tribes have come into effective contact with people of alien races and tongues but under the self-sufficing economic system the tribal people were allowed to continue their tribal occupations without much of an interference and even where tribes had entered the rural economy of the caste groups, the pattern of rural economy both protected them from competition and prevented their disintegration. The rapid spread of communications, and the net work of railways and roadways have brought the tribes face to face with the economic forces of our times and the old policy of *laissez faire* has given place to competition to which compact groups have favourably responded no doubt, but the scattered tribes have suffered, and the future tribal policy must be based on such demographic knowledge, as otherwise even a protective system of administration may lead to their maladaptation, even their exit. More of it we shall discuss in the chapters that follow.

CHAPTER 4

COMPULSIVES OF CULTURE

An Oraon cultivator of the Ranchi district in Bihar will not allow a woman to touch a plough. Should it happen the whole village will be thrown into consternation and all must atone for the woman's remissness. The villagers have to sacrifice fowls, pigs and pigeons before the sacred village grove so that the hand of the mysterious power may be stayed. The Kharias would yoke the woman to the plough which she is made to drag over the field and eat a little grass and finally go round the village begging alms, the proceeds being used for a tribal feast. The Todas of the Nilgiri hills worship their herd of buffaloes, the dairy is their sacred temple and women are not permitted to enter it or cook food of which milk forms a part. The Tharus of Naini Tal Tarai and of Pilibhit allow inordinate latitude to their women in all matters, and the latter are so dominant that men are often heard to complain of maltreatment by their wives, and their only cure lies in praying to the gods to soften the hearts of their women-folk. Many of the principal occupations of the Tharus are denied to men and innumerable prohibitions hedge in the daily routine of Tharu life. Should a man violate such restrictive mores, the entire society must share the divine wrath and economic and physical distress in consequence. The Gonds of the Central Provinces will not touch a woman in her period, for it is enough to destroy all prospects of a reasonable harvest. The Gonds, therefore, segregate such women in

specially improvised huts, which some call 'green houses', outside the village, so that even the wind in contact with the hut may not blow towards the village. A conventional division of labour between the sexes is recognised by most people. Should a man do the work of a woman, he must dress himself as a woman does as otherwise he is sure to bring disaster to the society.

LIMITS OF SOCIAL FREEDOM

Such are some of the taboos or restrictive mores observed by men at various levels of culture. They are negative customs or 'witting' repressions as some call them which prescribe the limits of freedom of a culture. Taboos, omens, oaths and ordeals, witchcraft, sorcery and divination, all determine the extent of individual liberty in a given society. Customs and taboos exist and persist in society because they are part of the mechanism by which an orderly society maintains itself. Taboo is believed to be the oldest 'unwritten' code of law of humanity and is said to be even older than the gods and dates 'from a prereligious stage'. Some define taboo as 'holy dread,' an objectified fear of the demoniac power thought to be concealed in the tabooed object'. While many would take taboo to possess inherent strength to avenge itself, to impose its own prohibitions, others claim supernatural source, the will of gods and spirits, which is imposed on those who violate taboos willingly or otherwise. It is not the savage alone who is hedged in with taboos, The social code of every primitive or advanced people is full of customary prohibitions or taboos which often rigidly determine the limits of individual initiative and the extent of social intercourse. "Examined intellectually", writes Keyserling," the Englishman

undoubtedly stands closer to the animal than to the intellectualised European". To European, the Englishman is the most primitive, for " the majority of his actions are rigidly dictated by customs, etiquette, notions or prejudices and by taboos." Probably the Englisman is neither an animal and as Archebald Lyall has said, nor is he ' nearer the intellectualised European ' who is governed by reason.' The truth, however, is that no civilised race has yet got over its code of customs, positive or negative.

When we analyse the nature of taboos in society, we find that they shade off into superstitions on the one hand and regulated patterns of social behaviour on the other. An Englishman would touch wood to reassure himself, he reads the bubble in his tea cup, he avoids walking under a ladder, and would under no circumstances spill salt. These are superstitions and no body would think worse of a man if he does defy them. A gentleman is defined as one ' who is soaked in the prejudices of his class', his table manners, his public school training, his careful observance of the don'ts are mere notions which constitute his personality, he observes them for the self same reason as he does not usually defy superstitions, though ten to one he is conscious of their limitations. Taboo differs from both superstitions and good manners in the nature of the sanction. The violation of a taboo 'brings or is believed to bring' supernatural punishment while the non-observance of superstitions and good manners is a ' concern of the individual or at least his family'.

The function of taboo in society is either productive, preventive or protective. For example,

when the new crop is tabooed before it is ceremonially offered to the goddess of corn or of harvest or when chickens and pigs are tabooed as meat, the primitive people secure crops and food animals against wanton destruction. When the tribal Chief is tabooed so that no person can touch him or come in contact with him, it protects his person against injury or harm. In many parts of Polynesia, the Chiefs have to be carried about by their servants lest their feet touch the ground making it taboo for others. 'In former days the chiefs in Tahiti had to be fed so that they need not touch the food and make it taboo for the rest of the people.' A Holiya of Travancore whose very touch is prohibiting will not allow a Brahmin to enter his parachery or settlement as he thinks the touch of the Brahmin will affect his future. Therefore, those of the Brahmins who avoid the Holiyas for fear of pollution, yet have to enter their settlements for realising money they had lent to them at fabulous rates of interest, must submit to an ordeal of insulation. As soon as the Brahmin approaches the Holiya settlement, men, women, and children come out with broom-sticks, garland of shoes and water mixed with cowdung and strike him with the first, decorate him with the second and bathe him with the third, so that he may be rendered innocuous and approachable by the Holiyas.*

The Kharias of the Ranchi district would not allow any member of their community who returns from Jail or from some distant place to enter his own house or that of his neighbour, or touch his wife and children until he has undergone cere-

* Races and Cultures of India. Kitabistan. P. 120

monial purification' by licking from a leaf, a drop of blood from a sacrificed white cock. The usual practice among the Munda speaking tribes is to offer a libation of rice beer to the Supreme Being, the Sing Bonga, (the sun God as he is called) a drop of which is believed to purify the person concerned. A Kharia woman who is married outside the village, cannot enter the cattleshed of her parents' house or of the house of any other Kharia except her husband's and similar taboo exists among the Hos of Kolhan circumscribing the movement of women to kitchens. The latter taboo controls indirectly of course, the spread of diseases, for a purification ceremony always needs a bath and warming of hands and feet on fire, while the former protects the cattle from 'Najomdani' or those who administer poison to cattle. Most of the aboriginal tribes taboo contacts with outsiders, by penalising the employment of non-tribals or of members of other tribes, as for example the Kharias do not allow their tribesmen to get their hair shaved or nails pared or cloths washed by non-Kharias. The non-observance of this taboo in some parts of the Chota Nagpur plateau has introduced complications in the tribal economy of the aboriginals and much of the occupations of the tribes is now being done by outsiders. On the religious side, taboos are meant to safeguard ritual operations, to protect religious persons and places of worship and to prevent irreligion from spreading. A variety of religious prohibitions occur among the Naga tribes of Assam. The word *genna* stands for taboo among the Sema Nagas and any *genna* is *chini* or forbidden to them. A place or person is made taboo by supernatural displeasure. A person killed by a tiger is *genna* and the spiritual infection

extends even to cloths worn by the deceased. Houses owned by the person, his tools and weapons, his utensils all become *genna* to the tribe and precautions are taken to ward off the effects of contact or of use. The emphasis laid on such abnormal deaths must have minimised the depredation of animals, as no one would like to be a victim of such deaths inadvertently even. The birth of a child, the preparations for an expedition, the sowing of seeds or the harvesting of crops', all impose their taboos and the people abstain from social relationships, from sexual congress and observe holidays by converting an otherwise normal day of work into one of thanksgiving. The hospitable Nagas, we have been told, appeared indifferent to a British officer who asked for drink simply because 'the household dog had pups, polluting the householder and tabooing them from contacts'.

Professor Freud has explained the 'ambivalent attitude' we have towards the taboos. This 'ambivalence' is a blending of love and hate, of sacredness and pollution, the tabooed object being 'sacred' as well as 'unclean'. Often we find the tabooed object itself extremely desirable or there is a natural inclination to transgress it, as for example, the taboo forbidding social and sexual relationships between brother and sister. The Veddahs of Ceylon will not allow the brother to live under the same roof as the sister or even to take food together. The brother and sister thus grow up in a 'strange sort of domestic proximity' in close contact and yet without personal or intimate communication 'near to each other in space near by rules of kinship yet' as regards personality always avoiding each other in a mysterious way.'

The son-in-law in most primitive societies avoids the mother-in-law, the daughter-in-law, the father-in-law and in all their relations would assume an attitude of impersonality. Freud has explained the mother-in-law and son-in-law avoidance as due to 'ambivalence', a blending of love and animosity. The aged mother-in-law whose psycho-sexual life has been prematurely cut short can only enjoy it by imagining herself in the role of her daughter. Such an identification will naturally lead to love for the son-in-law and her relations are required to be restricted by taboo. The son-in-law again finds in the mother-in-law much that reminds him of his wife and his love for his wife may lead to 'similar emotional attitude to the woman who is her mother.' The new influence exercised by the son-in-law on the daughter and his natural aversion to those who have 'preceded him in the affection of his wife produce what may be called a feeling of animosity and the mother-in-law son-in-law taboo is a 'blended brand of love and hate'.

Whatever be the merits of the psycho-analytic explanation, it does paint the primitive with the lurid colours that tinge the life in modern society. This is why anthropologists are slow to recognize the value of psycho-analytic approach to cultural problems. Whatever be the motive of parents-in-law avoidance, nowhere there exists any sign of hostility between the tabooed relatives. The elder brother is taboo to younger brother's wife, he is 'fear' to the Korwas, the elder brother under no circumstances can approach the younger brother's wife, and can never be on speaking terms with the latter. The maternal uncle again in various upper castes in Bengal must avoid his niece-in-law and

under no circumstances his shadow should be observed by her, not to speak of being trodden by her. Although these relations avoid each other, there is always an attitude of mutual respect shown by the tabooed relatives. The custom of levirate which makes the brother of the husband, elder or younger, eligible to marry the deceased brother's wife may be cited as a cause of this impersonal relationship but while the young wife's relations with her husband's younger brother are always cordial and sometimes may even transgress the limits of social etiquette, her attitude to the elder brother of her husband is definitely based on respect, and many societies prescribe similar code of conduct with respect to the father-in-law and the elder brother of the husband. Lowie agrees with Tylor that these taboos may have arisen due to the rule of residence, for in a patri-local society, the wife is stranger, so she is avoided by the father-in-law and in a matri-local society corresponding avoidance exists between the mother-in-law and the son-in-law. Although this is based on statistical evidence, and the data are not available for scrutiny, yet the connection between residence and parents-in-law taboos cannot be ruled out. Common residence must develop reciprocity of social relationship and love and respect must determine the attitude of the relations. Love to be enduring, must be based on respect between the lovers, and even wives assume an attitude of impersonality in addressing husbands even in advance Indian homes. The avoidance of the maternal uncle in a patri-local society should be read along with the parents-in-law taboos as no other explanation appears more plausible. In a feudal type of society, the authority of the head of

the family is inviolable and must demand subservience of the family members. It is usual for the father-in-law among the higher castes to address the daughter-in-law respectfully and although the latter may not come out before her father-in-law or speak with him she is indirectly addressed and a sort of social distance is maintained by using terms of address showing mutual respect.

Analysis of marriage rites brings to the forefront the influence of sex taboos in tribal society. Until puberty sets in co-habitation is not allowed Sex relationship is tabooed before the marriage ceremony is complete. Sex inhibition has been indirectly effected in primitive societies by limiting the period of marriage. In every tribe there exist customary restrictions for arranging marriages during certain months of the year. Marriages are usually performed at a period when the people have the necessary leisure or can afford to pay for the ceremonial expenses, in otherwords, during the interval when the harvesting season is over and till the sowing operations begin. Indirect checks have also been prescribed for the limitation of the period of marriage in primitive society, e.g. the divine marriage of the Munda speaking tribes. Marriage is not performed before the divine marriage is completed. Nature regarded as the lawful bride of the Sun God or Sing Bonga the creator of the primitive Mundas, is annually married to the sun during the spring when she wears a cover of Mahua flowers and is ready to unite with the resplendent sun, from whom she receives all her energy. The part of the sun is played by the Deuri or Pahan, i.e. the tribal priest and his wife plays the role of Nature and this divine marriage is ceremonially performed every year before earthly

marriages can take place. So all marriages are celebrated after this divine marriage, and the period of marriage comes to an abrupt end immediately before the rains set in and the sowing operations begin. We are told by S. C. Roy that during the annual summer hunt or Bisu Sikar of the Oraons, when the villagers who are able to take part in the hunts leave the village for a week or so, all the members of their families left behind in their villages must observe strict sexual continence. The sexual continence is apparently directed against unfamiliar intimacy in the absence of villagers or is meant as taboo against incest.

The functional role taboo plays in social life by restricting the social relations between close relations is of supreme significance. The various sex taboos which obtain among the primitive tribes do have their social values in exercising restraint and discipline or serving other utilitarian ends. The sex taboos regularise marital relations, canalise sex conduct and aid the tribal society to concentrate on important economic pursuits. The Trobriandars do not allow a brother to take an interest in the sexual life of his sister.

The taboo restricting the social intercourse between brother and sister prohibits any erotic or even of any 'tender dealings' between brother and sister. Should a Trobriand brother happen to see his sister being wooed by a man or making love to him, all three would have to commit suicide by jumping from a cocoanut palm, the highest atonement imaginable as no higher plane is obtainable on the plains from which to commit suicide. I remember a mother trying to discuss the *fiancee* of her son, in a middle class home in South England, the son pointed his nose to the mother which immediately silenced her.

This utilitarian aspect of taboo perhaps provides the basis of social control in earlier days. It determined the degree of social independence and the relation between personal and social morality. Although the end justified the means, the sanction probably came from 'supernatural' source. If we trace the sanction of taboos and social mores we find how it has shifted from the taboo itself which had originally the power to avenge non-compliance, to gods and spirits and from the latter to the social authority vested in the tribal elders or the village panchayat. For example a man who transgressed the incest taboo in earlier days had to expiate it by suicide. When the power of the taboo waned, it lost its innate force. The infringement of the taboo was either met by divine retribution or by undergoing a purification ceremony in which the offender had to drink the blood of a white cock or he-goat sacrificed in the name of Singbonga and treating the tribal elders to rice beer. In lighter taboos, the Kharias offer a 'libation of rice-beer to the ancestor spirits, or by sprinkling water mixed with pounded or powdered turmeric on the person of the breaker of the taboo.' Among the Munda tribes of Chota Nagpur, even today any tribal man who takes food from low caste people which is taboo has to expiate his misdeed by offering a white cock to the village godling and by drinking the blood of the sacrificed bird in a leaf cup mixed with their national beer 'illi'. Today most taboos have lost their sanction, as it were, and the village elders have to enforce taboos by social prescription or by ostracism. 'Breakers of even the very gravest social taboo', wrote S. C. Roy, "such as those upon the sexual union of a Kharia with a non-Kharia, or upon marriage or sexual intrigue within the class

or upon the village, whether intentional or accidental, or a cow, calf or bullock, are also punished by excommunication by the village Panchayat in the first instance". If the accused refused to accept the decision he may convene a tribal assembly or 'Kutumb Sabha' or ' Parha panchayat ' for further investigation. In any case taboos have lost their innate sanction that derived from spiritual powers and the transformation will be complete when these taboos are conceived as affecting only the luck of the individual or the family concerned.

The sanctity of taboos still is inspired by the idea of 'mana' 'bonga' or 'aren', i.e. the concept of an impersonal force, indefinite and indeterminate yet all-pervasive. This vague concept of power which has been shaped by the magician, the sorcerer the priest and even the tribal chief to endow the qualities of animate and inanimate objects or spirits and godlings, in other words, which condensed itself into things and objects, into material and immaterial aspects of man's environment provided the sanction of taboo, of customs, rules and restrictions, group mores and conduct. With the disintegration of beliefs in an impersonal force either by loss or acretion, by personification or anthropomorphism, a new situation has developed in society and the survival value of the taboos is now perhaps the only sanction that justifies their continuance. Morality and group mores must be rationally interpreted as otherwise the mind becomes clouded in superstitions. The mechanism of social control in primitive society was not complicated as it is today, for even if violations occurred, the offender was not difficult to trace, and social opinion emphasised both the positive and negative aspects of customary life which supplied

the corrective to social aberrations. With the growth of personality on the one hand and impersonality in social relations on the other new correctives were called for and these have been provided by the legal code of the land but much of the life of an individual yet remains outside the pale of law and is even now controlled by a code of taboos and customary behaviour. The disharmony between individual aspirations and group interests can only be remedied by a rational form of social control based on biological and psychological knowledge and before we can evolve such control, it would be desirable to review the existing social code and evaluate its functional role even at the expense of being dubbed 'primitive'.

Other correctives to social behaviour in primimitive cultures like, omens, oaths, ordeals, dreams, divination and the like do not have similar sanction as the taboos have, yet they determine to a large extent individual or group variability and cultural adjustments. Most tribal societies avoid the miser, he is mocked in presence of women. A leader among the savage tribes is one who can spend most; it is not, therefore, the possession of wealth that is prized but the disposition to spend in feasts and festivals. A Munda would not like to see a miser or a money lender when he rises from bed early in the morning as it is sure to bring ill luck to him afterwards. A one-eyed person is not a good omen, as such a man has anti-social proclivities. An empty pitcher, a fox, a 'dhaman' snake, women on the way to wash clothes, the sudden dropping of a branch of a tree all these portend frustration of the journey and a Kharia will think twice before setting on to it. It is usual among the Hos for women of the family not to wash or boil clothes on the day some

one in the family decides on a journey. Sneezing or calling out from behind are bad omens and people do not move out or if they do, they must either return to the place of starting or sit down for some time before commencing the journey again. Strict abstention from meat diet is insisted on those who go out a-hunting as otherwise game would not be forthcoming. Strict sexual continence is observed by all tribes during the busy agricultural season or when they are engaged in rearing cocoons or propagating lac on trees. The crowing of a cock after sunset or before midnight forebodes evil and to avert the consequences, the house holder must kill the crow or offer it as a sacrifice to the village spirit.

'A thing of beauty is a joy for ever' and most of the primitive tribes recognise the difference between beauty and ugliness. Beauty brings luck, ugliness retards it. When a Korwa dreams of a woman with ornaments, he anxiously waits for good news, while an old woman or a deformed person seen in dream spells disaster. No two tribes agree as to what constitutes beauty. A Ho youngman is loud in his praise of a fleshy woman, with uncouth facial features while his neighbour and friend scoffs at the idea. The criminal Bawariya, otherwise handsome, as most Bawariyas are, considers a good omen if he dreams of a beautiful woman for the goddess of wealth is sure to bless him with work and money. Beauty originates in ideas which are translated into forms, and there is no absolute standard by which beauty can be judged. How far Hindu ideas of divinities are responsible for such dreams need to be ascertained. The Bawariyas would not stir from their house if they see an oilman, a barber, and a police constable as all of them

are the least dependable so far as their relations with them are concerned. Nature is believed to give warning to the Bhatus and if on professional mission of crime they see the sky over the head changing into crimson, they call it bad omen and must abandon all hopes of a safe return; usually they do not proceed with their plans. The braying of an ass, the sight of an inauspicious bird, the crowing of cock at unusual hours of the night, all forebode evil and circumscribe the movements of people.

Birth, death, conception and pregnancy initiation, marriage, agricultural operations such as sowing and reaping, construction of houses, first opening of houses and buildings, undertaking of long journeys and such other activities of the indidual as well as of the community are carefully watched and protected against the 'evil eye' of miscreants and sorcerers by wearing amulets and charms fixing auspicious hours and in various other ways not often intelligible to the people themselves, All failures, disappointments, sufferings, pecuniary or material loss, are traced to evil spirits, mischievous powers, witches and sorcerers, who between them control the activities of man. Sickness or death is not due to natural causes, but is brought about by the influence of malignant spirits who are even anxious to detect human remissness. Even natural death is attributed to the evil eye or to spirits, and various devices are practised to protect the survivors from further attention from the latter.

The Veddhas of Ceylon leave the hut where death has occurred. The Polias or Rajbanshis of the Rungpore District used to do so till recently the Bhils of Gujarat live sparsely and with every death the whole settlement often moves to new moorings.

While in the picturesque sub-montane forests, the Indo-Aryan Khasas are so afraid of divine wrath that they would leave behind even pretentious houses built with great skill and enterprise. Death from infectious diseases such as small-pox, cholera, etc,, is seldom followed by cremation, and the path through which corpses are carried is strewn with thorns and grains charged with magical formulas so that the just departed soul may not come back and harm those it has left behind. Corpses of unmarried persons are usually buried by the Bhuiyas and other primitive tribes of Mirzapur and Sarguja. Women dying in childbirth are believed to transform themselvss into malignant spirits and delay in delivery as also other complications in pregnancy are attributed to these spirits. Amongst the Hos, such spirits are believed to sit on the breast of pregnant women thereby displacing the placenta. Children suffer from rickets owing to the influence of spirits who are the disengaged souls of dead children. Consumption is due to holes in the lungs made by Rakti Bhowani. Fever among the Korwas of Mirzapur is caused by Bhowani and a promise of some sacrifice or offering to this malignant spirit is expected to effect a complete cure. Small-pox or cholera are, caused by Maharani or Sitalamata or simply 'Mata' and regular propitiation of these deities ensure the safety of the victim, Sacred groves or 'Jahira' of the Mundas are places where stand old trees or stumps of them, remnants of the original forest, out of which villages have been built, and no one dare cut a tree or a branch of it without incurring the displeasure of the presiding spirit, a female deity with 'matted white hair' moving on a crutch. Dysentry or blood vomitting is remedied by offering red fowl or the blood of

sacrificed goats to Rakti Bhowani or her sister Sakti Bhowani.

Every tribe has its own conception of demonology; the more advanced a tribe more numerous are the spirits and godlings it propitiates or appeals to, till disintegration and detribalisation shatter the confidence of the people in the efficiency of their worship or of placation. At first a slow and gradual hierarchy of powers is evolved, for when lesser spirits and godlings fail to provide redress of their grievances, they appeal to mighty powers and thus we find among the Munda tribes, Singbonga becomes the highest god and creator of the world. Among the Majhwars there are different spirits presiding over different crises of life, one over periodic fever, another over death and fatal diseases, one over cholera, one over measles and pox and the like. Gout, lumbago or rheumatism is also attributed to the Bhowani or such other malignant spirits, and a few kicks at the back by a Baiga or Dewa are calculated to cure the most obstinate attack. Death by drowning is always due to the mischief of spirits who are but the disengaged souls of persons who had met watery graves, such as the Kachin bonga of the Hos. The malignant spirits have no fixed abode but hover round in the atmosphere and move from person to person and place to place. The absence of any permanent abode of the spirits makes them easily displaceable by the Baiga, Dewa, Ojha who are the witch doctors of different tribes. In some of the tribes. the Baiga or the medicine-man, possesses a crude knowledge of the efficacy of roots and herbs but he sometimes dispenses filthy concoctions. 'The faith of the people in these indigenous medicines is so great that they expect a dose of the Baiga to cure immediately the most

obstinate disease and thus discredit a medicine that must be taken repeatedly. They would prefer the medicineman and his nostrums to the trained physician and his prescription. Where they take any drug they cannot separate it from the charm believed to have been poured over it, so that the drug receives its efficacy from the formula muttered by the Baiga while rendering them. The Baigas have their own *recipe* for the preparation of these drugs and whatever he gives is a charm even if it be an indigenous prescription. In a case of high fever in a village in Dudhi, the aged Chero Baiga started rendering an invocation song backward a process which was believed to be efficacious in dispossessing the hold of the evil spirit causing fever. The rendering made the song ridiculous and excited a good deal of laughter among the crowd but the purpose for which it was meant was served all the same and the patient was free from fever.

The power of spirits is greatly overestimated and the faith of the people in witchdoctors is yet unshaken in primitive societies, though in some tribal areas, medicines dispensed by charitable institutions or dispensaries run by district boards have become popular. While they know that quinine is efficacious for malaria and would administer it themselves, or receive it from the medical practitioners, in case of epidemics such as cholera, pox, etc., they still think medical aid to be futile, and must resort to tribal practices, The village Dewa among the Cheros, makes daily offerings to village godlings and Sitlamata to ward off the affected areas. In the Korwa villages, the Baiga makes a daily offerings with sugar and curd burnt together in an earthen plate. In case of violent outbreak of fever he prescribes certain

roots to the patient, a decoction of which is believed to cure the fever, provided the eivil spirit causing the malady has previously been appeased. In all cases of epidemics, the Dewa, Baiga or Ojha receives prior warning, as we have described in the case of Hos. (Races and Cultures of India, 1945.) 'Cholera among the Majhwars is due to the wrath of a Dano who lives in the Banka Hill' for whoever approaches the cave or its vicinity, is seized with the malady. The disease or the epidemic can be averted by 'Simuria' who is regularly propitiated by the Majhwars. He is as easily pliable as irritable, and the villagers are particular in offering 'ghee' and 'gur' and sacrificing fowls at the junction of two or more village alleys. Regular ministration to Simuria ensures the safety of the villages.

Fever amongst the Cheros, Panikas, Kharwars and other tribes of Mirzapur, is due to a number of spirits whose names are commonly known to the people. The names of these spirits have been derived from their Hindu neighbours as many of these figure in local Hindu pantheon viz,,Bhowani, Jalamukhi, Ghanashyam Deohria, Rakti Bhowani, Kachni, Banaspati, Raja Chandol, Athbhuja Devi. Some of these spirits are conceived as beneficent, others malignant, the latter must be propitiated regularly with sacrifices and offerings. The beneficent spirits are not ignored because in case of epidemic it is they who intervene and control the mischiefs of malevolent spirits. No one has seen these spirits, neither have they any idea about their shape or form, it is the witchdoctor and diviner who interpret the activities of these spirits to unsuspecting crowds.

The spirits who influence the life of the Tharus are believed to haunt tanks, rivers, eddies and hills

Some of them haunt *Ber*, *Semar* and *Peepal* trees, also the burial sites. Fever in women and children among the Korwas is believed to be caused by 'Churail' which is a female spirit and extremely mischievous. She has no fixed abode, she is said to affect some branch or other of a big tree on the outskirts of a village, and when a woman or child passes under the tree, may be inadvertently, she descends upon the victim and causes the malady. The extreme manifestation of her wrath is experienced when the victim suffers from spasm and delirium and in the delirious state the affected person discloses the identity of the spirit and the manner of possession by it. The Chero Baiga can displace 'Churail' very easily by burning chillies or throwing mustard seed in fire. As 'Churail' is the spirit of a person dying in child birth, Balsadhoks are spirits of still-born children who take delight in harming new-born babies. They haunt tanks, big rivers, bathing ghats, and other places where their victims are found to resort to. Jalamukhi is ordinarily a benign deity with the aboriginal population of Dudhi estate as well as in neighbouring areas, and she with her male consort Ghanashyam Thakur has a temple in every village dedicated to her. Whenever diseases assume serious proportion, when epidemics sweep away the villagers and the cause cannot be ascertained, prayers are offered at the village shrine and blood of sacrificed fowls or goats is offered to the deities as 'price of protection'. The most dreaded spirits are the Bhowanis and the Dewas, Baigas and Ojhas often fail to trace their haunts. It is by following certain conventional methods that these people attempt to effect a reconciliation with aggrieved spirits. When the Baigas fail to bring redress to the victim, they

appeal to higher spirits or they create new Bhowanis, for whom new methods of propitiation have been initiated, though not always with success. A Chero Baiga once was talking to me as to how the atmosphere was surcharged with evil spirits, whom he called Bhowanis, and how it had become difficult for the Baigas to control their activities. Some of these spirits the Korwas told me, were alien to their country but have been introduced by the people to chastise them for acts of omission or commission. The recurring failures of the tribal intermediaries, the Baigas and Ojhas, have engendered a a sort of pessimism among the tribes, and the Baigas have to explain their discomfiture by inventing new sources of trouble. When I asked the Baiga of Kundpan, a noted diviner and witch doctor, why he thought that all their miseries or maladies were due to evil spirits and why not to acts of omission and commission of the people themselves, he pleaded ignorance.

Diseases in tribal society even today are all traceable to the influence of spirits or sorcerers, the latter may or may not use the former to secure their purpose. Diseases may be broadly divided into those that grow from within the body and those that are due to external physical causes. The latter include all sores, bruises, cuts, burns, and fractures, while the former refers to fever, pox, measles, cold, consumption cholera, dysentery etc. There are among the Korwas, certain witches who have pet spirits at their command and they can be used against persons or cattle at their biddings. In ninety cases out of a hundred, the victim of a disease will tell you how it came on him and will resort to the Dewa, Bhagat, Bhopa and Ojha to effect cures. The Dewa or the Bhagat goes into a

trance, gets possessed and while in that state, would mumble out the offended spirit and the offerings that would placate it. Even he is found to get foam in the mouth while he mutters the name of the offended spirit. The offering is seldom denied and the diviner or the medicineman is instructed to propitiate the spirit as directed by him. What is stranger, the patient also, may receive similar prescription in dream or in intense excitement he is often seen to repeat the direction of the Baiga and when all is done, nothing is omitted, the patient shows signs of improvement, if not of cure. If the patient is of a nervous disposition or has been fasting for days, the Baiga can produce a receptive attitude in the patient and often he is found to swoon, foam in the mouth and declare how he has got the disease. The part played by witches, usually women, either old or barren and therefore conceived as 'anti-social', has not been properly assessed, and the tribal attitude to these has often been aggressively manifest in the frequent disturbances occurring in tribal society. Often the entire village is found to array itself against supposed witches, their houses being burnt and corporal punishments being effected on them and even their bodies being mutilated or hacked to pieces at the height of mob fury. Whenever I have discussed the role of spirit in tribal life with people who know, they have shown their indignance against the witches and sorcerers and some do believe that much of their miseries could be alleviated if proper medical aid were available. The tribal elders of today are not so receptive as they were before, and money put in their hands by the changed economic situation in the country side has taught them to value medi-

cines and medical assistance available in hospitals or dispensaries. Therefore a concerted attack on the ignorance of the masses regarding medical aid is not likely to be opposed by the elders.

Little or nothing is known about the way in which witches operate and effect their nefarious designs on unsuspecting people; it is not always possible to compel and coerce witches to change their ways, so that every householder either avoids contact with women suspected as witches, or maintains friendly relations by remembering them when occasion arises as for example, offering a share of the produce of their agriculture, or fruits and vegetables from their kitchen gardens and even inviting them to dinner. The processes by which the witches are known to cause disease are ordinarily, magical, as for example, the witches among the Korwas when they want to harm some body or are commissioned to do it, would make an effigy of pounded or powdered rice or wheat flour and would prick the effigy with needle in the certain belief that the intended victim will suffer similar prick which may show in boils and sores all over the victim's body.* For effecting fatal results, the witch has to keep awake on a new moon night and with the help of a knife or a scythe cut into two an effigy made of straw or of pounded rice. The Hos believe that the witch must shoot an arrow at the effigy of the man or at his shadow. It may not cause immediate death as the victim usually is affected with consumption or holes in the lungs as they call it, but death is sure to follow soon afterwards. The arrow is generally shot at night without being detected, so that the victim is taken by disease unawares. Witches may

*The Fortunes of Primitive Tribes, Vol. I by Majumdar.

effect diseases or death by administering indigenous poison which they collect from the roots and plants in the forests. Most of the witches are said to possess a fair knowledge of the flora of the locality and they can easily cure poisonous roots and herbs though they are supposed to know the antidotes as well. Cases are known when the witch who has administered poison to a victim could be persuaded to bring relief to the person by giving the antidote and it is also true that most witch doctors experiment with their clients in similar ways. A particular revenue officer on his way to the headquarters in Rawain once insisted that a Rawaltta woman should collect and feed his horse with grass, an order very much resented by the old woman. The horse was fed but it suddenly fell down, fainted and dropped down unconscious. The villagers were summoned and they realised what had happened. They approached the woman, made entreaties in the name of the village and supplicated to her till she was moved to undo what she had done: the horse was brought back to life by the administration of an antidote. What happened, however, was that the horse was in a state of stupor with foam in its mouth and could be revived by the woman.

Witches often bring about disease or death by magical devices practised on things which once formed a part of the person concerned, as for example, pairings of nails, clippings of hair, spittle etc., or some articles used by the person, his clothes, trinkets, weapons etc. The effect of magical formula which the witches cite to invoke the spirits believed to be under their control varies according to the importance of these articles to the victim. The witches among the Hos will obtain

hair clippings, pairing of nails of the intended victim, bury them in the court-yard for a week or so and on a new moon night dig the thing out. The floor of the hut he resides in, will be swept clean and ashes will be spread in the circle previously drawn on the floor. The witch will burn faggots of fuel inside the circle and when the fire blazes up throw the hair or nail clippings into the gaping fire. Thrice the smoke will be swallowed by the witch and thrice incantations and spells rendered by her. When the fire burns out, she will collect the ashes in a new earthen pot and preserve it in a corner of the hut hung from the thatch of the roof. The next process is of course attended with risks and the witch has to take all necessary precautions while administering it to the victim. The ashes have to be mixed with 'illi' or ricebeer as it is freely drunk by the people and liberally offered to outsiders. It is said that the magic of the ashes will infect only the person whose hair and nail clippings were thus treated. The first symptom of the attack will be sneezing by the victim, not once and twice, but in succession which will be understood by the victim and he must immediately run to a nearby Dewa or Bhagat for redress. If the victim does not suspect any foul play, the next symptom for him is high fever accompanied with dysentery or nausea. It is only the witch who can then bring about a cure and the Dewa or Bhagat must find out the witch responsible for the trouble. The medicineman in tribal society follows the process of elimination and one after another women suspected of witchcraft are approached till cure is obtained.

Amongst the agricultural Rawalttas of Rawain, on the Himalayas, the witches are believed to act

through food and thus seldom do the people take cooked food prepared by strangers. Curd is a popular item of food in the locality and it is through it that the witch often acts. People who know can detect foul play even from the colour of the curd as it is believed to assume a crimson colour if treated with any extraneous matter. It is not known what the witches mix with food but the chemical action observed on it may have some scientific basis for all that we know. Witches can also cause trouble to person or families by promising sacrifices to familiar spirits. This is usually done by means of the ' spirit bundle ' consisting of bones of fowls or other animals that are promised as sacrifice, potsherds, grains charged with magical formula, broken pieces of ornaments and useless trinkets, torn pieces of cloth or rags dyed with red ochre. These are carefully buried in a corner of the courtyard of the intended victim, or in the family burial site. This is followed by continuous fasting by the witch for days together till the desired mischief is effected.

Other methods taken recourse to by the Oraons have been narrated by Roy, (Oraon religions and Customs). The first is an application of the recognised belief that the witch in her communion with the spirit or spirits acquires a second sight which enables the witch to see through the body of the victim. "Thus the witch amongst the Oraons can kill a person by extracting the heart of the victim through magic spells on the Sonorai Amawas night and packing it up in a bundle of *peepal* leaves and fixing a day for the death of the victim. The victim is believed to pine away and succumb on the date so fixed. The second method is described by Roy as follows " The witch takes

the form of a cat and in this shape the witch enters people's houses, licks the saliva trickling down the corners of the mouth of some sleeping person or bites off a lock of hair of a sleeping person and the unfortunate victim falls ill or his hair falls off. Even if the witch in this shape throws her shadow on a sleeping person, the latter suffers from nightmare. In the shape of a cat, the witch is believed to enter people's houses at night and mew in a plaintive strain and as a result some calamity is sure to overtake the family. If such a cat (Chor Dewa) can be laid hold of or killed or its legs or other limbs broken, the witch too, it is said, will be found dead at her home or maimed in her leg or other limbs as the case may be."

The witches among the Rawalttas are seldom known to the people for the farmer are very skilful in concealing their identity. They own pet spirits whom they direct against persons or things. The Rawalttas will tell you that these spirits possess super human power and can consume the substance from within a lemon without touching the outer cover of the fruit. In the same way the witches can extract soul from the body without the person knowing it ever.

It is indeed doubtful if the witch-doctor or the witch has any definite idea about the beings supposed to people the atmosphere as manifest in the conventional method by which they proceed to interpret the source of diseases and of other human sufferings. If the witch-doctors are to be relied on, the spirits exist and also they depend on human ministration. They are often restless and would goad people to subservience so that their needs may be catered to. The witches also do

not have any direct knowledge of the spirits, except that they have some spells and incantations by which they can approach these spirits and the results achieved by them justify the confidence placed on these unseen powers. No witch ever confessed to having any direct communion with the spirits she invokes and all that we could get from these women was a vague assurance that they could make the spirits move to their aid and do what they want them to do. The witch learns her trade from other witches. She observes certain rules and lives in uncanny surroundings. The witch-doctor is more straightforward in his methods; he fasts and meditates, lives an ascetic life, abjures meat and openly discusses his methods with his clientele. The witch will never admit her knowledge and would only act under compulsion. The witch-doctor is always a man while the witch is ordinarily a woman. It is only women who are barren or childless, who are decrepit, deformed or infirm, who have lived long as widows who become witches. Women with children are seldom accused as witches. Barrenness is traced to bad morals or to sins committed in previous births so that fertility of women is at a premium in primitive society,

It has been said that the witches are trained in secret. But there is hardly any person who can spot the haunts of the witches. We are told that such information must not be given to others as otherwise they would be molested by the spirits. "During the nocturnal dance of the witches among the Oraons," writes S. C. Roy, "would any inquisitive man happen to meet them, he is warned on pain of death not to speak to any one of what he may have seen or heard." But the witches are not

satisfied by merely extracting promise, for the intruder is shadowed for a considerable time, and should he prove faithless, he is chastised and even put to death. They also wipe off by means of spells, it is said, all traces of footsteps or other marks of the witches' dance before dawn. Among the Munda speaking tribes witches of different villages on new moon nights, particularly in the month of Kartik at the dead of night, assemble in the vicinity of the village but away from the principal thoroughfare in some cases, in the dense thicknesses of forests, and dance the weird dance of the witches till twilight. Novices are said to be initiated on these occasions into the mysteries of witchcraft and are shown the efficiency of the spells and incantations of the witches. It is at such meets that the witches enter into communion with the spirits that ordinarily receive no sacrifices such as the spirit of the ancient dead and such spirits as ' Hankar Bai ' and by tempting them with vows of sacrifices get their nefarious designs on others effected with the aid of these spirits.

The spirits in tribal society are represented as personal as well as impersonal forces. The witch who is credited with the possession of some spirit whom she sets against people is generally identified with such spirit, and the appearance, gait and movements of the witches are understood to be similar to those of the spirit which she controls. The spirit who is believed to be old is associated with an old woman and young but barren woman is identified as ' churail ' while the face of still-born baby reminds one of 'balsadhok '; the female spirit that presides over village groves is an old lady who possesses a crooked personality and matted white hair and is often seen moving on her

crutch from village to village where she is wanted. The abodes of these spirits are known to the tribes, the trees and hills which they haunt, are specially guarded against wanton destruction or defilement. Attempt to anthropomorphise the spirits have produced a chaotic order of powers, high and low and the multiplication of these powers is proportionate to their miseries. Detribalisation has led to disintegration of beliefs in witchcraft and sorcery and some of the tribes organise periodic expedition to expel spirits from the villages, a situation that has been brought about by inefficient handling of the spirits. As the spirits have no objective existence, so also the malevolent spirits are created by witches and witch-doctors, that have no real significance. 'If they do not exist' said a Bhagat once to me, 'why do we succeed in effecting such spectacular cure.' A process of trial and error, probably psychological reaction or neurotic manifestation have helped to restore confidence in the methods of witchery and divination, and knowledge, more of it, is likely to dispel such ignorance from the mind of the primitive.

Thus we have seen how the mind of the savage works, how he is hedged in by customs and taboos, how he has tried to throw off the shackles of slavish conformity to traditional pattern of life and living and how he has developed a receptive attitude to alien ways of life and conduct. Throughout man's uphill struggle which has raised him up from savagery to some kind of rationalised life, man has grappled with facts, his ignorance has raised a dust of superstitions, his inefficiency has produced a deep anxiety to control the incalculable forces of destiny. Witchcraft, sorcery, divination, oaths and ordeals, have done much to

uphold tribal morality and to maintain tribal authority. Man has fought and succeeded in the battle against disease, disaster and frustration of desires and fulfilment. What science is doing today for us, witchcraft and divination, magic and counter-magic have done for the primitive society and until science can take the place of superstitions attempts to eradicate the latter wholesale may not conduce to the welfare of tribal life and culture.

CHAPTER 5

CONTACTS OF CIVILISATION

The accounts of tribal warfare, blood feud and vendetta in the North Western Frontier of India have given us a glimpse of life in these parts, and much is known, has been written and sung of tribal life and cultures. The strategic importance of the North Western Frontier has produced impacts of the tribal cultures with the Indian army and administration and the unsettled conditions of life in many parts of the area have been reduced in recent years with astonishing quickness. But the political importance of India's North Eastern Frontier did not assume so much importance as during the global war. Even *Pax Brittanica* was not solidly established in the interior of tribal Assam. The loss of Burma and the abortive thrust of Jap forces into Manipur had for a while illumined the eastern theatre of war and we have glowing accounts of the tribal people of these parts, their patriotism, loyalty and resourcefulness. The story of the Maharaja of Manipur marrying a fourth wife as an antidote against Jap success which has figured so prominently in foreign newspapers is only a pointer to our attitude to primitive institutions.

When the history of Japanese discomfiture will be chronicled by post-war historians, the share of the Nagas, the most picturesque of tribal people, will form a heroic chapter of courage, grit and fidelity, a saga of outstanding deeds of valour and sacrifice. Writing about the Problems of Reconstruction in the Assam Hills, Prof. J. H. Hutton put

the case for the tribes as follows: "All through the Japanese invasion of Burma and India the hill tribes generally and in particular the Karen, Kachin, Chin, Kuki and Naga have remained consistently loyal and helpful." The Times of December 29, 1944, in an article pointed out that Naga labourers played the major role in keeping the Tamu Road open for Field Marshal Alexander's retreating army in the rains of 1942, that Nagas and Kukis were to be found fighting in the Assam Rifles and in the Assam Regiment, and "that at one time Naga tribesmen had the distinction of having captured more Japanese prisoners than the whole of the Fourteenth Army." We are also told that the Japanese made great efforts to obtain the cooperation of Naga interpreters, policemen and Government officials for intelligence purposes but all in vain. 'Cheerfully the Nagas and Kukis faced torture and death at the hands of the Japs and succeeded by their sufferings to build up' an efficient intelligence system for the service of the Allies, they operated tirelessly around, behind and across the Japanese Lines, they inflicted formidable casualties on the enemy, they made their country an impenetrable screen behind which our own forces gathered. They cheerfully placed all they had whether of men or of material at our disposal." It is no mean achievement, therefore, for a tribal people to be told as the Viceroy did tell, "Both as soldiers and bringing intelligence and helping in every possible way, it is very largely due to your help and assistance that we have been able to drive the Japs out and win such a victory." It was due to these tribes that "the invasion of Assam was defeated and the supply route of the American forces up the Assam Railway kept open and intact."

In appreciation of the service rendered by the Nagas in the cause of the country's safety the Government of India has promised to help restore all that the Nagas have lost as a result of the recent warfare. Dr. Hutton mentions the loss sustained by the Nagas. "In Kohima, the biggest collection of houses in the administration area of the Naga hills, not one house was left standing after the Japanese invasion, and in the district some 12,000 houses altogether needed to be rebuilt. Similar loss has been incurred by the Chins and Kachins in Burma." It is not the present alone that concerns the Nagas or any other Jungle tribe. The effects of contacts with civilisation have not been beneficial to them and their woes have gone unnoticed.

As the din and rattle of guns die down in distant frontiers the thoughts of men must naturally turn to problems of peace and rehabilitation. War has its lessons, one of which is the knowledge that there cannot be peace on earth unless all the parts are at peace. The world is an organic whole and the survival of the organism depends on the healthy cooperation of all parts which constitute it. It is indeed dawning on us more and more how interdependent we are today, one country on another one people on another. This is not due to merely an identity of interests as between imperialist partners or the fascist axis, but much more, the whole must depend upon the parts, the parts on the whole. That is how a world at peace can function.

Each country must order its cultural progress in such a way that the various sections of the population who live together may share the same culture and all that it connotes, be it a pattern or a mosaic. The sympathetic relationships that have

grown in some of the tribal areas, between primitive tribes and their advanced compatriots point to such possibilities in other parts of the country. The sixty million exterior castes have become a political force in the country; though they are as yet loosely organised, they have become conscious of their rights, also of centuries of distrust and enforced social incompetence. It is no longer a question of untouchability or of pollution with them, or even of temple entry, it is the counting of heads that matter today, and heads they are, so that they are sure to count in any future constitution evolved from within or grafted from outside. Such, however, is not the case with the tribal people who still play a minor and insignificant role in the political life of the country. Inaccessibility, scatteredness, ignorance and apathy on the part of the administration have put most of them in 'cold storage'. Neither do the tribal people play any important role in the social economy of the country.

So long as a tribe remains a tribe, retains its pattern of culture, tied to the area it has been living in for milleniums, it does not even form a part of the rural communities. The question of its disability, social and physical therefore, does not arise at all. But as soon as a tribe weans itself away from tribal life, either by adopting a particular occupation or becoming economically dependent upon neighbouring groups, it enters the social economy of the village and shares common fate with the exterior castes whose disabilities are real. Elsewhere I have pointed out how the primitive and aboriginal tribes have supplied and are supplying a reservoir as it were of 'surplus material' which has been swelling the ranks of

exterior castes. (Races and Cultures of India).

The percentage distribution of exterior castes should not be regarded as indicating the extent of social incompetence, for many of the exterior castes do not suffer from any social, economic or religious disabilities. Their economic backwardness coupled with the social apathy of their more advanced compatriots had put them outside the pale of the caste system proper. The distribution of the exterior castes province-wise shows that the strength of the exterior castes varies according to the numerical preponderance or otherwise of the primitive and backward tribes in the province. The difference between the tribes and the exterior castes is more cultural than racial. This lies in the fact that the latter have come in direct and enduring contacts with their cultured neighbours. They have abandoned their tribal life and traditions and have had to face strong competition with economically organised groups, resulting as is but natural, in their total discomfiture. That is how they live today hedged in by social taboos forced on them from outside by the caste people and that is how they have been reduced to abject serfdom sometimes.

The tribal people of the interior on the other hand for long have stuck to their traditional pattern of life and living and remained away from contacts and have therefore escaped wholesale assimilation or absorption by superior cultural groups. Today, however, tribal security has been invaded and detribalisation and consequent discomforts have assumed serious proportions. From the point of view of contacts with civilisation and the general effects produced by them, the various tribes can be classified into three

groups. We are, however, omitting the tribes of the North-western Frontier, for they are not primitive in the sense the North-eastern Frontier tribes and those of the interior are. The social stratification in Baluchistan, Sind, the North-western Frontier Province and some parts of the Punjab is characterised by tribal groupings. The Rajputs, the Jats, probably the Marhattas also represent tribal groupings but different from the primitive tribes scattered in eastern and southern India. There are about 3 million tribal people besides those of the North-western Frontier who are generally known as Pathans. These are:

1. Primitive tribes outside the pale of Hindu influence, the so-called 'real primitives'

2. Primitive tribes who have adopted Hindu customs beliefs and practices, have shown a degree of association with the Hindu castes and have attained some cultural progress, but who are not yet recognised as forming the exterior castes.

3. Primitive tribes who are Hinduised but maintain social distance from the clean castes, though some of them are indistinguishable from the inferior ranks of the caste order, interior or clean.

The first group is numerically small indeed; they live in inaccessible hills and virgin forests and little is known about their life and habits except the materials that occur in monographs on primitive and aboriginal peoples in India while a very thin partition divides the third group from the lower castes, 'depressed' or otherwise. There is no tribe today which may be taken to mark the zero point of culture contact. Even the most isolated culture of today is a 'blended' one, in which rites

and practices from highly developed cultures have got mixed with those of a primitive and 'infantile' kind.

In the prehistoric times, the inaccessible parts of India had long and durable contacts with other parts; we have records of long drawn out struggles between the invading Indo-Aryans and the indigenes, those whom the former addressed by uncomplimentary epithets like Dasa, Dasyu, Nishada, Kirata or Anasa. The attitude of the invading groups towards the invaded was one of ambivalence, a blending of affection and animosity, temptation towards amalgamation, miscegenation and a repulsion based on racial differences. The sanctioned and the forbidden forms of marriage, *Anuloma* and *Pratiloma* testify to the extent of contacts that must have existed.

In the historic period, in ancient India, for example, the tribes formed units of highly integrated political systems. It was not that the primary and incipient democratic structures of the Munda Dravidian village polity have been absorbed and assimilated by the Indo-Aryan people and constituted into the highly integrated rural polity of Indian villages, but it was probably the otherway about; the rudiments of village or territorial structure have been overlaid on a truly kinship structure in which common bond between a group of people or clan and a species of animal or plant or an eponymous relationship determined local and territorial consolidation. In the Pali texts, we hear of totemic tribes accompanying the great expedition that the Buddhist King Asoka sent to Ceylon. The pilgrim centres of India could be reached in those days through routes passing through tribal areas and as such, contacts with alien cultures could not

be ruled out. In the medieval period of Indian history and right up to the present, we have ample evidence of the leading roles played by important groups of tribes, like the Bhils, the Gonds the Saoras and lately the Nagas, the Kukis and the Karens.

The tribal organisation of some of the primitive tribes show unmistakable signs of alien influence, though in the economic field a well developed system based on mutuality of obligations and reciprocity in economic transactions must have been worked out by primitive tribes. The Naga pattern in which a number of occupational villages were integrated, each village plying a particular trade or occupation and jealously guarding it from being encroached upon by others, carries such organisation into a standard of perfection. The only thing that can be said about such contacts is that inspite of them, the tribal people could live their life, and what is more, have survived, whereas contacts with European races have led to depopulation and even total extinction of primitive races elsewhere. Culture contacts signify a partial activity in relation to the total of which it is a part. As Prof. Malinowski has said, we do not bring culture as a whole to the natives and the fragments that we do bring are distorted or remoulded in the process.

In India, contacts with the Europeans have not been continuous or direct except where Missions have been established and the missionaries have undertaken the responsibility of raising the standard of life of primitive people by various ameliorative measures or cultural or vocational training and of introduction of cottage industries. But the general influence of western ideas on Indian cult-

ural life has been selective in the sense that much of the pattern of Indian culture has remained untouched while tremendous progress has been achieved in material aspects of culture. The educated classes or the intelligentia, which usually come from the middle classes, have assimilated alien traits more than others; that explains why the rank and file in India, tribe and caste have survived disintegration to a large extent. The peculiar economic pattern of the country with agriculture as its pivot has protected the rural parts against wholesale disintegration and as more than three-fourths of the Indian population live in villages, urbanisation has had a limited and circumscribed role to play.

But this, however, cannot be said about all tribes. For example, in the Chota Nagpur plateau most of the tribes allow premarital license to their women. This very often leads to extramarital sex relationship, both before and after marriage, so that during festivals and ceremonies the usual kinship ties or degrees of propinquity do not debar a man or woman from throwing away all reticence in sex life and a modified promiscuous sex relationship finds no condemnation from the decadent tribal society or its elders who usually go to sleep for a time only to rub their eyes and shrug shoulders in a pose of discomfiture afrerwards. The alien trader or merchant, itinerant vendor of foreign merchandise, contractors and their agents, the shopkeepers and licensees of outstills, all reap a somewhat shady harvest, and many are the cases of sexual lapses, mostly among tribal maidens whose marriage under the prevailing social conditions exaggerated by excessive brideprice has been indefinitely postponed. When a Ho or a Munda was

found to live with a woman he had obtained either by false pretences, or by capture, the usual method of obtaining wife among these tribes, the fact of their residence was enough to bestow legitimacy to any children born outside wedlock. The tribal elders fixed the responsibility for children on the couple concerned and in case marriage between the parents was barred by the customary code of clan exogamy, the elders offered tempting bait in the shape of grant of land or share in the property of the offending man or compensation to the prospective husband of the woman concerned the wherewithal of which was collected from the actual father of the child by a fine or imposition which the latter dared not circumvent. A tribal woman, therefore, was at liberty to choose her life mate without going through any ceremony of marriage, and the children born out of such union did not suffer any social stigma on this account. Concubinage with men who do not belong to the tribe does not possess any tribal sanction as the elders can not enforce discipline on those who refuse to own their responsibility. The unsuspecting women who have been lured to such life by the cunning and deceit of the alien elements in the population find themselves stranded with their children when deserted by the men with whom they have lived for years and the law courts offer them no redress as their intimacy and common residence do not establish any legal claim whatsoever either for maintenance or for succession to the property. The grievances of the tribal people have not received public attention and usually they go unredressed. The only silver lining has been provided by the organisation of the *Adibasi Association* which is partly

reformist and the women in these tribes have been warned against intimacy with the Dikus or aliens. The Tharus of Nainital have decided to bring social pressure to fetter the freedom of their womenfolk whose extra-marital relationship with non-tribals, particularly with the Muslims, has provoked considerable unrest among the reformist sections of the Tharus.

Other problems, which the tribal society was competent to face and decide on their merit, are insignificant compared with those brought about by the war. Contacts with the Indian Army, and Allied Forces, the duration of which has been long enough to work permanent changes in the outlook and personality of the people both men and women, have shattered the conservation and inertia of tribal life. The economic basis of tribal culture has been shifted from one of self-sufficiency to competition and the morality of tribal life has suffered as a result of such contacts. In a short visit to Shillong recently, a particular travelling agent of a reputed firm of importers at Calcutta found that the demand for cosmetics, powders, lipsticks, soaps and oils had increased by at least eight hundred percent while that for contraceptives, had increased so much that a black-market for rubber goods has grown all over the Khasi land. Christianity has raised the standard of personal hygiene among the hill people and the popularity of contraceptives is more among the Christian converts than it obtains among non-Christian sections of the Khasis.

The changes that have occurred among the Nagas are largely due to the activities of the American Baptist Mission in the Naga hills and Welsh missionaries in the Khasi and Lushei hills.

In most of the villages during the last few years, a shift of influence from the tribal village authorities to a new class of people whose status and influence are directly due to their adoption of money economy in place of a money-less system. "A money less economy" writes Hutton "works well enough with a clan system of society, in which the various households depend upon their own efforts to supply the primary needs and the undue ascendancy of any particular family or person is more or less automatically barred by the difficulty of amassing wealth when wealth consists in the direct produce of labour in the fields and in the herding of cattle, any economic surplus that is not distributed as it is so often is, in the form of public entertainment is of its very nature extremely perishable as well as bulky and cannot therefore be accumulated in very great quantities. An economy based on a cash currency on the other hand affords an immediate opportunity to individuals to amass personal fortune and for a few to collect into their hands the means of production formerly distributed between many, and the persons who succeed in snatching this opportunity are often with no hereditary responsibility for welfare of their kinsmen or fellow villagers." Elsewhere I have mentioned the effects of a shift from a money-less economy to money-dominated one, and we found how the tribal authority was passing from the hereditary headmen to those with money they have acquired either by substituting a money crop for a food crop or by acquiring it in mining centres or in factories where they have been induced to work in the off season or attracted by higher rates of wages. The introduction of money economy among the Hos, for example, has

led to a demoralisation of the tribal leaders. Many of these tribal officers are grabbing, others quarrelsome; local disputes are made the subject of private gain and private grudges are satisfied by deliberately manipulating evidence. There are many cases of embezzlement, bribery and corruption by the Mankis and Mundas. They suppress evidence of crime and as they no longer depend upon the good will of their tribesmen for their position, they can seldom refrain from using their increased judicial and executive responsibility thrust upon them, for private or political ends. The higher standard of living of these tribal elders requires more income than they command under a crudely organised agrarian economy, and political rights granted them by the administration, in the shape of indirect rule, have equipped them for mischief, and no longer do the tribal elders command confidence and respect of the people whom they are meant to cater for. The system of indirect rule in Kolhan has not worked as it should be, while administrative expediency has provided a defence of corrupt officers whose competence as reactionaries has been of immense value to the Government. Dr. Hutton, writing about indirect rule in Assam hills, pointed out that "the support by government of hereditary chiefs is apt to lead to nepotism and oppression, since such abuse of power is then unchecked by fear of rebellion." What is theoretically possible has been put into parctice among those tribes who enjoy a sort of protective administration, as for example in Kolhan or in most of the excluded areas.

While we admit the evil effects of indirect rule, there exists a strong case for it among the savage and semi-savage people all over the world.

Prof. Melville J. Herskovits recently came out with a strong plea for native self-government, particularly with regard to the primitive and backward population. "The fact is", writes Prof. Herskovits, "that the native peoples all over the world have in many respect a high degree of competence for self-government and that much of the present ill-feeling between the native people and their European rulers is due to the failure of westerners to understand this fact." The *raisson de etre* of indirect rule are as follow* 1. In all parts of the non-European world, native folk, uninterfered in their native isolation created and preserved patterns of living which permitted them to survive. 2. The advent of European control changed native political and economic systems radically but many of the facts of native culture were not affected. 3. Many petty chiefs all over the world even today carry on much as they did before the coming of the Europeans and native markets still are held as they always have been. 4. In many native societies there never was much democracy, as we define it, nevertheless the change to the district officer from the native ruler and his council of elders is no more substitution of one power for its equivalent. It is a change from a socially sanctioned system of controls which was a part of the people's cultural heritage to a system imposed and administered from outside the group. The European system is as foreign to the native psychologically as it is politically.

Let us examine the last point a bit more carefully. Most of the tribes in India possess a sort of tribal organisation, with hereditary chieftaincy or headmen of villages and divisions, who function

* Native Self-government by Prof. M J. Herskovits, (Foreign Affairs April, 1944)

normally as both political and social authority. These chiefs and headmen are usually assisted by a council of elders recruited from the local group, for their skill and knowledge but mostly because of their economic status derived either from their relationship with the chiefs or their share in the making of the village, the latter known in the Chota Nagpur area, as Khunt-Kattidars or Buinhars, the original clearers of Jungles. The Hos are organised on the basis of Parhas ; five to twenty villages constitute a Parha, the latter presided over by a Manki or divisional headman, each village, having a headman or Munda who is subordinate to the Parha chief. There is a priest, a village accountant and a few bailiffs, all of whom are regarded as tribal officers and are remunerated by the village at the time of harvest, each family contributing its quota to the maintenance of these public functionaries. In some Munda villages, the headman is also the priest, and his duties are those which are performed by both the officers. The mantle of religion disappears from the headman as the village increases in size and spiritual and temporal duties become too exacting for the same individual. In some of the villages in Kolhan, the priest combines the role of the magician while in others the magician or Dewa is a distinct personality and is more feared than respected by the people. Even if the tribal chief or headman is divested of his spiritual or magical role, he is something more than the political head, for the ruder the society, the less integrated it is in political life and the responsibility of the tribal chief centres round social duties and obligations, whose sanctity requires an authority to control individual obligation.

What is true of the Hos is equally so among

the Santhals. A number of villages is organised into a Pargana or a circle under the authority of a Parganait, the various settlements functioning under less important village headmen locally known as Manjhi. The Manjhi in his settlement or Parganait of the division looks after the social system; his permission has to be obtained for every marriage or social ceremony and it is his duty to expel or fine persons who infringe the tribal code of propriety. In some villages an executive officer, or Jog Manjhi sees to the compliance of the persons found guilty of social lapses on whom fines or social ban have been imposed by the social Panchayat presided over by the Manjhi. The Khonds own an elaborate scheme of territorial organisation with the superimposition of chieftainship and hereditary rulers by the neighbouring Hindu cultures. The tribe is divided into small village groups or clans, each of which traces itself to a common ancestor, and each clan is presided over by a headman who sits with the village elders, to decide disputes between the members of the village mostly in social and ceremonial matters or to determine civic responsibilities with respect to epidemics and infringement of customary rules regarding social hygiene.

In some of the Gond tracts, the village is under the authority of the Gaita or Patel, the latter is also the religious head or Bhumia, and thus political and religious functions are combined in one person. Where the Gaita has forfeited the confidence of the people by overt acts, his role as tribal priest has been questioned and an independent Bhumia, usually recruited from the family of the headman, his near collateral, for example, has been installed. When the Gaita combines the double

role of 'headman' and 'priest', he is the acknowledged authority of the village and some Gaitas command influence even over a group of villages. Among the Oraons, the Parha Panchayat exercises its jurisdiction over a group of villages. All matters affecting the village and not merely individual disputes between villages, matters concerning the religious life of the people, dates of festival, *Yatras* and flag ceremonies, customary rules regarding cock-fight, sports and annual hunt or *Bisu Shikar*, are decided by the Parha Panchayat. The headman of the Parha council is called *Karta*. The Mukhiya or Mahant who presides over the Mandalas of the Rautias and other similar functionaries are at once social and religious spokesmen of the tribal groups, and it would be unfair to call the tribal headman as an administrative officer in the sense it is conceived in non-tribal areas. The recognition of the indigenous tribal organisation by the government has lent political complexion to tribal officials and the needs of administration have brought these people in daily contacts with an alien system of government whose professed non-interference in social and religious matters has pushed the social and religious functions of the tribal officers into the background. The result has been a shift of emphasis from the headman of the village to a social leadership of the village priest or elders and a battle of allegiance has produced discomforts and has complicated the simple life of the tribes. It is this fact which brought the system of indirect rule amongst the Indian tribes into conflict with tribal patterns of life and living.

The old men of the tribes in Chota Nagpur, in the Central Provinces, almost in all tribal areas,

who are regarded as the custodians of tribal lore and learning, in whom can be detected tribal inertia and conservatism in their pristine form, make no secret of their distaste for this changed outlook in tribal society, particularly of the subordinate role played by the present-day tribal officers. The latter are more responsible to the administration than to the people they are expected to guide and assist, and a nostalgia of the older generation continues with the growing unrest and the spirit of insubordination evident among the youths of the tribes which is producing an attitude of distrust and indiscipline among the tribal people.

A new social authority has arisen in tribal villages whose contacts with the outside world and their cash earning which they save to spend among their own people have raised them in the estimation of the tribal people and these find their advice much sought after and their opinions greatly valued. Before the war, casual labourers or plantation coolies, particularly their leaders used to come with a limited amount of money they saved up while serving outside and spent the amount within the period of their leave and as soon as they ran short of cash they left their village and migrated to their place of work. These labourers brought with them some new ideas of material comfort and an advanced outlook no doubt, but they could not have any enduring influence on the people. So long they remained in the village, they sometimes overshadowed the hereditary tribal leaders and the social Panchayat.

The war has poured untold wealth into tribal areas through inflation of prices and the reward for labour done in war work, so th

most of the tribal areas the richer people are exercising more influence and leadership than the hereditary tribal officers. Writing about the Naga tribes, Hutton says, "Great inflation of price has undoubtedly taken place, but it is likely that there has been a permanent change in the relative position of the wage-earner and the producer which will have shifted influence and social leadership even in remote villages from the more or less hereditary guardians of custom and tradition to a younger generation of *nouveaux riches* often sophisticated but both ignorant and scornful of tribal tradition." (Presidential Address for 1945, R. A. Institute of Great Britain and Ireland, p. 2.)

We have seen how the centre of tribal authority among the Hos was passing to the educated and detribalised section of the Hos and similar conditions prevail among other tribes; how cheap money and opportunities of relieving it by indiscretion and dissipation have shattered tribal morality among the Mundas and other tribal people in Bihar is worth investigation.

The missionaries in India have added to the complexity of life in general, and both detribalisation and disintegration of beliefs and practices of tribal people have reached serious proportions. In many tribal areas, the missionaries have introduced schools, have imparted vocational training of a sort, and have helped to raise the standard of living of those who have been converted to Christianity. The financial condition of some of these reformed families appears to be satisfactory, particularly of those whose attainments do entitle them to well-aid jobs under the administration or under the ssionaries, but we cannot speak the some of the and file as the handicaps of a convert are

many. In Chota Nagpur, the Christian elements even today are looked down upon by the heathen and unless the former are in a majority or live together, they are even denied some of their civic rights. The Christian converts naturally migrate to cities or cluster round the Missions to escape unhealthy antagonism from the tribal elements. Many of the Oraon and Munda converts live by labour as rickshaw pullers or carriers of loads, farm servants and as petty artisans; they dress on Sunday, have imitated pseudo-European modes of dress and enjoy eating on plates served at tables though their means may not be sufficient to provide the necessary comforts they have learnt to value. The misery of this class of people is known to the local residents and much of the incidence of crime among them is traceable to their social incompetence and economic destitution.

In one of my visits to a criminal tribes' settlement, I had the privilege of the company of a Christian assistant superintendent of the settlement whose courtesy and hospitality have left indelible impression on me. This young man who has been trained up by a missionary and was appointed to look after the affairs of the criminal tribes' settlement, insisted that I should lodge with him during my stay in the settlement and also wanted that I should take food with him so that I need not go out morning and evening for my meals to the city, a distance of more than a couple of miles. This however, I agreed to. It was Christmas and naturally my host was delighted to have me as his guest. On the Christmas night he invited a few of his friends and I was promised a *gala* evening and a sumptuous meal. The youngman had a small income of Rs. 40/-per month, and he had a family con-

sisting of his old mother, a good old but garrulous woman, his young wife and a small child. The invitees were six including myself so that there was a crowd of a dozen people or thereabout. A fowl was roasted, the house was decorated, a Christmas tree greeted the visitors in the courtyard of the house, and all looked so inviting. At. 8. P. M. we sat round a broken table which was put on its legs by bricks piled one upon the other and the food was served on plates which my host obtained on loan from his neighbours. The menu was simple, very simple indeed, rice and roast meat, the latter was overdone while the former was a little underdone. When the meat was cut into slices it was found that they were not sufficient even for a quarter of the guests and most of us were jolly hungry then. There was a slight 'breeze' on the table, my host looked at his wife, pointed to the insufficiency of the material, the wife retorting without dignity, and all of us felt a little awkward. However, we spent an hour over the food, and tried to enjoy what we could get. Next morning my host candidly explained to me how he had borrowed money for the ceremony and how he had to live on starvation diet for most days of the month. He has to attend Church, dress as others do, maintain his 'standard of life' and appear contented. Such struggles are not his lot alone. It is probably significant of the changes that are overtaking the country and these must come whether we will it or not.

The Santhals have scattered themselves over three provinces, Bihar, Bengal and Assam, while some of them can even be traced in U. P., Orissa and the Central Provinces under new tribal names, whose affinity with the parental stock is beyond

dispute. The Santhals today represent various stages of cultural adjustments, from maladaptation to survival in health and vigour. The migration of Santhals to Bengal has largely been determined by their growing numerical strength on the one hand and the attraction of better wages they secure in the jute mills on the banks of the Hoogley, the cotton textile mills, paper mills and railway workshops. Even the rural parts of Bengal offer better prospects of cash earnings. The Santhals have succeeded in acclimatising themselves to the damp and unhealthy parts and have added to the rural prosperity of these areas. In Malda the Santhals have colonised a large part of the forest-clad plateau and have successfully combated both malaria and the inhospitable environment.

The Santhals have a particular dread for incest. In case of incest, the tribe, clan or village has a right to protest and the method by which they express their disapproval has been dramatised in the Beetla. Beetla is an atonement for the violation of their sex code regarding incest. It takes the form of a dance deliberately got up and danced in the village of the man offending against the sex code of the tribe, more usually before the hut of the person concerned. The dance is an ugly one, and an exposition of the effects of such condemned acts. The men of the offended village become aggressive, very much so, and the whole incident becomes a disgrace to the offending group and often ends in violence. The men of the offended village dress themselves in disgusting custume, dance suggestive dances, parade the village up and down and enter the courtyard of the man first, then that of the woman, In the courtyard, the crowd of dancers sing erotic songs vulgar to a measure, show

their buttocks and even rub them against the offenders. Skilful dancers can cover their aggressive designs in rhythmic movements without making themselves awkward but overt acts are not excluded and the complementary songs make the scene foul. Mimic acts represent the various processes of the sex act leading to the birth of the child and the woman's position in copulation and the man's approach are mimicked by the crowd. Yet such outrageous demeanour is applauded by the people, the skill of the dancers discussed and complimented and the offending couple find no sympathy from the village. After the dance is danced and the mimic acts completed, the couple need not fear further molestation, though generations remember the incident and the people concerned live under a shadow of social disapprobation.

So long as the Santhals lived in campact areas and were numerically preponderant, the parties being Santhals, such staging of aggressive mimicry did not result in riots or bitter fueds; the party that offended submitted to such ordeals without either caring to justify their action or protesting against maltreatment or ridicule they were put to. Today the Santhals have spread far and wide and in some parts they do not constitute any numerically strong community. It is in such parts the custom has become a problem for the administration. In the Malda district, the Santhals live surrounded by the Muslims but they are quite a hardy and strong community and can compete with others better than the local population. In a case where a Muslim youth had molested a Santhal girl, the Santhals decided to hold their Beetla and they invaded the village of the Muslim youth, danced their traditional Beetla and avenged their

discomfiture by killing the person concerned and injuring several others who came to the former's rescue. The other Muslims fled from the village and reported the incident to their coreligionists, the revenge was agreed on and a huge Muslim crowd marched in procession to the Santhal village, burnt every house they found, killed every Santhal they met and spread fire all over the Santhal village. The Santhals were so much frightened that they left their villages some never to return again. Such a situation could not have arisen in places where the Santhals were in a majority and such aggression would not have involved them in direct action either.

CHAPTER VI.

TRIBAL REHABILITATION.

Most of the tribes in India have come under some kind of contacts with advanced cultural groups. They have come into direct contacts with missionaries, administrative officers, contractors and their agents, Jamadars who recruit them as emigrant labour to work in distant plantations and liminal towns, itinerant vendors of foreign merchandise and pedlars and shawl merchants and above all with the inferior ranks of the forest administration and Patwaris or revenue agents appointed by the Government. Occasional contacts with travellers, scientists and political leaders cannot be ruled out. Of these agencies some are organised, others unorganised, through which diffusion of culture has taken place in tribal areas today. The contacts of primitive tribes with civilisation may result from the following.

1. Existence of mines and minerals in tribal areas, as for example, in various parts of Bihar and Bengal, the coal-mining districts and those containing rich iron ores, encourage immigration of alien people, part of which must settle down and live in their new domicile.

2. Emigration of tribal labour to mines and factories situated far away and to distant plantations in Assam and Eastern Bengal, for example, which have attracted a considerable amount of contractual labour the main cause of such emigration being land alienation, or expropriation of the aboriginal peasant proprietorship.

3. The opening up of tribal areas by a net work of communications, railways and road-

ways has reduced the shyness of tribal people with astonishing quickness and many landless families today have settled round railway stations while others make their living by catering to alien people domiciled in their midst.

4. The setting up of Missions in out-of-the way and often inaccessible areas has produced an impact of cultures, and the tribal people have received help from the Missions in their distress and fight against the zemindar or the Bania or both and have responded to such help by adopting Christianity.

5. The administrative officers, personnel of the Public Health Services, the forest officials and their agents, contractors, traders and merchants, touts, litigants and lawyers, the police and others whose contacts with the tribal people may be enduring or temporary but all the same effective enough in producing discomforts and disintegration of their indigenous cultures.

6. The war has brought the tribes into contacts with civilisation much more than anything else, and the impacts of war economy have shattered the self-sufficiency of primitive economics while the tribal code of morality has been cast to the winds. The results of such contacts may be detailed as follow.

1. The imposition of alien rule in tribal areas, particularly where the aborigines are governed by the legal code of the country and not by customary tribal code has encouraged exploitation of the tribes. As Roy pointed out, inspite of the best intentions, a lot of injustice is done to the aborigines by the judges and magistrates and police officers of all grades, owing to their ignorance of the customs and mentality of the aboriginal tribes,

they have to deal with. The primitive man, everywhere remarkably reticent rarely voices his grievances, however uncomfortable they may be; he is shy of everything; he does not understand the proceedings of an alien law court, he is the last person to approach any authority for redress unless by contacts he has discovered the value of such representation. The method of enquiry initiated by the European system of administration is normally unintelligible to the primitive man, and his submission to the civil authority exercised by the administrative personnel is determined by a similar emotional attitude he displays towards the imaginary powers of the unseen world.

2. The introduction of the outstill system in tribal areas, in mines and industrial centres, where they frequent for employment, has led to an increase in drunkenness and immorality. "The temptation of distillary liquor", wrote Roy "introduced by Government in some aboriginal areas is another evil that is working havoc, economically, morally and physically." Dr. Hutton explained the implications of the Excise administration among the hill tribes of Assam. "Home-brewed alcoholic beverages made from rice, millet or other grains are probably an important source of vitamins and to some extent a substitute for sugar little or none of which can be locally grown. The prevention of distilling, a new art in the hills, is an excellent thing, but Government Excise shops selling distilled liquor as a monopoly tend to lead to the supression of home brewing in favour of the Government monopoly which at any rate has been the case among tribes like the Lalungu, Mikirs, and Kacharis who live under the regularised administration of the plains' districts. Thus a very

deleterious taste for *arrack* is developed and the consumption of a drug, for it is no less, substituted for that of a food which if stimulating is still of much value." The aboriginal labourer who first enters the threshold of a factory or the precincts of a mining centre comes fully supplied with his homebrewed liquor, carried by him in an earthen pot, which serves him both as food and as an intoxicant during his toiling march for cash earnings. When the same person bends his way home, he carries with him bottles of '*arrack*' which have given him more intoxication, therefore greater immunity against the conditions of life in his new environment, thereby making him forget his problems, even his wife and whomever he had left behind. Once he is used to strong distillary liquor, his home brewed ale, is too weak for a 'thrill' as he will tell you himself. The demand for cheap *Mahua* liquor in Chota Nagpur has grown so much that it has become uneconomical for families to brew their own alcoholic beverage, a practice which in earlier days was hedged in by a large number of positive and negative taboos. Even today home brewing has a certain role to play at festivals and marriages which require fulfilment of tribal obligations regarding hospitality and entertainment. The addiction to opium of the Nagas, Mikirs and others has necessitated granting of license for selling opium and the opium vendors being plainsmen resort to all kinds of malpractices. 'For the Naga Hills' wrote Hutton, 'special measures have been needed in the past to control the use of opium, which was prevented by drastic executive action from spreading in the Ao country and was ultimately practically eliminated there," (Ibid).

13. A large number of tribes have been living

on hunting and collection of jungle products supplemented by *Jhum* or shifting cultivation. Wherever the virgin forests abound this kind of agriculture has been in vogue and it is known by different names in different countries. In northern India, it is called *Dahiya*, in southern India it is *Podu* or *Bodagu* in the Ganjam Agency tracts, it is *Dippa* in Bastar and *Jhum* in Assam. The usual method is to fell the forests, burn them and to sow on the ashes either broadcast or by digging holes on the ground and putting all kinds of seeds together. *Jhum* may be associated with terrace or may be independent of it. Wherever the tribal people live on hills, the slopes whose declivity is not too steep for agriculture are denuded of forests, and a similar process of burning of forests and sowing is gone through. *Jhum* or *Dahiya* is a wasteful practice and the wanton destruction of forests by the aboriginal tribes has already been manifest in some parts of the country. The hills are made bare of trees, the soil is eroded and recurring floods devastate the country-side. Where irrigation is not possible without great difficulty, as on the hills, rains must depend upon forest growth while forest growth is impeded by *Jhum*. Without *Jhum* there is no food available, therefore people must practise *Jhum*. "Irrigation terraces need a permanent water supply aud that again is dependent on forest growth, so that when once these hill tops have been stripped of forest a vicious circle exists, no terraces without water, no water without forests, the forests have gone, and therefore there can be no terracing till they have been restored, meanwhile continual *Jhuming* leads to still worse denudation for the people must grow rice to eat." The alleged effects of *Jhum*

cultivation have led to strict rules regarding denudation of forests, and today many of the tribes who lived by shifting cultivation have come down to the plains though most have not succeeded in adapting themselves to other kinds of agriculture found in the plains. This is mostly due to tribal inertia, shyness of the aborigines, apathy of the administration and as Dr. Hutton says, may be due to 'ignorance of appropriate magico-religious ceremonial necessary for other types of farming.' In many places, tribal land used for *Jhum* has been taken away from the people and though some of them have taken to permanent agriculture the latter is "unsuited to them" or the aborigines do not know adequate offerings and sacrifices which will please the gods presiding over agriculture. It is not wholly true that *Jhum* under restricted conditions is prejudicial to the growth of forests. Where forests are cleared for settlements, permanent agriculture reduces acreage under forests. As many provinces in India possess more forests than are necessary, such clearings of forests have been allowed and many parts of Assam today have been invaded by the plough, which a decade or two before, were covered with virgin forests. *Jhum* in these areas would have been less harmful as it necessitates leaving land fallow for three to four years after every harvest, till the forests grow again and the nomadic cultivators are attracted by the new growth of forests, to return to *Jhum*. There are two other indirect gains from *Jhum*. *Jhum* tillage is not unfavourable to the growth of animal life which under a crudely organised agriculture has become extremely shy, while the shifting cultivation by its very nature keeps down population among tribal groups, a

situation not wholly unwelcome to students of Indian demography,

4. One of the most important effects of contacts with the 'so-called' civilisation has been the spread of diseases in tribal areas. 'Not only communications have become easy today, diseases spread more rapidly'. The various sources through which epidemic diseases spread in tribal areas, are too well known to the Public Health Administration. Emigration of labour from tribal areas to plantations and factories where conditions are not favourable to settlement of tribal people have led to a constant exchange of tribal units between the interior parts and the labour centres. These carry infection to the remotest parts of tribal territories; tribal people emigrate very often with families and both women and men migrate for cash income. The lure of a free life unhampered by social control also pulls women to plantations and factories where they are tempted to a corrupt life and the large incidence of V. D. among the labourers is directly traceable to such indiscriminate mixing of the sexes. Missionaries and philanthrophic agencies have caused tuberculosis and other contact diseases to spread in tribal areas through indiscretion, as for example, doling out second hand clothes and apparels collected from the dead or diseased population which are a foci of infection.

Terracing for agriculture in the Naga country, which needs irrigation, has created a vast breeding ground for mosquitoes and malaria. For all the introduced diseases the aboriginal population possess no efficient pharmacopoea and their own is helpless to cope with them. Even their indigenous maladies were beyond the scope of their magic and placatory rites and whatever *recipes* they had, have

not proved effective. For example, the Tharus suffer from trauchoma, an opthalmic trouble, incidence of which is so high among them that every third woman during her life time is likely to be affected by trauchoma, a situation that calls for immediate relief. Yaws is another disease which is confined mostly to the tribal people, particularly the mongoloid tribes and has also been found among the Gonds as well. Yaws yield to the same treatment as for syphilis, and has the same effect as that of tertiary syphilis, and much of physical deformity and mutilation of limbs is due to untreated Yaws.

5. The itinerant vendor of foreign goods and trinkets, the money-lender, the licensees of excise shops, collectors of lac, honey and other forest produce are mostly aliens in culture and language. They have settled in tribal areas and have taken advantage of the gradual drift of tribal society from a moneyless economy to one in which exchange depends on the circulation of money. The implications of money economy are better understood by them and thus they have succeeded in solidly entrenching themselves in tribal areas and today they are a source of great discomfort to the tribal people. In many areas where aboriginal interests in land have not been protected by special legislation, land has passed from the aborigines to the money lenders and Sahukars who make the very people work for them, so that the aboriginal cultivators today have to remain content with a small share of the produce, the bulk of which is intercepted by the Sahukars. Where land cannot be alienated, indebtedness puts the primitive tiller of the soil under special disabilities and the ring of exploitation round his neck gets tighter and tighter, till he becomes a slave to the

Mahajan and works for his master, though the land belongs to him.

The problem of the Banias has been so acute in many tribal areas that it has become almost impossible to free the tribal people from their clutches, though legal protection has been provided to them in many parts. The traditional beliefs regarding the relations between debtors and creditors make the legal sanction void, as few want to take advantage of such provisions of the legal code. To quote one example, the Bengal Government have recently appointed special officers for the backward tribes and castes to look after the interests of the latter and also (*a*) to prevent illegal transfers of agricultural lands of the aborigines (*b*) to see that they receive proper receipts for the rent they pay for their land (*c*) to stop the levy of illegal *abwabs*, (*d*) to encourage the aborigines to organise themselves and to arrange for the defence of their law suits; but these do not go deep into the roots of the problem so long the general level of knowledge of men end matters is not raised among the tribes.

In many tribal areas, I had occasion to meet these special officers, discuss with them the problems of aboriginal life, but found that few of these have the requisite training for the job or sympathy either, nor do they know the language and culture of the people, to be of any use to them, Some think that the tribal people are 'clean slates' on which they can dump their ideas and some do not think that the tribal cultures have any vital role to play in the life of the country. There is no planned economy for the tribal areas and while the intention to help may be there, the means and the competence to do so do not exist.

In one of my recent tours in western Khandesh I had an opportunity to observe the methods by which the Bhil Uplift Officer, was trying to assist the Bhils. As a result of Symington's report on administration of primitive and backward people in the Bombay Presidency, Welfare Officers have been appointed in different centres. This Young Officer had made himself popular among the Bhils and his name was known and sung by the Bhils and he might even have glided into a cult had he remaind longer among them. This young and energetic officer recently came into limelight due to some trouble between the Bhils and the Sahukars. The latter had been condemned by the Officer and the Bhils have been encouraged to regard their creditors as exploitors and a sort of crusade against the Banias by the Bhils has provoked the former to combine and offer a united front against the local authority.

The Banias are residents of the Bhil country, may have been doing their trade and business for generations and the Bhils are under obligation to them for supplying them with credit and other needs. The case for the Banias was ably argued by a shrewed cloth merchant of Nandarbar, who said, "When no body heard about the Bhils we came forward to help the Bhils and distributed money among them in exchange for their forest products and surplus crops, leaves and grass. We have helped them with loans and advances medicines and clothes,which were often commuted into gifts. The Government, today, have suddenly become alive to their responsibility for the Bhils, and instead of adding to their comforts are antagonising those without whose help the Bhils would not have survived."

The Welfare Officer had organised a plan of action for Bhil uplift, the main features of which were (1) the liquidation of the Bania, simply to get rid of him, eliminate him from the Bhil land, (2) A concerted attack on the various social problems, from brideprice to exorcism, liquor to license. The social problems have been dramatised and like the Tana Bhagat movement in Chota Nagpur, which was similarly out to purge the country of spirits and evil doers, the Bhil movement was meant to purge the Bhil society of its traditional beliefs and practices which have not served them well, as they find it today. A dramatic party was organised which moved from village to village playing music and singing songs, dramatising the problems of Bhil uplift, the exploitation of the Bania and the Sahukar, the exactions of the Patel and his assistants and the excesses of the magician, sorcerer and others deeply involved in leechcraft. Attempt had also been made to make the Bhils conscious of their rights regarding the land they live in, also their ownership of the country they inhabit, and their capacity to fight like 'tigers' against all known and unknown foes. It is the latter aspect of the movement that has created misunderstanding in the mind of the people, and the Welfare Officer who was a Muslim had met with bitter criticism of his methods and openly accused for 'malpractices,' the truth of which, may not be vouchsafed. So far as his activity regarding the social boycott of the Banias and his partiality for the Bhils was concerned he was probably within his rights, but the fact that was likely to land him in trouble and needed to be considered by the administration as well as by the scientist, was his approach to the Bhil culture.

Supposing the Welfare Officer succeeded in carrying disintegration in beliefs and practices of the Bhils into the heart of the Bhil country, what happens? If the Banias leave in a body, the Bhil can take their place. Under the present system of distribution and control of food stuffs, perhaps the Bhil can do what the Bania is competent to. But once detribalisation is effected by mimicking customs and practices of the Bhils, by belittling the role of their magicians, diviners, sorcerers, healers, and seeers what remains of Bhil culture and how to cement the solidarity of Bhil life? Suggestions and witchcraft are no substitutes for medicines but when the latter are not available, the former do have a role to play, as they restore the confidence of the people in times of stress and strain. If tribal beliefs are gone, they must be replaced by scientific attitude to life and at the present stage of Bhil culture, it is impossible to achieve it. It has not been achieved among more advanced social groups either. This is why anthropologists demand protection of primitive culture, for such wholesale disintegration of tribal beliefs and practices can never succeed in its objective and would result in a lack of interest in life and an apathy to traditional patterns of life and living.

The process through which the tribal cultures are usually transformed or modified may be one or other of the following:

1. Simple adoption or taking over.
2. Acculturation which involves,
   (a) acceptance
   and (b) adaptation.
3. Assimilation
   (a) Social commensalism.
   (b) Plural Association.

Simple adoption means the acquisition of technical skill, adoption of tools, implements, ideas, customs and rites by one social group from another. The Warli of the Thana district, particulaly one hailing from the South is yet simple and unostentatious, puts on a loin cloth without anything on his head, while his colleague in the south being much in contact with the Kolis put on a short Dhoti with red turban after the latter's fashion. The women among the Warli prefer only to have glass bangles on the wrist and nothing on the ankle, those in the south, put on solid rings of brass from ankle upto the knee and also on the arm from the elbow to the wrist. Similar taking over of elements of material culture from neighbouring groups is found in all tribes today and such adoption does not mean any great change in their fundamental cultural outlook.

A tribe in contacts with civilisation may accept some of the traits of their neighbours. This can happen without the tribe knowing the social value of the traits or even understanding their implications. The employment of Hindu priest in indigenous ceremonies and festivals among some of the tribes in Bihar is an example of simple acceptance. Some members of a tribe, for example, who live near urban centres, or away from the villages, have more contacts with the aliens than with their kith and kin. Many of their tribal ceremonies cannot be performed under original conditions while the Hindu priest who caters to the requirements of their neighbours are available for employment. Many tribal families welcome the Hindu priest not for officiating in their indigenous ceremonies and worship festivals, but to offer Pujah to Hindu gods and divinities,

to Shiva or Narayana or Kali or to the goddess presiding over small pox, cholera and other epidemic diseases. They need not believe in these gods, but they think that by commissioning Hindu priest they might get blessings of the gods or ward off unforeseen dangers. The acceptance of the Hindu priest by the Rajbanshis of Northern Bengal is different. The Rajbanshis are claiming twice-born status, they call themselves Poundra Kshatriyas, and they have raised their social status by conforming to most of the Hindu customs and practices; they have consciously and deliberately adopted the Hindu priest and many families today have succeeded in inventing a geneology for them which traces Hindu origin. Not only they have adopted the sacred thread but their leaders had left no stone unturned to prove their right in this respect. They claim sanction for this custom from the Pundits of various centres, from Calcutta, Mithila, Navadwip, Bhatpara and Kamrup. This movement was initiated about 30 years ago. In the third annual meeting of the Rajbanshi Kshatriya Association held in May,1912, it was decided to take sacred thread and on an auspicious day in February next year, thousands of Rajbanshis donned the sacred thread after a mass participation in a ceremonial '*homa*' performed by Pundits invited by the tribal leaders from different parts of the country. A mysterious phenomenon brought confidence among waverers. February in this part is no time for ripe mangoes and on the site of the sacrificial ceremony the workers discovered a mango hanging from twigs of a mango tree. Immediately this was known, people felt that the gods were happy about the ceremony. The mango was offered to *Agni*, and

burnt in the sacrificial fire. The adoption of sacred thread has not only brought the tribes within the Hindu fold, but has also restored confidence in their own strength and capabilities and has become a part of the tribal code regarding initiation.

Acculturation is the process of change due to contacts with other people; for example, contacts with civilisation have been found to affect the various sections of tribal people in India in different ways. European influence in Africa and Australia has taught the native races of these countries to adapt many traits of the white civilisation. Among many of the African tribes the profit motive, so foreign to their tribal system, has been introduced. A new emphasis on the possession of sheep is found as only men who own these can get credit at the stores. So long these attitudes were confined to dealings with the whites, but today, tribal life appears to have been influenced by the same attitudes as evidenced from the frequency of litigation connected with possession or disposal of sheep. This conflict may be due to the fact that male ownership and inheritance taken over from the whites cut across the main stem of economic structure, the solidarity of the female line. It is also an indication of increasing interest in the acquisition and retention of property for they had come to realise its possibilities in relation to whites."

The desire for education among the tribal people today is already vocal and both in the Assam Hills and in the Chota Nagpur plateau, education is considered as a means to an end. The Mundas, the Oraons, and other cognate tribes believe that they can get their kith and kin app-

ointed to administrative posts by equipping them with the education given them in schools and similar attitude has been reported from the Assam Hills as well. The Christian idea of private and personal property rights, succession and inheritance and the patriarchal form of family organisation, have cut across tribal ideas of the Santhals, also the matriarchal system amongst the Garos and the Khasis. The custom of the succession by the youngest daughter has been disputed by the Khasis while the Garos are yet not decided as to the desirability of the matrilineal inheritance. The Christain converts among them have already begun to read in their tribal code what probably does not exist.

The process of acculturation may be acceptance or adaptation. While the Munda tribes have accepted some of the cultural traits from their neighbours, the Rajbanshis have shown an adaptation to Hindu culture, one that has given them a Hindu status, but also has brought certain disabilities. While the Rajbanshis have acculturated to Hindu society to a very large extent, their attitude to some of their indigenous traits of culture particularly with regard to the structure of their tribal organisation has not been much disturbed. Although they claim to belong to *got* or eponymous divisions of the society as are found among the castes, all Rajbanshis claim to belong to one *got* viz., *Kashyap* and thus on the one hand they conform to Hindu prescription regarding eponyms, on the other hand they violate the primary law regarding eponymous organisation and marry within the *got*, a practice not countenanced by the caste system. The Lambadis, a nomadic tribe of the Deccan have taken to

agriculture, they have adopted the dress of their neighbours and the tribe has divided into sections based on occupation. Some Lambadis have formed sectarian castes as well. Each sect has adopted a few *got* and they employ Brahmins to conduct their marriage. Originally they did not practise cross-cousin marriage but today they do so as they have found it quite common and even obligatory among their neighbours. Similar adaptation is found among certain sections of the Gonds, the Raj Gonds and the Navagharia Gonds. Whenever several groups of people come together to share a common habitat the task of adjustment of one group to another begins. When such adjustment is impeded either due to the group's inability to effect modification in behaviour or is forced on it, the group loses interest in life. Such maladaptation has led to the extinction of many primitive tribes and some of the tribes in India are manifesting a tendency towards it. A social group which has not lost its interest in life and possesses vitality, must adopt traits from other groups, must cooperate with neighbouring tribes, may get assimilated with other or may develop a reciprocal social relationship with other groups with or without completely identifying with the latter.

When a tribe must adopt alien traits of culture, the adoption must be selective and the growth or decay of a tribe results from such selection. A well-knit social group, where each individual recks of another, manifests inordinate solidarity in its cultural life, when confronted with a group in which the development of personality in its members has brought about some disunity and disintegration, as for example, where indivi-

dual initiative has undermined social cohesion, the impact may not be conducive to the survival of the integrated group. Lack of personal aggression among the Lepchas as Gorer has pointed out, may have suppressed individual initiative among them and may explain the partial extinction of self assertion in early childhood as the Lepcha has a tendency to judge his fellows in their role of members of society, but not as personalities. The contact of the Lepcha with another group with greater personal aggression and excess of tribal aggression may lead to their assimilation or extinction and that both are possible alternatives has been well demonstrated in the case of many tribes in India and elsewhere. Therefore, acculturation is selection and often is an extremely important process in cultural contacts as the fate of tribal groups depends upon the manner in which alien traits are accommodated or adopted by them. But acculturation is only a means to an end. It is determined by the self same urge that has made man to invent tools and institute technic processes, to aid him in his struggle against his environment, in other words it is a tool of adaptation. An efficient tool or weapon in the hands of a negligent or careless owner has proved a source of embarrassment to him, so also acculturation as a tool of adaptation may lead a tribe or social group into trouble.

Acculturation has not succeeded everywhere in reconciling the life of alien societies living in close contact with each other. Prof. Hutton thinks, it has succeeded in most parts of the British Isles from Alderman to Orkneys, but it has not had conspicuous success west of St. George's channel. Nor has it worked quite

satisfactorily as between German and Wend in Prussia, between Basque or Catalan and Spaniard proper, between French and Italian in Savoy. He also does not think that acculturation had made much headway between Hindu and Muslim in upper India. Acculturation may lead to a symbiotic relationship or it may provoke a contra-acculturative process. So long as the Hindus and Muslims lived together without any prospect of political domination of one group by another, acculturation was smooth and easy. The Europeanised Hindu of the early days of the Congress was an example of acculturation, his Khaddar clad colleague today shows a contra-acculturation. The aboriginal tribes in contact with alien castes willingly acculturated to the latter, but today finds political wisdom in disowning their whilom friends and even the National Congress finds it difficult to reconcile the aims and aspirations of the aboriginal population with their professed creed. Hence the birth of the Adibasi Association appears to be a historical necessity in the process of cultural change. But a group which has acculturated cannot shake all the traits of the advanced cultures they have grafted on to its culture, by simply wishing them away. The various elements of culture it borrows differ in their degree of attachment, and do not change equally with change of emphasis or the requirements of the situation. The upper strata have, writes J. O. Hertzler (Culture Contact and Institutional Change in Race and Culture Contacts ed, G. E. B. Reuter pp. 55-6,1934) social institutions based in a large measure upon diversified and widespread cultural interests hence they will probably be more receptive of certain variations of foreign elements. The lower classes, bound more closely as a result

of social isolation to racial and primary group attitudes will have narrower set of institutions more rigidly adhered to. Aiyappan finds acceptance of alien elements of culture proportional to the cultural wealth of the groups; the Brahmins of the South particularly the Nambutiri have been more restricted to foreign influence, rejected English culture, even despised it, while the lowcaste Nayars and Iravas availed themselves of every opportunity to profit by western culture. (Aiyappan A, Theories of Cultural Change and Culture Contact in Essays in Anthropology presented to R.B. S. C. Roy' 43) If acculturation is a tool of adaptation, the degree of acculturation will depend upon the group needs whether these are real or imaginary.

Acculturation also depends upon the attitude of the group acculturating; acceptance of an alien trait is determined by the temperamental conditions of the group, also by the social environment. A tribe may adopt the dress and ornaments of another tribe but may not be influenced in their economic outlook. Many Naga villages refused to take to terrace cultivation as the latter type of agriculture required chanelling water from higher altitudes. They do not know the methods of propitiation of the god presiding over irrigation, without which irrigation may prove disastrous to their agriculture. The Khasis who have received illumination from the Christian Missionaries and have learnt the significance of a higher standard of living took readily to potato cultivation, which today has proved an economic boon, also has brought a number of problems for which they are finding no solution. The land is becoming infertile due to over-cropping, litigation has increased, sanctity of tribal code regarding marriage and other social

rites has been reduced and a craze for money income has pushed the Khasis into the hands of crafty aliens. Acculturation, therefore, does not mean survival, for many tribes that have acculturated to alien cultures have suffered discomforts resulting from acceptance or even from adaptation. That is why a contra-acculturative process is in evidence both in the tribal society and among the advanced sections of the population in the country. The struggle of the middle classes today for survival has been accentuated by the fact that they have long acculturated to western cultures, the wherewithal of which cannot be met with today from the money income they have. The middle classes today have become a pathological group and communism finds ready response today from among the middle classes not for the idealism that communism is or is regarded to be, but because of the incompatibility of their economic status with their cultural needs and requirements.

If aculturation has not succeeded everywhere or that contra-acculturation is manifest in some parts there are yet other possibilities of cultural adjustments butween groups. In an article on "Social Symbiosis" in Man, Dr. Nadel has traced the process of adjustment of four different cultures originally distinct and separate who have migrated to their present domicile and eventually have evolved a *modus vivendi*. "Today there exists between the separate localities and migrant strata the closest co-operation which is the fruit of far reaching adjustment. The social, economic and religious activities of these groups are shown to represent a reciprocity and interdependence linking section with section, in the framework of a larger embracing social group unit, that is as Dr.

Nadel calls a symbiosis which presents the possible origin of clanship and is one of the three possible developments in attaining a social equilibrium between diverse cultural groups, viz., cooperation, symbiosis and complete fusion. Dr. Nadel has justified the introduction of the term 'social symbiosis' in social anthropology, as it defines, he maintains, a new and specific category of social organisation in contra-distinction to cultural solutions or fusions wherein the different cultural groups have undergone complete assimilation of groups or have formed one well developed new cultural group in which the differentiating specific character of the parent cultural groups has been obliterated. The evolution (from many simple and isolated cultural groups) of a complex cultural solution or fusion could be marked into stages as the different cultural groups come in contact, associate temporarily for mutual benefit, or as the bonds get closer, associate permanently for mutual benefit (though the groups remain distinct) until finally the distinctive characters of the different constituent cultural groups are lost.

What Dr. Nadel means is 'social commensalism' which would mean that different groups living together partaking of the same economic life, and mutually beneficial, the association being more or less permanent but does not signify any organic union. At this stage no internal partnership between the different cultural groups could have taken place and dissociation of the commensals would not have been fatal to the cultural life of the groups. A stage may be theoretically conceived when dissociation would mean total discontinuance of cultural existence of the constituent cultural groups. This may be termed social sym-

biosis. But, after all, symbiosis is an analogy which will hold good if the continued cultural existence of the symbiotic groups was actually lost by separation, in short, the cultural life of the group suffered death. But from ethnological evidence we find that this is hardly possible in a social constellation, however close the intimate relation between the different cultural groups may be. If we need to borrow any biological concept to interpret such group cooperation and identity of interests, 'social commensalism' would probably be more appropriate. The three stages given by Dr. Nadel would then be cooperation, social commensalism and fusion. The idea of symbiosis would be applicable only if the groups of men were so completely dissimilar as to resemble different species of animals and secondly if there could be an organic union or internal partnership between the various cultural groups constituting the symbiosis for the latter means an organic union or internal partnership between organisms of different species so intimate that it can only be severed by death. Even if we replace organism by cultural groups, as Dr. Nadel suggests and death by 'discontinuance of continued cultural existence', the analogy fails to answer other essentials of symbiosis. But like other concepts introduced in cultural anthropology and sociology from biology which we use loosely or introduce with definite connotation, symbiosis also may be similarly treated.

Furnivall has pointed out how peoples of different nationalities, Indonesian, European, Indian and Chinese for instance live together in more or less insulated functions all of which contribute to general welfare. This he labels, as a 'plural society.'

Dr. Hutton takes the caste system as an extreme

example of this type of symbiosis. The caste system is an integrated one, in which the various elements constituting it have common social attitudes and common beliefs and practices. Economically each of the units follows a particular kind of occupation and each caste contributes a partial activity to the total activities of the body politic; but the various racial and cultural groups in the Netherlands may not share common beliefs and practices, neither do they have similar emotional attitudes to the country they live in, on the other hand the various communities may be organised for production rather than for social life. We are told by Dr. Hutton that 'the Dutch have solved the problem in the Netherlands Indies by a system of indirect rule and a species of 'federation' which brings into harmony the differing economic demands of the various elements of the 'plural society' and the integration of these elements into a single social framework". How far this is borne out by the recent upheaval in that part of the world is a moot question, but a 'plural society' may exist as a confederation in which the constituent elements live their own lives though united for such resistance and agression from outside, but having common territorial limits, without the means of secession even if the union is found to be intolerable.' Such confederation is possible between different nations having common geographical boundaries, but culture has not such rigid frontiers, and various groups or tribes living together share common cultural traits though the patterns of their culture may be different. To me, it appears that the various groups of people sharing 'the same territory and forming parts of the same economic structure, can live, each its own life without fusion, having symbiotic

or commensal relationship with one another, adopting desirable traits from one another and even acculturating on a generous scale, yet maintaining an identity of language and culture between the constituent elements or the group which must develop a consciousness of kind among the units—a sort of cultural federation, in which mutuality and reciprocity rather than submission and suppression would provide smooth working of the federal structure and adjustment of the various groups to one another without undue hardships or discomforts to the cooperating units. This if found possible, will do away with the necessity of ironing out cultural differences, at the same time produce a *modus vivendi* for cultural miscegenation. The significant cultural differences that we find today between the hill people on the one hand and the plains people on the other, between the tribes and castes, who need to be brought together for common good, may not pull the divergent elements in opposite directions, as contra-acculturation is likely to do. What is needed is mutual respect and understanding, and where the dominant or ruling group has shown such respect and understanding cultural adjustment has been smooth and easy. It is I think possible for the tribes to-day to feel more secure and take greater share in the cultural progress of the country provided the attitude forced on the caste people by the numerical preponderence of the tribes and backward groups is not merely used for political expediency but as a sincere gesture towards a broad cultural movement seeking to absorb and assimilate the bulk of the primitive and backward substratum of population in the country. If the political leaders of the country 'fail to recognise the trends of political thought

and aspirations surging in the minds of the newly conscious tribal groups and exterior castes, a possibility which however, cannot be ruled out as the indication goes, the future of Indian culture must be viewed with misgivings.

PART THREE

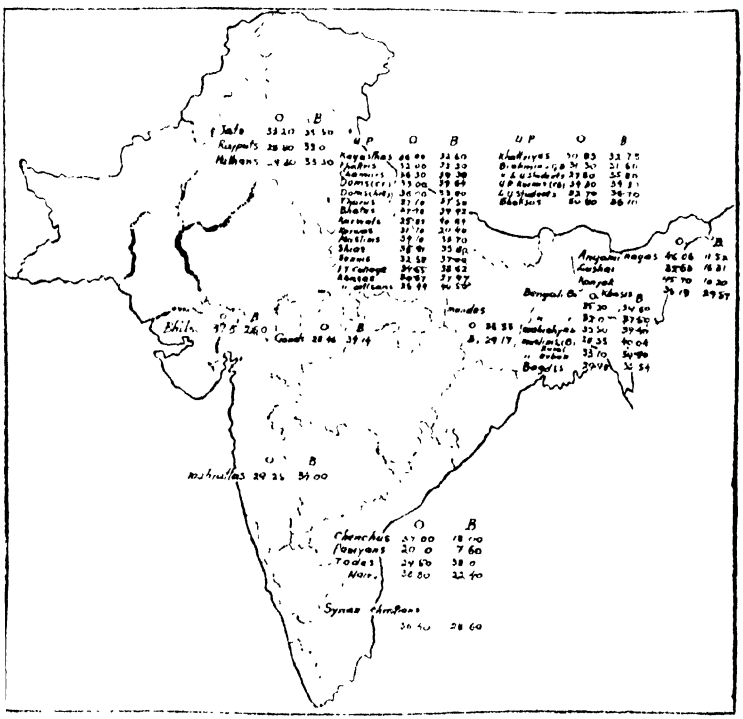
CHAPTER 7

RACE BASIS OF CULTURE

No word perhaps has been used so much as 'race' and no word possesses today so many different connotations as it does. While no two authorities agree as to the significance of the word 'race' yet all do have some conscious or sub-conscious feeling of racial status. The various manifestations of race arrogance and race prejudices are believed to have some biological basis even though there is hardly any scientific evidence in support of race relations as they are found to-day. Popular views about race and racial inheritance have been misinformed and political parties have claimed sanction for their pet theories by appealing to men of science; the latter too have often exploited their scientific status for personal ends or as a cover for their ignorance in other fields.

The study of race biology in India does not find favour with politicians and administrators who are genuinely afraid of new problems of race consciousness. On the other hand, genetical knowledge has not sufficiently filtered into the curricula of medical studies. It is not by merely tabooing such studies that we may help understanding between major racial elements in the population of a country; neither can we solve the problems of international relations by emphasising mere taxonomic differences; as for example, the differences between the Polynesian and the Negro, the Ainu and the Jap, the Toda and the Australian. It is by a systematic study

BLOOD GROUP DISTRIBUTION IN INDIA



of the nature and significance of race differences that we can hammer out most of the perplexing questions regarding race relationships. As an American anthropologist remarked, 'the average man today does not like the race preachments but is hardboiled enough to desire and demand factual basis for disproof.' Most anthropologists know today that the racial prejudices which loom so large in the eyes of the naive observer, are biologically inconsequential. If we do nothing more than impress this simple truth upon all concerned, and also show on unimpeachable scientific evidence the extent of racial admixture and hybridisation in the country, we shall be doing a great service to the life of our times and the benefits to the nation will indeed be out of all preportion to the cost in money and effort needed in transmitting such knowledge to the public.

If races exist, race differences must be studied to dissociate facts from prejudices. Culture cannot be studied as an isolated phenomenon but always in relation to the 'carriers of culture' living or extinct. The need for the study of the biological basis of culture has been abundantly recognised today, so that efforts are being made to study population, its quality as well as quantity as an aid to the interpretation of cultures. Problems connected with poverty and unemployment, disease and destitution cannot be discussed without proper appreciation of the laws of heredity and the latter cannot be dissociated from race problems, however dangerous 'race myths' may have been in the political life of many modern nations.

There is only one scientific meaning of race. Race is a zoological term. If a group of people

by the possession of a large number of physical characters, as for example, the colour of the skin, the texture of the hair, the shape of the nose, the size of the head, and other definable hereditary traits, can be distinguished from other groups then it forms a race; in other words it is a 'hereditary subdivision of a species'. The larger the number of physical traits held in common by a group the greater is its homogeneity. It is also true that our knowledge of the mechanism of inheritance of most of the anthropometric characters which we value for taxonomic purposes is inadequate, except the blood groups which are genic and their mode of inheritance known with precision. Even then certain broad classifications can be made and the characters on which these are made have stood scrutiny.

There are two sets of physical traits which anthropologists generally use to classify people. One is indefinite in the sense that the traits do not submit to quantitative tests. The other is definite *i. e.* those which can be expressed in mathematical terms. The length and breadth of the head measured from certain specific landmarks, the length, and depth of the nose and similar other traits can be metrically expressed while the colour of the skin, of the hair, or its texture are not measurable though various devices have been invented to express them in mathematical terms. The stability of the various landmarks which are used for cephalometry or craniometry is very much greater than that for complexion or colour of the hair. As such, the definite characters should play greater part in the scientific classification of races than the indefinite ones.

The various classifications that have been given of the race elements in the population of our country have only an academic interest in as much as the primary races that had come to India through successive invasions in the historic and prehistoric ages must have mixed and blended so-much so that it is at best doubtful if we can detect the original traits of particular races in any given proportion in any caste or tribe. Not only has invasion after invasion caused a dilution of blood by the laws of warfare which brought the conquering hordes into social and sexual contacts with the conquered people, but the various religions of India, most of which had been and some still are of a proselytising type, must also have broken down all racial barriers by either admitting people of other races into their religious fold or by themselves being absorbed and assimilated into other races more dominant than themselves. Islam for example, has been a great leveller of races, and it is a generally recognised fact that the followers of Islam in different provinces vary with regard both to racial features as well as in culture. When the Muslims of one area are compared with those of another, the divergences found appear more racial than they are supposed to be. Christianity in India claims people of different racial stocks; the tribal converts of Chota Nagpur, for example, are different from the Christians of Northern India some of whom are recruited from the high castes. Another levelling force has been the gradual and insensible transformation of tribes into castes. Social mobility has encouraged ambitious families or groups of families to adopt the surname of higher castes and claim the social status conceded to them, mostly because of their acquired cultural

status which has enabled them to make greater contribution to the economic life of the society they belong to. All these factors hide today the racial status of castes and tribes while castes high up in the scale of social precedence have recruited their strength from others low down.

In various parts of Bengal today, the Namasudras, for example who are classed as 'Scheduled' or 'Exterior' have adopted the surnames of Brahmins and Kayasthas the two high caste groups in Bengal so that surname today does not show, as it probably did before, the caste status of a man, a fact which makes classification of the people into distinct social categories of dubious value. What is true of Bengal is also true for other provinces. The surname 'Singh' covers a multitude of sins, and similar generic titles are known elsewhere. The task of physical anthropology becomes difficult due to this rush for social precedence, and in a caste-ridden society with a hierarchical organisation the demand for careful scrutiny cannot be too strongly insisted. Even if all precautions are taken, it is doubtful if the castes can tell much, because race mixture has produced blends and combinations, the component elements of which must have lost themselves in the present day social groupings.

Risley's was the first systematic anthropometric Survey in India the results of which were published as a volume of Ethnographic appendices to the Census Report of India, 1891. In the United Provinces, Captain Surgeon Drake-Brockman measured a large number of people and a summary of the data was published in the Castes and Tribes of North Western Provinces of Agra and Oudh by Sir William Crooke. E. J. Kitts also collected measurements of a few hundreds of people while similar

data exist for some of the other provinces. Risley himself however did not take the measurements, and at least four persons were engaged by him to do the work though he was responsible for the general supervision of the work.

In 1931, the Census Commissioner for India initiated an extensive anthropometric survey, and the results of the survey have been published (1935) as a volume of the 1931 Census Reports. While Risley's anthropometric data cannot be used for purposes of comparison with similar data, because of the faulty technique, bias in selection of samples and the large number of mistakes in the calculation of average values and indices, the 1931 data collected on 2511 persons only from all parts of India, have not yet been published and therefore not available for scrutiny.

Risley used his anthropometric data for racial classification; thus, he divided the people of India into seven ethnic types of which three were primary and four mixed groups derived from the former. The primary types were 1. Mongolian 2. Dravidian and 3. Indo-Aryan, while the mixed types were 4. Turko-Iranian in Baluchistan and the North-western Provinces 5. Aryo-Dravidian in the United Provinces 6. Mongolo-Dravidian in Bengal and 7. Scytho-Dravidian in Gujarat and the Marhatta country. Risley did not distinguish between the Australoid elements and the Dravidians while more than one racial type has been detected among the Dravidian speaking groups. The influence of the Mongolian race in the population of interior India has been greatly exaggerated by Risley, though his connection between nasal index and social status would probably bear scrutiny.

The problems of Indian ethnology must be discussed in the light of recent advance in anthropometrical and serological research. The following are therefore some of the problems we need to discuss:

1. How far can we support the classifications of the people of our country into races? How far the existing racial nomenclatures are justified?

2. How far do we require to adhere to the existing methods of analysis of physical data?

3. What are the racial characters? For example, should we continue to classify people into ethnic types on the basis of indices or on that of the absolute characters? In view of the fact that all the hundred and one anthropometric characters do not give us definite clues to identity or divergence of the various samples of population, castes as well as tribes, what particular traits should we choose for purposes of racial classification?

4. If we have such characters by which it is possible to distinguish 'social groups' from one another even to put them into distinct groups, 'constellations' or 'clusters', how far can the same evidence be applied to test the degree of admixture or hybridisation among the various social groups either living together or separated by space?

5. How far can serology be employed to supplement anthropometric evidence?

6. Lastly, how far can a knowledge of race elements in the population be of practical importance and how far the observed differences between the various endogamous social groups are biologically consequential?

In 1941, the Census Commissioner for India Mr. M. W. M. Yeatts on the advice of Mr. B. Sahay,

Superintendent of Census Operations, U. P., sanctioned a scheme for anthropometrical and serological survey of the United Provinces and the work was completed by 1942. More than 3,000 adult men belonging to 22 different social groups representing various parts of the Province were measured and more than 4,000 bloods were typed. The data were analysed by Prof. P. C. Mahalanobis, F. R. S. and a joint report submitted to the Government. The distinctive features of the U. P. Survey were; (1) For the first time in Indian anthropometry, a randomised survey was initiated and the results proved very encouraging. Writing on the randomness of the samples, Prof. Mahalanobis says, 'the present samples may be treated as having been drawn for all practical purposes at random'. 'As far as one can judge,' continues Mahalanobis, the assumption of randomness is more true of the present material (U.P. Survey) than of any other series of anthropometric measurements so far available in India', (2) The serological tests carried among the various groups for whom anthropometric data were collected provided invaluable material for purposes of comparison of the groups with one another. (3) The tribes and castes were selected on a regional basis, and lastly (4) The individual measurements of the 3,000 subjects are being printed along with the report.

The results of the U. P. Anthropometric Survey show, among other things, that there exists some correlation between racial and social status while serological evidence supports that of anthropometry. For example. the social precedence of the various castes and tribes in the United Provinces may be represented in tiers. The Brahmin is at the apex of the social pyramid, next come the Chattris

and Khattris, then the Kayasthas and the various artisan castes, the latter followed by the tribal groups. The criminal tribes have an individuality all their own. While they are distinct from the tribal groups like the Korwa and the Kharwar of Mirzapur, they also differ significantly from the Brahmins as well as the artisans. Their social status is a fluid one, as they are neither considered degraded nor are they taken to be clean castes. In any case, the fact that they have not entered much into the social economy of the village and are suspect on account of their anti-social proclivities have put them in an unenviable position. The Mongoloid Tharus living in the Tarai constitute a separate group who do not have much in common with other castes and tribes mentioned in this context.

The statistical analysis of the anthropometric data by Mahalanobis and Rao (D^2 Statistic) show distinct evidence of 'clustering'. The Brahmins both of the eastern and western districts form one cluster, The criminal tribes like the Bhatus and the Haburas are somewhat dissociated form the other caste groups while their dissociation from the pre-Dravidian tribal groups is real. There is no doubt about the individuality of the primitive tribes; for though they show intra-group differences, each of the tribes can be distinguished from the castes both high and low. In between the two Brahmin groups and the primitive tribes, the Kayasthas, the artisan castes like the Ahir, the Kurmi and the Kahar form an intermediate cluster. The Ahir is nearer to the Brahmin than the Kahar and the latter nearer to the tribal groups than the Ahir. Muslims form a cluster with the Chattris and the Agharias, the last being Khattri by tradition. The lower Muslim groups resemble the lower

Hindu castes.

SEROLOGY AND RACIAL CLASSIFICATION

A racial classification on the basis of serological data was made by Ottenberg (1925) who divided the people of the world into six 'strikingly' different types viz.. (1) European (2.) Intermediate (3)Hunan (4) Indo-Manchurians (5) Africa-South-Asiatic and (6) Pacific-American.' Snyder found seven types on the basis of genic frequencies or p q. factors: 1) European 2) Intermediate 3) Hunan 4) Indo-Manchurian 5) Africo-Malayasian 6) Pacific-American 7) Australian. In all these classifications the European has been found to belong to a distinct serological type due to the large incidence of A, and little of B, while the Indo-Manchurian group is distinguished from other groups for its large B percentage. If both A and B are mutations from O, the serological evidence cannot account for racial differences. Although a large percentage of B is found among the various castes in India and its incidence increases eastwards, the Paniyans, a proto-Australoid tribe have 60 p. c. A and 20 p. c. B, while most of the primitive tribes in India show comparatively small incidence of B. A bio-chemical index (A+A B/B+A B) was worked out by Hirszfelds. The Europeans were found to possess a higher bio-chemical index than most other races. In the case of most of them the index was found to be above 2·5. Below is given the bio-chemical indices of the various castes and tribes in India (All authors.)

The bio-chemical index calculated from Indian data does not justify any classification of the races which puts the Europeans into a distinct serological category, for the only groups whose serolo-

BIO-CHEMICAL INDEX.*

Above 2		Between 2 & 1		Below 1	
Konyak Nagas	3·1	Anglo-Indians	1·7	Bengali Kaysthas	·83
Paniyans	4·1	Bengali-Brahmins	1·0	Mahisyas of Bengal	·69
Angami Nagas	2·8	Khasas of the Himalayas	1·05	Bengali Muslims Urban	·96
Lusheis	2·25	Korwas	1·46	do. Rural	·65
		Bhoksas	1·26	Bagdis of Bengal	·75
		Mundas	1·86	U. P. Kayasthas	·71
		Chenchus	1·73	,, Chamars	·54
		Nairs	1·50	,, Doms	62
				,, Tharus	03
				,, Criminal Bhatus	·64
				,, do Karwals	·65
				,, Shias	78
				,, Sunnis	·66
				,, Khattriyas	·86
				,, Brahmans	·93
				,, Kurmis	·68
				Todas	·63
				Rajputs	·89
				Pathan	·94
				Maria Gonds	82
				Marhattas	83
				Syrian Christian	·94

* Biochemical Index is calculated from the formula $\frac{A+B}{B+AB}$

gical index was found to be above 2·5 were Paniyans, Konyak Nagas and the Angami Nagas. In other words, the Mongoloid and the Australoid or proto-Australoid tribes, fall under Hirszfelds' European types, the Lusheis, the Chenchus, the Bhoksas, the Korwas, the Anglo-Indians, the Nairs fall between 1·0 and 1·9 and the rest of the groups have an index of 1 and below. Nothing therefore can be derived from the distribution of the biochemical index. The chosen limits are arbitrary. A modified race index was calculated by Wellisch on the basis of gene frequencies but the results did not instil greater optimism than that provided by

O in the samples investigated
(All authors)

Chamars	36·30	Mundas	33·35	Angami Nagas	46·06
Kayasthas	26·0	Chenchus	37·00	Lusheis	32 68
Doms	36·0	Paniyans	20·00	Konyaks	45·70
Shias	35 91	Maria Gonds	28·46	Khasis	35·17
Brahmins	34·30	Todas	29·50	Anglo-Indians	37·28
Muslims (general)	32·58	Black Jews	73·60	Bengali-Brahmins	35·20
		Nairs	38·80	,, Kayasthas	32·00
Khasas	30·67	Syrian Christian	36 40	,, Mahishyas	32·50
Khattriyas	30·833			,, Muslims	28·33
Kurmis	34·30	Marhattas	29·25	Muslims (Urban)	38·10
Bhoksas	30·30	Rajput	28·80	Bagdis of Bengal	28·93
Korwas	26·83	Jat	33·20		
Bhatus	27·48	Pathan	29·30		
Tharus	27·10				
Khattris	32·00				

Hirszfelds' index. Ottenberg found the blood-groups remarkably stable where there was little or no racial admixture. The high incidence of O among the peripheral or isolated people has been regarded by Snyder as an indication that 'the majority of the peoples with a proportion of O exceeding 50 p. c. are island peoples, or peoples living in regions more or less isolated, and so physically less liable to mixture. The variation of the O percentages in India as found among the various samples investigated is given above.

The general conclusion that suggests itself on the basis of the above data is that the incidence of O in India is nearly equal in all provinces and about one third of the observed frequencies are of O blood. The Naga tribes like the Konyak and the Angami have the highest O among the tribal groups, the proto-Australoid tribes except the Paniyans have all more than 30 p. c. O ,the higher castes in India have a comparatively higher value

for O than the lower castes, and in one caste viz., the Black Jews of the Deccan the O percentage was found as high as 73·60 p. c. The lowest O also was found among the Paniyans. If O is the core out of which other groups have been evolved, as held by some serologists, then the distribution of O in a population may indicate the degree of racial purity, an assumption which, however, is extremely unsafe to make with the serological data available till now.

An attempt has been made by us in the U. P. anthropological Survey to find out the racial significance of blood groups.

The serological status of the various castes of the U. P. can be found at a glance from the map printed along. For example, the various social groups examined can be arranged with respect to their A values into four 'clusters.' The Brahmins of the eastern aud western districts as also of the cis-Himalayas are significantly different from the other castes. The Chattris, the Khattris, the Kayasthas, the Kurmis, the artisans of the hills and the criminal Bhatus and Karwals form one cluster. The hill Doms and the Muslims, both Shias and Sunnis, form a third cluster, and the Chamars and the Doms, a fourth, all with respect to their A values. The distance of the various cultural groups when measured in terms of their relationship with heterogeneous groups, such as (a) the girl students of the Isabella Thoburn College, who represent all parts of India, all religions and most languages and dialects spoken in India, and (b) the students of the Lucknow University and Christian College, who are also a mixed crowd. may be interpreted as significant in point of racial admixture. The tribal Korwas have been found to possess a high A value

probably due to their isolation and inbreeding while the Doms and the Chamars are highly heterogeneous both freely mixing with other castes. The frequencies of the various blood groups among the Doms and the Tharus were not in accordance with Bernstein's theory as both admit some degree of extramarital latitude; the proverbial immorality of the Dom women, for example, must have canalised alien blood into the veins of the Doms. Thus, both with respect to the anthropometric and serological data we have found that there does exist some correlation between caste and ethnic types. Inspite of the 'clustering' however, the various castes interior or exterior have more or less intimate association and may not be regarded as 'races' though, the tribal groups, both Mongoloid and Australoid or Pre-Dravidian tribes of Mirzapur show distinct dissociation among them and may be regarded as separate racial types.

RACE ELEMENTS IN GUJARAT.

The racial survey of Gujarat of 1946 indicates an interesting alignment of castes and social groups. The cephalic indices of the various Gujarat castes and tribes vary from 84·3 of the Sunni Borah to 75·06 of the Panchmahal Bhils. The Parsis have a cephalic index of 82·16, Muslim Waghers 81·49, Mianas 82·4, Rabaris 80·55 Memons 80·07, Ved Nagars 79·52, Mhers 79·2, Khojas 79·95, Oswal Jain 79·51, Rajputs 78·19, Kolis 78·02, Kunbi Pattidars 78·04, Luhanas 79.44, Waghers (Hindus) 77·23, Macchis 76·38, Miscellaneous tribes 76·9, Rajpipla Bhils 76·13, Khandesh Bhils 75·61. Thus, excepting the Sunni Borahs, the Parsis, the Muslim Waghers, Mianas, Memons and Rabaries, the cephalic indices of other tribes and castes in Gujarat vary from 75 to 80.

Gujarat therefore is largely a mesocephalic Province and as we pass from the upper castes and Muslims to the tribal or mixed tribal groups, there is a lowering of index till a dolichocephalic trend is noticeable among the Bhils and miscellaneous tribal groups. The Sunni Borahs, Parsis, the Bhatias show greater brachycephaly than the Rabaris, the Mehrs, the Ved Nagars, the Rajputs or the Audich Brahmins while the Kolis, the miscellaneous tribal groups and also the Bhils show a lower value for the cephalic index.

The Parsis have a lower value for nasal index viz., 65·90, then come the Rabaris with 66·08, Rajputs (68·64) Mehrs (70·9) Audich Brahmins (71·1), Mianas 71·3, Ved Nagars (71·48), Waghers (71·20,) Khojas (70·32,) and Luhanas (71·80); the Macchis have a nasal index of 74·7, the Kolis 75·2, Kunbi Pattidars 76·73, Rajpipla Bhils 76·45, Panchmahal Bhils 77·04, Khandesh Bhils 77·96, and the Kharwas (76·37). The Oswal Jains of Cutch who show a high frequency of oblique eyes and high cheek bones, have been found to possess a nasal index of 77·09 but they are more brachycephalic than most of the tribal or mixed tribal groups. It may be that the Mehrs, the Mianas, Rajputs, Sunni Borahs, Khojas and Luhanas represent the self-same stock with different cultural status.

The highest average stature was recorded by the Mehrs of Porbandor State (169·50 Cms), next in order come the Waghers (168·57), the Rabaris (168·22), the Parsis (167·73), the Mianas (167·37), followed by a second cluster with the Bhatias (165·9) Luhanas (164·57) Khojas (164·47), Audich Brahmin (164·34), Rajputs (164·57) with the Ved Nagars (163·73) and the Oswals (163·98) as closely related to the former. The Memons have an average

stature of 163·64, the Sunni Borahs 163·94 and the rest of the groups, tribal and mixed tribal, have an average stature varying from 162·67 cms, of the Panchmahal Bhil to 158·84 cms of the Macchis. In other words, the tribal, mixed tribal and artisan castes show a lower average stature than the Mehrs, Rabaris, Waghers, Parsis and the upper social groups.

Thus from the average mean values of the length and breadth of the head as also of the nose, and from the indical values calculated from these, it is possible to distinguish at least two racial types in cultural Gujarat, one brachycephalic and leptorhine, the other dolichocephalic and mesorhine while in between these two types are found a large number of mixed ones showing varying degrees of intra-group association. Some of the social types in cultural Gujarat like the Parsis appear to have mixed with the other brachycephalic strains who are high up in the scale of social precedence, though from the serological evidence the poorer section of the Parsis show unmistakable affiliation with the artisan and the low caste groups. The cultural and economic status of the Parsis and their rigid adherence to ancient zoroastrianism must have encouraged endogamy among those who could afford it, so that these have maintained their original racial traits. According to Deniker (The Races of Man, p. 419-420) the Iranians possessed the main characters of the Assyroid race with admixture of Turkish elements in Persia and Turkey, Indo-Afghan elements in Afghanistan and Arab and Negroid elements in the South of Persia and Baluchistan. The Persians have been divided by Deniker into three geographical groups, viz, the Tajiks, the Hajemis and the Parsis. The Tajiks spread beyond the frontiers of Persia, the North

West of Baluchistan, Afghan Turkestan and Russian Turkestan as far as the Pamirs perhaps even beyond. They are brachycephalic (Ceph. ind 84·9), above the average height (169 cms) and show traces of intermixture with the Turkish race. "The Hajemis and in some measure the Parsis who are dolichocephalic (77·9) and of average height (165 cms) are of the Indo-Afghan type". (Ibid) The Parsis must have come into India after the destruction of the Sassanide Empire. The Parsis we measured in Bombay were employees of a big commercial firm, most of them officers, their cephalic index was found to be 82·16 which agrees with Ujfalvy who put it at 82. The Mianas and the Sunni Borahs have similar indices viz. 82·48 and 82·45 respectively.

The blood groups of the Makranis of Gujarat were examined and were found different from the Makranis of Baluchistan. The Baluchis according to Malone and Lahiri (Ind. J. Med. Res. 1927:25) showed 47·2 p. c. O, 24·3 p. c. A, 24·3 p. c. B, and 4·2 p. c. AB. The Makranis of Gujarat most of whom have Baluchi father and Bhil mother, have similar A and B and 9 p, c. more AB. The total B and AB. among the Baluch (Malone and Lahiri) is 28·5 while that among the Makranis is 37·05. There is 35·5 p. c. B+AB. among the Panchmahal Bhils, 33·3 p. c. among the Rajpipla Bhils, 31·0 p. c. B+AB. among the Bhils of Western Khandesh (Current Science Vo. 14, No. 5 p. 129)

The Muslims of India, as a general rule, differ significantly from their coreligionists outside India both with regard to anthropometric and serological characters. For example, the Turks have high A value and low B value. The total B+AB among them being 25·20 p. c. while the Calcutta Muslims show 45·70 p.c. B+AB, Budge BudgeMusl-

ims 48·30, U. P. Muslims 42·90 p. c., the Shias of U. P., 38·70. and the Sunnis 46·20. p c. B+AB. The Syrian Arabs have 28·0 p. c. B+AB, Syrian Muslims 15·10, Tunis Muslims 21·20. The Pathans of Punjab and North Western Provinces have 39·40 p. c. B+AB and the Hazaras 43·0 p. c. With regard to A values the Muslims of India show similar dissociation from their coreligionists outside. For example the Turks have 38·0 p. c. A, the Syrian Arabs 34 p. c.,, Syrian Muslims 40·20 p.c. Budge Budge Muslims 23·80 p. c., Sunnis of U. P.22·80 and the Shias 25·50 p. c. A.

The various Muslim groups of cultural Gujarat have more in common with the social groups with whom they live while they are dissimilar to the Muslims of other provinces. The Muslims of the U. P. are sub-dolichocephalic those of cultural Gujarat brachycephalic or sub-brachycephalic. The stature of the U. P. Muslims is 162·45 cms, that of the Muslim Waghers 167·95 cms, Mianas 167·37 cms, the Khojas 164·47, Memons 163·64 and the Sunni Borahs 162·94 cms. The last have got the highest cephalic index in Gujarat viz., 84·3, the Mianas 82·48, Khojas 79·95, Muslim Waghers 81·49, and Memons 80·07. As we proceed west to east from Gujarat to the United provinces there is a dimunition of stature and an elongation of the head till the brachycephalic element is replaced by a dolichocephalic one. In other words the Muslims of the U. P. resemble more the people of the U. P. than to those from Gujarat, while the latter for all intents and purposes correspond to the prevailing physical type in cultural Gujarat. In blood groups the Sunni Borahs, the Mianas, the Memons and the Khojas show similar frequencies of the various blood groups to those possessed by the Luhanas,

Bhatias, Audich Brahmins, Nagar Brahmins, so that there is more association of the various Muslim groups with the high caste groups of cultural Gujarat than with the tribal or mixed groups. In the United Provinces, the Muslims particularly the Sunnis show greater association with the artisan elements and in Bengal with the depressed and exterior castes. In any case, it may be possible to indicate more correctly the racial and serological status of the Muslim population after the racial data have been statistically analysed.

The study of races must include all the factors that either stabilise or disaffiliate racial strains. Heredity and environment are both determinants of racial types, so also selection and mutation. In a country like that of ours, there are different climates and the fixation of types in each climate has followed centuries and milleniums of adjustment. In the unhealthy damp and moist climate of the Tarai, the Mongoloid tribes are living in health and vigour, in the damp and wet malarious tracts of Assam the tribal Nagas fare well while immigrants find conditions of climate lethal against their permanent domicile. The study of race relationships without a knowledge of social history must be regarded inadequate and the slow recognition of this fact has already reoriented the attitude of physical anthropologists. The Chamars of the U. P. have been classed as a 'Dravidian' caste by earlier writers, the relation of the Chamars with the higher castes and their dissociation from the tribal substratum in the province can only be understood by a deep insight into the social history of the caste. Similar must be the case of Tilis, Ahirs and many other artisan castes whose occupation came to be regarded as degraded

by the *fiat* of a ruling prince as in Bengal or its dwindling importance in the social economy of the country.

If we study races independently we must possess the most detailed knowledge of the laws of heredity as they affect the physical features that constitute any racial type, also the role of environment in shaping such unit features. The Ainu is independent of the Japanese, if only physical features are considered, at best the former may be a mutation from the original Japanese; history, a knowledge of the trends of migration in remote or prehistoric past would provide further data on the probable race relationship of the Ainu with the European, the Toda with the Australian, even the Burmese with the Andamanese. In any case, analysis of race elements in a population must be supplemented by studies of inter-regional diversities. Sir Basil Chamberlain, an authority on Ainu matters warned 'would be investigators of Ainu peculiarities' that 'they should exercise scrupulous care in their choice of individuals for study, as almost every Ainu village now includes a considerable percentage of half-breeds. (Man Vol. XXIX).

How a lack of knowledge of the social history of a people may put the investigator on false tracks was brought home to us during the recent racial survey of Bengal. In a village in the Kishorganj subdivision of the Mymensingh district in eastern Bengal, we came across a number of individuals whose features were different from those we saw all round the locality. These people belonged to a trading caste, took the surname of *Banik* and have been living in the village for generations, they even have forgotten when they

came and although most of these people are financially substantial, live in pucca houses built of brick and cement, they belong to the village, speak the dialect of the district and yet are so different from their neighbours. They are a tall fair-complexioned people with high forehead, fine nose and mostly long-headed, a distinct type by themselves. One of the probable explanations was that these people belonged to the upper strata of the caste system and for some social lapse, they have been relegated to an inferior social status; but the fact that they appeared, most of them to be longheaded made identification with the brachycephalic people of Bengal difficult, so that I was tempted to discuss their social history.

Old men are rare in India and in an unhealthy malarious climate, few survive in health and vigour after they reach the middle age. Two old men were found, one of whom was the richest man in the village, a man of lakhs if not a millionaire. When I approached him I found him in a state of stupor following a spell of asthma seizure ; soon the old man regained his consciousness and was very happy to see me and my assistants. I initiated an intimate talk by referring to his pains and how he got it, and out he came with the reply that the 'climate was responsible for his affliction', "Don't you see, doctor, we come from a dry climate, we are not used to this damp, moist and malarious country ; when it rains here, gods sleep in heaven till the sun rises after days to reach the news of the deliverance of the earth. We often do not see the sun for weeks sometimes and we move in rains and water". I asked him to explain what he meant by saying that he did not belong to the climate ; soon he waxed

eloquent and ordered his assistant to show me old records of his people, how they had migrated to this part as traders and how they still practise some of their old customs, for example, the offering of toy horses along with gifts of clothes or ornaments in marriage, a custom which reminded me of another trading community the Khattris of northern India. The physical type represented by the Banik is not dissimilar to that of the Khatrris, except that their complexion has become brown which might result from intermarriage with the local trading community or due to climatic differences.

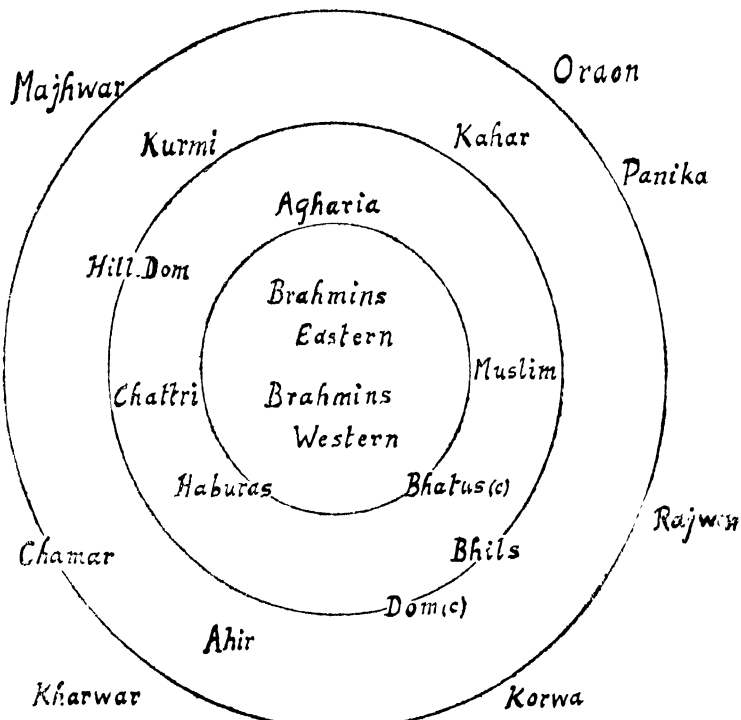
The Namasudras of Madaripur in Bengal have succeeded in camouflaging their social status by the adoption of surnames, such as those occur among the Brahmins and Kayasthas, and it will require a lot of painstaking research to distinguish them from the castes whose surnames they have popularised among them. Here, as in other cases referred to above physical anthropology must take the help af social anthropology otherwise purely morphological study of racial types would be of doubtful gain.

Race mixture tends to be stabilised by space fixation and thus geographical distribution has played a very important part in fixing the racial types in different countries. Purer breeds have also stabilised themselves by a process of acclimatisation in which social, economic and geographical factors have played their part,

A very common sight in India is the occurrence of obesity and corpulence of people particularly women belonging to certain well-fed groups. The tendedcy to obesity and fatness is inherited. Children of slender built continue

to lay on flesh, due to defects of feeding or to 'inactivity,' but they can easily be disturbed in their corpulence and 'very often return to their normal weight' Bulging of the anterior abdominal wall in slender and non-obese persons may be caused by certain organic disorders, and affectations of the viscera but may also be conditioned otherwise. Kurulkar in a recent investigation found that in nonobese healthy persons with the thickness of skin and the subjacent tissue of less than 3 mms of thickness at the centre of the anterior auxiliary fold if an abdominal bulge is present, it will be due to the pelvic width being less than 15.66 p. c. of the total stature." Regarding the inheritance of body build, Charles B. Davenport (Human Biology,, and Racial welfare, N. Y. 557) writes, "Persons derived from a union of two families in which fleshiness is common often find (1.) that they have fairly large appetites and (2.) that they are tolerant of large amounts of food and (3.) that dieting and excercise are able to reduce their build only and with great difficulty." For all these reasons it is difficult to assess with any degree of certainty the respective role of heredity and feeding though we may conclude generally that fleshiness will ultimately produce fleshiness though it must be conceded by all that fleshiness is not accompanied usually with aggressiveness physical or emotional.

Although in India, the boundaries of Provinces have not been demarcated on the basis of language, culture or race, there exists an intimate race relationship between groups high and low living in the same geographical area. The caste system as well as the tribal structure we meet in India did not favour intermarriage between castes



Social Constellations in the United Provinces
based on Racial-Distance
(1941 Anthropometric Survey)

and endogamy, both in regard to caste and to tribes, has effectively banned large scale intermixture between social groups. Where intermarriage did take place, the hybrid was not admitted into equal status with either of the parental group, and in most cases, hybridisation resulted in the formation of new sub-castes. Even tribes which intermarried, could not retain their original tribal designation, and new names were adopted which distinguished the hybrid elements from the original groups to which they belonged. The Khariamunda, for example, is a hybrid tribe, a mixed group resulting from intermarriage between the Kharias and the Mundas both belonging to the Ranchi district. Anthropometric evidence points to the fact that in any given area with a population known to be of mixed descent, the various social groups which represents not very dissimilar cultures can be arranged in a series, so that the differences in physical type between them are either not patent or can only be slow or gradual ascent or descent with respect to particular racial traits.

The Gonds of the Central Provinces afford a typical example on the point. They are a very big tribe numbering more than three millions distributed over the Central provinces and the various states of central and eastern India penetrating as far below as Hyderabad (Deccan). The Gonds were a powerful race, had a centralised Government and from all records, were a civilising force in these parts. We still find ruins of walled towns, forts, and of great irrigation work of the Gonds. For a little over three centuries, the Gonds ruled in the parts they occupy, even today there are a few Gond principalities under Gond rulers. The

power and civilisation of the Gonds were destroyed by the Marhattas whose cruel treatment of the Gonds, treachery and continuous hostilities wiped off the last vestiges of Gond independence. Today the Gonds are a timid people, have even given up their own tribal dialects, have adopted Hindu gods have taken to the Hindu social system typified by the caste structure, and what is more, many of the Gond tribes have left their strongholds. Some of the latter are seen even today in abandoned cities well walled, well built and carefully preserved, "regularly crenellated with arched gateways over which is the Gond crest, the scriptured figure of an elephant treading down a tiger". (Sir Bamflyde Fuller: Some Personal Reminiscences, 1939 p, 36) while others have found permanent home in deep recesses of hills and jungle fastnesses. There are Raj Gonds who trace descent from royal families who are usually landlords, there are also those common people who are compared to 'dust' and known as 'Dhur' Gonds. There are also 'Thukel' Gonds those who deserve to be spit on due to their proverbial cowardice and lack of stamina.

CHAPTER 8.

PROBLEMS OF POPULATION.

There are certain fundamental demographic facts which must be stated before we can discuss specific aspects of the population problem. If there is a high rate of increase of population in one country, leading to a fall in the standard of comforts, other parts, sooner or later are affected, and that is how the menace of over population in some of the Asiatic countries, the spectre of "the yellow peril", for example, have put the other parts on their guard against 'migrant' Asia resulting in restrictive control of population movements. A country with a huge population, enjoying a national form of government, can produce by its sweated labour goods to flood the world market, thereby displacing honest labour in other countries, while a country rich in resources without people to work them, cannot hope to raise the standard of living of its nationals. Inspite of the tremendous development of communications, rise of world industries and the efficient system of capitalistic distribution, the world is inhabited in parts and uninhabited in others, and even if there be no artificial control of movement of population, there is as yet little chance of population being evenly distributed over the surface of the globe.

If we analyse the demographic data of different countries of the world, we can find how great is the disparity between land surface and the number of its inhabitants. Asia, for example, has an area of approximately a third of the surface of the globe, and a population roughly equal to a

quarter of the world population. Africa has 1/5th of the land area of the world with one twelfth of the total population. North America approximates Africa both with regard to area and numbers. Europe on the other hand has 1/15th of the total land surface with a quarter of the world's population, while Oceania with the same area as of Europe, has only 1 p. c. of the total population. Inspite of the world forces at the disposal of man the movements of population today from one country to the other are indeed limited and do not ordinarily have much effect on the trends of population growth in any country.

In India, according to the available census returns one eleventh of the total area maintains 2/3rd of the total population and 2/3rd of the total area, 1/5 of the population. This disparity in the distribution of population, in other words, the varying density of population in a country is largely to be traced to the physiographic factors, to the factors of the geographical environment which include climate, land form, waterbodies, soils and minerals. Prof. Huntington traces high density to favourable climatic conditions. For example, if we take 128 persons per square mile as a high density, there are two major areas in the world densely populated, one is the area where rice and sugar-cane are raised, rice-raising areas being determined by climate, the other where the energy of the people is at a maximum. In fact there are two areas where most of the manufacturing industries are carried to perfection, one is in Western Europe round about Northern Germany, another is in America round about New York and both these regions enjoy a particular type of climate which is 'Cyclonic', in which the fluctua-

tions of temperature, humidity and other climatic conditions are such that the people have to adjust themselves continually and remain alert. In other words the efficiency of these areas is due to the climate which makes for sufficient energy to achieve success.

That rainfall is correlated with density, no one will seriously dispute for if we super-impose a map showing the distribution of rainfall on one indicating distribution of population the two will coincide, indicating a natural relation between density and precipitation. In the early stages of culture, the control of geographic factors was rigid, climate for example, painted the background, other features sketched the details but technic factors have aided man today to overcome natural barriers to cultural progress, and geography is not an absolute determinant as it used to be. There is a close connection between density and the stage of culture. In areas with a sparse population as we get in parts of Bihar, in Assam, in the Agency tracts of Orissa, in most of the excluded and partially excluded areas, we find the tribal people in various levels of progress and decay, usually living on crude and shifting cultivation or wandering in batches of four to five families or less, in search of fruits and tubers and gleaning a precarious livelihood. Forests and mountain fastnesses make scattered settlements necessary; the bounties of tropical forests, the luxuriance of tropical flora and faunna have made living easy and independent so that most of the tropical tribes have succeeded in perpetuating themselves. Altitude has had important role to play as most of the tribes who live on hills and plateaus must have escaped being swallowed by

recurring flood which still to-day menace the country side. As the hunting tribes take to agriculture, at first, their cultivation may extend over the hillsides; the terrace farming combined with the wasteful 'Jhum' or 'Podu' provides the necessary means of support to tribes in transition from one economy to the other. The adoption of plough cultivation by many of the tribes has brought them down to the plains where large plots are available for cultivation and with the security provided by settled type of agriculture practised in the plains, multiplication of members has been possible, till to-day in some parts of India a tribe is of considerable size and can be counted even in millions like the Gonds, the Bhils, the Santhals and others.

There has been a tremendous increase in population in the world during the last few centuries. This may be due to the capitalistic system of production typified by large scale industries and an otherwise efficient system of distribution. In a biological sense security may be incompatible with prolificness; with the increase of comforts and a general rise in the standard of living the rate of multiplication slows down, but it has also been noticed that when density increases and the scope for economic cooperation among the people widens, there is a rapid growth of population. Prof. Raymond Pearl has argued that at a relatively low density, there is a slow rise in birthrate, at a high density, there is a rapid rise in population till the population reaches an asymptotic level beyond which there is no apparent increase. The drosophila experiment on the basis of which Prof. Pearl has developed the hypothesis of population growth, may not

provide a true perspective so far as human population is concerned. As Prof. Lancelot Hogben pointed out, 'the legitimacy of any connection between the postulates applicable to the drosophila curve and the growth curves of human populations thus depends on two issues. The first is whether the way in which food was added in Pearl's fruit fly experiments reproduces the essential features of the way in which human society augment their supplies of the necessaries of existence. The second is whether there is any general rule connecting fecundity and food supply in animals. There is no evident reason for answering the first question in the affirmative and the second is just as difficult to answer.' (Hogben, L. Genetic Principles in Medicine and Social Science, p. 181-182). Inspite of the fact that India has a teeming population of 405 millions, it is a commonly observed fact that the rate of marriage increases with prospects of better crops. During the war, when agricultural prices soared to unprecedented heights, the number of marriages in the rural parts among the agricultural classes, increased five-fold or even more. Where barrenness is considered a sin or a divine visitation, the effect of such high increase of marriage rate must be reflected in high birth rate and a phenomenal increase of the country's population.

India has nearly doubled her population during the last seventy five years, from 206.2 millions in 1872, to 388.8 millions in 1941. During the same period, the U. S. A. has added about 30 millions to her population with a percentage increase of 125, Russia has added about 100 millions i. e,, by 115 p. c., Japan has more than doubled her population from 30 millions to 80 millions, England and Wales from 22·8 millions, to 40 mil-

lions, Germany from 40·89 millions to nearly 80 millions. Prof. East once estimated, not long ago, that the total annual increase of population was somewhere between 12 and 15 millions and that of the increase more than 2/3rd took place among the white nations. At the present rate of increase in the U. S. A., she will have more than 150 millions by 1950. The problem of population among the white races does not assume so much significance for the simple fact that the white races possess vast areas of the globe, where the surplus population if any, can be transferred and that is probably the reason why they are increasing several times as fast as all the coloured races of the world put together. At this rate, probably the European races may not foresee any serious threat to its security from the coloured races though the vital statistics in some of the European countries in recent years have shown a downward trend in birth-rate.

Although population is increasing in every country, the rate of increase differs from country to country. The rate of increase of population in India during the decade 1881 to 1891 was 9·6 p. c., in the next decade it was 1·4, between 1901 to 1911, it was 6·4 p. c. between 1911 and 1921, it was 1·2 p, c. and during the decade 1921-1931 it was 10·6 p. c. and since then the percentage rate of increase has been continuous. So long the increase was irregular. Every alternative decade recorded a heavy rise in population, followed by a slowing down of the rate at the next but since 1931, an upward trend is noticed and is expected to continue indefinitely. The annual excess of births over deaths in 1901-1910, was 933, 623, in 1911-20, it was 667, 654, in 1921-30, 1,995,305, in 1931-2,520,791, in

1933,3,582,089 and it has been continually increasing every year.

The vital index which is the ratio of birth to death, shows a more or less continuous increase till it has reached a high peak today. In 1901-10, the vital index for India was 117·6, this decreased to 108·5 in the decade 1911-20, in the next decade 1921-30 it was 130·74, it was 140 in 1931, 154·5 in 1931 and 154·0 in 1940. Yet when these figures are compared with those of England and Wales, they appear to be lower. The vital index of England and Wales in 1938-1939 was 140·28, in 1900-1904 it was 171·25 in 1905-1909 it was 177·40, in 1910-1914 175·09, 1915-19, 134·95, and in 1920 it was 205·48 though from 1838 to 1921, the crude birth rate declined from 310 to 255 per 10,000 of the population. On the basis of such data, Prof. Pearl has concluded that the population of England and Wales is today exhibiting a greater purely biological survival value as a whole population than it was three quarters of a century ago. Whether it is a mentally, morally or anthropometrically fitter population does not now concern us. In other words, Prof. Pearl holds that "Taking the people of England and Wales as a whole slightly over two babies were born for every death per year in 1920 as against death per year in 1838-1839."

If the vital index is a test of the biological status of a country, then the population of England and Wales in 1930 was certainly more vigorous than it was in 1838. The vital index may remain the same in two countries yet the annual excess of births over deaths may differ. For example, when the birth rate is 40 and the death rate 20, the vital index is 200 and when birth rate is 20 and the

death rate 10, the vital index is still 200. The vital index remaining the same, the net increase of population in a country will differ. If the birth rate begins to fall, the death rate remaining the same, the net increase of population in a country will be less, when the birth rate goes below the death rate the population cannot be replaced. But the death rate cannot fall beyond a certain limit due to the fact that man must die, but the birth rate may be pushed lower and lower till it may be reduced to a treacle. While death can be controlled to a limit, birth can be regulated and even stopped if expedient. That is how the declining birth rate in European countries is being viewed as 'race suicide.'

The Birth rate in England and Wales before 1876 was 246 legitimate births per annum per 1,000 married women aged 15 to 49, and about 1911 it was 68. 4 p. c of that in 1881. From 1871-75, the birth rate has been falling continuously from 35·5 per 1,000 of her population in the above quinquennial to 15·1 in 1938, In Belgium, the birth rate before 1876 was 266 per 10,000 of her population, it came down to 264 in 1881 and to 171 in 1911. The percentage decrease in B. R. in France for the same period was 69·5 p. c., in Denmark, 78·3 p. c. Prussia 74·5 p. c. Holland 78·3 p. c. Norway 85·5 p. c., Italy 91·1 and Ireland 98·8 p. c., a phenomenal fall in the B. R. in non-catholic countries but in those countries with large catholic population the fall is not very significant. This fact is traced by Carr Saunders, Stevenson and others to the rise of neo-malthusianism. From about the year 1875, the decline of the birth rate in England and Wales has been closely associated with the rise of neo-malthusian propaganda. People with access to con-

traceptives show a low birth rate while those sections who have religious scruples against the use of contraception have not been affected much. As a matter of fact from the dawn of history, unlike in animals, man has interfered with the full realization of his fertility but the descent of birth rate in most of the countries of Europe has begun shortly after the prosecution of Annie Besant and Charles Bradlaugh for selling an American book on contraception, Dr. Knowlton's Fruits of Philosophy.

In European countries and in America, the problem of numbers is being regarded both from the qualitative as well as from the quantitative points of view. A certain amount of politics cannot be avoided in population problems. Some countries of the west which are 'have-nots' with respect to colonial possession claim the right to transfer surplus population to sparsely inhabited parts of the world; those who need raw materials must wistfully look forward to colonial expansion. Where counting of heads determines political rights and concessions, a restrictive policy with regard to population cannot appeal to the nationals of the country, while the general attitude of the capitalistic countries has been dictated by the desire to secure cheap labour either in the tropical plantations or in the factories owned by them in colonies and dependencies where the climates do not attract white labour. The Fascist countries cared for more and better children. 'In Germany' for example 'the birth rate, which in 1933 was 30 p. c. below the rate required for population replacement, steadily rose, until in 1939, it almost reached replacement level.' Some authorities however refuse to believe that population policies are responsible for such results, for as McCleary puts it, 'it was

held that the revolution of 1933, revealed a vision of Germany's coming power that roused the Germans into a new confidence in their future and moved them to make light of family burdens, and casting aside personal considerations, to increase and multiply so that destiny of the German people, as they conceive it, might in full measure be realised' (Race Suicide p. 96). If ideas have such power, the squalor and destitution which must produce disgust and helplessness in the masses in India should have exercised powerful check on fertility among the poorer sections of the people in India, but evidently they have not.

Fertility in all countries has been found to be negatively correlated with social status, the poorer sections overproduce, the richer sections do not produce their due share of progeny, so that there is a differential fertility which is the cause of great social concern today. In countries with large 'native' population the situation is not identical. As Prof. Pearl has shown in the American population that the elements perhaps least effectively integrated socially with the rest of population, the Negro, has the lowest survival value as a group (vital index less than 100). Many primitive and backward peoples of the world have become extinct or are tending towards extinction. Where the various groups are more or less integrated in industrial countries for example or in a country with a heirarchical social organisation based on caste, there exists a differential fertility so much so that classes that are physically and mentally fittest to produce and perpetuate their kind are failing even to replace themselves while in other cases which have doubtful mental endowment or are even misfits multiplication is proceeding at an alarming rate.

There is another demographic factor which has not received adequate attention. The sex ratio differs from caste to caste. Among the tribal people, there are more women than men and the proportion of women to men in the society decreases as we ascend the scale of social precedence. The Brahmins and other high castes show more masculinity than the lower castes. Rauber (1900) suggested that masculinity in the population is directly porportional to the number of abortions and still births in the groups, for there is a greater mortality of boys in the intrauterine periods, 'the younger the foetus the greater the mortality'. Though data on the sex ratio in the intrauterine period or still births are not sufficient to judge the validity of the above, it is certain that the infant mortality, still births and abortions are generally speaking more frequent among the lower castes and tribes than among the higher social groups. The problem today in most of the advanced countries is not so much one of overpopulation, but one which is fraught with more dangerous consequences, viz., the problem of a healthy and fit population, so that the quality of the population may not suffer due to overproduction at the wrong end. In India the situation perhaps calls for grearer attention as the masses are at a very low level of culture, their mental endowment inferior, while they are phenomenally prolific. It is however, difficult to adduce sufficient evidence in support of the view put forward due to the fact that there does not exist any absolute correspondence between social and economic status. It would be wrong to suppose for example that all Brahmins follow the same trade or professions. They live more by cultivation and labour than by

following intellectual pursuits and therefore, the differential fertility that we find in India, the highest castes showing a greater masculinity than the lower castes, may be due to other biological causes. As the lower castes constitute the bulk of the population, it is just natural that they should contribute more to the birth rate than the higher castes. Therefore, every year, inspite of expansion of medical aid, of various ameliorative measures, the quality of population is sinking, as more people are born than can be educated or medically cared for. If we increase our food production say by 10 p. c. and the population increases by 15 p. c. the total food production in the country will be relatively less than before. Problems like these are not merely economic or even social, they need be discussed from the anthropological and biological points of view.

To take the case of migration. In earlier days, migrations were probably due to climatic changes necessitating movement. The great historic migrations from Asia to Europe were occasioned, we are told, by the gradual dessication of the great plains of Western Asia and Eastern Europe. Even when people settle down in a country, the migrating hordes prefer to settle in areas specially suited for them, the people of cold country settling in cold climate and those coming from warm countries preferring warm climate. South America was selected by the Spaniards while North America attracted the Northern European. The Indo-Aryan people of the cis-Himalyan region coming from the foothills of the Hindukush range where they must have acclimatised themselves in their march towards the east, preferred to move to the hilly north of the country, so that their chances

of adaptation to the similar environment were greater than in the plains. In the earlier days the impluse to human drift was largely geographical; subject to geographical factors, people used to migrate. As population increased cooperation among the individuals within the country indicated the possibility of higher standard of living. As soon as the standard of living of a society reaches a convenient point immigration is looked upon with suspicion. Under ordinary circumstances, population should flow from areas of high to areas of low density and it is done 'along channels of least resistance.' Today it does not. Immigration is restricted by various political and economic controls designed mostly to exclude the 'undesirables'. The densely populated countries of the world find no outlet to migrate and settle even in uninhabited or sparsely settled countries and if they belong to a separate race, particularly if they are of the coloured stock, insuperable barriers to movement exist. Yet, inspite of the cry of over population in America where according to a famous sociologist there existed only 'standing room' for its nationals, America between 1820 to 1920 received something like 30,000,000 people from Europe and most of these immigrants belonged to some branch or other of the White race. The other side of the picture is presented by the Pegging Act in South Africa and other restrictive legislation against immigrants and denial of civic rights to those belonging to Asiatic nationalities, even if they were responsible for the development of the resources and for building the country's economic structure. For example, the Kenya-Uganda Railway was built by Indian labour after the completion of which European settlers

went to East Africa.

India does not have much of external migration. In 1931, there were 730,546 persons of foreign birth in India of whom 595,078 were of Asiatic birth, 118,089 of European birth and 17,379 others. On the otherhand there were about four millions of Indians resident outside India. In some countries Indian migration has changed direction so that more people immigrate to India than they leave her shores. For example, in Ceylon in 1921, the balance of migration was in favour of India to the extent of 38,930 but in 1931 it was against India by 7529, showing that more people of Indian born come back from Ceylon than go there. In any case, in a country with 400 millions, emigration of 4 to 5 millions do not change the demographic complexion of the country. India's migration is mostly inter-provincial and will continue to be so in the decades to come.

Migration raises some important anthropological problems. In some of the big towns in India we have islets of alien people like the China town in Calcutta where the Chinese have succeeded in reproducing their own environment and may live their cultural life without much interference from the people of the area. They usually follow certain types of occupation in which they excel the indigenes, thereby developing a kind of monopoly. Their standard of living may be inferior to that of the residents of the place or it may even be superior in which case usually they belong to a supposedly higher culture or to the ruling race. This segregation is necessary as the difficulties of racial mixture are as great today as they were before.

Immigration of alien people racially and cultu-

rally different from the indigenous population has raised the problem of *cultural and linguistic minorities* and much of the political controversies regarding the question of domicile, of medium of instruction etc. arise from it. The standard of living in a country with abundant but undeveloped resources may for a time be raised by immigrants who undertake to exploit them, but ultimately they lead to a lowering of the standard and the differential shares of gain through maximising cooperation create classes with vested interests detrimental to the welfare of the indigenous population. When the immigrants belong to the same or allied racial stocks or possess similar status, cultural miscegenation with or without blending of races is possible. In case one is culturally superior, the other inferior, differences may act as a bar to fusion of cultures. Immigration of labour from Bihar, U. P., and other parts to Bengal has solved the problem of industrialisation of Bengal but at the same time it has undermined the dignity of labour for the indigenous population, for caste-ridden society has produced an irrational superiority complex among the higher castes who consider all manual labour as fit for the lower castes. Cheap labour from other provinces has made it possible for the indigenous people to relegate manual labour to be done by immigrant labour so that they become more dependent on the latter. This fact alone has contributed to the deterioration of the health and vitality of the native population in Bengal. Immigration spreads diseases and epidemics and even in the interior of tribal areas diseases to which the tribal people were not used to are taking a heavy toll in men and money and also have lowered the vitality of the people.

Another effect of migration is *sex disparity*. When the immigration is of the male population it naturally disturbs the sex ratio in the country with consequent social problems. Burma has had a natural excess of female population but the immigration of male population from India drastically reduced this sex disparity while the temporary character of male migration resulted in creating a number of social problems, such as exploitation, desertion, prostitution and social conflict, the last manifesting itself violently in anti-Indian risings, both before and after the Jap invasion of Burma. Migration of male population can only be semi-permanent or temporary and both encourage prostitution with its attendant vices, as in cities like Calcutta, Cawnpore, and Bombay. Migration often results in political troubles and communalism thrives on jealousies between the migrant strata and the indigenous population particularly when the cultural level differs between them. No minority community can exist without mutual aid and cooperation among its members and any alien migrant must gravitate to areas where the chances of such cooperation are greatest. This is how linguistic and cultural wards in cities have developed, The ugly and uncouth architecture in some of the principal thoroughfares in Calcutta are associated with particular cultural groups, and that is true of other cities as well. Inspite of these socio-economic problems arising from migration, cultural changes are due to movements of population These have affected the rural parts of the country as they never did before. Where migration takes place in families, as is usual with the emigration of labour from Madras, Chhattisgarh and the Chota-Nagpur plateau, the changes affect the migrant

families but may not affect the culture of their pre-migration homes. In this respect casual and temporary migrations have greater effect on culture than permanent or semi-permanent migrations.

An interesting problem of Indian demography, one which has not yet attracted sufficient notice, is the mass migration of Muslim peasants from some of the districts of eastern Bengal to adjacent districts of Assam. One district in Bengal has succeeded in sending out swarms of colonists which have peopled the sparsely settled tracts of at least three districts of Assam. Mymensingh is one of the biggest districts of Bengal with a prosperous agricultural population. The soil is alluvial and fertile, the annual flooding by the Brahamputra and other rivers makes the fields richly fertile and jute and rice grow to luxuriant heights. The agriculturist in these parts is usually prosperous, he gets more than he needs for his family, and can indulge in polygyny, he can also pay high rates of interest on money he borrows during the sowing and harvesting seasons when he needs to employ labour to get his fields ready for the monsoon or to harvest his crops quick to escape unwanted rains. Where there is no legal bar to polygyny, it is always a matter of convenience.

A substantial man can marry more wives than one; polygyny is practised to avoid social stigma attaching to families who fail to marry their daughters on account of hypergamy or undue regard for social purity as in the institution of Kulinism in Bengal, or as a mark of distinction for people who have shown their skill in head-hunting or similar acts of tribal approbation as among the Naga tribes of Assam.

That economic conditions have largely deter-

mined the incidence of polygyny is no where better illustrated than among the agricultural population of Mymensingh and Rungpur. for every substantial cultivator marries more than one wife and many have three or more wives living in the same joint family, each wife having a separate hut to herself; they are even found to share the same hut between two or more co-wives.

The advantage of polygyny for an agricultural community with restricted supply of labour, the demand for which is sharp and seasonal and cannot be met from local resources, cannot be too strongly emphasised and every substantial farmer finds it economic to keep more wives or concubines whose children form the assets of the joint establishment. In most of the polygynous families we have investigated there exists an order of social precedence among the wives, the first wife always has a dominant position in the family, and other wives occupy status in the order they join the family, though it is just natural that the new comer gets more attention from the husband than is expected by older ones. It is usual for a husband to obtain the approval of the first wife to a second marriage and as the pattern of the society is modelled on polygyny, such permission is not withheld. If a woman in a polyandrous society does not ordinarily marry a man who has not several brothers, a woman in a polygynous society is not expected to show any great dislike to cowives, a fact which was testified to by the women themselves.

So long the birth of a male child is considered a religious obligation as it is among the caste Hindus, a woman if declared sterile or barren easily accommodates to a cowife, to allow the husband to raise an issue, a joint obligation of man

and wife. When the pressure of work at home and in the fields becomes too exacting for one wife, the latter herself suggests a second marriage for the husband and the economic advantage secured by an additional hand who needs be paid no fee for her labour except food and clothing, greatly outweighs the disadvantage of sharing the same house and its master, Many cultivators are found to keep concubines whose children grow up under the roof of their master, girls start as domestic help and boys as farm servants or grazers of cattle, till the latter grow up when they may leave their home and transfer themselves to Assam where they start as independent farmers; some of these people may have two establishments, one they leave behind and the other they set up in their new domicile.

Economic conditions engender social habits which persist even after the former undergo transformation and polygyny remains a strong cultural trait in these parts which has produced a number of socio-economic problems. Even if polygyny is a general trait of the population in these parts, it is usually the substantial cultivators who can afford the luxury of multiple wives. Muslims possess most of the land, and they need more women than they possess; the demand must be met by recruiting women from the other social groups. Thus abduction, rape and conversion to Islam help the Muslims while the predominant Muslim percentage in the population leaves the grievances of other communities unredressed. Polygyny coupled with a low standard of living favours a rapid multiplication of population and the surplus population must find an outlet elsewhere, otherwise the standard of living must be further lowered. The virgin forests of Assam offer scope for expansion

and large tracts of land till recently covered with dense forests have been cleared of trees and ferocious animals and have been made suitable for settlement. The hybrid Mymensinghias with wild vigour crowded out of their homes find the prospect of migration to Assam tempting enough and succeed in competing with the damp and inhospitable climate of the monsoon forests and facing the depredations of wild animals. The official reports on colonisation speak about the large incidence of crime among the new settlers. People who are born in shame at home or migrate for food cannot be expected to be peaceful citizens. For their very existence they have to fight the elements, the fury of animals and the hostility of the people among whom they set up their moorings. But when forests are reduced to shining hamlets and the nomadic immigrants settle down as peaceful cultivators, their aggressiveness and land hunger which gave rise to hostility and conflict, quiet down and the clearings become peaceful nests of an ardent law-abiding crowd. Had it not been for the polygynous pattern of the society in their pre-migration home, the colonisation of Assam would not have been so successful.

The influence of hypergamy, a custom which has found such a ready soil in the caste-ridden society in India, has produced a lot of complications the extent of which is not usually known to the people at large. Manu has referred to two forms of marriage, one is *anuloma*, the other *pratiloma* the former is approved, the latter prohibited. The degraded position of *pratiloma* castes, who stand lower in the social scale than castes whose ancestors contained no drop at all of Indo-Aryan blood, can be explained by the fact that the inva-

ding race probably belonged to a patrilineal society and the indigenous race was matrilineal. In the case of the latter the marriage of a woman belonging to a higher caste, with a man of an inferior caste did not produce any problem as the children would belong to the mother's family while in the case of the marriage of a woman belonging to a patrilineal society with a man of matrilineal society it would involve the children in legal difficulty regarding inheritance, a situation which would not favour such marriages.

Hypergamy exists in all countries between people belonging either to two different cultural matrices, or between two races, one superior, the other inferior, the man belonging to the superior race or to superior culture being elegible to marry below his caste or rank as is proved by the Sanskrit adage, 'Striratnam Duskuladapi', i. e., a wife may be taken from a family with doubtful virtues. Usually the invading race is hypergamous to the invaded even if both are of identical stock, though in the latter case the initial precaution wears away till such bar to matrimony disappears as it has in many parts of the world. But when the races are distinct, as for example, the white race and the Negro in Africa, the Indo-Aryan and the indigenes in India, hypergamy gains a strong foothold, and much of the social evils in India can be traced to the initial handicap of the invading group in the selection of mates exaggerated by racial differences.

In Bengal, hypergamy has introduced great complications in marriage and family life, and 'Kulinism' has survived as a mark of racial status of the families which migrated into Bengal. High bride-price, infanticide, postponement of

marriage and dowry system, all have resulted from hypergamy. Infanticide is not peculiar to the primitive people alone for hypergamy produces conditions which encourage infanticide or neglect of female children. Although it is an offence punishable by death under the provisions of the Indian penal code, it is impossible to resist the conclusion that female children are even today made away with immediately after birth unless abortion reduces such possibility. A high caste Association at its annual session about 8 years back unequivocally condemmed female infanticide among them, a voluntary admission which may be accepted as a token of their earnest desire to put an end to such cruel practices. The conditions prevailing in Bengal during the dark days of Kulinism, an exotic institution which was planted on the soil of Bengal by the idiosyncracy of a ruling king whose regard for race purity even exceeded that of fanciers or breeders of horses, complicated the already comlicated systems of marriage in Bengal among a population which is genetically most mixed. On the one hand, this institution encouraged plurality of wives for those who claimed racial purity, on the other, it made marriage an impossibility for a large section of women so that female children begun to be reckoned with disfavour till it was considered no crime to put to death female children or marry them early to avoid disappointment afterwards. The description given by Sarat Chandra in his novel 'Betrothed' of the father of seven daughters asking for a glass of water on receipt of news conveyed to him by his daughter that his eighth issue was a mere girl, represents the feelings of a Bengali father even today. It was an usual sight in Bengal and this continued till the early

decades of the present century for a young girl of 12 to 15, to be ceremonially wed to an old man of sixty or more and the parents preparing to receive back the girl as a widow soon afterwards. The large number of cases of suicide among girls during the early years of the present century which had made Bengal social life of the time infamous, was largely due to the difficulty of finding husbands for girls, and even the total liquidation of assets of the parents very often failed to secure a bridegroom for their daughter, a situation that naturally led to a revolt in women and an escape through self immolation or suicide.

The 'Bhadralog' problem in Bengal has been an economic one from very early times. The switching on from one administration to another required a transfer of allegiance from one type of education to another. The need for education on western lines was keenly felt by the landless middleclass whose occupation was gone and thus they readily took to western education while those whose connection with land was real, remained content with their traditional culture and education, a fact which accounts mostly for the backwardness of the agricultural communities in Bengal both Hindu and Muslim. Education in a country so vast as ours where the need for clerical and ministerial staff for the purpose of carrying on administration was so great, naturally proved a boon to this class of people and an urban type of culture was developed to which access was possible only through education. Parents sold their lands, ornaments, and other movable assets, mortgaged their ancestral property, and even compromised with their social status by taking up menial occupations to provide the modicum of

education necessary for jobs under the Government which, however, they succeeded in securing. Thus more and more people were anxious to send their boys to schools and colleges while their means were not enough for the purpose. The problem of marriage of girls being ever acute in a hypergamous society a premium on bridegroom made heavy dowry indispensable and thus the marriage of girls became more difficult. A job meant security, and parents were prepared to forego their own comforts and even their economic security by liquidating their assets and settling attractive dowry on their daughters, till poor people found it impossible to compete with people of means. The girls found it to their cost what the changed conditions meant to their parents, and many of them sympathised with their parents and wanted to relieve them of their burden by suicide, an escape which no society can countenance with equanimity. It is pleasant to think that the same system of education has provided to the girls a more honourable escape and a relief to their parents as well.

THE ARISTOCRACY OF THE UNFIT.

We have little data on the qualitative aspect of Indian demography and the fragmentary records of insane and other cacogenic strains in the population in the successive Census reports conceal facts rather than expose them. The total number of diseased persons, feebleminded, epileptic, insane, deaf mute must be many times more than were recorded and it is no wonder that the 1941 Census excluded enumeration of defective population, from the scope of its operations. Today, India is the only country in the world that does not have any cacogenic population for the simple reason

that they are not enumerated. As official statistics are the only available sources of information on such subjects until now, the absence of data cannot but be deplored. We have, therefore, to depend for figures of cacogenic element in the population entirely upon private and non-official investigators. The difficulty of collecting data on the subject has been aggravated in no small measure by the peculiar social institutions of India which despite disintegration, are still catering to the needs of the cacogenic stock. In India, hereditary and incurable diseases are traced to sins committed in previous births and families affected by these conceal facts to escape criticism and also to evade social stigma which may land them in troubles afterwards. Families affected by tuberculosis refuse to admit incidence of it as otherwise girls of the family or boys may not get married. There is hardly any civic conscience in such matter and tubercular people mix freely with healthy ones without the slightest scruple.

Insanity is not considered hereditary although investigations specifically made in particular areas and among particular social groups unmistakably pointed to inheritance as the major factor in the propagation of the insane. Life in India has not developed so great a *tempo* as in some of the industrialised countries and the causes that explain the high incidence of insanity and of nervous breakdown, have not made themselves felt in India except among certain income class in the urban centres of the country. Parents in rural areas even today insist on full knowledge of the family history of eligible youngmen and women who choose to marry, though such caution in the choice of mates does not work in cities where

opportunities for coeducation and free mixing of the sexes are available. At no time, therefore, the need of biological education regarding the inheritance of mental and physical characters has been more felt than today and public conscience must be stirred to action regarding the dysgenic trends of our population. Mere increase in number is no menace to civilisation and all countries have increased their population and some are doing so today. What is most important is the nature or quality of the population that is being produced and the effect of the increase of population on the standard of living of the existing number. Here economics, genetics and sociology are equally interested and must work together and by concerted attack solve the problem of numbers.

Let us look at the aristocracy of the unfit in our country. Our figures relating to the cacogenic elements in India's population are only conjectural, though those that we are using here are very cautiously drawn from sources which ordinarily can be relied upon. One in three hundred of the population in India is blind. I am not speaking of those who are blind to realities but of those who are physically debarred form sight, though some may have vision. 25 p.c. of the blindness is due to congenital anomalies, 25 p.c. to opthalmia neonatorium, 10 p.c. to syphilis, atrophy of the optic nerve, glaucoma, small pox and conjunctivitis. Blindness due to hereditary diseases can be eliminated if we agree how effectively we could do that. Deaf mutism is a congenital affection uaually accompanied by goitre. The percentage of deaf mutism decreases after 10 to 15 years of age which probably indicates that the death rate among the deaf must be tremendously high after

the 15th year or thereabout. Non-official figures for insane persons put them at 2·5 millions, a figure which is most modest, for the institutions of the joint family, caste and village community cater to their needs and institutional care is only provided for an insignificant proportion of the insane population. There are about 25 mental hospitals in the country and they treat only 8·4 p. c. of the cases, the rest do not get any institutional attention. Though all cases of insanity cannot be traced to hereditary affliction yet a large proportion of them have received the taint directly from their parents and bequeath it in Mendelian fashion. About a million people suffer from leprosy. This was the estimate in 1921. The Duchess of Athol put the figure higher. In one district in the U.P, we are told, that there exist 2000 lepers in a population of about 70,000. In some Bengal districts particularly in Bankura and Midnapur, the incidence of leprosy is so high that none can walk on the streets without meeting lepers and in some areas evey other family, provides a leper, a tragic situation indeed. Leprosy may not be hereditary, it is said that the infection is usually post-natal, but lack of vitality, syphilis and constitutional weakness afford a solid base and secure asylum to the disease while the quality of the food particularly of the rice grown in the area may have some effect in the spread of this disease. The march of tuberculosis in Indian cities has assumed an uncanny speed and in some provinces, the extent and speed have been alarming. Hereditary susceptibility to tuberculosis is more important than infection and that is why we find that when one person in the family becomes victim of the disease others get infected, though increased vitality may check its spread. Recent

investigations reveal that tuberculosis is more prevalent among comparatively more well-to-do families than among the working classes and whatever defects the *Purdah* system may have, that it is not the most important cause of tuberculosis is certain.

The large number of prostitutes in India particularly in big cities like Calcutta and Cawnpore is a pointer at once to our morals and also to the quality of our population, for one third of the prostitutes are feebleminded either morons or imbeciles. It is not true that prostitutes do not produce their kind; they do and hereditary prostitution exists today as it did in earlier days. The mental testing of 300 prostitutes undertaken by the University of Copenhagen in Denmark show that 48 p.c. of the prostitutes were retarded in intelligence, 25 p.c. were constitutionally psycho-pathic, 8p.c. suffered from hysteric diseases, many were morons or were victims of self indulgence, even of homosexuality. Prostitution is a necessary evil particularly in a low grade mentally defective population and in a class of people enjoying traditional rights and privileges, mostly unearned income, while the Purdah system and the social code of the country which bar social intercourse between the sexes unlike other countries of the world provide the functional basis of prostitution.

Thus we see that feeblemindedness, insanity, deaf-mutism, constitute our 'aristocracy of the unfit' and most of these are genic disabilities which need be properly handled to breed a fit race. Other countries have faced the problem of numbers, both of quality and quantity and we should not avoid our responsibility in the matter.

Nearly forty years ago, C. W. Saleeby described

how the physique in Britain was going from bad to worse, This was due, as he clearly put it, to four important causes; first, a steadily and rapidly diminishing proportion of the nation's children were being born to parents, and in environments, such as promise them the best inheritance, both biological or genetic and social. Secondly, the adolescents, whom he called 'pre-parents', were drinking, which in and through them meant racial poisoning, more than ever; 'thirdly Englishmen were becoming increasingly an urban people without having learnt how to build or live in cities' and lastly, in the words of Dr. Harry Campbell, (editor of the Medical Press and Circular), 'the English people were the worst fed people in the world'. If such was the condition in England, we do not know how we shall describe the prevailing distress and squalor, mal-nutrition and low vitality in this country manifesting as they do in chronic unemployment, under-nutrition, starvation, famine, and phenomenally low longevity. Our tropical climate provides an irresistible temptation to the sick bed, and conditions in many parts of India are such that even the most well organised philanthropic agency does not touch the problem let alone working any plan of action.

The global war made tropical conditions familiar to the large body of troops that fought in India and about India and their experiences are perhaps the only earnest of a proper evaluation of the problem that we have had no heart to tackle. Even if all the tropical diseases were eliminated from the country, if they could be banishad from the country, by the *firman* of an European plenipotentiary or a dictator of the fascist brand, the problem of India's population

will not disappear. Writing about 'Youth and the Race' in 1921, Saleeby described his experience thus 'Recently, stepping into the streets of Liverpool, I was offered and as usual, with my bag by the pitiful little crowd of hoarse, rickety, stunted, anaemic children who gather round the stations of our great cities for the chance of a few coppers. They needed my help, not I theirs. In the course of the hours which I spent in that city, as on many previous occasions, I failed to observe so much as one healthy child (skin, blood, skeleton, nasal pasages teeth may all be estimated even in the street). No such spectacle as this meets the traveller's eye in North America, as I returned to tell the Liverpudlians in public' (The Eugenic Prospect, p. 25)

In our recent Anthropological Survey of Bengal which included some investigations on serology and haematology we were shocked at the extent of physical deterioration that has set in Bengal, a fact which would be a shocking revelation to our educationists and administrators. Without prejudicing the conclusions of the survey we might mention some of our findings. The average weight of a labourer in some of the bigger cotton and textile mills, is about 6.8 stones, the average haemoglobin percentages vary from 50 to 60 while the blood pressure is invariably low in most cases, seldom exceeding one hundred whatever be the chronological age of the person concerned. The average height varies from 161 to 163 cms. The stature, weight, haemoglobin percentage and blood pressure vary from class to class, the lowest is that of labourers, then come the agricultural classes, then the lower middle class and lastly, the criminals in Jails. Even if the criminals complain that they do not get the food ration allotted to them by the admi-

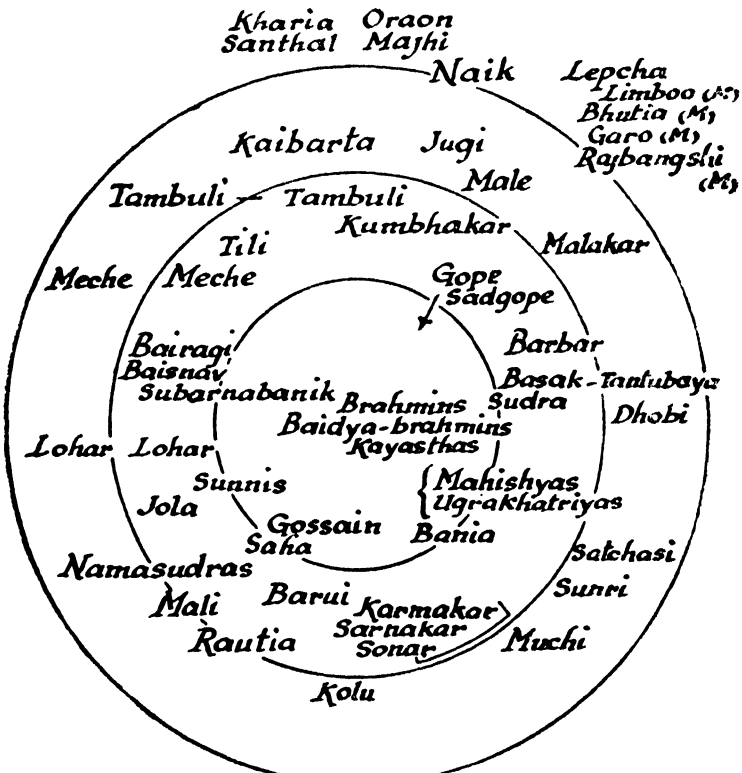
nistration, the average weight of criminals is decidedly higher than that of other classes in the population, and it increases with the duration of residence in the jail.' It is true that the criminal population at large naturally is a fitter and physically more healthy than other classes of people but weight increases in the jail in proporition to their residence, a fact which certainly goes to the credit of the jail administration. The calorie requirements are a function of the surface area. The latter is calculated on the basis of height and weight. If we take the average weight and height of an European labourer and work out the basal metabolism for him that would be much higher for an Indian labourer, for both stature and weight in India are much lower than those of the European standard, and corresponding deductions must be made in the estimate for basal metabolism.

The fact, however, is that we have neither any authentic data on physical standards in India neither any anxiety to face the problem of racial fitness. Our public conscience is so passive that nothing can disturb it, not even the millions of death from starvation in Bengal, a happening which could have shaken the foundation of empires in any other part of the world.

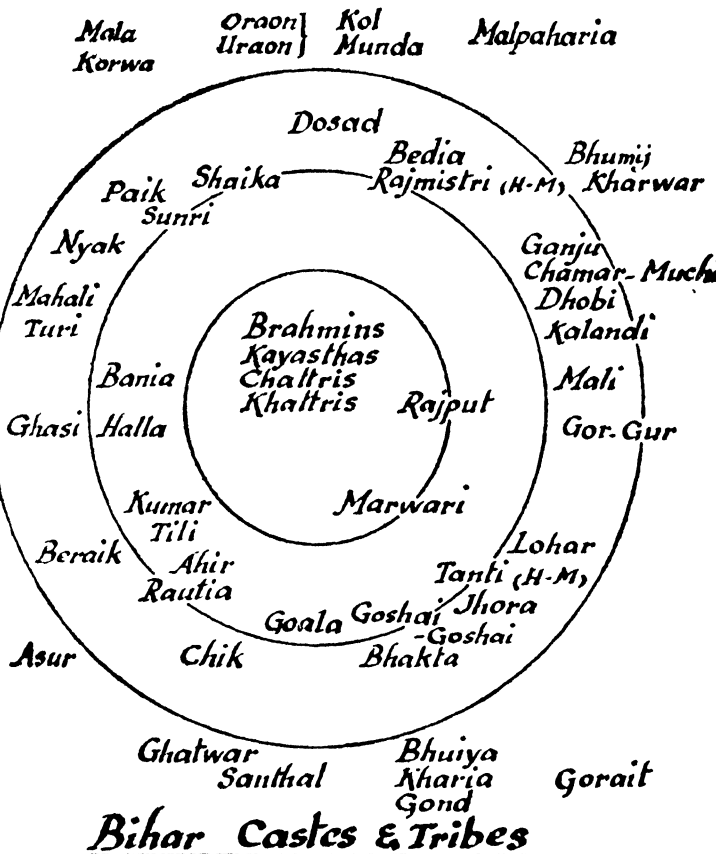
It has been possible to raise the standard of fitness in various parts of the world. The stature of schoool boys has been raised by adequate distribution of milk to school children, free by the administration. Medical aid has reached all levels of society with consequent improvement in general health, and longevity. America is better fed and better looked after than Europe and even the standard of comforts in Japan or in the over populated China are better than that obtained by the

comparatively well-fed in our country. We do not quarrel with those who want to live plainly to think highly. We only find that we have shown greater caution with regard to the former with tremendous success in the latter; so much so that we live to die, while other countries die to live.

A genetical concept of race involves two variables one is composed of physical differences that depend on heredity, the other consists of factors like geographical propinquity tending to stabilise the purity of combinations of particular characters. What we know of the Indian races is that each geographical region has produced a particular type of blend which has adjusted itself for centuries. We cannot ignore these realities, but what we do not know is that just as races mix and stabilise themselves in particular regions, particular physical characteristics may also be improved by varying either of the conditions that determine racial blend and combinations. The average stature in any part of the country can be raised by selective mating and balanced dieting. If we want quality in population, we can make particular groups multiply faster than groups which produce defective or cacogenic strains. All that is necessary is knowledge, of means and ends both, and I think the story of population in India, of over population or under-population will be meaningless unless we also look into the nature or quality of the population that we need to cater to. We are burdened with a disquieting crowd and we must pay for our folly and ignorance, but that does not mean that we are entitled to leave such an uncanny legacy to our sons and grandsons, who will have nothing but curses for us.



Bengal Castes & Tribes



Bihar Castes & Tribes

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