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CONTENTS

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PUBLICATIONS

Works

of

Sarat Chandra Roy

1. The Mundas and their Country
2. The Oraons of Chota Nagpur
3. Oraon Religion and Customs
4. The Kharias, 2 vols.
5. The Birhors
6. The Hill Bhuiyas
7. Caste, Race and Religion in India

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THE TOWN/VILLAGE DICHOTOMY IN INDIA

MARGARET CHATTERJEE

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Abstract : The author is of opinion that the 'model' of the development of towns from villages, or the dichotomy of urban and rural life as in the west is not applicable to the Indian scene. Each social development must be studied empirically on its own basis ; otherwise we are likely to lose sight of something in it which may be its special characteristic or even an 'unexpected feature' which may be lost sight of if we are already committed to a model drawn from a different context.

Introduction

WHAT follows does not claim to be more than a layman's impressions about the distinction between town and village in India. In the nature of things it has not been possible to provide statistical data. But some of the surmises offered could be verified by sample surveys and even if they were shown to be incorrect the information gained would be of some use. A general caveat is levelled against the unconsidered employment of 'western' models as tools of analysis in our own situation. The transfer of a technique already applied in one sphere to another is a familiar research

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procedure. The very use of 'model' language in the social sciences is itself one such transfer. If it is true to say that societies pass through certain identifiable stages of development and if we regard the 'developed' western society as a kind of terminal point this enables us to predict the shape of things to come as far as our own society is concerned and secondly to reconstruct the past on the basis of the survival of 'primitive' societies in the present. So far we are on familiar territory. The difficulty is that in the social sciences it is easy to rape the facts for the facts do not squeak whereas in the natural sciences they do so. In other words in the latter case there is a self-correcting mechanism for the elimination of incorrect hypotheses. Furthermore in the social sciences no experimental situation can be devised quite parallel to the laboratory situation constructed in the course of investigation in the natural sciences, although looking back, the social historian may assess a particular cluster of events (say a pioneering society or movement) almost in the way in which an experimental situation is assessed in the natural sciences—that is to say, the whole cluster of events can be regarded as a 'crucial' case. But to see our situation in terms of a western model may often prevent us from finding out what is in our case 'crucial'.

Some examples will clarify the point of the caveat that has been made above. No observer who notices people sprinkling sugar or *ata* in certain places on the pavements in Indian cities will make sense of this unless he knows something of Jain beliefs. Or again he may be tempted to put down the presence of wandering bulls in urban areas to bad animal husbandry alone unless he knows something of the institution of donation of bulls at *sraddh* ceremonies. I give two more examples of a rather different kind. The introduction of the flush system in the western city did not have one concomitant which it has had and will continue to have here, the making redundant of a certain type of service on the part of a scavenger class. Or again, the introduction of synthetic fibres very evidently has an immediate effect on the wool and

textile industries. In India it will also have a long-term effect on the employment prospects of the class of washermen in that synthetic fabrics are nearly always washed at home.

Another aspect of our own situation contrasts it with the stage to stage development of the western city. In the west by and large new habits connected with urbanization completely replace the old, e.g. consumption of bottled milk drives out the farmer's cart and can. Successive changes form strata which overlay each other so that the earlier strata are no longer visible. In India, however, often an earlier stratum thrusts upwards, giving the phenomenon of the co-existenee of behaviour-patterns belonging to different stages of development. It cannot be assumed that backwardness is responsible for this. For example, an empirical survey into why people in a certain area adjacent to a town hardly utilized the public latrines provided by the local authorities revealed that absence of adequate running water was the main reason. Here the incomplete provision of a modern facility no less than the persistence of a rural habit emerged as the motivation behind the behaviour and not any innate resistance to change.

One further contrast must here be mentioned. The city of of the west pulverizes its citizens in a more thorough manner than our cities do. Even where group loyalties persist in cities where new immigrants tend to seek their own kind the counter pressure to conform to the dominant culture of the city is so great that the newcomer becomes a New Yorker, a Londoner, a Parisian etc. in a manner for which we have perhaps no equivalent. Why we should have no equivalent is itself a matter which needs analysis.

The Town/Country distinction

In the early stages of an industrial revolution the movement of population is from village to town, the main drive being the search for employment. This invariably leads to the depression of agricultural areas unless there is an adequate accompanying agricultural revolution, reform of land laws and the like. A later stage brings the town into

rural areas in at least two ways, namely, (a) ribbon development, and (b) the provision of urban facilities in the form of goods and services. The gap between the two progressively decreases until the polarity town/country replaces that of town/village. At the same time the growth of the *small* town, i.e. neither city nor village, becomes noticeable. This is often the outcome of a deliberate state-directed policy of location of industries and in any case is associated with the proliferation of middle-scale units of industry. The vagaries of the trade cycle in the thirties and forties of this century also brought another phenemenon, namely, the reversion of urban to rural areas by reason of industrial depression. A further peculiarity of the western scene is the growth of villages on the coast into seaside towns. This is tied up with factors like the institution of holidays with pay, cheap transport, the initiative of local authorities, holiday habits and the like. In India, however, the chances are that a coastal town will flourish through being a port and not a seaside resort.

In the final stage of the growth of the western town a curious thing can be noted, the deliberate introduction of at least the outward appearance of 'rural' elements. This comes about through the installation of parks, open spaces, avenues etc., all those factors with which the 'garden city' idea first originated. It has its sophisticated counterpart in interior decoration in the bringing of climbing plants inside the apartment, the 'jungle' effect, in short. I describe this development as 'artificial' in contrast to the natural ingress of village into town which is the mark of our own cities. Along with the artificial induction of rural elements in urban living in the west comes a belated concern for the natural environment. Recent anxiety about air pollution in industrial areas and pollution of rivers and seas by detergents is witness to this.

Two other things which may at first sight seem irrelevant are yet worthy of mention here—holiday habits and the hobby of gardening. A people addicted to seaside

holidays may be expected to take care of their sea coasts. A people whose holiday interests are centred on hills and rivers or centres of pilgrimage in urban areas will not show this concern. In a sense the seaside resort is a complex which cut across the dichotomies under discussion. The absence of activity in these resorts in the 'off-season', however, is something for which we have a parallel in places which spring to life at the time of *melas* and festivals and are otherwise in a depressed condition. The contribution of gardening habits to the landscape of various western countries is a theme in itself, ranging from the cult of the cottage or old-world garden which represents a nostalgia for a rural economy which is no more, the formal stylized garden in the Italian style which fits into an urban setting without any incongruity, to the contemporary roof-garden which comes under the heading of what I have described as the artificial induction of countrified factors into urban living.

So far I have tried to show that in the west, if we consider a sufficient period of time, the movement has been not only from village to town but in the reverse direction as well and that as a result of this interchange the town/village dichotomy has come to be replaced by that of town and country and that, for various reasons, only some of which have been mentioned, even this dichotomy gradually breaks down. The final stage sees 'planning' introduced in every possible way with the country as a diminishing factor in countries of small size. Various forms of agricultural economy develop, whether through collectivization (USSR) or large-scale privately-owned (US and Australia) so that the term 'village' becomes less and less applicable.

The 'incompletely-urban' look—one test case.

The sketchy account given above of the growth of the western town was intended to suggest by contrast how different our own condition is. The natural movement of people from village to town which is characteristic of the early stages of an industrial revolution is to be seen in India today and is responsible for the 'incompletely-urban' look of our towns. This is

reinforced by a slowness in change of attitude on the part of urban dwellers themselves due to the persistence of rural habits. In this connexion why *khatals** persist, even in our big cities, is worth investigation : for the presence of *khatals* is certainly one of the things which make our towns appear hybrids rather than fully-fledged urbanized units. Among relevant factors, one may assume, say, the relative difficulty involved in obtaining 'fresh' milk and bottled milk, presence or absence of domestic help (collecting the bottles means standing in a queue) etc. One would expect that a home-delivery system (as, say, is prevalent in western countries) would be able to replace the cow-to-door system, but that in the absence of any such facility the demand for a cow-to-door service would be sufficiently large to make any official ban on *khatals* in towns more or less ineffective. What would be worth finding out empirically about this particular problem is what factors govern consumers' choice where both types of facility are equally accessible. In the absence of alternative facilities this particular invasion of the town by the villages serves a social need and will therefore persist unless new facilities become available. A first-generation Punjabi settler in Delhi may still follow his village habit of buying fresh buffalo milk (he may even keep his own buffalo) in preference to buying bottled milk. Habits, beliefs and expectations enter into the demand and supply situation and an empirical survey would need to take these into account. The villager seeking a market for this produce is met more than half-way, as it were, by a generation only recently adapting itself to urban conditions. I may mention one further example which is relevant to the question of apparent conservatism and which relates to the factors of expectations. A housewife who prefers home-ground *masalas* to 'packet' *masalas* may not just be conservative. The chances are that she is determined to protect her family against adulterated foodstuffs.

In the west a new advance replaces what it succeeds but here it exists alongside the old because of poverty, unequal

* *Khatals* are places where milking cows and buffaloes are stabled in the city.

distribution and general scarcity. Hence an Indian metropolis contains village ponds, wandering cattle and horse-drawn vehicles. Inadequate drainage leads to the formation of ponds. Unattended cattle are a menace to crops in villages whereas in towns they are a menace only to vegetable sellers and a nuisance to those who use the streets. A small-scale farmer will naturally take his produce to market in a horse or bullock-drawn vehicle. One thing leads to another. The prevalence of wandering cattle makes the throwing of vegetable peel etc. into the street almost a religious duty ; the availability of dung-cakes is of use to those who use open *chulahs*.

The calender of festivals brings its drum-makers and image-makers to the town. Unlike the western urban dweller the Indian townsman, uprooted though he be, still bears traces of soil that cling to his roots. Earthenware cups are as yet unreplaced by cardboard cartons, *gharhas* as yet unreplaced by ice-boxes for the majority. The rural elements which persist in our towns today are there because of a natural course of development which sends the villager to the centre of economic (and also political) power. For any analogy to this we would need to look not to western urban conditions today but to conditions at the beginning of the industrial revolution in the west and this is why I began with a caveat against the application of current western urban models of analysis to our own condition. In saying the movement from village to town is 'natural' I mean by this 'unplanned', but not 'haphazard' ; for as we saw, the mutual needs of both town-dweller and villager are somehow or other served by way of many things in our towns which strike us as anomalous but which must persist as long as there are no alternative facilities.

The counter process

The seepage of urban facilities in the shape of goods and services into the rural areas is something which we noticed took place in the west and which has increasingly served to iron out the difference between town and village and even, in certain cases, between town and country. In this connexion Gandhiji's views may be mentioned. His solution for bridging

the town/village gap was in essence this, that village organization be so transformed that people would no longer want to flock to the towns. Only then would the village cease to be a mere appendage to the city. In fact it is the slowness of the implementation of this programme, if not indeed our deliberate rejection of it, that is responsible for the continued drift of people from village to town, a drift which otherwise in the course of economic development should gradually slow down. About our neglect of the village there is no possible doubt.

Only an agricultural revolution which can put purchasing power[1] in the hands of the villagers themselves can break down the barrier between town and village. Even then there are several unknown factors which need investigation. In practice does prosperous farming stop a drift to the towns ? Is it enough to make two blades of grass grow instead of one ? Are there attractions of city life which would outweigh even the pull of this prosperity ? Information from states like Punjab and Maharashtra would be interesting in this regard. There is much that we have yet to know about the factors which influence the movement of people from villages to towns. The pattern of development in the west took its own course. Each great river has its own characteristics. The course of the Mississippi or the Thames is very different from that of the tributaries of the Ganga. To know something of the terrain and the currents is to be able to shape the course of events rather than passively await it. It is this task of making a chart of his own territory that awaits the social scientist in India. The layman is hopeful that he may be able to plan his journey into tomorrow more successfully on the basis of such a map.

[1] Another alternative is a movement like the 'Kibbutz' movement in Israel based on the people's passion for the land, a passion strong enough to replace the money-based type of agricultural production system by genuine co-operative living.

SOCIAL ASPECTS OF TEMPLE BUILDING IN BENGAL : 1600 TO 1900 A. D.

HITESHRANJAN SANYAL

(Received on 27 May 1968)

Abstract : The paper analyses the extent of participation of the various occupational groups and castes in the construction of temples in Bengal from 1600 to 1900 A.D. From an analysis of the data regarding 400 temples it appears that the leading part in building temples was always taken by zemindars. They were closely followed by businessmen, while the third occupational group, namely, the professional class occupied the lowest position. The Brahmins, Kshatriyas and Kayasthas belonging to the landed aristocracy and professional class built a larger number of temples than the *Navasakha* and castes from whom water is not acceptable by upper castes (*A-jalchal*) who are mostly businessman and manufacturers.

AN attempt has been made in this paper to assess the contribution of various castes and occupational groups towards the construction of temples in Bengal from the beginning of the 17th to the end of the 19th century. My data are derived mainly from documentary or inscriptional records about the caste and occupational background of people who commissioned temples in the period under review. Such data have been supplemented with whatever information that we could obtain from family records or from local traditions and lores. The dating of temples is based on inscriptional evidence, architectural and stylistic traits or genealogical histories of prominent families.

* I acknowledge the debt of gratitude I owe to Dr. Sabyasachi Bhattacharyya for kind help and advice that I have always received from him while preparing this paper.

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The method of study used here is as follows : 400 temples which were covered in our study were first dated, as far as possible accurately, and the caste and occupational background of the persons who commissioned the temples were noted. The proportion of commissioners of temples belonging to different castes and occupational groups was calculated as percentages to the total number of temples constructed in each period. In Tables 1 and 2 the occupational and the caste backgrounds have been analysed. Charts 2 and 3 are based on Tables 1 and 2. Chart 1 indicates the trends in temple building activity on the basis of decennial averages.

In the first part of the paper we shall discuss the occupational background and in the second the caste of the commissioners of temples during the period 1600—1900 A.D. In the third part we shall try to formulate some general conclusions.

I

Zemindars : The leading part in building temples during the three centuries 1600—1900 was always taken by the zemindars. They were the pivot of the rural life and their influence on the life of the people was always high. The power and prosperity of this class being largely dependent on the political stability of Bengal, their propensity to acquire religious merit by building temples must have varied with the happenings in the realm of politics and with the changes in the political power structure of this part of the country. Therefore, in order to understand the different reasons for temple building as a social activity, it would be reasonable to divide the period under review on the lines of political periodization.

At the beginning of the period of our study which is 1600, political life in Bengal was in the doldrums. After many years of bitter strife Mughal authority was entrenched in Bengal in 1613. The people of Bengal found peace in a comparative if not in an absolute sense. The perpetual conflicts between the semi-feudal chiefs came to an end,

and the zemindars came to a settlement with the Mughal administration. Successive viceroys kept on tightening the grip of imperial authority on the *subah*. They appear to have succeeded to a great extent in spite of occasional interruptions by the zemindars. The more or less absolute control of the imperial authorities however did not last long. Internal dissensions in the Mughal house seriously shook the control of the provincial administration in 1623. The gradual slackening of the imperial authority after 1623 again paved the way of the rise of powerful zemindar houses, some of which, especially those in the frontier regions, assumed semi-independent status.

Under the patronage of these semi-feudal chiefs temple building began to flourish in Bengal. In the first quarter of the 17th century the number of temples built by zemindars amounted to 0.4 on an average in a year while the yearly average of their temples during the years 1625-1696 was 0.3. From the point of view of art and architecture this was the period of formation when vigorous experiments with new ideas were made under the patronage of the zemindars of Chandrakona, Bagri, Vishnupur, Kumardihi, Haripal, Barda, Bansberia, Mellak, Nadia and Birnagar.

With the rebellion of Sobha Singh of Barda in 1696 the regional history of the Radh country entered a phase marked by almost continuous warfare between the zemindar houses. In course of time a number of zemindars were either uprooted or deprived of their estates while others were reduced to comparative poverty. In 1705 Murshid Quli Khan was appointed Subahdar of Bengal. He succeeded in establishing a strong centralized government and restored peace and order in the area under his jurisdiction. But the zemindars who failed to pay the revenue regularly, suffered heavily under the new dispensation. In fact, the ruthlessness with which the Subahdar treated the defaulting zemindars created a sense of uncertainty and confusion among the semi-feudal lords. The heavy impact of these incidents on the prosperity of the zemindars can be adequately felt in the decline of the number

of temples built by them between 1696 and 1727, the year of Murshid Quli Khan's death. The average number of temples built in a year was 0.2.

The defaulting zemindars apart, Bengal in general enjoyed peace and economic prosperity under the strong centralized administration initiated by Murshid Quli Khan. His successors maintained the standard but they appear to have been comparatively less oppressive towards the zemindars. The general condition of Bengal thus remained peaceful and stable in spite of struggle for power at the highest level until it was badly shaken by the recurring invasions by the Marathas since 1742. Circumstances being favourable the zemindars embarked on building temples on a hitherto unprecedented scale. The average number built by the zemindars in a year rose to 1.5 during these years as compared with 0.2 in the preceding period.

The periodic invasion of the Marathas lasted for ten years from 1742 to 1751. They caused widespread damage almost all over the Radh country and in the present district of Nadia and eastern subdivisions of Murshidabad lying to the east of the Bhagirathi. So far as temple building is concerned, the repercussions of Maratha peril can be realized in the fact that the average number of temples built by the zemindars in a year during this period was only 0.4. The zemindars whose estates were not affected or less affected by the Maratha inroads were exacted heavily by Alivardi Khan to meet the expenditure that he incurred because of his fight against the Marathas. Most probably this is another reason of the extremely low percentage of temples built by zemindars during these years.

The events that occurred during the next fourteen years i.e. 1751-1766 are generally well known. The process that gathered enormous momentum since the battle of Plassey in 1757 culminated in the acquisition of the Dewani by the East India Company in 1765. But these incidents at the highest level do not seem to have had any impact on the material status of the zemindars. In fact, so far as temple building is concerned they seem to have enjoyed unprecedented prosperity and security during this period when great events with far-reaching

consequences were taking place. The average number of temples built by them in a year rose to 2.9 a figure highest since 1600 A.D.

The period extending from 1765 to 1793 was again a period of trouble and confusion for the zemindars. The great famine of 1770 almost crippled the life of the agrarian population of Bengal. Thirty-five per cent of the total population which included fifty per cent of the cultivators died in the famine year.[1] But 'not five per cent of the land land tax was remitted and ten per cent was added to it for the ensuing year.'[2] Following the famine depopulation steadily increased all over Bengal. 'To add to the general misery the most violent feuds broke out among the landed proprietors. One-third of their land lay uncultivated and each began to entice away tenants of his neighbour, by offering protection against judicial proceedings and farms at very low rents.'[3] Under these circumstances the Company attempted to regularize revenue collection through annual settlement. With its elements of uncertainty the practice of annual rent farming soon degenerated into what may be called rack renting. A reformation of the revenue administration was sought to be effected by introducing decennial settlement. But the new system was hardly a relief for the zemindars. The oppressive measures that the company's government adopted for the realization of the revenue involved forcible seizure and sale of parts of the estates of the defaulting zemindars. The cumulative effect of these events were naturally high on the members of the landed aristocracy. Their temples during this period amounted to 0.8 only on an annual average.

In spite of the initial hazards the Permanent Settlement eventually succeeded in ensuring a sense of security among the zemindars of Bengal. The intitial hazards stemmed from the inability of some of the old zemindar families to remit the revenue in due course, as a result of which some of them lost their estates entirely while others could retain only a part of property. The older landed aristrocats gradually adjusted themselves to the new order. Under the protection of the

Permanent Settlement the zemindars maintained a steady prosperity. Correspondingly, the number of temples built by them showed an upward movement amounting to 1.1 on an average in a year in the period between 1793 and 1850.

From the middle of the 19th century the zemindars' enthusiasm for spending money in building temples began to wane. This is evident in the sharp fall in the number of temples built by them during the period 1850-1900 when the average number built in a year was only 0.4. Obviously a new set of values was replacing the old and the practice of building temples was being looked upon as something outdated.

Businessman : The next important occupational group which built temples was constituted by the businessmen. Unfortunately we know very little about the activities of the indigenous business communities in medieval Bengal. No doubt they were affected by the major events in the field of trade and commerce but there is hardly any material which can help us in understanding the degree to which they were affected by these events or the lines along which they proceeded. There are however casual references to the indigenous traders in books dealing with medieval Bengal, that too in such an indirect and vague way as to lead us hardly anywhere. It is thus almost impossible in the present state of our knowledge to sketch out a proper periodization so far as the indigenous business communities are concerned. Therefore, for convenience, we intend to group the temples according to their respective dates of construction within periods of fixed time limit of fifty years each in order to follow the course of the rise and fall in the merchants' efforts to build temples and if possible to find out the possible reasons and other implications.

Very little is known about the condition of the indigenous business community at the beginning of the period under review. The glorious days of Saptagram had become a matter of the past. The entire volume of the seaborne trade had passed into the hands of European merchants, mainly the Portuguese. In fact when the major port of Western Bengal was shifted from Saptagram to Hooghly the indigenous *baniks*

had no part in that decision. A number of *baniks* are know to have moved from Saptagram to Hooghly, but their role in the mercantile activities through the new port is not well known. The indigenous business communities in general had to remain satisfied with transactions in the limited internal market. But as regards the mobility of these people or the volume of their trade we have no information.

The extremely small number of temples built by businessmen in the 17th century probably reflects their condition during the period. Although the picture of patronage structure in the first half of the 17th century is too hazy to permit any conclusion (the total number of temples being only six, of which two are ascribed to businessmen) in the second half of the century the businessmen are found to patronize the construction of 9 per cent of the temples built during period while the zemindars were resposible for 87 per cent. It may be noted here that the temples built by businessmen and the terracotta ornamentation decorating these made valuable contributione towards the development of art and architecture of medieval Bengal although the role of the zemindars in this regard was of much more importance in the 17th century.

In the first half of the 18th century, there was a sharp rise in the number of temples built by businessmen. This came to constitute 32 per cent of the total number of temples, while the contribution of the zemindars fell from 87 to 60 per cent during this period. It has been noted above that the zemindars had to face a number of troubles during 1700-1750. But the lot of the businessmen was different. The steady growth in the volume of trade of the Europeans in Bengal, especially the English, gave a boost to the economy of Bengal, the benefit of which was reaped by the indigenous businessmen in their own way. In the factory records of Kasimbazar vol. 5, 31st January 1739 and the consultations of the Calcutta Council dated 6th July 1736 and 15th December 1740 we find that the East India Company carried on its investment with a number of indigenous merchants.[4] The

general disruption of public life due to the Maratha incursions affected the businessmen equally with the land-owing class. This accounts for the fall in the total number of temples built during 1740-1750 as shown in the decennial graph.

During the second half of the 18th century businessmen accounted for 45 per cent of the temples newly built in this period. Thus the gap between the number of their temples and those of the zemindars (46%) narrows down and is practicably negligible. The hazards that troubled the zemindars during the period had little or nothing to do with businessmen. They continued to flourish due to their trade connexion with the European companies. A clear indication of the dependence of the indigenous merchants on European companies during this period is borne out by the location of a large number of temples built by businessmen in places which were either centres of European trade or were situated near the *aurungs* or residencies of the European companies.

The decline of the East India Company's trade in Bengal in the first half of the 19th century had its effect on the indigenous merchants. The number of temples built by them during this period rose only up to 37 per cent. Benefited by the introduction of the Permanent Settlement the zemindars again predominate the scene : 59 per cent of the temples built during the fifty years under consideration is ascribed to them. As regards the location of temples the number of new sites is quite few but many of the places that figured prominently in the second half of the 18th century such as Chandrakona, Khirpai (both in Midnapur district) Bali-Dewanganj, Kalagachhia, Kayapat, Gaurhati, Kankrakuli, Bainchigram (all in Hooghly district) Baidyapur, Amadpur, Jaugram (all in Burdwan) and Ganpur (Birbhum district) either lost the importance or do not contain any temple built by a merchant during this period. New centres of concentration appear. Most of the temples built by businessmen in the first half of the 19th century are located in Sonamukhi (Bankura district)

Syambazar, Badanganj, Kayapat (Hooghly district) Debipur, Mankar (Burdwan district), Loada (Midnapur district) and Supur (Birbhum district). Although the majority of these places had been associated with European commercial enterprises before the turn of the century the concentration of the mercantile class in these villages in a period when the trade and commerce of Bengal was passing through a crucial phase, appears to be highly significant.

In the second half of the 19th century businessmen had built 45 per cent of the temples, closely following the zemindars who contributed 50 per cent of the total number. Although the percentage is quite high and much higher than the record of the first half of the century, in terms of absolute numbers they amount to 17 only within a range of 50 years as against 60 built between 1800 and 1850. The reason of this decline in temple building may be found in the general condition of trade and commerce in Bengal. The Indian and foreign markets for the industrial products of Bengal were more or less lost before the end of the first half of the 19th century. In Bengal proper the products of the indigenous craftsmen and artisans had to compete with imported European articles, under unfavourable terms. The problem was further accentuated by the opening of the railway in 1857 ; the imported articles could now be transported to the remotest parts in the country. The indigenous entrepreneurs and businessmen failed to make any organized attempt to face the challenge of foreign competition and ultimately succumbed to what may be described as the compulsion of events. On the other hand the Bengali elite of the Calcutta business circle was heavily under the influence of the new urban culture that developed with the spread of English education. The culture of the new urban elite did not regard temple building as a form of social service or status achievement. Probably this also accounts for the fall in the number of newly built temples in the second half of the 19th century.

Professional Class : The third important occupational group is the professional class which include the service-holders,

priests, pundits and indigenous physicians. For the period 1600 to 1630 we do not have in our list any temple built by the members of this class while in the second half of the century they accounted for only 4 per cent of the total number of temples built. In the first half of the 18th century we find signs of increased participation by members of this class, the number of temples built by them amounting to 8 per cent. The largest number of temples built by them were in the second half of the 18th century when they covered 9 per cent as compared to 46 per cent by zemindars and 45 per cent by businessmen. In terms of absolute numbers, the professional people built 17 temples, businessmen 80 and zemindars 81. It is interesting to note that the professional people built the largest number of temples in a period when the businessmen flourished the most and zemindars were in a poor condition. The reverse of this phenomenon was witnessed in the first half of the 19th century when the professional class built only 4 per cent and the businessmen 37, the rest being due to zemindars.

Although the percentage of temples built by the professional class increased to 5, in the context of the general depreciation in the second half of the 19th century referred to above, yet the actual number of temples fell to 2. The impact of British administration and education was very great on all sections of the professional class. Sanskrit education had fallen into decay depriving the pundits of their means of livelihood, while the service-holders under the British government did not show much enthusiasm in building temples. The profession of other sections of this class, such as the preceptors and the indigenous physicians was also on the decline. The number of the temples of professional people was, therefore, naturally considerably reduced.

II

We shall now discuss the contribution of different castes and communities towards the construction of temples in Bengal.

Brahmins : Brahmins do not figure among the builders in the list of the first half of the 17th century. In the second half of the 17th century they are found to have built temples which amounted to 28 per cent of the total number belonging to this period. From Table 2 it would appear that the contribution of the Brahmins towards temple building declined in the 18th century. Of the temples built during the period extending from 1700 to 1750 Brahmins are credited with the construction of 24 per cent, while 23 per cent of the temples belonging to the second half of the 18th century is ascribed to them. Most of the Brahmin builders of temples came from the landed aristocracy. Their contribution in the field of temple building therefore may be taken to have varied to a great extent with the changes in the general condition of the zemindars. The general prosperity of the zemindars for the most part of the second half of the 17th century accounts for the high percentage of temples built by this caste. The decline in the following two periods, namely, first half and second half of the 18th century was probably the outcome of the hazardous situation through which the zemindars had to pass during the larger part of the 18th century. The percentage of temples built by the Kshatriya zemindars, however, is marked by a much sharper decline. But the Brahmins succeeded in contributing up to 24 and 23 per cent during 1700-1750 and 1750-1800 respectively, because of the contribution made by the professional people belonging to the caste.

The proportion of temples built by Brahmins to the total number in the first half of the 19th century remain exactly the same as in the preceding period while the Kshatriyas and Kayasthas managed to improve their position. But the percentage constituted by temples built by Brahmins during this period is much higher than those due to Kshatriyas or Kayasthas. This was possible partly because of the benefit that the Brahmin zemindars derived from the professional class, all of whom belonged to the Brahmin caste.

In the second half of 19th century the contribution of the Brahmins to the total number of temples built declined to 15

per cent in spite of the fact that all the builders from the professional class were Brahmins.

Kshatriyas : The extent of contribution of the Kshatriyas in temple building had always been considerable. Although the picture of patronage structure in the first half of the 17th century is extremely hazy the contribution of the Kshatriyas deserves special mention. It amounted to 50 per cent of the total number of temples built during the period.

In the second half of the 17th century the Kshatriyas built 40 per cent of the total number of temples. The most important of the Kshatriya commissioners of temples during the 17th century were the Rajas of Vishnupur who were great patrons of architecture and art. It was under their patronage that artists and architects carried out remarkable experiments during the 17th century which was the formative period of medieval Bengali temple architecture and terracotta art.

From the 18th century Kshatriyas lost the dominant position they had hitherto held. During the period between 1700 and 1750 the temples built by them amounted to 24 per cent of the total number. In the second half of the 18th century their temples constituted only 14 per cent. Reasons of the decline lay in the condition of the occupations they followed. Almost all the Kshatriya commissioners of the temples came from the cadre of the landed aristocracy who, as noted above, passed through a series of crises during the greater part of the 18th century. Like the zemindars belonging to other castes the Kshatriyas' contribution to the total number of temples in the 18th century went on steadily declining.

In the 19th century the percentage of the temples built by Kshatriyas showed a steady upward movement. Obviously, this was due to the effects of the Permanent Settlement. In the first half of the 19th century the newly built temples of the Kshatriyas amounted to 15 per cent ; while during the years 1850 to 1900 it went up to 18 per cent.

Kayasthas : The group of Kayastha commissioners of temples like their Brahmin counterparts was composed of two

occupational groups, namely, the zemindar and the professional class. The professional people, however, are found to appear in the 18th century and made significant contributions when the percentage of temples built by the zemindars was on the decrease.

The Kayasthas are found to participate in temple building in the first half of the 17th century, their contribution during this period amounting to 17 per cent of the total number.

From the secod half of the 17th century up to the end of our period of review, namely, the 19th century, the contribution of the Kayasthas never fluctuated to any appreciable extent. During the period between 1650 and 1700 their temples amounted to 16 per cent while the contribution of the Brahmins and the Kshatriyas was much higher.

In the first half of the 18th century the extent of participation by the zemindars decreased appreciably. But the percentage of temples built by the Kayasthas declined only by 1 because of the temples built by the professional section. The same thing happened in the second half of the 18th century due to the increased participation by professional people as it was in the case of the Brahmins during this period. Besides, some of the Kayastha zemindars, such as the Mitras of Antpur, are said to have commenced temple building as a measure of relief for the famine-stricken people.

Throughout the 19th century the Kayastha commissioners of temples were all zemindars. The temples built by them amounted to 15 per cent in the first as well as in the second half of the 19th century. Table 2 shows that in the first half of the 19th century the Kayasthas stand at the same level with the Kshatriyas while the Brahmins' position is much higher. There being no professional people among the Kayastha commissoners in the period, the Kayastha zemindars reacted in the same way as the Kshatriyas, the only other purely zemindar group. The Brahmins, as noted above, succeeded in retaining their position because of the contribution made by the professional people belonging to highest caste. In the second half of the 19th century the

Kayasthas' contribution remained the same as in the preceding period while in the case of the Brahmins it declined and increased in the case of the Kshatriyas (see Table 2).

Navasakhas and Ajalchals: The Navasakha builders of temples include the Gandhabanik, Tambulibanik, Kamsabanik, Sankhabanik, Tili, Tantubaya, Karmakara, Lohar and Pituli, Sadgope, Napit, Modak, Barujibi and Ugrakshatriya. The Ajalchal panel of the commissioners of temples was composed of the Suvarnabanik, Teli, Gop, Sunri, Jele Kaivarta, Jogi and the Halik Kaivarta who are now known as Mahishyas.

The Navasakha castes are found to build temples from the very beginning of our period. During the two halves of the 17th century when the Brahmin, Kshatriya and Kayastha dominated the scene the contribution of the Navasakha castes amounted to 33 per cent in the first half and 12 per cent in the second half.

The caste composition of the builders during the year 1700 to 1750 shows sings of significant changes. The percentage of the temples built by the castes holding top positions in caste hierarchy declined while the Navasakha and Ajalchal castes are found to make larger contributions. The Navasakha rise from 12 to 19, the Ajalchal group from 4 to 18 per cent.

The increase in the case of the Navasakhas was primarily due to the flourishing condition of trade and commerce in Bengal in this period. Most of the Navasakha castes such as the Gandhabanik, Tambulibanik, Tantubaya and Barujibi and some of the Ajalchal castes like the Suvarnabanik and Teli were traders and merchants.

In continuation of the trend that marked the first half of the 18th century the contribution of the Navasakha and Ajalchal caste groups to the total number of temples built during 1750-1800 showed a fresh rise and that of the three top ranking castes declined. The Navasakha built 24 per cent of the total number of temples and the Ajalchal 25.

Their rise was again due to the prosperity enjoyed by the mercantile elements in these two caste groups who were being increasingly benefited by the flourishing trade and commerce in Bengal during 1750-1800.

There was a phenomenal rise in the percentage of temples built by the Navasakha castes in the first half of the 19th century. Their contribution rose from 24 per cent in the preceding period to 42 per cent during the years 1800-1850. The rise in the case of the Navasakhas in a period which saw a sharp decline in the contribution of businessmen was due to the following reasons. Firstly, the Navasakha group was enriched by the emergence of a new element, namely, the Tilis. The Tilis are said to have originally belonged to the Telis, an Ajalchal caste. It is believed that around the beginning of the 19th century a section of the Telis broke away from the parent caste to form a new group called Tili who claimed Navasakha rank and got it. On the basis of this information we have included those pre-19th century temples which are claimed to have been built by the Tilis in the list of the Ajalchal castes and the temples built by the Tilis from the beginning of the 19th century in the panel of the Navasakha temples. Secondly, the number of zemindars belonging to the Navasakha castes increased during this period. Some of the zemindars—the Gandhabanik Bhadras of Katulpur (Bankura) to mention a specific case—switched over to zemindari from their traditional occupation of business. The third reason can be found in the increased participation in temple building by the merchants of the Modak caste.

The percentage of the temples built by the Ajalchal castes came down from 25 per cent in the second half of the 18th century to 5 per cent. The promotion of the Tilis to the Navasakha rank is primarily responsible for this.

In the second half of the 19th century both the Navasakha and the Ajalchal are found to have improved upon their respective positions in the first half. Temples of the Navasakhas covered 44 per cent and those of the Ajalchals 8 per

cent of the total number of temples built during this period when the total contribution of the Brahmins, Kshatriyas and Kayasthas declined. The combination of the zemindars and businessmen explains the high percentage of the temples of the Navasakhas.

III

From the above discussion we find that among various occupational groups the zemindars had always dominated the scene. Throughout the whole of the period under review the largest single group of builders came from the rank of the landed aristocracy. In a period when the economy of the country was largely based on land the leadership of the landed aristocracy was natural. But the dominance of the zemindar does not appear to have been absolute. They did not prevent men from other occupations to enter in the field of social service along with them. In the days of their prosperity, businessmen as well as professional people built temples side by side with the zemindars. The businessmen who belonged either to the Navasakha or Ajalchal group built scores of temples. In a number of cases the merchants built temples within the jurisdiction—sometimes in the place of residence—of powerful high caste zemindars. The Syamchand temple of Santipur (Nadia district) which is the highest temple of the town was built by a Tantubaya when the place was included within the zemindari of the Brahman Roy family of Nadia. Similarly the Modaks, Tambulibaniks and Sankhabaniks of Supur in Birbhum district constructed a number of temples in the village which was the place of residence of Vaidya zemindars. Within the precinets of the Bisalakshi temple of Nanur in Birbhum district, Sadgop *jotdars* dedicated temples along with the Kayastha zemindars of the place. A Teli built the Damodar temple of Bahirgarh (Hooghly) when the place was under the occupation of the Kshatriya Sinha Roy family. These are a few representative examples the like of which can be found almost all over Bengal.

In the caste hierarchy the Brahmin, Kshatriya and Kayastha occupied the highest positions. People belonging to the lower castes were required to accept their dominance to a certain extent. But through his materials prosperity a man from even the Ajalchal caste could aspire to acquire social status by various social activities, one of which was temple building. Services offered even by low caste Ajalchals were accepted by those who occupy high positions in the caste hierarchy. The famous Jagannath temple of Mahesh and the Radhaballabh temple of Srirampur (Hooghly district) were built by Suvarnabaniks. The Brahmin *sebaits* or 'servants' of the deties found no difficulty in accepting the gifts. The Krishna Roy temple of Kanchrapara (24-Parganas) and Syamchand temple of Santipur (Nadia) were constructed by a Suvarnabanik and a Tantuvaya respectively. But the caste position of the builders did not prevent people including the Brahmins from considering the temples as specially sanctified.

By acquiring fortune a man of low caste could considerably neutralize his social disabilities. Temples being the mark of fortune and the medium through which influence could be spread, the building of temples might have had some effect on the promotion of certain caste groups to a higher rank. If we may indulge in speculation the case of the Tilis might be mentioned as an example. The Tilis originally formed a part of the Ajalchal Teli caste. Before the formal admission of the Tilis into the rank of the Navasakhas by the end of the 18th century the wealthy section of the Telis had enthusiastically participated in social services including temple building. In fact they were the most important Ajalchal caste to build temples in the 18th century. The enthusiasm of the wealthy Telis for building temples in the 18th century and their promotion to the rank of the Navasakhas might be simply co-incidental. But in view of the social utility of the temples the possibility of some kind of relationship between these two events cannot be rejected entirely.

Another important aspect of the social behaviour of the people during the period under review can be found in the

nature of leadership provided by businessmen. Although the businessman's extent of participation in social services had been remarkably high they had never shown any distinctive feature in this regard. They had always followed the general practices in their efforts to achieve social status and in retaining it. Even in details they had always conformed to the prevalent trend. They did not sponsor any new type of temple nor did they show preference for any particular type. In the choice of deity they were much like the zemindars, quite catholic in spirit. A wide variety of deities received *puja* in their temples although they showed a preference for Vishnu, particularly in the form of Salgram. Their acceptance of the general pattern was probably due to their scruplulous adherence to standard concepts of social behaviour. This in its turn resulted from the lack of adventerous and inventive elements in the character of the indigenous business communities. Another manifestation of their submissive mentality may be seen in the fact that throughout the whole period under review the indigenous businessmen were mostly dependent on European traders. They shared the prosperity of Bengal from the fringe but were never a party to the creation of it.

The period under review closes with the end of the 19th century. In the second half of the 19th century there was a sharp fall in the number of temples newly built. The apparent reasons for this decline may be summed up as follows :

(*a*) the influence of urban culture which created other opportunities, apart from temple building such as schools, hospitals etc. as a form of social service

and

(*b*) decline of the traditional business communities and artisans.

These two factors in the social and economic life of Bengal in the 19th century were the immediate reasons for the waning of temple building activity. But as a matter of course temple architecture and the art of terracotta sculpture passed through a phase of degeneration from about the

beginning of the 19th century or even earlier. The architects of the 19th century did not have an imaginative approach to the solution of any artistic or architectural problem. They kept on repeating the characteristic features of the structures in a mechanical way. Degeneration in the art of terracotta sculpture was far more pronounced. Both the temple architecture and art of terracotta sculpture meant for temple decoration were dying a natural death and some of the socio-economic factors mentioned here hastened the process.

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TABLE 1

Occupational background of patrons who commissioned temples : Number in each period and percentage to total number of temples constructed.

Occupational Groups	PERIODS											
	1600–1650		1650–1700		1700–1750		1750–1800		1800–1850		1850–1900	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Zemindar	4	67	20	87	32	60	81	46	60	59	19	50
Businessmen	2	33	2	9	17	32	80	45	38	37	17	45
Professional Class			1	4	4	8	17	9	4	4	2	5
Total	6	100	23	100	53	100	178	100	102	100	38	100

TABLE 2

Caste background of patrons who commissioned temples : Number in each period and percentage to total number of temples constructed

Castes	PERIODS											
	1600–1650		1650–1700		1700–1750		1750–1800		1800–1850		1850–1900	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Brahmin			7	28	13	24	42	23	24	23	6	15
Kshatriya	3	50	10	40	13	24	25	14	15	15	7	18
Kayastha	1	17	4	16	8	15	26	14	15	15	6	15
Navasakha	2	33	3	12	10	19	43	24	44	42	17	44
Ajalchal			1	4	9	18	46	25	5	5	3	8
Total	6	100	25	100	53	100	182	100	103	100	39	100

Chart 1

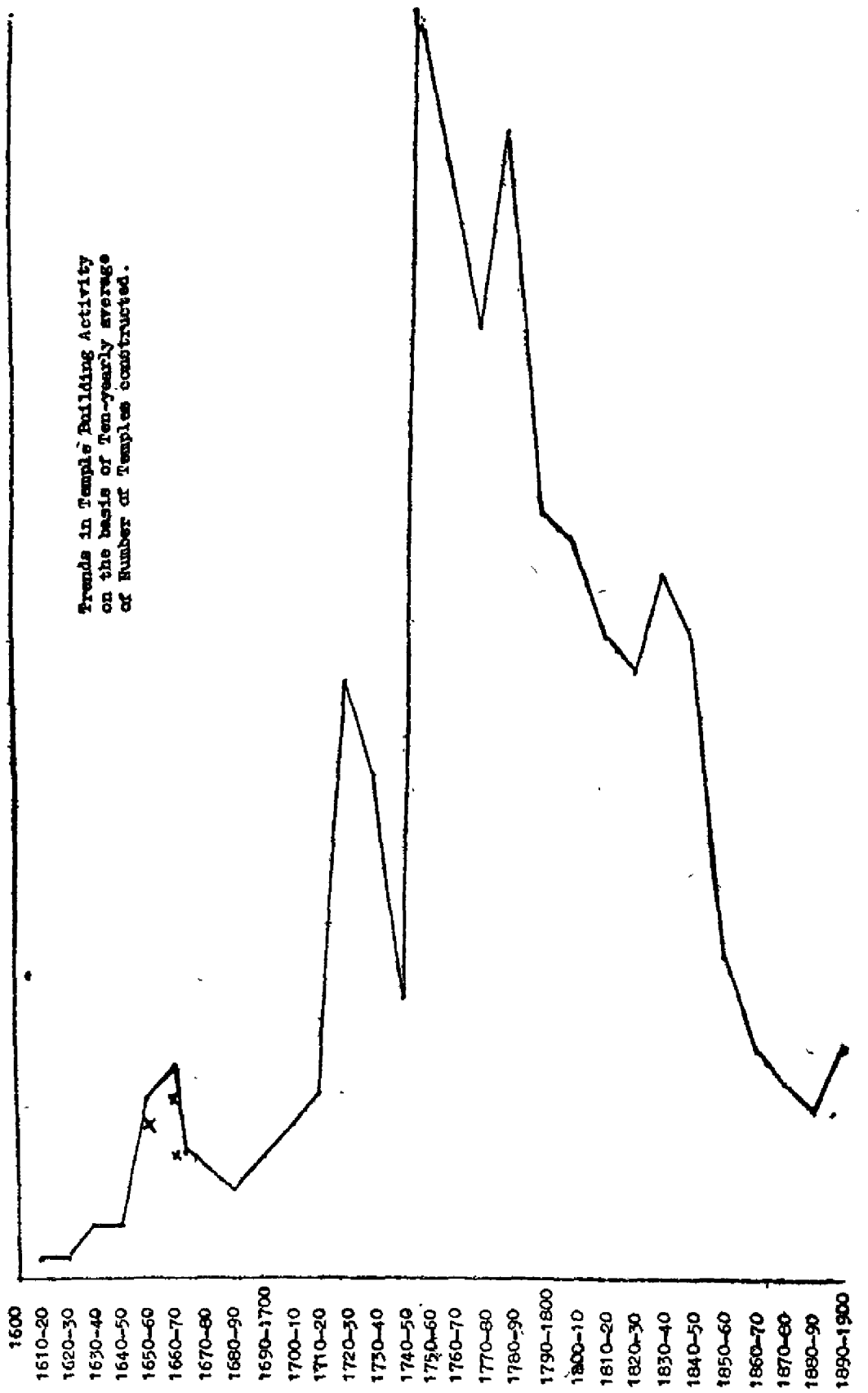

Trends in Temple Building Activity
on the basis of Ten-yearly average
of Number of Temples constructed.
1600
1610-20
1620-30
1630-40
1640-50
1650-60
1660-70
1670-80
1680-90
1690-1700
1700-10
1710-20
1720-30
1730-40
1740-50
1750-60
1760-70
1770-80
1780-90
1790-1800
1800-10
1810-20
1820-30
1830-40
1840-50
1850-60
1860-70
1870-80
1880-90
1890-1900

Chart 2

Proportion of Patrons of different occupational Groups who commissioned Temples expressed as percentage to the total

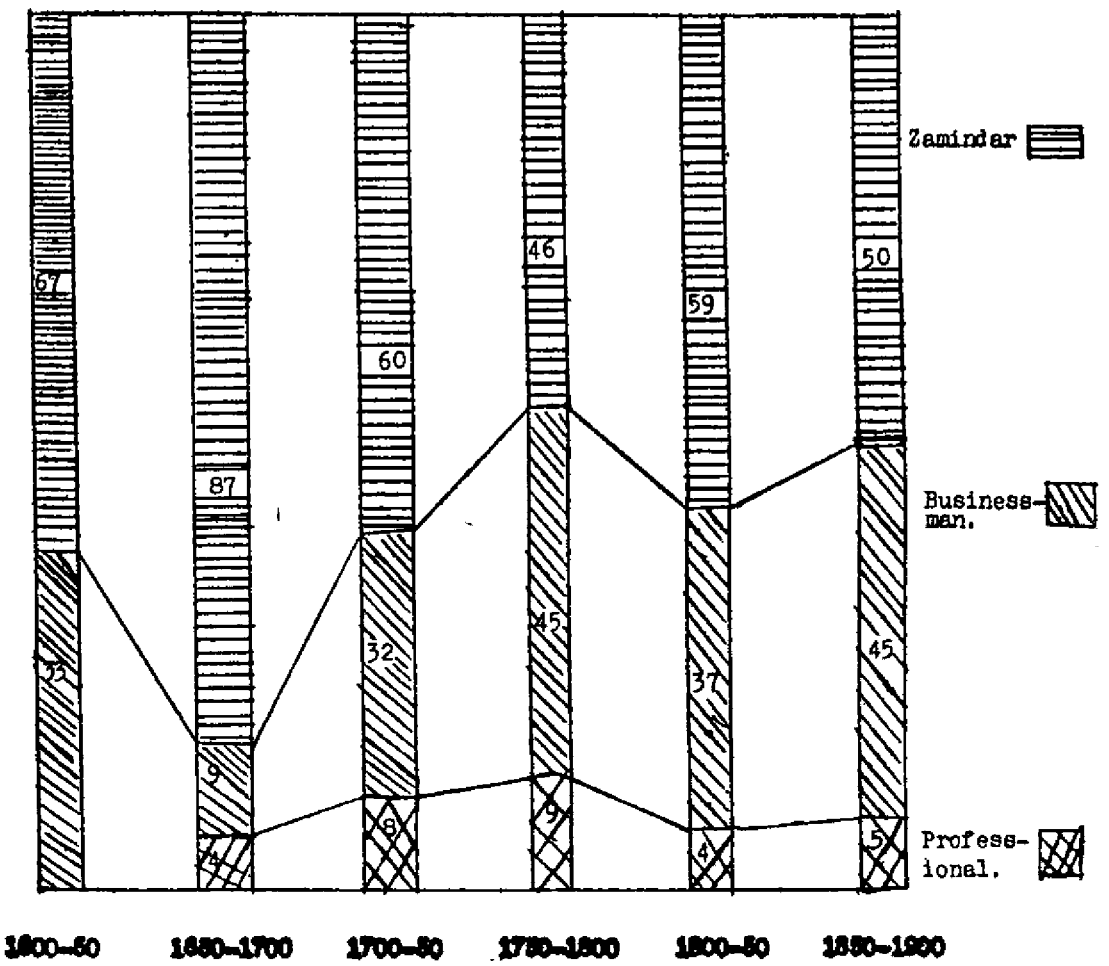
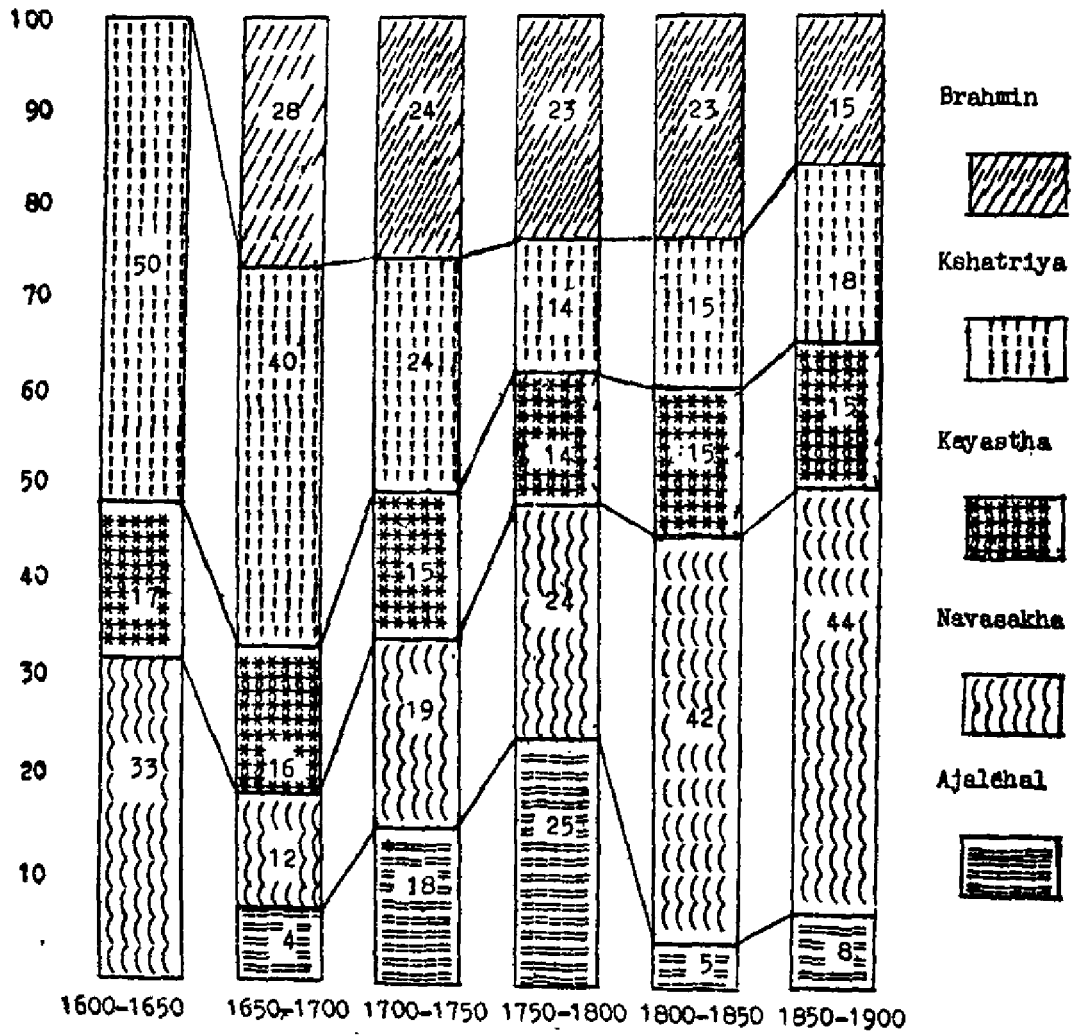


Chart - 3

Proportion of Patrons of Different caste Groups who commissionted Temples

expressed as percentage to the total



INNOVATION, RESPONSE AND DEVELOPMENT IN BANARI

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Abstract: The Community Development Programme has been responsible for introducing many innovations in village India. Examined here are some of those innovations designed to bring about economic development in Banari, Chota Nagpur, India. Analysing case studies in the context of traditional economy and regional ecology, the author observes that the differential response to the innovations introduced was not primarily because of traditional values and social organization of the community, as pointed out by some earlier researchers, but mainly because of their wider economic implications. The study suggests that the villagers in Banari were not only aware of the advantages of economic development but also their responses to the innovations were influenced by economic considerations.

DURING recent years several studies of the Indian village in the context of the Community Development, a state-sponsored programme of planned change, have been undertaken in various parts of the country. Some of these have indicated that the Indian villager does not respond to the advantages of economic development and that he is more concerned with his traditions, values, social organization and religion than with the economic significance of an innovation (for example, see Segal 1965, Epstein 1962, Nair 1963). Other studies have impressed the economic rationality of the Indian villager (see Dey 1960, 1962, Mayer 1958, Rao 1962). The researchers involved in the former studies suggest that economic development in village India has to be preceded by social change, particularly in social organization and values. The

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proponents of the latter studies, best illustrated among the planners of Indian Community Development, show a conviction that rapid economic development can be brought about simply through the organization and development of economic institutions in Indian villages (Dey 1962, Singh 1955). These contrasting and often conflicting arguments have prompted me to examine in this paper some economic implications of innovations and Community Development in Banari.[1] More particularly, I propose to confine my observations to the response of the farmers, artisans and labourers to the introduction of various forms of economic innovations and co-operatives by the Community Development Block in Banari, Chota Nagpur, India.

I shall state in advance that this paper, based on my field-work in Banari, draws exclusively on the Community Development Block for population and economic statistics quoted herein. This paper deals with only one small economic region, and in this sense it is a case study. However, in so far as this region shares socio-economic characteristics with other parts of India, this study has a relevance for outside the limited situation I describe.

I

Banari, an administrative unit of the state of Bihar, includes a group of 68 villages spread over an area of 236 square miles. Ecologically it has two distinct regions and a transitional zone between them (Sinha 1963). The first of these is a valley. Located on an average elevation of 2,100 feet, it is characterized by the fertile affluent of the North Koel river which flows through it. The valley is dissected by numerous small streams emerging from the surrounding hills and plateaux which empty into the river. These hills and plateaux, with a maximum elevation of 3,700 feet, comprise the second ecological region. It is characterized by infertile rocky uplands interspersed with dry forests and small scattered deposits of minerals, principally iron ores and bauxite. The escarpments and slopes of the hills and plateaux leading down to the valley

make up the transitional zone. This zone is marked by a luxuriant growth of wild trees, bamboos, and other fibrous plants.

There is a distinct climatic variation between the inner valley and the outer hills. The valley has a temperature ranging from 57°F to 90°F and an average precipitation of 195 mm. The hills and plateaux have a temperature range from 49°F to 75°F and an annual rainfall of 130 mm. But on the highlands the drainage pattern is such that the advantages of a plentiful rainfall are almost negligible. Most of the rainfall occurs during the monsoon months of June-September.

The above ecological regions determine to a great extent the kind of commodities produced therein. The valley produces the most important staple of the region, rice, and other cereals, and supports besides agricultural communities, those of blacksmiths, potters, weavers and traders. The hills and plateaux primarily produce maize, and of late the monsoon potato, and are occupied by communities living by agriculture and iron-smelting. The transitional zone supports food-gatherers, rope-makers and hunters as well as groups of basket-makers and cattle-herders.

In 1956, before the introduction of the Community Development Programme, there were 21,535 people, drawn from fifteen major communities in the region. Of these 85% lived exclusively by agricuture, 10% lived partly on agriculture and partly on handicrafts, and 5% on service crafts forest and other employments[3] (see Table 1).

TABLE 1

1966 Estimate of the regional population

Ethnic and Occupational Groupings

Nos.	Ethnic group	Population	Percentage	Source of livelihood
1	Oraon	14,060	65.3	Agriculture
2	Asur	2,559	11.9	Agriculture-Iron-smelting
3	Birjia	1,050	4.9	Agriculture
4	Kisan	576	2.7	Agriculture

Nos.	Ethnic group	Population	Percentage	Source of livelihood
5	Chik-Baraik	537	2.5	Weaving-Agric.
6	Rajput	367	1.7	Agriculture
7	Kumhar	272	1.3	Pottery-Agric.
8	Mahli	257	1.2	Basket-making-Agriculture
9	Birhor	240	1.1	Rope-making, Food gathering
10	Lohra	188	0.9	Blacksmithy-Agriculture
11	Baniya	143	0.6	Trade-Agric.
12	Turi	115	0.5	Basket-making-Agriculture
13	Ahir	69	0.3	Cattle-herding-Agriculture
14	Ghansi	60	0.3	Drum etc. Agric.
15	Chamar	49	0.2	Leather-Agric.
16	Others	993	4.6	Agriculture-Labour etc.
		21,535	100.0	

[*Note* : Of the 11 88 % of Asurs 10% lived exclusively by Agric.]

Source : Community Development Block.

The valley, almost a third of the total area of the region, supported 82% of the population ; only 18% derived their livelihood from the two-thirds of its territory covering forests, hills and plateaux.

Only 52,000 out of nearly 152,000 acres of land in the Banari region were cultivable. Of these nearly 27,000 acres remained cultivable wasteland in 1956. Most of these were on the hills and plateaux. Eighty-five per cent of the cultivated land was in the valley but due to topographical features of the valley all the parcels were not equally productive.

There were primarily two varieties of cultivable lands, locally known as *Don* and *Tanr*. *Don* was terraced low land, upto an acre in area and was located almost exclusively besides rivers and streams of the valley. They are more fertile than the latter. In 1956 there were nearly 6,350 acres of *don* land, that is, about 20% of the cultivated land in the valley ; their yield varied from 800 lbs. to 2,400 lbs. of paddy in an 'average' year.[8]

The *tanr* lands comprised 80% of the cultivated land of the region. Parcels of the *tanr* land were as large as ten acres, but they yielded poor crops. They were dried uplands ; retained little water or moisture, required intensive labour, needed rotation every two or three years and, if not properly cared for, they became barren and infertile. Such lands in the valley mostly yielded coarse paddy, seldom exceeding 800 lbs. an acre annually ; in the highlands they produced maize, on an average 800 lbs. an acre annually.

Besides the varying quality of local soil and dependence upon the monsoon for water supply, other inputs that affected regional agriculture were the use of primitive wooden ploughs operated by a pair of native bullocks, and the limited application of cattle manure.

While agriculture was the mainstay of the region, 15% of the local population (roughly half of the partly agricultural communities) lived by other trades. Of this the artisan communities comprised nearly 80%. They produced handicrafts such as pig iron, axes, ploughshares and sickles, pottery, ropes, baskets and cotton cloth, mostly from regional raw materials for the regional market. The quantity and quality of such handicrafts were also determined by the local technology that produced them.

The intra-regional trade was carried out by the institution of weekly markets and by a small community of traders living in various parts of the region. There was until 1956 only one all-weather road in the region which connected Banari with the district headquarters of Ranchi, 82 miles away. The weekly market at Banari drew itinerant urban traders who

brought salt, spices, oil, tobacco and other commodities produced outside the region, and channelled surplus regional produce to markets beyond it.

It was in the above background that the Community Development Programme was introduced in Banari in October 1956.

The progress of developmental activities in Banari Block was charted and compared in relation to the figures available for 1956, i.e. before the establishment of the Block ; for 1963, the year when intensive development programme ceased to operate in the region ; and for 1966, the latest available at the time of my last field-work into Banari. The development activities were classified into two categories. One included those activities which were designed to contribute directly to economic development in the region, and another which did so only indirectly. As I do not propose to comment at any length on the latter, i.e. development of services by the Block, let me first make a few general observations on it.

The C. D. P. in Banari, as elsewhere in India, had envisaged the School and the Panchayat as the two basic institutions for socio-political development of villages. According to plan, the Block had organized by 1963, twelve village panchayats covering all the 68 villages in the region. By 1966 there was a thirteenth panchayat, organized to run the Block, representing all 12 village panchayats in Banari. Likewise, the Block had established by 1963 one secondary school as planned and 47 primary schools, against the total target of 60 for the whole region. By 1966 there were 61 primary schools, only four short of the revised target. The number of school students had doubled during the first six years and tripled to 3,467 in the first decade of C. D. P.

The Block had achieved its targets in developing health and veterinary services in the region ; and it had also met targets for providing intra-regional communication and for constructing buildings for staff and administration in the region. The only targets that the Block had been unable to meet were the construction of 4 out of 9 fertilizer godowns planned, 13 out of 53 school buildings and 7 out

of 12 panchayat houses. For the first two, the Block did not have finance; but for the last the villagers' contribution required from them was not forthcoming. While I do not wish to examine these further, I may mention in passing that most of the cost of these overheads and services were fully met by the Block.

Data relating to the economic development as such were grouped into the five sections: (1) showing changes in area under cultivation and diversification of crops, including introduction of cash crops; (2) distribution and extension of improved agricultural inputs such as seeds, chemical fertilizers, steel ploughs, the Japanese method of paddy-transplantation, and irrigation facility; (3) development of livestock and poultry; (4) development of village industries through training schemes; and (5) organization of farming, industrial, handicrafts and marketing co-operatives.

During the first seven years of the C. D. P. only 1,290 acres of wasteland were brought under cultivation, which constituted less than 2 % of the total wasteland in the region. Even in relation to the target set for 1963, the achievement was only 13%. The Block unfortunately did not have itemised figures for various crops under cultivation in 1963, but I was told by the Block authority that there was some increase in acreage under maize, potato and vegetable gardening. In the valley the area under vegetable gardens had increased by 200 acres, much above the expected target.

During the next three years (1963-66) the land reclamation programme had added 1,058 acres to those available in 1963. In the diversification and intensification of crops, it appears that the area under maize had doubled since 1956; it had multiplied by ten times under potatoes, though it was still 40 % short of the target set for it; under gram it had exceeded the target by 58 acres to 458. Other crops had expanded, but paddy, the most important crop in the valley, had fallen short of target by 30 %. It had added only 194 acres, i.e. less than 2% against the target of 9,000 extra acres. The area under cotton cultivation had fallen by 50 % from 48 to 25 acres.

While I do not have production figures for each of the crops raised in the region, it was estimated that in 1956 the regional production of paddy was nearly 8,600 tons, in 1961 (the best harvest recorded during the 10 years of C.D.P.) 9,200 tons, and in 1965 only 7,800 tons. (The continued drought was the single important factor accounting for this low figure.) The production of potatoes, however, had gone up from an estimated 96 tons in 1956 to 600 tons in 1966, and maize from 400 tons to 780 tons during the same period.

It was further noted that in 1956 most farmers used local seeds for all crops (except potato, which was supplied by urban traders at the Banari market : Sinha 1964). In 1963 the Block supplied 6.6 tons of improved seeds for paddy and 1.35 tons for wheat, gram, vegetables et cetera. It however could supply only 9.9 tons of seed of the monsoon potato as against the target of 50 tons in 1963 and 50 tons as against 100 tons in 1966. The Block had continued providing improved seeds to the farmers even in 1966. There was no record (in the Block) of the number of farmers who had stored and used the seeds from the original improved seeds received from the Block. In 1965, the Block had come out with a new high-yielding variety of paddy seeds which was being tried out in demonstration and seed-multiplication farms.

The programme for the distribution and use of various kinds of chemical fertilizers[4] in agriculture had been pursued from the beginning of the Community Development Block in Banari. The record indicated that none of it was used in 1956 ; about 27 tons were distributed and used in 1963 and 113 tons in 1966. On a rough calculation, it meant that in 1963 about 675 acres were under chemical fertilizer ; in 1966 about 2,825 acres. Set against their targets the Block was able to distribute only 11 % in 1963 and 14 % in 1966. I may, however, add here that in 1966 all 618 acres of potato cultivation and most of 400 acres of vegetable and kitchen gardening in the region were covered by the use of chemical fertilizers.

The introduction of the Japanese method of transplantation of paddy had only partially covered the *don* lands of the

region. By 1963, 1,645 acres against the target of 5,000 acres, and by 1966, 1,822 acres against the same target were transplanted according to this innovation. The promotion of steel ploughs and weeders had, however, completely failed. Out of 18 ploughs owned by the farmers in 1966, hardly one was in proper use.

As for the irrigation programme, it appeared that the Block had offered assured water supply to only 1,600 acres of land by 1963, less than 6 % of cultivable land in the region. During 1963-66, under the new scheme of intensive agricultural development, however, the irrigation facility was extended to 2,700 acres, about 10 % of the cultivable land. Yet it was far short of the current target of 20,000 acres of irrigated land.

The results of the animal husbandry and poultry improvement programmes in the region were quite frustrating to the Block. The extension of improved breed of bullocks for more efficient use of local and steel ploughs had not even met the targets set for 1963 in 1966.

The most disappointing of all the economic programmes of the Block were those related to village industries and co-operatives. The nine training centres, one each for the ironsmiths, carpenters, tailors, carpet-weavers, cotton-weavers, bee-keepers, basket-makers, rope-makers, and garment-makers, established during 1958-1963 to assist development of village industries became defunct soon after. As for the co-operatives, only 2 joint farming societies out of the target of 50 (such co-operatives in the region) were organized during the first stage of the Block. Both became defunct before they got off the ground ; none was attempted during 1963-66. Eight out of estimated 20 industrial co-operatives were organized before 1963 ; none survived. Two co-operatives, a sort of trade union, for the forest labourers were organized in 1961-62 which received considerable support from its members ; two more were organized during 1963-64. By 1966 there were plans to organize five marketing co-operatives, but only one

was functioning. However, of the 29 service and credit co-operatives organized before 1963, most existed in the region in 1966.

Looking at the progress as a whole it appeared that the figures recorded by the Block indicated more about the extension of inputs and less about the results accruing from the use of them. And even if the production figures were available, the Block administration believed that any development might have been offset by the successive droughts of 1965 and 1966. However, for the purpose of the present inquiry, what seemed relevant was the selective response of the farmers and artisans to the economic programmes offered by the Block.

The question arises as to why some economic innovations were more acceptable than others. It is this question that I should turn to in the following pages.

II

In the economic field, the most explicit and conspicuous activity of the Community Development Block in Banari was to promote the use of chemical fertilizers. In the village of Banari, the Village Level Worker (VLW) had distributed fertilizers for paddy farming to all farmers without exception during the past decade. Yet, in 1966, after the sowing and transplantation of paddy was over, he told me that most of the chemical fertilizers allocated to his village was still lying in the godown. He added, 'Would you believe that not a single farmer improved his yield by the use of the fertilizer ?' He was obviously disappointed. But on the other hand most of the farmers, struck by successive droughts in the past years, I interviewed were equally certain of the uncertain return they might get through the use of those fertilizers in their fields. Let me cite a few illustrative cases.

In 1964 the Block doled out fertilizers to the paddy farmers in the region. Bighna, a small landholder of Banari, was persuaded by the extension agent to use the fertilizer in his field. He used it in one acre of *don* paddy-land and the net

produce was 480 lbs. In another acre of *tanr* paddy-land in which he did not use fertilizer he harvested 640 lbs. of paddy. It was later discovered by the VLW that Bighna had over-dosed fertilizer in his *don*. The experience primarily arising from the lack of technical assistance was too discouraging for him to repeat. The same year another farmer Sawna Bhagat used fertilizer in one parcel of land and harvested 960 lbs. of paddy, 60 lbs. more than the yield he had during the previous year. The following year Sawna again used fertilizer in his paddy field and had to pay for the fertilizer, which offset the increase he had in the yield. In 1966, therefore, he did not use any fertilizer ; but the drought had considerably decreased his yield. In my conversation with Sawna, it was apparent that he believed in the efficacy of the chemical fertilizer, but he also knew that without rain or adequate irrigation, fertilizer was of little consequence. This belief and understanding of the agricultural problems was shared by many farmers in Banari, and most of them were questioning the economic rationality behind the use of fertilizers in farming.

There are, however, examples in Banari where farmers have continuously used fertilizers for the last ten years. Two illustrations may explain the situation : first in the cultivation of potatoes. In 1957 Sukru Bhagat discovered that the use of chemical fertilizer had almost doubled his potato crop. This innovation attracted many other farmers to potato cultivation, and the fertilizer has since been considered the most effective input in raising potato yield. The efficacy of fertilizer has almost in itself increased the potato acreage by nearly six hundred per cent. Likewise the use of fertilizer has considerably increased the area under vegetable and kitchen gardening to the distinct advantage of the farmers. When I asked Budhua, a farmer, why he used fertilizers in raising vegetables and not in paddy, he answered with confidence : 'In my garden I do not have to depend upon monsoon ; I can reinforce fertilizer with water from my well.'

There is however another aspect of the acceptance of this innovation, namely, economics of security. This may best be illustrated by the following case. Palla, a subsistence

farmer, owned five acres of cultivable land of which less than two acres was *don* paddy-land, a little over an acre included his homestead and kitchen garden and the remaining two acres, the *tanr* upland. Palla had been using chemical fertilizer in his kitchen garden but not in his *don* land. He told me once, that he was convinced that fertilizer could improve the yield but he did not want to risk his subsistence by using it in his *don* paddy. He considered the *don* paddy his main source of livelihood. In other words, he believed that low but steady return was economically more rational than high but uncertain return through the use of chemical fertilizer. Cases of this sort can be multiplied from all over the region, from specially those farmers—and they are most numerous—who live on a narrow margin of subsistence.

Let me now turn to another important economic activity of the Block. One of the schemes that proved a great success with the farmers was the construction of irrigation wells.[5] The Block offered these wells on 50 % subsidy to those farmers who had an acre or more of kitchen garden to irrigate. Mangra was one of the first few farmers who constructed such an irrigation well in 1957. Besides providing drinking water for the family, Mangra used it for irrigation of his vegetable garden which brought an added income to the family. More than three hundred farmers followed suit; others could not because they did not have enough land to justify the subsidy.

In 1961, however, the supply of vegetables had saturated the local markets, and any alternative arrangement to market them beyond the region did not come forward. Consequently in later years, even those farmers entitled to receive assistance were unwilling to accept it. In 1966 when I attended one of the Block meetings, the district officer insisted upon the elected head of the Block and his extension officers promoting the construction of another hundred irrigation wells. But the latter only reluctantly accepted responsibility for fifty wells. Soon after I met one Situ Oraon who did not own an irrigation well. On being asked if he wanted subsidy for a well he answered with a flat uncompromising 'No', and recounted

the experience of half a dozen farmers in his village aloue who were recently prosecuted for allegedly not spending the full subsidy for the construction of wells. He believed that the economics of subsidy was mixed up with the politics of administration !

In the sphere of farm management the Community Development in Banari had several programmes. But one that emerged from the peculiar ecological situation in the region was that of soil conservation. The undulating topography, dissected by numerous streams emerging from the highlands that surround the valley, had been a continuous source of erosion of arable low-lying lands in the region. In 1961, the Block introduced a programme of soil conservation and many farmers came forward to take advantage of it. One of them was Jitna Oraon who had earlier refused to participate in a scheme designed to consolidate land-holdings in the village. From the point of view of the development agent a farmer was expected to profit a great deal more in the latter programme than the former, but to Jitna this was not so. Jitna believed that by contouring his land he had assured himself of the maximum productivity of the land. On the other hand, he cited the case of the joint farming co-operative operating right across his village whose performance had been too discouraging to emulate.

Later on, while interviewing some of the members of the Beti Joint Farming Society, I was told that co-operative farming was not economically profitable. Bandhma, the enterprising leader of the farming society, informed me that when he organized it in 1958 the extension agent had enumerated to him many economic advantages of the scheme. He had discovered that he could produce more by working on his own land than by pooling his land with other members of his settlement ; some of whom were interested in sharing the produce more than the labour they were willing to invest in it. To him, in this situation, it did not require much of an arithmetic to figure out the advantages of farming one's own land.

In traditional agriculture, the quality of seed used in cultivation was considered the most crucial input in Banari. Every farmer saved his best produce for seeds ; however, the agricultural extension agents of the Block discovered the native seeds, being ungraded, to be of uneven quality. The C.D.P., therefore, promoted from the very beginning improved seeds for paddy, potato and other new crops. The farmers were initially most receptive to the idea of new seeds. Ramnath from the Banari valley tried several varieties introduced by the Block, but only a few of them were adapted to the local soil. Ramnath informed me that due to the varying quality of local soil a particular kind of paddy seed suitable for the low-lying land was unsuitable for the uplands. And it was only after considerable trial-and-error demonstrations that the extension agent had come out with the seeds best suited to the local soils. The farmers' response to it had been so positive that the Block's seed multiplication farms were unable to meet the total demand.

Another farmer, Sukhram, reported that it had not paid him to accept seeds from the Block. They were not available on time and, if available, the credit facilities were not good. In 1960 he had accepted seed for 48 rupees on credit from the Multipurpose Agricultural Co-operative Society which he was unable to pay off within a year. He had to mortgage his tools and household utensils to pay off the debt ! Sukhram's story had been repeated by several farmers in Banari during the years of bad harvest.

However, the increasing demand for potato seeds in the highlands and the inability of the Block machinery of co-operatives to meet them on time had created frustration among the farmers. They were turning to independent traders who supplied seeds on time, though not on competitive terms. It may be relevant to note that as the monsoon potato seeds have to be stored in cold storage the farmers can only get seeds from urban sources.

In 1965, an urban trader had supplied 100 tons, local mission 40 tons, and the Block sponsored co-operatives were able to supply only 60 tons to the potato-growers. In course

of my interview with the farmers it was noticed that the awareness of the economics of cash cropping was not confined to any selected group among them.

One of the economic programmes that did not secure positive response from the farmers in Banari was in the spheres of animal husbandry and poultry development. Limitation of space precludes me to go into detail at this point. However, let me cite one illustrative case of poultry improvement. Traditionally, every family in Banari had for its own use at least half a dozen or more of native poultry. With the introduction of the C. D. P. the Block decided to promote improved varieties of birds in the region. The C. D. P. established a poultry farm at the headquarters and offered chickens cheaply to individual families. At first many were attracted to it : the birds were big in size and they laid eggs almost every day. But they soon discovered that unlike the native birds these had to be penned and fed, as well as protected from the native dogs. These required considerable investment and labour. And not many people could afford them. There were however a few persons who went in for it commercially. I knew of at least two families in the region which had over 200 birds, making most of their income through poultry farming. Perhaps many more would have joined them if they had credit available and if there were marketing facilities beyond the region.

In the Community Development set-up, the co-operative was considered to be the panacea for economic ills in village India. The Government blue-print for development had stated that co-operatives should be promoted to serve the cause of economic democracy in rural India. In Banari, therefore, by 1961 nine industrial co-operatives were established, along with their respective training centres. None of them proved economically viable. All of them were defunct within two years. I have already cited the case of the Joint Farming Co-operative Society. Let me illustrate a few more cases. In 1961, a co-operative society was established for the Birhor rope-makers in Jehengutua. The Block had provided rope-making machines and subsidized the society of twelve members

with over 2,000 rupees. An instructor for rope-making was assigned to help the members in learning the skills involved in the new machines. The machines produced four times as many ropes as manufactured by hand traditionally. In a matter of months the Birhors overproduced ropes ; the demand did not increase within the region, and there was no marketing facility outside it. As one of the members recounted, 'The situation became so bad that the administration had to step in and buy our ropes which saved us from starvation. Since then we have not touched the machine !' A similar story runs for the weavers' co-operative society which was also subsidized by the Block. In this case the local weavers were unable to produce cloth which could compete with the mill cloth or even with the handloom cloth made elsewhere. Such market factors were responsible for the closure of all the handicraft training centres, and other industrial co-operatives organized for the basket-makers, tailors, carpenters and bee-keepers.

On the positive side, however, most of the 28 multipurpose agricultural credit and service societies were continuing their operations in 1966. Their main activities were to supply fertilizers and seeds to the farmers. One such co-operative in the highland had encouraged farmers to expand cash cropping, e.g. potatoes, by attempting to secure and distribute seeds on time, and on favourable terms, and to market the produce efficiently.[6] The success of this co-operative made independent traders offer more favourable terms to the farmers.

It may be relevant to add another success story of the Banari co-operatives. In 1960 a co-operative society for forest labourers was organized in Banari. There were 16 persons who joined the society. The forest administration, by virtue of the government directive, chanelled all contracts for exploiting forest coupes in the region through this society. This brought lucrative return to the members (though I was told by the forest officer that his department was not initially satisfied with the society's performance) ; and the number of co-operatives multiplied to four in 1966 with 131 members

and an annual turn-over of nearly 33,000 rupees. However, it was obvious that the co-operatives in Banari which were so enthusiastically advocated by the Government had not received the same reception from the farmers and artisans in the region. Their attitude as reflected in the above cases, were determined more by its economic viability than by its institutional significance.

IV

From the assorted data presented above it is apparent that the people of Banari, the farmers, artisans and labourers, were aware of the economic implications of the innovations promoted for economic development in the region. The cases describing the failure and success of the co-operatives further suggested that the natives distinguished between an institution contributing to higher productivity but lower return, from another which offered greater return with higher productivity. It seems obvious that economic considerations were of importance to the people in Banari. However, I must hasten to add that this does not imply that the native farmers and artisans are sophisticated in the economics of modern market economy. And, as I have stated elsewhere (Sinha 1963), most of them are not even aware of the implications of short-run or long-run markets, or the economic implications of public or private enterprise. But they most certainly are conversant with the principles of economizing in their everyday life.

However, the importance of socio-cultural factors motivating people's response to the innovations can hardly be minimized. Even in the above cases where economic considerations were relevant, factors such as lack of technical assistance, inadequate communication between the extension agents and the farmers, particularly regarding the role of subsidy, and the native preference for independent farming had obviously influenced the people's responses (for similar reactions, see Dube 1958). In this paper, I have not elaborated their relevance (see Sinha 1967) ; I have only attempted to

isolate the economic implications of the innovations introduced by the Community Development in Banari.

Finally, I must note that this study does not confirm either of the two extreme arguments advanced by some earlier researchers which I stated in the beginning of the paper—that the Indian villager does not respond to the advantages of economic development because of his traditions, values and social organization ; that the Indian villager would undergo rapid economic development only if the co-operatives were organized. The study suggests that the Indian villager in Banari is not only aware of the advantages of economic development, but also that his responses to innovations are influenced by economic considerations.

NOTES

1. In the preparation of this paper I have been greatly benefitted by the comments and criticisms of Richard Shand and Purnima Sinha but they are in no way responsible for the views expressed herein. The field-work on which this paper is based was supported by the Australian National University.
2. The figures quoted in this paper were provided by the staff of the Community Development Block at Bishunpur. I am particularly grateful to its three Block Development Officers, Sri Gobind Singh (1956-57), K. B. Srivastava (1958-61) and Radhakanta Rai (1966), who were most helpful in my field-work during the period of their office. I am also thankful to Satya Narain Mahto who kindly collated the statistics.
3. *Average Year*, and *average yield* may be quite misleading in Banari ; but the year having at least 150 mm. rain in the valley is considered average by the natives.
4. There are various kinds of chemical fertilizers made available by the Block, each suited to a particular crop or soil. Any mix-up may influence the productivity of the soil.
5. The BDO diverted the allocations for medium irrigation projects to the small irrigation wells because he did not have any technical assistance to utilize the allocation for the appropriated project.
6. Because of its sensitiveness to humidity and heat, immediate marketing or cold storage of the monsoon potato after harvest was vital to the farmers.

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THE CRIMINAL TRIBES OF INDIA WITH SPECIAL EMPHASIS ON THE MANG GARUDI: A PRELIMINARY REPORT

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Abstract: The thesis of this paper is that the criminality of the Mang Garudi and of the other criminal tribes was a result or function of the Indian social structure. While experiencing conventional aspirations of the larger society they were lacking in socially structured means by which they could realize their aspirations. The result for them was a state of normlessness, or anomie. The response was that of a collective challenge to the legitimacy of the conventional rules. Consequent to modern changes in Indian society, especially since independence, the Mang Garudi appear to be in a period of transition and are increasingly adopting legitimate means of achieving goals and seeking more identity with the larger society.

INDIA'S basic problem is considered by many to be one of overpopulation. Undoubtedly among the many and complex problems which that country, with her ancient and impressive cultural history but with insufficient land, economic resources and development, continues to encounter is that of sheer number of people. Her population is now estimated to be more than 500 million people. However, equally, if not more significant, than the number of people may be the problem posed by India's highly differentiated population. The numerous and separate categories and collectivities into which her people have been divided, each with its own expectations, make difficult, if not impossible, the development and maintenance of consensus and cohesion. In other words,

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one of India's principal difficulties may be found in certain dysfunctional aspects of her social structure.

A part of India's labyrinthine social system may be comprehended when her demographic composition is examined. As a consequenee of numerous invasions dating from the Old Stone Age to historical times her population include components of all the traditional racial divisions of mankind.[1] Virtually all of the principal religious faiths are sizably represented and to a marked degree are pitted against each other. Of common knowledge is her division of the masses, the Hindus in particular, into castes with their numerous subdivisions and outcastes, or untouchables. (Although the latter designation has been legally abolished (1949), it persists and must be reckoned with especially outside the urban areas.) Also there are the hill and forest people, regarded by some but disputed by others to be India's aborigines, who number as high as thirty million persons.[2] These are the people who apparently retired into the more inaccessible areas to avoid conquest. In addition, there are 198 ex-criminal tribes, now officially designated as 'denotified communities', numbering an estimated six million people.[3] It is the ex-criminal tribes, and one of them in particular, the Mang Garudi, with which this paper is concerned.

The criminal tribes are not to be confused, as scholars in the field are aware, with the extinct Thugs of India. The Thugs were a professional organization of individuals, not a tribe or community. They for reasons of religion, sport, and economics, engaged in highway robbery and murder throughout the country from at least the fourteenth century.[4] This organization was suppressed under the leadership of Sir William Sleeman about the middle of the nineteenth century. It may have been the attention and work that was directed against the Thugs which brought into sharper focus the widespread thievery of certain tribes, later to be labeled as 'criminal tribes'.

Criminal tribes, at least officially so designated, appear to be a phenomenon peculiar in India. With respect to their

origin there obtains more theory than fact. The reason for this, as with many other aspects of earlier Indian history, is that the preponderance of evidence is to be found only in hearsay, legends, and literary material. Even so, the criminal tribes apparently have had a long history, possibly thousands of years. Some of the tribes by legend or other means date their origin as early as the 1300's A D.[5] The anthropologist, D. N. Majumdar said : 'The criminal tribes are a legacy of medieval feudalism.'[6]

Two theories purporting to explain the genesis of the criminal tribes may be mentioned. One view is that they descended from the gypsies who, although now scattered over many parts of the world, originally, according to linguistic evidence, were inhabitants of India. Albeit many of the criminal tribes are gypsy-like, there is little evidence to support the gypsy-origin theory.[7] Others have advanced the idea that the criminal tribes developed from the native population that was not able, determined, or courageous enough to resist conquest. The weaker natives, according to this theory, were from time to time displaced by invaders, and thus the ones who could not find refuge in the hills and forests wandered from one locality to another. Nomadism became their way of life. Each tribe developed some ostensible means of livelihood but their meagre earnings were supplemented by trickery and theft. Although there may be some basis for this point of view, it appears certain that the social origins of the different criminal tribes vary greatly. The greater nnmber of them never cared or made any effort to preserve their separate identity or purity as did most of the castes and other tribes of India.[8] Consequently, there was considerable miscegenation with and recruitment from other people. Bhargava says : 'Most authorities seem to be in agreement with regard to their mixed composition'.[9]

With respect to origins, the basic problem is not to explain how these tribes had their beginning but rather to explain why and how they became criminal or deviant. They were tribes before they were defined as being *criminal* tribes. The

hypothesis of this paper is that their deviation or criminal behaviour was a result or function of the social structure of India. Located as they were in (or outside) the social hierarchy they were confronted with severe problems of adjustment. They experienced certain conventional aspirations of Indian society (desire for status, self-respect and subsistence) but were lacking in socially structured means by which they could realize those aspirations. The situation in which they were engulfed was one of normlessness or anomie. Their response took the form of a collective challenge to the legitimacy of the conventional rules. Consequently, they freed themselves from allegiance to the established norms and devised deviant (as defined by the larger society) means of achieving their goals. This theoretical approach to the criminal tribes is largely an application of Robert K. Merton's explanation of deviant behaviour in terms of social structure.[10] However, the term anomie is being employed as it was initially defined by Emile Durkheim, who referred the concept to a state of normlessness in a *society* or *group* resulting from a condition of the social and cultural structure.

The differentials in the access to the goals of a society by legitimate means, according to Merton, result in deviant behaviour. Deviations are therefore symptomatic of a condition of anomie or a disparity between culturally prescribed aspirations and socially structured means of obtaining them.

A number of adaptions or reactions to goals or to the means of attaining goals, Merton says, may emerge—conformity, innovation, ritualism, retreatism, and rebellion (see chart). Attention could be focused on the possibility that each

A Typology of Modes of Adaptation.

Modes of adaptation	Culture Goals	Institutionalized means
Conformity	+	+
Innovation	+	−
Ritualism	−	+
Retreatism	−	−
Rebellion	±	±

Source : Robert K. Merton, *Social Theory and Social Structure*, p. 140. Merton uses *Individual* Adaptation in the caption. (+) signifies 'acceptance,' (−) signifies 'rejection,' and (±) signifies 'rejection of prevailing values and substitution of new values.'

of these adaptations was employed by one or more of the various categories of people in Indian society. Was the non-criminal tribes' form of adaptation that of retreatism ? Did the strong values which the Hindu faith, especially the hope of a better life in their next re-incarnation, and a definite occupation, however menial and meagre its income, influence the untouchables to choose the method of conformity ? The thesis of this paper is that crime, theft in particular, was an innovation or form of adaptation on the part of the criminal tribes in the Indian social system.

In the social structure, the position of the tribes who eventually were notified as being criminal was undefined. The treatment they received in Indian society was generally more severe than that of the outcastes. They lived beyond the pale of conventional society and under the most abject circumstances. It appears that there were two basic emphases or goals in the Indian social system. One was that of embracing and perpetuating orthodox religious beliefs and values. The other was that of obtaining, at least by the masses, a subsistence. The criminal tribes did not seem to share, at least fully in the former ; their religion was animism or a corrupted form of Hinduism. The latter goal, obtaining a subsistence, was to them probably life's main concern. However, they either had no occupation or it was so inconsequential that it did not provide enough for existence.[11] Consequently, without adequate institutionalized means of attaining their goals, they rejected conventional norms and innovated or established their own system, the practice of taking from out-groups whatever they could lay their hands on. The larger society defined such behaviour on the part of the tribes as criminal ; the tribes defined it as non-criminal so long as it was on an inter-group rather than an intra-group basis. Thus deceit, trickery, and theft from out-groups became their principal profession or occupation. The *Calcutta Review* in 1860 reported : 'They practiced what all had at heart and none looked upon as criminal' ; and 'the desire to earn a livelihood propelled every man to renewed efforts in his vocation'.[12] B. S. Bhargava said that they came to look upon

members of conventional society 'with infinite contempt and scorn as dull and foolish people born to be fleeced by the more intelligent and clever'.[13]

The system of beliefs, values and practices of each criminal tribe was methodically transmitted from one generation to the next. From infancy, the child learned and internalized the norms of his sub-culture. On the basis of his field investigations, Bhargava described how the children in these tribes were 'consciously and deliberately subjected to a strict and systematic course of education in crime'.[14] By the family they were taught the various disguises and code words which later would aid them in acquiring a livelihood. The models which the elders held before the children were notorious robbers and dacoits. Young people were required to play criminal roles before their elders before they were permitted to go on an expedition. Also they were taught that under all circumstances they must be united against outsiders. Thus the importance of co-operation, loyalty, and secrecy were emphasized. They were frequently tested on their ability in giving vague and evasive replies to strangers. The elders had instilled in them the idea that a hero was one who excelled in trickery, deceit, and theft. A person who had no inclination toward crime was regarded as a coward and commanded no respect. In some tribes, including the Mang Garudi, every young man was required to prove his ability as a successful thief before parents would give their daughter to him in marriage. The idea was that otherwise he would not be able to support his wife in a proper manner.[15]

From the very earliest it was emphasized that to earn their livelihood by theft was their birthright and sacred duty and that the proceeds from theft were no less sacred than the wages from honest labour. Reinforcing this position was the belief that their gods and the ghosts of their ancestors were pleased with theft when it was at the expense of outsiders.

The question of when efforts were first made to control crimes committed by wandering tribes is problematic. It is known that vagrants, suspected persons, and tribes who were

systematically committing crimes against property in Northern India were dealt with under Regulation XXII of 1793.[16] Under that regulation magistrates were given summary powers and could put such persons to work on roads, and if they absconded could imprison them for six months.[17] These powers of the magistrates ended when the Indian Penal Code and Criminal Procedure Code were enacted in 1860. The Act provided for a system of registration and roll call in a few provinces of suspected criminals, dacoits, and thieves. Because the authorities had no power to deal with those who violated the regulations of registration and roll call, these provisions of the Act were virtually meaningless.[18]

The first Indian Criminal Tribes Act was passed in 1871. The Act was designed to apply only to tribes who, at least during some part of the year, had established places of residence. It was recognized that it would be difficult to deal with perpetually wandering tribes. It was also thought that to prevent them from wandering in many cases could be equivalent to preventing them from earning their living as grain-dealers, basket-makers and sellers, acrobats, mendicants, etc.[19]

According to the Act of 1871, the Report of the Criminal Tribes Act Enquiry Committee :

> Before a gang, tribe or class of persons could be declared as criminals, the local Government had to report their case to the Governor-General in Council, giving in their report reasons for regarding the gang, tribe or class of persons as criminals, the nature of crimes which they were suspected of committing, and if the tribe was a wandering tribe, the reasons showing that the lawful occupation it was following was merely a pretence for the purpose of committing crimes. The report had also to state the arrangement made for enabling the tribe to earn its living, when it was settled in any fixed place of residence.[20]

The Act did not prove to be useful for controlling the wandering tribes because of financial and administrative

problems encountered in having to provide for their settlement in some place and some means whereby they could earn their livelihood.

The Criminal Tribes Act was amended or replaced a number of times between 1871 and 1947. Some of the principal changes were the following.[31] In 1897 minimum penalties for second and third offences were established and the local governments were given the authority to remove children, 4 to 18 years of age of criminal tribes from parents who could not be reformed and place them in training settlements for children. In 1911, local governments were empowered to establish rules under the Act for its proper administration to local conditions and to declare a tribe to be criminal without requiring its settlement and without providing for its means of living. Also, after proper notification, the members of a tribe could be registered and fingerprinted and the habitual offenders could be restricted to a specified area or interned in settlements established for them. Under the 1924 Criminal Tribes Act the Provinces were given the authority to amend or repeal the Act in their territories. The Act was repealed in the Madras State in 1947 and in the Bombay State in 1949.

The Mang Garudi is one of twenty-eight tribes who were notified as criminal tribes in seven districts of the Bombay Presidency in 1912. This tribe continues to confine itself to the general area of the former Presidency, now the Maharashtra State, and numbers about ten thousand persons.[32] The weight of opinion although not without some disagreement, including members of the tribe, is that they were originally a subcaste of the Mangs.[33]

Traditionally this tribe has lived principally by begging, theft, conjuring tricks, and trading in and shaving of buffaloes, They have been known to have committed, at times, burglaries, highway robberies, and dacoities.[34] Men, women and children have been regarded as habitual thieves. The men committed theft from houses at night. They were adept at stealing cattle and smaller livestock, but their preference was for

buffaloes. Also they would often defraud owners of barren buffalo cows on the pretext of making them fertile.[25] Frequently they sold worthless ornaments and jewellery as being genuine articles.

In deviations from conventional norms the Mang Garudi women have been equally as adept as the men, if not more so. For the most part, they begged, pilfered clothes put out to dry, picked pockets at bazaars and in other crowded places, and committed theft from houses during the day.

When members of the tribe were especially successful in their trickery and theft they made offerings to their deity.[26]

The women had the reputation of being clever at deceiving or embarassing the police. When investigations or arrests were being made, mothers would threaten to injure their children or they would strip themselves naked and then threatened the police with rape or attempted rape.[27]

After the repeal of the Criminal Tribes Act the Mang Garudis, who had been an undefined tribe, were classified as a Scheduled Caste. Their new status made available to them certain preferential treatment accorded to backward classes. Under British rule in India a programme had been initiated to improve the condition of the most depressed groups. Efforts were made in the 1931 census to draw up a 'schedule' of the castes and tribes entitled to special consideration. To those entitled, including the Mang Garudis, a percentage of facilities and opportunities may now be given in the areas of education, housing, health, and economic uplift (including government jobs). Although this system may have benefited only a small percentage of the depressed classes it probably has served as a symbol of hope to all of them. It indicates that the government, at least to some degree, is aware of them and interested in their welfare. It may mean they now recognize that it may be possible for them to attain some of their aspirations within in the context of the Indian social system.

Although the Mang Garudis continue to live in dire poverty and under the most abject and primitive conditions, they seem

to be in the process of developing a new image of themselves and of their position in India society.[28] The stigma of their being a criminal tribe, extremely odious and embarassing to them, has been legally removed. They are conscious of their new status as a Scheduled Caste and desire to take advantage of the concessions and privileges to which it entitles them. Thus it appears that the Mang Garudis are increasingly adopting legitimate means of achieving goals within the conventional social system. That they are in a period of transition and are seeking some identity with the larger society is indicated by a number of factors.

(1) They have virtually abandoned their roving habits and have established settlements in or near the cities and villages. The greater concentrations are in or about Bombay, Sholapur and Poona. Only a few members of the tribe own any land but the majority have their own small huts, or *pals*. The writer observed two colonies living on the streets of Bombay without any huts or shelter of any kind. A small number of families live in integrated housing projects which have been established for backward classes.

(2) An increasing number of Mang Garudis are being employed, generally, however, at the most menial tasks and at the lowest wages. The relatively small number who have found jobs work mostly in mills and factories, for the railway department, as farm labourers, and as sweepers of streets in cities and villages. A larger number continue their traditional occupation of raising, selling, and shaving buffaloes.

(3) Even though the great majority of the Mang Garudis are illiterate, one report puts the rate at eighty per cent,[29] more of their children are attending school and remaining in school longer. Occasionally a young person from the tribe goes to college. One young woman in Sholapur has completed work for the Masters Degree.

(4) It is generally concluded that crime, especially of the more serious nature, is on the decline. Pilfering occurs on a small scale, but they do not regard it as a crime.[30] The rincipal offences of those who now engage in crime are petty

theft, pick-pocketing, and illegally making and selling alcoholic beverages. The latter is reported to be the most common because it is more profitable and in considerable demand because of India's prohibition system. It is also less hazardous because conviction for the offence carries a much lighter prison sentence than theft. More significant is the fact that criminal behaviour is on an individual rather than tribal basis. The community appears to have ended its support of crime collectively. One investigator, after interviewing a group of Mang Garudis, reported : 'Everyone of them admitted that they once were a criminal tribe but are not so any longer'.[81] They have ceased to regard the criminal as a hero. Also, the custom of requiring a young man to prove himself a successful thief before being given a bride has been abandoned.

(5) The Mang Garudis are making concerted efforts within the framework of Indian society to improve their condition. They have established both local and state self-improvement organizations. They have held public meetings, some not without political overtones, in various cities. At the second meeting of the Maharashtra Organization, held at Poona, February 24, 1963, a congressman, Babulal Jain served as president. It is reported that at that meeting 'The problems discussed by them ranged from ways and means to improve their present condition to taking advantage of the Government concessions and privileges'.[82]

Also, nine resolutions outlining their objectives were passed. At an earlier meeting, the Freed Mang Garudi Society Service Organization, a statement was issued which reflects the feelings and condition of the tribe today, and reads in part :

> .....We have no one amongst us who can articulate our difficulties and acquaint the world at large with our misery, no one who can guide us, and hence even in this era of reform our difficulties still remain insurmountable..... That such a tribe that has lived its life in poverty and harassment

> may secure its human and civic rights in this era of democratic government, the Mang Garudi tribe appeals to the people to work toward the unity of the many castes and subcastes in Hindu society and effective measures be undertaken to reform them and provide appropriate guidance for the removal of their many difficulties..... We have had frequent experience of our complaints being constantly ignored by those concerned and hence we now appeal to the people in the hope that they will support us..... It is indeed unfortunate and sad that people like Mang Garudis who have been suffering for thousands of years have not received facilities.....[38]

It may be concluded that the condition of the Mang Garudis is similar to that of minority groups in other societies who occupy the lowest socio-economic status, the Negro in the United States for example. In some respects the Mang Garudis' condition may be more extreme because of the stigma of both criminality and untouchability and the fact that they have not been identified with village social structure as a settled group with an occupation. On the other hand, they, not being a racial category, do not have to contend with the problem of discrimination resulting from race prejudice. It appears that the continued improvement of the Mang Garudis' position in the Indian social system will be to the degree that emphasis is placed on those factors which most influence social status, such as education, occupation, income, and political power.

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25. *Ibid.*, p, 121.
26. *Ibid.*, p. 124.
27. *Ibid.*, p. 125.

28. The data presented on the conclusion of this paper were derived from several sources. The writer was in India in October and November, 1967, and while there he met and talked with a number of Mang Garudis and obtained a visual impression of how and where they live. Valuable information was received from conferences at Delhi, Bombay and Poona with educators, social welfare directors, judges, lawyers, superintendents of correctional institutions, and police officials. Also valuable assistance was rendered as interpreters and in gathering field data and other information by Mr. S. D. Gaikwad of Bombay and Mr. D. R. Maheshkar of Poona.

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A COMPARATIVE STUDY OF THE RELATIVE LENGTHS OF HUMAN FIRST AND SECOND TOES

BHUBAN M. DAS

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Abstract : In respect of occurrence of the three types of foot, namely, T, F and O, three racial groups, Caucasoid, Mongoloid and Australoid, comprising ten populations, have been compared and it was found that there exist significant differences among them. Differences are seen among the populations of the same racial group also.

The two sexes of each of some populations have also been compared. It is seen that the frequency of the F type is higher in females than in males. The reverse is true in the case of type T. Of the seven populations under consideration, in three sexual variation is statistically significant, while in the others it is not.

Introduction

ON the basis of the relative lengths of the first and second toes, the human foot can be divided into the following three types: (i) $1>2$, where the hallux is the longest; (ii) $1<2$, where the second toe is the longest and (iii) $1=2$, where the hallux and the second toe are of equal length. Minami (1952) denoted the first type by the letter T (tibial), the second type by F (fibula) and the third type by O. Hawkes, however, long ago in 1913 proposed the symbols L for $1>2$, S for $1<2$ and E for $1=2$. In the present study Minami's classification into F, T, O types has been followed.

The relative length of the first and second toe has been studied from the point of view of occurrence and heredity by several authors like Hawkes (1913), Minami (1952), Sarkar

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(1958), Das and Uzir (1960), Das and Das (1967). Sexual variation in respect of this character has also been pointed out by these authors. The foetal researches of Schultz (1924) and Minami reveals that the three races, White, Negro and Mongolian, differ from each other in respect of the above three types of foot. Das and Uzir also referred to such difference that exists between the Rabha, a Mongoloid tribe of Assam, and Australoid tribes like the Pahira, Juang and Oraon.

In the present study an attempt has been made to compare the various populations on the basis of the frequency distribution of the three types of foot, namely, T, F and O. The populations have been put under three racial groups, namely, Caucasoid, Australoid and Mongoloid. In the first place, comparison among the various populations of the same racial group has been made. Secondly, comparison has been made among the three racial groups. To study sexual variation, comparison between the two sexes of some of the populations has been made. For the purpose of comparison chi-square test has been applied.

Material and Discussion

Table 1 shows the frequency of the three types of foot in the various populations grouped separately under Caucasoid, Mongoloid and Australoid. The Caucasoid sample, which includes the Brahmin, artisan, low caste and high caste, collected by Sarkar is from West Bengal, while the Australoid sample was collected by the same worker from Bihar and Orissa. It includes three tribes, namely, Juang, Oraon and Pahira. The Mongoloid sample was collected by the present writer from among three tribes of Assam. These are the Rabha, Khasi and Mikir.

TABLE 1

Relative lengths of the 1st and 2nd toes (Rt + Lt)

Populations (Male)	No.	T	F	O	Place	Author
		%	%	%		
Caucasoid :						
Bengali low caste	160	77.50	18.75	3.75	West Bengal	Sarkar
Bengali artisan	134	78.36	17.91	3.73	,,	,,
Bengali Brahmin	130	75.38	16.92	7.69	,,	,,
Bengali high caste	240	89.17	7.50	3.33	,,	,,
Mongoloid :						
Khasi	112	87.50	7.14	5 35	Assam	Das and Uzir
Rabha	600	69.66	16.50	13.85	,,	,,
Mikir	240	80.41	8.75	10.83	,,	Das and Das
Australoid :						
Juang	86	91.86	3.49	4.65	Orissa	Sarkar
Oraon	88	93.18	3.68	1.14	Bihar	,,
Pahira	58	79.31	12.07	8.62	,,	,,

It appears from Table 1 that in all the positions the T type of foot predominates. It is followed by the F type in all excepting the Mikir and the Juang where the O type follows the T type. The percentage of O type is comparatively higher in the Rabha and Mikir, two Mongoloid tribes. On the other hand, type F occurs in higher frequency in the Caucasoid groups excepting the high caste and also in the Rabha and Pahira in comparison to others.

TABLE 2

Intra-racial comparison

Populations	X^2	P	Remarks
Caucasoid :			
(Low caste-artisan-high caste-Brahmin)	20.26	.001<P<.01	Significatant
Mongoloid :			
(Khasi-Rabha-Mikir)	24.96	.001>P	,,
Australoid :			
(Juang-Pahira-Oraon)	9.73	.01<P<.05	,,

The chi-square values tabulated in Table 3 reveals that there are significant differences among the various populations of the same racial group. The Australoid value is, however, not significant at 1% level.

TABLE 3

Inter-racial comparison

Populations	X^2	P	Remarks
Caucasoid – Australoid	9.91	.001<P<.01	Significant
Caucasoid – Mongoloid	22.03	.001>P	,,
Australoid – Mongoloid	24.46	.001>P	,,
Caucasoid – Australoid – Mongoloid	62.49	.001>P	,,

Ignoring the intra-racial differences, the populations of each racial group have been combined separately and the chi-square test has been applied to find out inter-racial relations. The values have been put in Table 3, which shows that in respect of the frequency distribution of the three types of foot, the three racial groups, namely, Caucasoid, Australoid and Mongoloid, differ from each other.

TABLE 4

Frequencies of the three types of foot in two sexes of some populations

Populations	Sex	N	T %	F %	O %
Bengali Brahmin	Male	130	75.38	16.92	7.69
,,	Female	52	69.23	28.85	1.92
Bengali high caste	Male	240	89.17	7.50	3.93
,,	Female	100	78.00	16.00	6.00
Hira caste	Male	152	88.81	3.28	7.89
,,	Female	210	87.61	7.61	4.76
Khasi	Male	112	87.50	7.14	5.35
,,	Female	124	76.60	8.06	15.31
Rabha	Male	600	69.66	16.50	13.83
,,	Female	600	72.66	18.33	9.00
Mikir	Male	240	80.41	8.75	10.83
,,	Female	200	82.67	13.36	3.96
Mundari	Male	90	81.11	13.33	5.56
,,	Female	18	83.33	11.11	5.56

Table 4 shows the frequencies of the T, F and O types of in the two sexes of some populations. All of them predominate in having the high frequency of the T type, and it is true in the case of both the sexes. In all the samples save the Mundari, the percentage of F type is higher in the females than in their male counterparts. On the other hand, the males show higher frequency of the T type than the females of each of the group. The reverse is, however, true in the Mundari. In this connexion it may be pointed out that the female Mundari sample is too small to deserve any consideration.

In Table 5 the two sexes of each of the populations have been compared on the basis of the values of chi-square test. It appears that significant difference exists between the two

sexes of each of the Bengali high caste, Rabha and Mikir, while as between the two sexes of the Mundari, Khasi, Hira and Bengali Brahmin there is no significant sexual variation.

TABLE 5

Comparison between two sexes

Populations	X^2	P	Remarks
Bengali high caste male – female	10.87	.001<P<.01	Significant
Bengali Brahmin male – female	2.56	.20<P<.30	Not significant
Hira male · female	0.97	.50<P<.70	,,
Khasi male – female	5.11	.05<P<.10	,,
Rabha male – female	8.10	.01<P<.02	Significant
Mikir male – female	8.92	.01<P<.02	,,
Mundari male – female	2.56	.20<P<.30	Not significant

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CEPHALIC AND CRANIAL CORRELATIONS

PAPIA BANERJEE

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Abstract: In an attempt to find out the correlations of the cranial measurements with the cephalic ones, the measurements of 108 adult crania (male-68, female-40) collected from Contai, District Midnapur, West Bengal, were compared with the cephalic measurements of 504 adult individuals (male-272, female-232) of the same area. The cephalic measurements as expected were found to be higher than the cranial ones, but the differences between the two sets of measurements were found to be variable. The present findings were compared with the observations of some earlier authors.

RECONSTRUCTION of the different dimensions of the living body from the skeletal parts is a moot problem and it has been attempted by several scholars since the bigin. ning of the 18th century. Paul Broca's (*cit.* Stewart 1936) suggestion of adding 2 units on the cranial index to convert it into the cephalic one appears to be one of the earliest attempts in this direction. The methods worked out by Manouvrier (1892) and Karl Pearson (1899) for the estimation of stature from the long bones are now widely practised. Trotter *et al.* (1958) have attempted to re-evaluate the whole method.

Apart from its importance in anthropology, studies on cephalic and cranial correlations have also been found to be profitably used in forensic science, specially for the reconstruction of mutilated face (Glaister and Brash 1937). But the existence of a wide range of variation in the metric measurements among the various races of mankind made it difficult to work out a uniform formula for such correlative study. The problem however has been approached from two different directions,

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one by direct comparison of the somatic and skeletal measurements of the same individual taken before and after death, and the other by indirect method, i.e. by comparing the somatic measurements of existing population with the available skeletal measurements of the same place. The first method was attempted by Gladstone (1905), Anderson (1910), Tildesey (1927), Stewart (1936) and others, while the second method was tried by Havelock Charles (1893), Myers (1905) and others. Myers was one of the earliest authors to compare the predynastic and dynastic skeletal remains with the then living population of Egypt.

Method and Material

In an attempt to find out a working principle for such correlative study suitable for this country, the present writer attempted to approach the problem by the indirect method ; for this purpose (a) two cranial collections* from Contai, Midnapur district, West Bengal and (b) somatometric measurements of 504 adult individuals from the same area have been utilized.

Sexing and aging of these two collections comprising 149 crania were done after Hrdlicka (1957), Brovanwaski (1936) and Giles and Elliot (1963). Following them, 68 crania appeared to belong to adult males, 40 to adult females while 24 and 17 crania belonged to children and young adults respectively. For the present purpose only the adult skulls were taken into consideration.

As mentioned before the living data comprise 504 adult individuals (male-272 ; female-232) ; as the skulls were of unknown castes, caste differentiation was not considered in the case of living measurements, rather the flood-affected areas and other surrounding areas from where the first (Bhattacharjee 1957) and the second cranial material were collected were visited for the somatometric study.

* The first collection were from the victims of a cyclonic storm of 1942 (Banerjee 1957) and the second collection was made after 17 years from the date of the first collection from the local cemetery of Khargachandi, situated at the outskirts of Contai town. During that time an anthropometric survey was also undertaken round about the area wherefrom the cranial material was collected.

The correlative study between the three cephalic and cranial dimensions, namely, length, breadth, and auricular height has already received the attention of several workers as shown by Anderson (1910) and Stewart (1936). For the sake of convenience and to make them comparable with the present sample the summarized tables of the above-mentioned authors have been reproduced here again as Tables A and B respectively. Besides the views expressed by the authors mentioned above, Tildesly (1927) suggested an allowance of 10 mm. each to the cranial length and breadth and that of 13 mm. to the auricular height for conversion into the respective living measurement in the case of the Negro, and an allowance of 11 mm. for the conversion of all the three cranial measurements to the cephalic ones among the European. Myers (1905) in his indirect method of study found a difference of 10 mm. for length and 10.5 mm. for breadth between the cephalic and the cranial measurements and suggested a deduction of 1.6 units from cephalic index to convert it to the cranial one. In the present study a greater emphasis has been placed in respect of the above mentioned three measurements and also on a few other measurements of head and face which were not observed by the earlier authors. It has already been shown by Havelock Charles (1893), Schultz (1918) and others that the nasal measurements of the living individuals and those of the crania are not comparable ; as such the comparative study of different measurements of the nose have not been taken into account in the present study. The results of the findings of the present study have been tabulated in Tables 1 and 2. For the measurement of individual characters and for the calculation of indices Martin (1928) was followed.

When the mean values of individual measurements for the crania are compared with those of the cephalic ones, it was noticed that the latter measurements generally yield higher values than the former ones; but when the indices of the above two groups are compared it has been found that the case is not like the individual measurements, the values of cranial indices sometimes exceed the cephalic ones and as such a - sign was used (Tables 1 and 2) here to indicate the higher values of the crania over the cephalic one.

Results

TABLE 1

Statistical constants of measurements and indices of Contai males with the difference in mean values between living and skull.

	Living				Skull				Difference in Mean value
	Range	Mean ± S. E.	S. D.	C. V.	Range	Mean ± S. E.	S. D.	C. V.	
Max. head length	162 – 202	183.04 ± 0.44	7.26	3.97	158 - 194	174.72 ± 0.77	6.96	3.98	8.32
Max. head breadth	125 – 159	143.16 ± 0.34	5.61	3.92	119 – 144	131.94 ± 0.66	4.98	3.77	11.22
Aur. head height	112 – 137	124.08 ± 0.47	4.77	3.84	107 – 130	116.08 ± 0.62	4.74	4.08	8.00
Horizon. circum.	490 – 572	532.22 ± 1.26	15.60	2.93	461 - 528	488.95 ± 1.75	14.35	2.93	43.27
Min. frontal breadth	91 – 120	102.44 ± 0.35	5.14	5.02	85 – 100	92.62 ± 0.41	3.35	3.62	9.82
Bizygomatic breadth	119 – 158	131.67 ± 0.36	5.31	4.03	116 – 132	123.44 ± 0.49	3.64	3.95	8.23
Nasal height	41 – 61	50.37 ± 0.24	3.56	7.07	43 – 53	48.37 ± 0.33	2.69	5.56	2.00
Nasal breadth	28 – 45	35.35 ± 0.20	2.90	8.20	21 – 30	25.00 ± 0.23	1.87	7.48	10.35
Upper facial height	53 – 83	66.52 ± 0.29	4.26	6.40	56 – 73	63.12 ± 0.45	3.98	6.31	3.40
Length-breadth index	69.16 – 91.98	78.27 ± 0.25	4.12	5.26	67.38 85.00	75.66 ± 0.54	4.24	5.60	2.61
Length-height index	58.58 – 75.89	67.47 ± 0.32	3.22	4.77	57.75 – 73.05	66.40 ± 0.38	2.94	4.43	1.07
Breadth-height index	77.97 – 97.66	87.14 ± 0 37	3.75	4.30	79 41 – 97.01	87.94 ± 0.50	3.84	4.37	– 0.80
Jugofrontal index	69.62 – 92.31	77.79 ± 0.20	2.90	3.73	70.54 – 81.20	75.30 ± 0.39	2.86	5.20	2.49
Upper facial index	41.41 – 64.29	50.59 ± 0.24	3.52	6.96	44.44 – 56.59	50.94 ± 0 38	2.80	5.50	– 0.35
Nasal index	52.46 – 93.18	70.38 ± 0.49	7.23	10.27	43.75 – 63.64	51.98 ± 0.58	4.72	9.08	18.40

TABLE 2

Statistical constants of measurements and indices of Contai females with the differences in mean values between living and skull.

	Living				Skull				Difference in Mean value
	Range	Mean ± S. E.	S. D.	C. V.	Range	Mean ± S. E.	S. D.	C. V.	
Max. head length	153 – 194	173.58 ± 0.42	6.36	3.66	152 – 182	165.16 ± 0.97	6.06	3.67	8.42
Max. head breadth	121 – 153	137.29 ± 0.40	6.12	4.46	118 – 138	128.26 ± 0.84	4.92	3.84	9.03
Aur. head height	107 – 132	117.85 ± 0.42	4.20	3.56	104 – 117	110.86 ± 1.02	3.90	3.52	7.00
Min. frontal breadth	89 – 110	99.78 ± 0.31	4.26	4.27	82 – 97	89.84 ± 0.66	4.00	4.45	9.94
Bizygomatic breadth	108 – 136	124.17 ± 0.35	4.80	3.91	106 – 124	113.98 ± 0.75	4.20	3.68	10.19
Nasal height	39 – 58	46.82 ± 0.24	3.26	6.96	39 – 51	44.59 ± 0.38	2.40	5.38	2.23
Nasal breadth	27 – 39	32.56 ± 0.16	2.24	6.88	21 – 27	23.72 ± 0.24	1.53	6.45	8.84
Upper facial height	49 – 73	61.10 ± 0.34	4.66	7.63	50 – 67	58.50 ± 0.54	3.36	5.74	2.60
Length – breadth index	69.49 – 91.02	79.09 ± 0.27	4.18	5.28	68 13 – 87.90	77.76 ± 0.64	3.76	4.84	1.33
Length – height index	60.11 – 75 15	68 41 ± 0.30	3.00	4.39	62.09 – 73.72	67.65 ± 0.51	2.97	4.39	0.76
Breadth – height index	79.02 – 96.12	87.15 ± 0.37	3.74	4.29	79.71 – 95.83	86.82 ± 0.64	3.76	4.33	0.33
Jugofrontal index	74.02 – 90.18	80 41 ± 0.22	2.98	3.71	70.94 – 85.84	78.20 ± 0.59	2.94	3.76	2.21
Upper facial index	39.55 – 60.00	49.13 ± 0.29	3.96	8.06	43.10 – 57.02	51.80 ± 0.56	3.08	5.95	– 2.67
Nasal index	56.86 – 88.64	69.81 ± 0.47	6.42	9.20	41.18 – 64.55	53.24 ± 0.77	4.80	9.02	16.57

It will be seen from Table 1 that in the males the mean values for the cephalic measurements exceed those of the cranial ones by 8.32 mm. for length, by 11.22 mm. for breadth, by 8.00 mm. for auricular height, by 9.82 mm. for minimum frontal breadth and by 43.28 mm. for horizontal circumference of head, while in the females (Table 2), the mean values of the first four cephalic measurements exceed those of cranial ones by 8.42 mm., 9.03 mm., 7.00 mm. and 9.94 mm. respectively. Horizontal circumference of the female individuals were not measured to avoid the inaccurate findings due to their long and thick hair. In facial measurements the mean values for the living are found to exceed the cranial ones by 8.23 mm. for bizygomatic breadth and 3.40 mm. for upper facial height among the males, while in the females the respective measurements of the living exceed those of the crania by 10.19 mm. and 2.60 mm. respectively. The sexual difference in respect of the above measurements is not uniform in nature. In head breadth, auricular height and in upper facial height the males show a greater difference between the cephalic and the cranial measurements than the females while in bizygomatic breadth the picture is reversed. In head length and in minimum frontal breadth almost the same amounts of difference are met with in the two sexes. It appears however that the sexual differences do not play a significant role so far as the differences of the cephalic and the cranial measurements are concerned.

In length-breadth index, in length-height index and in jugo-frontal index the mean values for living males stand higher than those of the cranial ones by 2.61, 1.07 and 2.49 units respectively, while in breadth-height index a different picture has been observed, the mean value found on the skulls exceeds that of the living by 0.80 unit. Among the females the above mentioned indices of the living exceed those of the crania by 1.33, 0.76, 2.21 and 0.33 units respectively. A sexual difference appears to be present in the case of upper facial index, the mean value for the living (50.59) being almost similar to that of the cranial one (50.94) among the males, but among the females the crania show a higher mean (51.80) than the living (49.13). It should be mentioned here that the sexual difference found in

the case of length-breadth index is not so definite. In the present male cranial sample there is only one hyperbrachycranium with a low index valne (Table 3), and as such a greater difference of 2.02 units in this head-form has also affected the total mean difference of 2.61 units (Table 1) between cephalic and cranial indices of the Coutai males.

TABLE 3

Cephalic and cranial correlation according to different head-forms (males).

Head form	Living		Skull		Difference
	No.	Mean	No.	Mean	
Hyperdolicho	7	69.66	6	68.75	0.91
Dolicho	79	73.98	20	72.65	1.33
Meso	116	78.55	23	77.08	1.47
Brachy	57	82.86	9	81.95	0.91
Hyperbrachy	13	87.92	1	85.90	2.02

Comparative Study

Table A from Anderson (1910)

Authors	Length (mm.)	Breadth (mm.)	Height (mm.)
Merkel	12.00	12.00	6.00
Vierordt	10.00	–	–
Weeks, quoted by Lee (male)	11.10	–	5.90
Lee	11.00	11.00	11.00
Pelletier, quoted by Beddoe	10.00	10.00	8.00
Gladstone (male)	7.25	7.40	3.79
(female)	7.12	6.98	3.40
Berry and Flashman (male)	13.5	–	4.5
(female)	11.5	–	5.2
Anderson (male)	8 68	10.55	7.21
(female)	8.12	10.32	7.00

Table B from Stewart (1936)

Author	No.	Sex	Index of head (Aver.)	Excess of head index over skull	Thickness of tissues anti-post	Thickness of tissues anti-post
Broca	19	Male	80	1.70 (cor.)	5.8	7.7
Stieda	20	Mostly male	81	2.06	7.4	9.7
Fere	12	,,	80	1 30	6.4	7.5
Topinard	19	,,	82	0.31	6.5	5.9
Houze (1882)	20?	?	?	2.21	5.–	8.–
Houze (1887)	34	?	?	1.82	?	?
Weisbach	202	Male	85	1.50	5.–	7.–
Mies	23	,,	82	1.11	4.07	5.37
Czekanowaski	64	,,	84	0.5	7.3	6.9
Gladstone	27	,,	?	?	7.25	7 40
Anderson	34	,,	?	?	8.68	10.55
Duckworth	118	,,	78	2.2	7.6	10.2
Todd and Kenzel	25	,,	81	?	5.1	7.–

From the above descriptions and also from Table A (Anderson 1910) and B (Stewart 1936) it will be apparent that in head breadth a difference of 11.22 mm. between the cranial and the cephalic measurements found among the Contai males stands in close agreement with that of 10 mm. difference as observed by Myers (1905), Tildesley (1927), Lee, Pelletier, Anderson (Table A) and Duckworth (Table B). The difference of 8.32 mm. between the cephalic and the cranial length among the Contai males also appears to be similar to the findings of Anderson and Duckworth (Table B) and occupies an intermediate position to the findings of 10 mm. to 13 mm. difference found by some authors (Table A) and 4 mm. to 7 mm. difference as found by others (Table B). In auricular height the Contai males show a smaller difference of 8.00 mm. between the cephalic and the cranial measurements in comparison to

13 mm. and 11 mm. difference found among Negroes and Europeans respectively (Tildesley 1927). But it stands in conformity with the findings of Pelletier and Anderson (Table A).

In the females, the differences between the cephalic and the cranial length (8.42 mm.), breadth (9.30 mm.) and auricular height (7.00 mm.) agree very well with the respective allowances suggested by Anderson (1910). Comparative study on the other measurements of head and face was not possible due to the non-availability of such data in the earlier studies.

The comparative study on length-breadth index which appears to have received the foremost attention than other indices by the earlier workers do not show any uniformity of opinion. Stewart (1936) has summarised the views of the earlier authors. The opinion appears to be a controversial one regarding the allowance (1 to 3 units) to be added over the cranial index to convert it into the cephalic one. Furthermore Kappers (1934), Stewart (1936) and others favoured the idea of a variant reduction of units for the different head-forms, dolichocephaly, mesocephaly and brachycephaly, to convert them into the respective cranial ones. Kappers believed that difference of one or less than one unit in brachycephaly, one or more than one unit for mesocephaly and two units for dolichocephaly have to be adjusted for such conversion. But according to House, Mies (*cit.* Stewart 1936) and Stewart the differences between cephalic and cranial indices increase as the shape of the head becomes rounder. Stewart (1936) suggested an allowance of two or more than two units for the conversion of brachycrany and hyperbrachycrany respectively. Martin (1928) pointed that there exists a difference which is less than 2 units between the two indices, cephalic and cranial, irrespective of different head-forms, and he therefore advocated the idea of adding one unit on each cranial form to convert it into the respective cephalic one. To gain a comprehensive idea on the above mentioned controversial issue the cephalic and the cranial data of Contai have been compared below (Table 4) according to the different head-forms.

TABLE 4

Cephalic and cranial correlation according to different head-forms (male and female combined)

Head-form	Living		Skull		Difference
	No.	Mean	No.	Mean	
Hyperdolicho	10	69.79	7	68.44	1.35
Dolicho	133	74.30	24	73.35	0.95
Meso	219	78.52	45	76.92	1.40
Brachy	112	82.99	14	82.29	0.70
Hyperbrachy	30	87.77	3	86.56	1.21

It will be apparent from Table 4 that the present samples, the living and skeletal ones, when compared according to the different head-forms stand in close agreement with Martin's (1928) suggestion of adding one unit to each of the cranial form to convert it into the cephalic form. How far such an agreement is due to the use of Martin's classification for the present work and how far it is due to the smallness of the data cannot be properly assessed presently. Further researches with larger data from various populations are absolutely necessary for the complete understanding of the problem.

Thanks are due to Dr. S. S. Sarkar for his kind research guidance.

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A BRIEF METHODOLOGY OF RIDGE COUNT ANALYSIS ON INDIAN POPULATIONS

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Abstract. The authors have reviewed briefly the methodology adopted for ridge count analysis and stressed the need of its uniformity for comparative purposes ; the mean and S. D. of ridge counts are supposed to be the pre-requisite conditions for the same.

IN a recent paper in the *Annals of Human Genetics* on the ridge count of the Parsi community in India, Mavalwala (1963) has stated 'Although there is a great deal of interest in dermatoglyphics in India, only one paper has yet appeared on ridge count analysis (Gupta, Basu and Sarkar 1961). In this paper ridge count has been studied in the Lambadi.' The Parsi data have been presented to supplement the data already available, only of four European populations analysed by Holt (1949 & 1958), Da Cunha *et al.* (1954), Lamy *et al.* (1956) and Book (1958).

This has stimulated us to refer to a few more reports on ridge counts of Indian populations already available and to supplement them with a brief note on the situation, with special reference to the comparative value of the material.

It is likely that Mavalwala has not found the Lambadi data suitable for comparison in the absence of mean, standard deviation and the frequency distribution of total ridge counts. Such figures are however available for at least five Indian samples in a paper published earlier than that of the Lambadi

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(Singh 1961) and the Parsi data could probably be compared with them. While it is important that standard deviation and distribution should be published with the mean of ridge counts, it is proposed that in the absence of total ridge count, which has many scientific advantages (Holt 1949, 1955, 1958, 1960, 1961 and others), the mean of average number of ridges per finger, often referred to as quantitative value (Geipel 1961, Mukherjee 1962) after Bonnevie (1629), could serve the purpose of comparison. This applies also to ridge count data available for populations outside India (Da Cunha *et al.* 1954). Normally, when ridge counts of all ten fingers of all individuals are recorded, as in the Mahar (Mukherjee 1962), the mean and standard deviation (S. D.) of total ridge count could be obtained by multiplying those values for average ridge count by ten.

But in smaller samples as in Lambadi (Gupta *et al.* 1961) the consideration of total ridge counts bearing out even one or two individuals all of whose fingers could not be used for ridge count would lead to a loss of a significant part of the data. On the other hand, the sum of average ridge counts for ten fingers or mean of average ridge counts per individual may give an estimate of the mean of total ridge count for the sample, the error involved being smaller.

For a ready reference the mean of the total ridge count and S. D. (where possible), published so far or their estimates based on mean average ridge counts are presented in Table 1.

A broad comparison of the data show an amount of agreement, though imperfectly, between ridge count and pattern intensity as observed by Holt (1961). The Brahmin, Ahir and other Hindu castes besides the Parsi, who are supposed to contain western ethnic elements, show markedly less pattern size and intensity than some Muslims of U. P. and tribal populations of Central India.

Unfortunately some lack of uniformity in methods of analysis stands in the way of comparison of some more ridge count data available from Indian populations. It appears that the distribution curves of quantitative values of ridge counts

published by Chakravartti in his papers on Pahira (1959a), Kadar (1959b) and Santal (1960) do not represent the frequencies of average ridge count per finger of individuals as shown in the three ranges of VV (0-15 counts), Vv (16-21 counts) and vv (above 21 counts) 'phenotypes' (Bonnevie 1931). The mean values of these quantitative values listed in Table 2, cannot therefore be used for comparison with the mean ridge count of other populations, unless the method of determining such 'values' are clearly stated. These distribution curves, in any case, show the negative skewness and other trends similar to that in the distribution of total ridge count first shown by Holt (1949). They have, therefore, been used for mutual comparison of general trends of ridge count among the Mundari and Dravidian tribes of Eastern India (Mukherjee and Chakravartti 1963).

It has again been the practice to represent ridge count frequencies (Biswas 1936, 1956, 1957 b ; Verma 1952 ; Tiwari, 1955 a, 1955 b ; Chakravartti 1959 a, 1959 b and 1960 ; Garg 1961 ; Geipel 1961) in terms of the 'genotypes' of three independent pairs of alleles (Bonnevie 1931).

Although it has proved impossible to analyse the distribution of ridge count of individuals into three component parts corresponding to three phenotypes (Holt 1960) and the method of 'genetic analysis' used for such classification (Bonnevie 1931) has been found to be arbitrary, VV, Vv and vv could be considered as three classes of value in the distribution of ridge count in the absence of such a distribution. The ethnic variaton in the frequency of these phenotypes (Cummins and Midlo 1943 and others) may really mean such variation in the frequency distribution of the total ridge count.

It would indeed be useful if distribution of total or at least average ridge count per individual could be published with their means and standard deviations on both the fresh and already analysed population data. Meanwhile some existing papers are referred to for an understanding of the general trends in comparison and a historical development of ridge count analysis in India.

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TABLE 1

Actual or estimated Mean ± S. D. (where possible) of Total Ridge Count and Pattern Intensity Indices (P. I. I.) of some Indian Populations.

Population	Description	Sex	Persons	Fingers left out	P. I. I.	Total Ridge count Mean ± S. D.	References
Bhil	Tribe of Central India	M	33	—	13.8	159.4	Geipel 1961
		F	24	1	12.6	143 5	,,
Korku	,,	M	31	1	13.8	165.5	,,
		F	25	—	15.2	150.0	,,
Munda	,,	M	20	1	14.3	154.7	,,
		F	6	—	14.2	141.2	,,
Oraon	,,	M	26	—	14.4	139.7	,,
		F	34	—	14.6	151.7	,,
Kharia	,,	M	5	—	13 8	155.6	,,
		F	13	—	15.2	164.5	,,
Kisan	,,	M	9	—	16.0	184.3	,,
		F	10	—	16.3	162.3	,,
Pooled	,,	M	124	2	14.6	157.7	,,
		F	112	1	14.5	154.7	,,
Brahman	Caste of U. P.	M	203	—	13.76	145.30 ± 39.20	Singh 1961
Rajput	,,	M	103	—	14.16	146.7 ± 41.60	,,
Ahir	,,	M	114	—	13.85	149.7 ± 36.70	,,
Muslim U. P.	Community	M	100	—	14.67	161.0 ± 31.5	,,
Miscellaneous	Castes of U. P.	M	181	—	14.42	143.0 ± 33.7	,,
Lambadi	Tribe of Andhra (Related to Rajput)	M	51	1	13.28	140.5	Gupta, Basu and Sarkar 1961
		F	54	1	12.24	133.8	
Mahar	Castes of Nagpur (Central India) converted into Buddhist	M	115		13.0	149.1 ± 62.8	Mukherjee 1962
		F	116		24.40	137.0 ± 60.0	
Parsi	Bombay (Western-India)	M	200		13.97	139.8 ± 45.39	Mavalwala 1963
		F	200		12.97	135.9 ± 41.27	

TABLE 2

Quantitative values of ridge counts of some Indian tribes reported by Chakravartti

Tribe	Sea	Persons	Fingers left	Quantitative value	References
Pahira	M	33	1	11.9	Chakravartti,
	F	21	–	10.8	1959. a
Kada	M	80	12	11.3	Chakravartti,
	F	65	77	10.1	1959. b
Santal	M	62	1	11.2	Chakravartti,
	F	61	–	10.6	1960

BOOK REVIEWS

India and Ceylon ; Unity and Diversity. A symposium. *Edited by Philip Mason. Published for the Institute of Race Relations. Pp. xii+311. Oxford University Press, London. 1967. Rs. 42.50.*

This collection of 13 essays published for the Institute of Race Relations considers five main areas of tension in Indian society, namely, religion, language and region, the tribal populations, the 60 million ex-untouchables, and the rift between the educated middle-class elites and the mass of the people. Prof. Philip Mason provides an introductory framework and the other contributors are Percival Spear, W. H. Morris Jones, M. N. Srinivas, Andre Beteille, Adrian C. Mayer, Owen M. Lynch, Dennis Dalton, Christoph von Fürer-Haimendorf, T. B. Bottomore, S. Avasaratnam and Hugh Tinker. The subjects covered range from The Position of the Muslims, Before and After Partition ; Language and Region Within the Indian Union ; The Cohesive Role of Sanskritization ; The Future of the Backward Classes : The Competing Demands of Status and Power ; Caste and Local Politics in India ; Rural Cities in India ; Continuities and Discontinuities : The Gandhian View of Caste, and Caste after Gandhi ; The Position of the Tribal Populations in Modern India ; Elite, Status Groups, and Caste in Modern India ; Cohesion and Division in Indian Elites ; Nationalism, Communism and National Unity in Ceylon ; and Is There an Indian Nation ?

It is difficult to do full justice to all these essays in a single brief review. But the present reviewer has wondered why the subtitle 'Unity and Diversity' was particularly chosen for this group of essays. There is only one essay, namely, that by Hugh Tinker where we are told that at the root of India's cultural unity, there is a 'unity of spirit' (quoting Rabindranath) or of the 'Hindu human type' (quoting Nirad C. Chaudhuri, pp. 284, 285, 287). Prof. M. N. Srinivas, of course, shows that an extravagant concern for 'ritual purity' and 'fear of pollution' was the chief characteristic of the Hindu social structure (pp. 67 ff.). But this is perhaps not true of other religious communities living in India. Andre Beteille has related in his essay on the Backward Classes

how Hindu social structure was a conglomeration of competing 'styles of life' which were prevalent among various castes or communities ; and after an analysis of present political trends, he comes to the conclusion : 'the different cultures of the multitude of castes and communities tend more and more to be replaced by a single culture in which the same aspirations, values and symbols are shared by an ever-widening circle of people' (p. 109).

The shape of the 'Unity', if it is at all there, is perhaps overshadowed by the 'Diversities' and tensions or conflicts described in the book. And even here, the 'unity' or 'uniformity' which spread in course of the centuries all over India in the shape of an aspiration to build up a non-competitive productive organization (the economic sub-structure to which Dennis Dalton has made a reference while quoting Vivekananda and Gandhi, pp. 167, 171, 175), or the changes which are coming about in it (not on account of an emancipation from concern with ritual purity, but for other, more earthly reasons) seems to have been overlooked.

There was another element in the superstructure of caste to which hardly any reference has been made except a cryptic one in Mr. Tinker's essay. And that is with reference to the belief among the Hindus that, once communities are bound to one another by the economic structure of caste, they can be left free to follow their culture or fractional view of Truth, in freedom. Prof. Srinivas also makes a loaded reference to it when he says that 'Hinduism is best described as a loose confederation or innumerable cults, the connecting threads of which are found in Sanskritization, and, in the last resort, Brahmins' (p. 69).

Without commenting upon whether this is the best way of describing the superstructure of Indian civilization, one may say that there is very little in all these essays to indicate what is happening today to *this* aspect of Indian culture. Political changes and tensions arising out of imperfect modernization or westernization have been the chief concern of most authors. And even here, the prevailing idea has been that it is the *conscious* desire of some castes or classes to prevent access to others like the Muslims or the Backward Classes (including the tribal people), to positions of power and status, which has been the root cause of the trouble.

The question may legitimatly be raised : Are the social conflicts merely, or even largely, due to the 'tradititionalism' of

some and 'modernism' of others ? If we look at the records of modern occupational changes in India, it is at once apparent that the modern productive organization, based upon free enterprise, has not yet been able to accommodate even 20 per cent of our population ; and therefore a very large fraction have still to depend upon caste-based rural economy. This obvious inability of the new productive organization to give work to a large number of people who come flocking into the cities to find work has naturally led to the desire among many to preserve the old system as a reserve country-boat which will help them to cross the stream of life if the steamship of modern technology can find no place for them.

Under this basic condition of imperfect change, is it any wonder that a large number of conflicts will arise out of the situation ? Where there is not enough for everybody to go round, is it any wonder that people will try to cling to some of their old rural unities and identities in order to find a place in the newly emerging economic and social system ?

It should not also be forgotton that the number of modern social organizations like trade unions, co-operative societies, employment exchanges, welfare organizations of a non-communal nature, etc., which ought to cut across language, region and caste identities, did not grow up in India fast enough during British rule. Trade unions, or even Gandhian organizations of a non-communal nature, like constructive organizations or those for promoting active Satyagraha against social or economic disabilities, were all suspected or banned by British rulers. If certain forms of new unities were thus hampered in their growth and if people resorted to the use of their caste or linguistic or regional institutions *in order to serve the new functions of political or economic life*, was it due to their inborn conservatism or incorrigible traditionalism ?

When the power and organization of the 'masses', in Gandhi's terms, could not be built up adequately when the moment of Indian freedom came, and if power came to the middle and upper classess as a result of a transfer by constitutional means, are not the resulting tensions between competing middle and upper classes the result of a particular historical situation, rather than being a generalized characteristic of all 'developing countries' ?

In spite, therefore, of the excellent presentation of these essays, some of the most vital problems of change connected with either Indian 'unity' or 'diversity' have been left unattended. If 'history' had been brought more adequately into the analysis of current events in the economic, political and cultural levels, a picture of India might have emerged which would have been less myopic.

N. K. Bose

Riots in Rourkela. *By B. B. Chatterjee, P. N. Singh and G. R. S. Rao. Pp. 144. Published for the Gandhian Institute of Studies by Popular Book Services, New Delhi-3. 1967, Rs. 16.00.*

The book is the outcome of a study of the 1964 Rourkela riots, conducted just four weeks after the fateful event, by a group of three social scientists of the Gandhian Institute of Studies, Varanasi.

Besides a Foreward by Jayaprakash Narayan, four Appendices and a Glossary of Terms, it comprises six chapters. The method of study adopted by the authors is psycho-social and hence it differs from that of the Administration. On the basis of the data collected, it arrives at a significant conclusion, namely, that the riots were the outcome of the state of tension between different groups of people, local and outsider, which is characteristic of Rourkela and other recent industrial complexes. The release of this tension into communal riots was the result of the immediate stimuli and it might have taken (and might take) the form of any other kind of riots—linguistic, ethnic or labour.

In view of the rising incidence of the different kinds of riots, the findings of the book deserve special attention and rethinking on the part of those engaged in planning.

Dineshwar Prasad

Adhunik Bharat Men Samajik Parivartan. *By Professor M. N. Srinivas and translated by Nemichandra Jain, Rajkamal Prakashan Private Limited, 8 Faiz Bazar, Delhi-6. Pp. 214. Rs. 10.00.*

This book is a Hindi translation of the original book *Social Change in Modern India* written by Professor M. N. Srinivas. As a matter of fact this book is based on four talks which the author delivered at the University of California, U. S. A., during the session 1962-63.

The book has five chapters dealing with sanskritization, westernization, social mobility, secularization, and on methodology ; apart

from two forewords, one by the author himself and the other by M. B. Emeneau of the University of California, Berkeley ; notes ; bibliography ; glossary of the relevant Hindi terms ; and an index. The book runs into 214 pages and has a nice get-up. The book is dedicated to Professor E. E. Evans-Pritchard.

The translation has been very ably done without twisting the author's idea and expression, and without using difficult (Sanskritized) Hindi words. Above all Mr. Jain has also taken special care to give an exhaustive and meaningful glossary of both Hindi and English terms at the end of the book.

B. N. Sahay

The Origin and Development of Vaisnasism. (Vaisnavism from 200 B. C. to A. D. 500). *By Suvira Jaiswal. Pp. xv+267+1 map. 1967. Munshiram Manoharlal, Post Box No. 1165, Nai Sarak, Delhi-6. Rs. 25.00.*

The book contains the following chapters : Introduction, Sources, Vaisnava Pantheon, Doctrines of the Vaisnavas, Rituals and Observances of the Vaisnavas, Extent of Influence and Conclusion. These are followed by three appendices, bibliography, a map and a general index.

The author deserves congratulation for the meticulous care which she has bestowed upon the collection of data from every possible source, whether literary, numismatic, sculptural or architectural. Her principal thesis is that Vaishnavism evolved in course of time by the fusion of various tribal or non-Aryan cults round a central core of Vedic or Brahminical origin. She has tried to prove that Brahminism was first faced by the challenge of Buddhism which became popular through the efforts and political influence of Asoka, after which it was confronted by the migration of various non-Indian communities from Central Asia. Thirdly, as conditions of production evolved, the Sudras, who were originally subjugated local communities forced to labour for the conquerors, now began to hold up their head and rise in the social scale.

It was in order to accommodate themselves to these challenging circumstances that Brahmins took recourse to the path of syncretism, and brought together such diverse elements as the worship of Narayana, Vasudeva, Krishna, Balarama, Sri-Lakshmi, Ekanamsa, etc. into one composite whole. Originally, these cults apparently belonged to numerous discrete communities Use was

also made of the theory of incarnation in a most skilful manner in order to accommodate the conflicting claims of various tribal deities.

In the field of morality, again, changes took place because a patrilineal, semi-nomadic, cattle-keeping people came into confrontation with an agricultural and matriarchal people. As a result of this, the practice of human sacrifice associated with Narayana, as she has tried to prove with reference to the *Pancharatra* doctrine, was given up in favour of the sacrifice of animals ; while it was finally replaced by ideas of non-violence and of non-killing. With regard to ethical beliefs, the author has similarly tried to prove that, in the tribal state, what prevailed was sharing in common with others in a collective, communal property ; while as society progressively evolved after the agricultural revolution, an individualism arose which had eventually to be toned down in accordance with the needs of a more advanced feudal-agricultural society in which obedience or self-suppression came to be regarded as the supreme virtue.

In course of several chapters, the author tries to show in detail how changes thus took place in the areas of belief, practice, ritual and of morality. And it is her contention that the rise and growth of Vaishnavism demonstrates how this particular element in the superstructure of Indian culture reflects the changes in the material conditions of life through which the people of India passed during the period in question. The syncretism accomplished by Vaishnavism helped in the establishment of the Brahminical social system of *Varnashrama* firmly both among the rich and the poor in India. And in this task, the Brahminical priesthood scored a victory over those forces which had hitherto threatened their authority.

The author thus subscribes to what might be recognized as a Marxian view of history. There is nothing wrong in this. But the point is that she has not been able to *prove* satisfactorily that syncretisms were the *result* of changing conditions in the material aspects of life. She subscribes to this view, and expresses her opinion with firmness ; but the evidence is not always adequate. Thus her assumption that matriarchate inevitably preceded patriarchate is not based upon what she has found in India, but upon certain general principles, which are not as firmly established as she might imagine. Her statement that the 'use of rice boiled in milk is in consonance with patriarchal outlook, the characteristic of Vedic Aryans, that of sesamum mixed with rice, is related with matriarchal traditions and points to the matriarchal-agricultural culture of the pre-Aryans of the Indus Valley' (p.133) ; or that 'the principle of non-violence was, no doubt, an idealisation of the mundane desire to protect the cattle for agriculture and to stop their forcible seizure' (p. 118) ; or that the spirit of self-surrender to God in religion was necessarily a reflection of the attitude wanted by the ruling class from the ruled (p.113), are all statements

which need further corroboration by evidence which has actually not been furnished. A spirit of utter submissiveness to God arose in Islam as well as in Christianity as among the later Vaishnavas ; but it is hard to say that in each instance it was due to the operation of like social causes.

In much of her reliance on the nature of Indian social evolution, Dr. Jaiswal has apparently been deeply influenced by the views of the celebrated scholar, D D. Kosambi, who also took many things for granted without attempting to verify them on the Indian scene. The assumptions made by him might have been true by chance, but hypotheses have to be proved even if they are the products of very brilliant minds.

One relevant question arises out of all that has been stated in the book. Brahmins are eventually said to have succeeded in restoring themselves to power by utilizing 'the reconciliatory attitude of Vaisnavism' which gave the country a kind of cultural unity and succeeded in establishing the same kind of social structure all over India (p. 132). If that be so, then it follows that the superstructure of culture played a comparatively more important role than the 'material' base. If this observation is right, then the question which arises is, What was happening to material conditions of life after the Brahminical revival referred to by the author ? If modifications in material conditions had brought about profound changes from the Vedic to the Buddhist Age, then did this process come to a stand-still after Brahminical revival ? Did the superstructure succeed in putting a brake upon changes which would otherwise have come in the material conditions of life ? If that be so, then we have to re-examine the Marxian thesis *as propounded here* with reference to the role of the Brahminical *Varna* system in India.

The reviewer is full of praise for the high scholarship attained by the author. But it appears that she has not examined with sufficient care the structure of productive organization associated with the *Varna* system, particularly with reference to the question as to why and how it persisted through centuries of political upheaval and even cultural change under the impact of Moslem rule. If that persistence is ascribed to the cleverness and adaptability of the Brahmin priesthood, in collusion with Kshatriya rulers, over such a long period of time, then indeed history becomes guided by idealistic rather than materialistic considerations. What is obviously called for is a more thorough-going examination of the *Varna* system and of its superstructure from the 'materialist' point of view than has been made available in the book.

Yet, it is good that the author has made an attempt to interpret the rise and growth of an important religious sect in India in an original way. For it is principally by a dialogue between those who hold one view and those who oppose it that historians will be inspired to look for fresh facts, and thus arrive as near to truth as possible.

N. K. Bose