

PN-AAP-473

Wu: 33815

BAROLONG AGRICULTURE REVISITED:
Gross Statistics and Subtle Explanations

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UNITED STATES OF AMERICA

1982

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1. Introduction

Just as small facts often speak to large issues, so small communities may become the empirical ground for important analytic, methodological, and policy debates. This, in some measure at least, appears to be the destiny of Barolong, a chiefdom of modest demographic and physical proportions situated at the south eastern fringe of Botswana. Indeed, Barolong, with its land mass of less than 440 sq mi and population of scarcely 12,000 people, has attracted far more attention than its size--or, for that matter, its relative significance in the national economy--would seem to have warranted. Much of this attention has been directed, by development planners and scholars alike, at the recent agrarian history and material predicament of the community, and was given impetus by the publication, in the late 1970's, of The Rural Income Distribution Survey in Botswana (RIDS) and The Structure of Agricultural Transformation in Barolong.¹

The first of these studies indicated that Barolong had become one of the wealthiest communities in Botswana, and had done so by rather unexpected means, namely, successful dry land crop production. Although its farmers had previously acquired a reputation in this respect--the popular image of Barolong as 'the granary of Botswana' was already to be heard during the 1960's--the findings of the RIDS elevated a general impression to a statistically verified certainty; or so it seemed. The second, my own study, appeared to confirm and compound these findings by demonstrating that there had indeed been a dramatic rise in total agricultural yields over the preceding decade or so. I did, however, specify that such higher aggregate outputs did not bespeak the general or enduring enrichment of the population at large--quite the opposite, in fact--and later argued (1980; 1982) that their 'accomplishment' was to be understood

as part of a complex and contradictory historical process, a process involving fundamental structural transformations (see below). Nonetheless, these studies conveyed, as they were intended to do, that relations and means of production in Barolong had undergone a metamorphosis, and that this was accompanied by undeniable 'improvements' in agricultural performance, given the manner in which such things are conventionally assessed.²

Since the publication of these various studies, a number of others have emerged, two in particular (Staps 1981; Heisey, *infra*) questioning the extent, character, and implications of the metamorphosis itself. And so debate has been joined: what, in fact, has occurred in Barolong, and how are we to explain it? It is to this problem that the present essay is finally addressed. Let me be clear, however, in stating the terms in which I seek to discuss the issue here: it is my intention neither to 'rethink' Barolong agriculture *de novo* since, as I shall argue, such a general enquiry is not required at this juncture; nor is it, at the other extreme, merely to rebut the particular criticisms that have been levelled at earlier work, and thereby to restate old arguments. My objectives, rather, lie between the two, and are more constructive in spirit. They are, first, to evaluate the growing body of data and interpretation; second, to establish the degree to which it is necessary, in light of these data, to refine our understanding of the agrarian history and contemporary situation of Barolong; and, third, to consider the analytic and applied implications of any such refinement.

In order to place these objectives in proper perspective, it is appropriate to remind ourselves, at the very outset, why the debate over Barolong has assumed significant proportions; why it is crucial that the ethnographic and historical record be securely founded. For analytic discourse does not occur *in vacuo*; it is always motivated, whether explicitly or implicitly, by theoretical concerns and/or practical ends. Two considerations, above all others, underlie much of the increasing interest being focussed upon the farmers of Barolong, and so provide the frame of reference for my discussion.

First, whatever the true scale of the transformation of production in this community (see below, Sect. II), the sheer perception of its occurrence, of a conspicuous rise in gross yields, has persuaded some observers to regard the chiefdom as a potential model for agricultural planning further afield. To wit, its still growing reputation for having embraced an ethos of commercial production, and for putatively having reaped the attendant benefits, has led inexorably to a particular chain of applied reasoning (cf. Heisey, *infra*): given (1) that Barolong has indeed managed to increase its total outputs, an 'achievement' that is relatively rare among modern African peasantries, and (2) that such increases are, for many, the very stuff of development objectives, it (3) becomes eminently worthwhile to account for this ostensibly positive trend in order (4) to emulate it. As it happens, this reasoning is inherently false. As both Heisey (*infra*) and I (1977; 1980; below, Sect. III) have emphasised, the complexities surrounding the agrarian history of Barolong --which are obscured rather than illuminated by gross statistics--make

this case anything but a simple paradigm for economic and social engineering. Thus, for example, the metamorphosis has not only underwritten thoroughgoing changes in the structure of the community, in its relations of production and exchange, its internal lines of social organisation and differentiation, its dominant ideologies, and its relations with the world beyond its borders. It has also brought in its wake the greater impoverishment of much of the population--not to mention productive contradictions which, contrary to short term trends, have precipitated a longer term decline in both gross and unit outputs (see below, p. 23ff; 1980: 111). In sum, appearances, like many of our analytic and statistical categories, may be fundamentally misleading. Nonetheless, the apparent success of Barolong farming continues to be scrutinised with optimism, and so the community remains, for purposes practical, the centre of considerable attention. Yet, self-evidently, the very fact that such optimistic scrutiny may be misconceived, the product of an unfortunate misreading of a complex process, underlines the wider significance of this case for the conception and execution of agricultural planning in Botswana at large.

Second, and perhaps less obvious from the perspectives of national or sub-regional concerns, the metamorphosis of Barolong, by virtue of its comparative singularity, poses a direct challenge to established theories of Third World economy and society. As I have explained elsewhere (1980; 1982), this community shares with those surrounding it a very similar natural environment, a common socio-cultural heritage, and identical relations to the Southern African sub-continental economy, yet none of the others have undergone parallel transformations. In short, notwithstanding Staps' hesitant effort (1981) to differentiate Barolong on ecological grounds, there are no simple 'factors' that distinguish it, no obvious set of independent variables to which its singularity may be conveniently ascribed. The absence of such variables to account for the particular historical trajectory of this community is truly awkward: it enters an emphatic question mark against existing models of social change, whether they be couched in the terms of modernisation or underdevelopment, technological advance or the articulation of modes of production. For, if neo-Marxist theories of dependency or articulation were applicable, Barolong ought to have suffered the same destiny as the rest of the rural periphery of which it is a part (cf. Foster-Carter 1978); it has not. On the other hand, were modernisation approaches valid, there should be a specifiable set of exogenous causal factors which have motivated the metamorphosis of this peasantry in contrast to others (cf. Smelser 1963); there are none. All this, however, is not merely to reiterate the obvious; that is, that the transformation of Barolong represents an especially intractable conundrum. Rather, it makes the point that, if we are to understand the agrarian history and contemporary predicaments of rural African communities, in Botswana and elsewhere, it is necessary to fashion analytic approaches capable of explaining the subtleties of comparative diversity over space and time. And, for these purposes, the apparently intransigent instances, the exceptions, offer a privileged context in which to test and refine our comprehension. Thus the resolution of the Barolong conundrum is not purely an end in itself, but a critical step in unlocking the mystery of African peasantries at large.

Patently, these two sets of considerations, the applied and the analytic, are themselves intimately related. For, while the theoretical issues surrounding the Barolong case might seem unduly abstract--indeed, all too remote from the practical exigencies of development in Botswana--nothing could be further from the truth. Any effort in the cause of socio-economic intervention is invariably mediated by the nature of the context at which it is directed; local communities, after all, do play an active role in their own history (Comaroff 1980; 1982). In other words, development initiatives, like all external forces, must inevitably enter a process of articulation with the indigenous forms that they are meant to affect. And, unless those indigenous forms stand revealed in all their complexity, such initiatives will always have unintended, and often uncontrollable, consequences--this being as true of capitalist-oriented engineering as it is of socialist planning, and as applicable to Botswana as to anywhere else.

These, then, are the considerations which underlie the debate over Barolong; they indicate, simultaneously, why this small community has been the recipient of disproportionate attention and why it is so important that the empirical and analytic record be set straight. It is to that record that I now turn, seeking initially to evaluate the relevant facts and arguments and then to address their explanatory implications.

II. Gross Statistics

The most patent danger of examining economic change, in this case among Barolong farmers, with reference to gross output statistics is that it focusses attention upon symptomatology rather than aetiology, on surface indicators rather than structural dynamics. In the earlier studies, I sought to stress this by pointing out--perhaps with insufficient vigor--that the essence of the metamorphosis lay in changes, over time, in the very constitution of the community; changes, I reiterate, involving the emergence of well-defined agrarian classes, of a new hegemonic ideology, and of transformed material and social relations. In this respect, as we shall see, it does not matter unduly whether the rise in total outputs between 1960 and, say, 1973/4 amounted to 1000 percent or 2000 percent. Not only is the precise yield in a season such as 1973/4 heavily influenced by chance; but, more fundamentally, the reduction of complex transformations to superficial 'before-and-after' output statistics may have a severe distorting effect. For, by dealing in aggregates, it may hide the very internal variations that structure the transformation itself. And, by taking as reference points arbitrary moments in time, it may obscure the fact that shifts in levels of production could simply be short run expressions of one phase in an encompassing process; to be sure, a process whose logic necessitates changes in the symptoms to which such figures apply. It was, therefore, not coincidental that a longer term drop in aggregate yields was predicted from the first (1977; 1980), since the rise of agrarian capitalism tends, under specific conditions, to have contrasting effects upon the productivity of farming over different time spans.

This is not to deny, however, that agricultural statistics are important, at least when placed in proper perspective. And, insofar as a short

term rise in outputs is clearly a necessary condition of the early growth of capitalist agriculture, however uneven, it is crucial to establish that one in fact occurred--although this leaves aside, for the time being, the fundamental question of its causes and sources. In characterising the increase of gross yields during the period under scrutiny, I originally suggested that it 'was in excess of one thousand per cent' (1977:i), and later, more specifically, that it had amounted to some 1750 percent (1980:86). This estimate was based on two critical figures: that concerning outputs prior to the 1960's, and those for the early-mid 1970's, in particular, 1973/4, a year of exceptionally good rainfall (cf. Heisey, *infra*). If the estimates of increase are to be disputed, then, there are two possible grounds: that the first calculation was too low, or that the second was too high. Since cases have been made for both, let me consider them in turn.

Staps (1981) has argued that the economic predicament of the community prior to 1960 was indeed more bountiful than previously suggested.³ In so doing, he disagrees, implicitly, with the contention that Barolong, like other rural black populations in the Bechuanaland Protectorate and South Africa, had been underdeveloped by material forces at the sub-continental level (cf. Parson 1980; Palmer and Parsons, eds. 1977; Comaroff 1982:147, 163ff). Moreover, while no specific figures on cropping outputs are adduced, it appears to be his view that my original estimates for this earlier period--that 'annual outputs seem never to have exceeded a total of 20,000 bags of grain (1 bag = 90 kg), and seldom reached 2 bags per head of population' (1980:97)⁴--misrepresent the true situation. As support for the allegation, he offers disparate pieces of evidence, most notably oral histories and stock census data reported by Schapera (1943).

According to oral accounts collected by Staps himself, "Local people . . . maintain that from the 1940's the Barolong arable production has been far more successful in comparison with other regions in the country" (1981:33). In purely comparative terms, Staps' informants may be correct. Given the fact that the occupants of the territory lived at their fields, together with their draught animals, they were certainly in a better position than village domiciled Tswana to control the timing of their farming operations--which is crucial in dry land agriculture--and thereby probably did harvest higher yields per hectare than most under the prevailing factors of production. But these factors, and especially the scarce availability of labour, placed stringent limits upon Barolong croppers (Comaroff 1982). The observation, therefore, that this community was relatively more successful than others in their arable activities may be accurate, sensu strictu; but that does not mean that it had a healthy local economy from the 1940's onwards. It hardly needs to be remarked that indigenous memory is not exactly a reliable source of historical inference, particularly in respect of socio-economic indices that refer to performances of four decades past; optimistic recall, even at the most impressionistic levels, has to do with the manner in which a community constructs its history, not with the facts of that history per se. In fact, the 'hard' evidence demonstrates that Barolong did harbor an impoverished population: not only are the files on the Barolong Farms lodged at the Tshidi Tribal Office (Mafikeng) replete with documents attesting

to the penury of local households, but Wande's study (1949) of socio-economic conditions in the 1940's indicates vividly that contemporary arable production was, at best, a hazardous business. In addition, Schapera (1947:34) notes that over 60 percent of tax-paying Rolong were away as migrant labourers in 1942/3,⁵ largely as a result of economic need (p. 121ff). All this scarcely paints a picture of a thriving material situation.⁶

The sole empirical basis for Staps' contrary view, then, becomes the stock census data for 1943 (Schapera 1943:Appendix A), according to which Barolong held 9609 livestock units, 9097 being cattle; 'not exactly a low figure' (Staps 1981:33). Assuming, for the moment, that all these animals were owned by the 670 or so local households⁷ (see below), the average domestic herd consisted of some 13.6 cattle (14.3 Isu).⁸ Now, at that time, ten head of cattle was regarded as the minimum size herd required to yield any disposable annual surplus (Schapera, op. cit.); which means that, on average, 3.6 head (4.3 Isu) were available to householders to meet obligations as variable as taxation and levies, domestic necessities, ceremonial demands (funerary goods, etc.), and bridewealth and other prestations. Given that the sale of grains was not a source for coupling the requisite funds (Schapera, op. cit.:130ff), these 'surplus' animals had to make up the shortfall. The fact that they were insufficient to do so, to reiterate, lay behind the flow of both seasonal and urban migration, a flow which emanated from the large majority of families. It is thus fallacious to conclude that Barolong pastoralism was of large enough scale to guarantee material security or comfort. What is more, it is clear that not all the stock in the territory were owned by local households: according both to available records and to my own informants at Mafikeng, a great number of the cattle concerned belonged to senior royals living in South Africa.⁹ They were ranched, prior to Independence, either at meraka (cattleposts) retained by these men on the Farms, or were held by junior kin, residing in the Protectorate, under mafisa-like arrangements. This is given further confirmation by the fact that the farms with the largest stock populations¹⁰ had, as their holders of the period, descendants of the Montshiwa, Molema, and Tawana agnatic segments, all senior collateral lines of the ruling descent group. Hence, even the average number of 13.6 cattle (14.3 Isu), itself not exactly a high figure, is probably a substantial exaggeration of the prevailing situation.

In sum, it is plain that the objection to the pre-1960's characterisation cannot be seriously entertained; quite simply, it ignores the most obvious and compelling evidence in favour of highly questionable 'facts'. Indeed, if there is correction to be made, it is in the opposite direction: note that, in employing the figure of 20,000 bags of grain as a baseline from which to calculate the gross rise over the period in question, the very highest possible total was used; to be sure, it is an optimistic one which, in all likelihood, was never realised in practice.

Altogether more serious, though, is the question of Barolong production in the early-mid 1970's and after, since it is on this question that any characterisation of the metamorphosis ultimately depends. Staps (1981), Heisey (infra), and, by implication, Ntseane (infra) have addressed the problem most directly; but, for present purposes, I shall

focus upon Heisey's excellent study, as it is both the most comprehensive and the most subtle effort to 'rethink' Barolong agriculture.¹¹ At first glance, moreover, his analysis appears to differ most markedly from those embodied in The Structure of Agricultural Transformation and "Class and Culture"; although, in my own view, the points of convergence between these various analyses turn out to be inestimably more substantial, if less conspicuous, than are their disagreements. In order to put matters in their true perspective, however, let us begin with the latter.

Using the seasons between 1978/9 and 1980/1 as his point of reference, Heisey begins by noting that, according to one significant measure (i.e. yields per hectare), Barolong has enjoyed considerably greater 'success' than its neighbours, and has achieved output levels much higher than the national average (p. 6).¹² In addition, while the community 'has under 2% of Botswana's farmers' (p. 3), it produced 3.5 percent of the national crop in 1978/9, 7.8 percent in 1979/80, and 14 percent in 1980/1. Nonetheless, he suggests, 'overall agricultural production in Barolong has probably never been as high as is usually thought' (p. 3), indeed, the very notion of 'success' ought to be judiciously regarded. In this respect, there are two dimensions to his argument which require to be differentiated: one addresses the over-arching picture of gross yields at the collective level; the other, the more complex issues of internal variation and the contradictory development, over time, of profiles of production and practice.

The former dimension is straightforward: Heisey avers that the 'static picture' of 'overwhelmingly successful arable production, in total' (p. 12), as allegedly portrayed in The Structure of Agricultural Transformation for 1973/4, cannot be correct. Not only does it stand in stark contrast to the findings of later quantitative studies, but, on grounds of internal consistency,¹³ it appears unduly optimistic.¹⁴ A number of observations are offered in support of this contention:

- 1) First, the perfectly reasonable point is made (p. 51) that total crop yields are everywhere limited by the factor of arable hectare utilised. If the stated gross output figure of 31,500 metric tonne is correct (1977:17), and a mean yield of 1000 kg/ha was achieved--which 'seems high as an area wide mean, but certainly not impossible' (p. 51; see below, fn. 17)--31,500 ha must have been harvested in 1973/4.¹⁵ The corollary, however, is that virtually all of the arable land in Barolong had to have been used, and that there could have been very little agricultural area controlled by large farmers but left unploughed. Not only are such inferences difficult to accept in their own right, but they would contrast, unbelievably, with the fact that, in recent normal to good rainfall years, harvested areas have only been one third of what they must have been in the mid-1970's. A more likely conclusion is that the stated production figure of 31,500 metric tonne is too high.

By contrast, I do not, in retrospect, find it implausible that virtually no land was left unused or unharvested in the very bountiful years

of the early-mid 1970's. Quite the opposite: that period marked the height of the 'land grab' described elsewhere (1980:106ff); this itself being a conspicuous phase in the emergence of a class of capitalist farmers, for whom the expansion of utilised hectares was a crucial contemporary step in the consolidation of their operations (loc. cit.:100ff). In fact, dispossession of the fields of smaller farmers by larger ones was frequent; and sharecropping, including arrangements entered by non-members of the community, was very common. Moreover, not only were large farmers employing all their arable lands, but were actively engaged in seeking more to plough as they acquired additional mechanised means (cf. Staps 1981:37-8). At two consecutive meetings of the Rolong Land Board, the Regional and District Agricultural Officers remarked that 'all the land in Barolong was being used', and that land-use planning had become a critically urgent requirement. To be sure, applications to the Board--like disputes--were at a premium, since the popular perception did not differ much from that shared by officers of the administration. In sum, it seems not in the least unlikely that an inordinately high proportion of available hectares were put under the plough in 1973/4. And, in my own view--based on detailed measurement--the extent of those hectares was larger than officially estimated (see Heisey, p. 42); indeed, for the reasons given by Heisey himself, there is little reason to change the view that they were well in excess of 31,500 ha.¹⁰ On the other hand, the problem of the dramatic decrease in the land used in later years is a quite different issue; one which refers to a subsequent phase in the unfolding process of transformation, and to which I shall return.

- 2) Second, it is improbable that some 30,000 ha or more could have been put under the plough, since this would have more than exhausted all available draught power (p. 52). Given the number of working tractors, and their patterns of use, along with the ratio of households owning enough stock, only 50-70 percent of farmers could have had adequate draught. Under such conditions, it stretches the imagination to suggest that such large areas were cultivated, or that 90 percent of farmers sold grain in 1973/4.

In fact, the draught equation is rather more complex than it looks. Above all, not all those households which sold grain in 1973/4 actually ploughed and harvested on their own account, as a palpable number were the 'beneficiaries' of share-cropping returns on land which they had allocated to someone else's (mechanised) use. In addition, draught teams were not always deployed exclusively by the household which possessed them: it is characteristic, among poorer farmers (1977:Ch.3), that reciprocal arrangements among kin involve exchanges of both labour and the means of production, so that patterns of ownership and use are not co-extensive. But there is also one other factor missing from the equation; the culpability for this being entirely mine, since the matter was not made clear in The Structure of Agricultural Transformation. It is, simply, that the figures recorded there referred purely to intra-community holdings and transactions; yet production in Barolong, especially in the expansionist years of the early-mid 1970's, involved the supplementary use of tractors and implements owned by non-Tswana lessees living locally and, in some cases, by farmers from across the border. Again, therefore, the total amount of available draught does not have to be 'given the

benefit of every doubt' (Heisey, p. 52) to make sense, or to render plausible the reported figures of total yields and sales.

- 3) Most generally, Heisey carefully examines (p. 46ff) the various methodologies on which Barolong agricultural statistics are based, and concludes, correctly in my view, that all such methodologies are readily liable to sampling error. Because of the existence of great internal variations in the material standing and productive activities of households within the community, aggregate and average figures are likely to over- or under-estimate the true situation by a considerable margin, depending on the degree to which large farmers are included in any particular sample. The statistical findings of the two surveys on which some of my earlier analysis was based, it is suggested, have fallen prey to precisely such over-estimation; consequently, they offer an inflated image of the overall agricultural success of Barolong.

The point is well taken: like all other studies, mine are clearly vulnerable to error, although every effort was made at the time to ensure the greatest possible levels of accuracy. Moreover, it is, unfortunately, no longer possible to verify the data collected almost a decade ago. Consequently, Heisey may be absolutely right: for example, the proportions of households holding mechanised means or employing 'modern' techniques might actually have been lower than those indicated by my surveys, Agri I and Agri II; so, too, may be the number of farmers who sold varying amounts of grain in 1973/4. But there is another, quite different way in which to regard the problem. Even if we allow for errors of detail in my findings, it is unlikely that they are so amiss as to eliminate the discrepancies between the overall picture which they portrayed and that which Heisey and Staps believe to have obtained later. It is much more conceivable that such 'discrepancies'--the different ratios of hectares planted and harvested; the smaller percentage of farmers who row planted or owned working implements; the higher stock-holding rates; and so on (Heisey, passim)--reflect real changes in factors and relations of production. This possibility, of course, assumes that later survey findings are themselves an accurate representation of the situation circa 1980/1. In this respect, while my faith in official statistics is less firm than that of Staps and others (see fn. 14), I am prepared to accept, without passing final judgement on the official record, that there has been a general decline in productivity and rates of 'modern' practice; indeed, such a decline was predicted (1980:111). I shall return to explain this trend in due course.

More immediately, however, two crucial pieces of data concerning the symptoms of transformation do not depend at all on sampling, and thus fall partly beyond the compass of Heisey's methodological critique. One refers specifically to aggregate grain sales in 1973/4: the total number of bags marketed was arrived at by contacting as many buyers as possible--both corporate and individual, both in Botswana and in South Africa--and adding the figures supplied. These figures were then checked against the estimates of local agricultural demonstrators, which were uniformly low. I cannot be entirely sure that every purchaser was located, hence the reservation that the given total might be pessimistic (1977:36, fn. 1; 1980:98,

fn. 22), but most grain was sold across the border, some as far afield as Lichtenburg and beyond, where prices were regarded as more advantageous. Since it was in no buyer's interest to inflate such figures--most permitted me access to their receipts, which were checked--and any doubts were resolved by taking the lowest possible amount, I am fairly confident of the findings.

The other datum is a rather more general one, and stands entirely above quantification: it concerns the ethos of production in the early-mid 1970's. Whatever the statistical patterns of agricultural performance at that time and after, the hegemonic ascendance of an ideology of commercial farming was unavoidable. As I have described repeatedly, it pervaded every aspect of social discourse and interaction within the community, and configured both the development of local institutions and the very essence of internal political processes. Clearly, attitudes to capitalist agriculture, like strategies for the management of operations within the context it created, were not uniform; they depended upon class affiliations and personal predicaments, for such considerations always mediate the manner in which the structure of a changing situation impinges on the consciousness of those involved. Thus, while not every household might have been able to produce perennially for the market, the fact that a market orientation had come to dominate the conscience collective meant that all were drawn into its purview. Whether this implied the physical protection of one's holdings from a land hungry farmer, the decision either to give fields over to share-cropping or to plough them oneself, the perceived need to utilise arable to prevent its repossession by the Land Board, or a choice to withdraw from cropping activities and enter the agricultural labour sector, it had become impossible to avoid acting upon, or being acted upon by, the prevailing exigencies of production. Such evidence, more than even the most impeccable survey data, attests to the truly fundamental symptoms of the metamorphosis of Barolong; namely, the growth of a new consciousness, a reformed ideology, and a transformed universe of everyday practice.

Drawing all this together, then, it will be patent that the most general level of Heisey's critique--that pertaining to the picture of 'successful arable production, in total' (p. 12, emphasis added)--calls forth a mixed response. On the one hand, I do not consider that the 1973/4 gross statistics of output have been shown to be implausible on grounds of lack of internal consistency (see 1 and 2 above); and, I reiterate, neither figures on crop sales nor evidence on the growth of an ethos of commercial agriculture depend on the sampling techniques which he calls cogently into question (see 3 above). On the other hand, I do accept the possibility that the relevant survey data may indeed have yielded optimistic assessments of the distribution of agricultural practice and the indices of 'success', and may require downward revision. But I should like to affirm a yet more important point in Heisey's analysis. The substantive essence of his argument, as I understand it, is that the gross statistics, whatever they may properly be, ought not to be read amiss; that is, as establishing that Barolong has achieved overwhelming arable success at the aggregate and collective level. In this he is unquestionably correct. Let me expand, since this takes us to the second dimension of his critique, that referring to internal variation and the development of

local production over time. It is also at this juncture that our interpretations begin to converge.

Implicit throughout Heisey's essay is the thesis that the rise of gross agricultural yields in Barolong during the years in question was due less to a uniform and general increase in productivity than to the emergence of a small number of very large farmers. Thus the outputs of the early-mid 1970's cannot be taken as proof of aggregate or community-wide 'success' in any simple sense, for their achievement was primarily concentrated in a few hands. Most local farmers remained small operators and, by the end of the decade, even the middle-range producers had shrunk to a somewhat insignificant proportion of the total. This is confirmed by a series of facts which became especially evident from research conducted in the late 1970's and early 1980's. For example, the indices of modern farming--among them, the distribution of implement ownership and the rate of such practices as row planting--indicate that, for the most part, Barolong performed in ways little different from other communities in Botswana. Moreover, as elsewhere, its peasants had come to depend for survival on extra-agricultural sources of income, and stock ownership now correlated with the scale of cropping operations, so that the preclusive stress on arable activity had disappeared, assuming that it had existed at all before.

It is important to emphasise, in all this, that Heisey does not dispute that the community underwent a metamorphosis. Quite the contrary, he insists, "There is no doubt that an agricultural transformation has taken place in Barolong" (p. 37).¹⁷ Furthermore, even though he calls into doubt the exact extent of total outputs and the universality of farming for the market in the mid-1970's, he agrees that these outputs do appear to have risen substantially until then, and to have decreased in subsequent years. Nor does he repudiate the existence of an ethos of commercial practice, as reflected in the general commitment to perennial cropping activity. What he does assert, however, is that the primary feature of the transformation was, from the very first, the sedimentation of patterns of production marked by significant internal variation rather than by the universal achievement of high unit or gross yields; also, he notes, it seems quite clear that endogenous productive processes have led to the observed drop in aggregate outputs.

Insofar as this stands as a critique of The Structure of Agricultural Transformation--of its failure to stress sufficiently that gross yields are not to be equated with aggregate arable success, nor a rise in total outputs with collective material well-being--Heisey is perfectly correct to make it. In retrospect, it is clearly possible to infer from that study the picture of overwhelming communal achievement; and it is true that optimistic survey data, such as Agri I and II might have begotten, could have over-estimated the degree to which Barolong farmers of all classes and categories out-produced other southern African croppers--although, if we do not trust our data, such calculi of comparative productivity are rendered unresolvable. Whatever its shortcomings, however, both the spirit and the objective of The Structure of Agricultural Transformation was to make exactly the point that Heisey essays: that, while a high aggregate yield, and even relatively high distributions of commercial

activity across all the component categories of the farming population, may appear to demonstrate the collective success of Barolong, it in fact mystifies more than it reveals. Indeed, the study sought to show (1) that only 5-9 percent of farmers had succeeded in becoming large capitalist operators, and that their rise occurred at the political and economic expense of the rest of the community; (2) that the majority of the population consisted of impoverished non-farming workers and small farmers, the latter acting like any lower peasantry in that, while they might produce for the market in good years such as 1973/4, for much of the time they were compelled to engage in subsistence cropping and other income-generating activity, to depend on reciprocal exchange relations for survival, and often to relinquish altogether their arable enterprises; (3) that middle-range farmers were under excessive pressure, given high risks and costs and low profit margins, to reduce the scale of their operations and withdraw into the subsistence sector. Moreover, the point was made that a process of polarisation, along class lines, was gaining momentum within the community, a theme that was taken up again later (1980:111), when it was remarked that

. . . these processes are intrinsically incomplete, but it seems to be the case that, viewed purely from within, Barolong is well on the road to a form of internal underdevelopment, its peasantry having been reduced to a state of under-production at the initiative of the commercial sector [Indeed,] the concentration of resources in the hands of the large farmers is leading to an overall decrease in unit productivity. . . . There is, in other words, an inverse correlation between the growth of Barolong capitalism and agricultural development, even if this is assessed purely in terms of gross outputs.

To confirm Heisey's point yet further, the same study (cf. also 1982) established that the very origins of capitalist farming here lay in the emergence, under particular structural and external conditions, of a very small number of households which succeeded in the exercise of capital accumulation; this being followed by an accelerating process of consolidation and, increasingly, the expropriation of the majority, who did not initially manage to acquire the access for consistent surplus production. This is not to say that the latter were themselves unaffected, in their own productive activities, by the ascendance of a capitalist ideology. As has already been demonstrated (1980; 1982), the sociological and cultural exigencies of their recent history predisposed them, too, to seek to maximise their enterprises; hence the optimistic tendency to plough perennially and, especially in fruitful years like 1973/4, to harvest with a view to marketing as much grain as possible. Of course, to the extent that prevailing conditions constrained the scale of their operations, and ecological vicissitude intervened, the objective of surplus production was never more than intermittently realised; and, inasmuch as some small and middle-range farmers have effectively lost their access to abundant land and labour, it has become progressively more difficult to do so. In sum, the expanding lower peasantry of Barolong, despite the pervasiveness of a commercial ethos, does, in practice, perform much like others in the region; and internal variation, itself a function of growing class differentiae, is the leitmotif of intra-community patterns of production.

These observations, in turn, do not merely attest to a convergence of interpretations, but also lead towards a synthesis; a synthesis which, referring back to the objectives of the present essay (above, p. 3), may stand as a summary evaluation of the growing literature on Barolong agriculture, and begin to suggest some constructive refinements in our understanding of local economic structures and processes.

III. . . . and Subtle Explanations

First and foremost, it is patently a matter of common agreement that the transformation of Barolong cannot, without severe distortion, be reduced to a linear process of 'modernisation' or 'development', let alone one which has witnessed an enduring community-wide embrace of productive arable agriculture. Rather, this transformation has involved the emergence of a form of local capitalism which, from the very start, did not simply engender internal variation, but depended upon it. For the rise of an indigenous class of commercial farmers entailed an intrinsic antagonism between the interests of that class and those of the rest of the peasantry (cf. Staps 1981:35)--from which land, labour, and other forms of value had to be extracted if large enterprises were to be consolidated (cf. Comaroff 1980; 1982). In some instances, such processes of extraction, which occurred over some two decades, led to immediate profits for the victims; for example, the de facto expropriation of land was frequently preceded by a season or two of sharecropping, from which the smallholder received a return much higher than might have been obtained from direct production. But the overall movement was one of polarisation, of a growth of constraint upon small and middle-range farmers in broadly inverse relation to the expansion of the commercial sector; and, since the resources of these smaller producers (viz. land, labour, and draught) were already limited, the scale of their operations could not but remain or become relatively modest, even though they lived in an advantageous relationship with their ecology.

It is not necessary, here, to detail yet again the minutiae of the process; of the manner in which the small capitalist class gained a progressively monopolist control over the means of production and access to capital, over land distribution and the ability to coerce others to their own ends, over communal ideology and public policy. Suffice it to say that the logic of this process is reminiscent of the picture drawn by Lenin (1971:141; see Ferguson 1976) for the historical destiny of peasantries under capitalism. According to this picture, the rise of capitalism--and the growing pre-eminence of commodity production--leads initially to a general rise in levels of output as rural populations avail themselves of new techniques and opportunities. But this soon gives way to the creation of three rural 'sub-classes': a bourgeoisie composed of peasants who, by being able to enrich themselves sufficiently in the transformed circumstances, become expansionist capitalist farmers and, as they do, increasingly exploit the wage labour of others while diversifying their own sources of income; a poor peasantry, which includes landless proletarians compelled to sell their own labour power; and a middle peasantry, which engages both in subsistence cultivation and in the production

of marketable surpluses whenever possible, but which does not depend for its livelihood on the exploitation of others. Of these sub-classes, the lower peasantry becomes most dependent upon non-commercial reciprocal exchanges, and is most often coerced into leaving agriculture altogether. But it is the middle peasantry whose position is least stable and most affected by market fluctuation, even during prosperous times. As Ferguson (1976:10), after Lenin, notes:

Most of these peasants aspire to the rural bourgeoisie, but few achieve upward mobility. The rest are continually 'squeezed' by the rich peasantry and in increasing numbers fall into the ranks of the poor peasantry.

This characterisation might have been written of Barolong, where the rise of agrarian capitalism, the growing pre-eminence of commodity production, and the development of three 'sub-classes' was accompanied by the crystallisation of class consciousness and acute antagonisms; by the appropriation of so-called 'traditional' institutions such as the chiefship to class interests; and by the reformulation of kinship and other social arrangements in relation to emerging class differences.

It is the implications of this process of polarisation, of the working out of contradictory relations between emergent classes, that hold the key to the discrepancies which appear to pervade the data on Barolong agriculture. Now, it is to be recalled that the genesis of agrarian capitalism here lay in a particular historical context: specifically, in the conjuncture of (1) external forces, which led to a late colonial initiative to 'develop' the local farming economy (Comaroff 1982:163ff); and (2) internal material and social forms, marked by the decentralisation of households and a socio-cultural stress on individualism.¹⁸ These internal forms potentially facilitated the entry of the community into productive arable agriculture. For, in the absence of village-domicile and chiefly control over seasonal movement, its farmers were well placed to maximise the timing of their activities, and thereby to escape one of the major limitations upon dry land cropping (see above, p. 9). In addition, their ideological commitment to utilitarian individualism resonated with an ethos of commercial production. At the same time, however, prior to the metamorphosis, the scale of operations was restricted, endogenously, by extant relations of production, which compelled the scattered households of Barolong to enter reciprocal exchanges for all extensive work needs and, therefore, to suffer the constraints imposed by the exigencies of common labour time; exogenously, this was compounded by the coercive effects of labour migration, motivated by taxation, levies, and other inculcated material demands (see above, p. 10).

It was into this context, then, that the Bechuanaland Protectorate arable development initiatives of the 1950's introduced the availability of new techniques, the promise of improved means, and the prize of enduring surplus production. Given prevailing ideologies and social arrangements, it is not surprising that Barolong farmers responded by seeking to expand their enterprises, to crop as extensively as possible, and to turn any profits into the acquisition of implements, high quality seed and fertiliser, and so on. Of course, as I have noted, 'success' was very

unevenly distributed from the start, for access to both improved means and labour, which was crucial to consistent expansion, depended upon capital accumulation; indeed, loan finance, itself indispensable for the major investments involved in the purchase of tractors and expensive machinery, became available purely to those who could demonstrate their ownership of sufficient assets. And only a small proportion managed to obtain the necessary wherewithall to do so.

Nonetheless, the early period in the transformation of Barolong, while setting in motion the movement towards class formation and the emergence of the three fractions of the community, marked the rise of the peasantry. With improved techniques, some good rainfall years, and the widespread purchase of small implements, better seed, and chemical fertiliser, many households did improve their yields--and provided a reflexive reinforcement of the commercial ethos. This period, it now seems, reached its denouement in the early-mid 1970's, when production was at its height. This, too, was the point at which my own research was conducted; a moment when the dominance of commodity production and its attendant ideology was brought into especially clear focus by the fruitfulness of the 1973/4 season, which witnessed the peaking of grain sales, gross outputs, land utilisation, (working) implement ownership, and 'modern' practices. Self-evidently, the contradictions were there; they were reflected in the already manifest division of the community into what appeared as well-defined socio-economic categories but were, in fact, emergent classes increasingly caught up in open antagonism. Still, from that perspective, I could only anticipate, not observe, what was going to occur. Heisey, Staps et al., on the other hand, saw the process later on, when these contradictions had taken their full course.

The empirical bases for this assertion are plain enough; from the perspective of the 1980's, the symptoms of polarisation stand out in stark relief. By that period, the 'squeeze' on the middle peasantry--which, a decade earlier, had produced a sizeable part of the total yield, and had contributed significantly to high unit outputs--had forced many into the subsistence sector; hence Heisey's finding, from Ntseane's data on Kgoro (infra) of very few middle-range farmers in a typical sample of Barolong households. Since such farmers had also accounted for a large ratio of utilised hectarages, now no longer usable due to a lack of means, the profile of land exploitation had begun to undergo palpable changes. Similarly, the rate of implement ownership had decreased, as many of those who had purchased machinery in the optimistic spirit of the early 1970's could now not afford to repair or replace it. The lower peasantry, for their part, was perhaps less affected, as it had suffered the process of polarisation earlier on. Some, it would seem, must have been compelled to withdraw from sustained arable activity, and to seek their means of survival elsewhere; I would not be surprised if later reports of non-universal row planting (as opposed to my own findings of 1973/4) reflected the practice, among those forced to cease farming, of broadcasting in the residual hope of raising small amounts of grain with which to provision themselves. In contrast, the large commercial farmers seem to have continued both to crop and to diversify--the number of tractors in the community has risen, for example--but their extra-agricultural enterprises, already the focus of considerable attention in the mid-1970's, might have

persuaded them to desist from further expanding their landholdings and to deploy their means elsewhere. This, in fact, would explain why hectarages no longer used by middle-range farmers have not been expropriated by them and put to the plough; why, by all accounts, the proportion of land used in recent years has declined.

Thus the differences between 1973/4 and 1980/1, in respect of land use, gross yields,¹⁹ patterns of ownership, and agricultural practice finally make sense.²⁰ The picture adduced by Heisey and Staps is very different from that portrayed in the earlier study; but it is different because that picture has changed as the process of transformation has unfolded. In this regard, again, Heisey, who inclines to a similar conclusion, is correct to assert that, overall, Barolong agriculture has never been as successful as is usually thought. For, in these terms, 'success' connotes a linear process of accumulated increases in aggregate productivity. What occurred in Barolong was infinitely more complex, notwithstanding the short term rise in total outputs: here the growth of agrarian capitalism involved the structuring of inequalities, the unleashing of forces and relations of production which placed inexorable material constraints on all but the thriving new rural bourgeoisie. Parenthetically, it is for this reason that the gross statistics of agricultural performance for 1973/4, qua symptoms of transformation, are not in themselves important; why it does not matter whether total production rose by 1000 percent or 2000 percent. For the precise increase was largely a serendipity, composed of ecological happenstance and other circumstantial factors. Much more significant is the fact that the peasantry of Barolong underwent a predictable 'rise', the final extent of which depended less upon their productive competence than upon the working out of antagonistic processes of class formation; and then, its bourgeoisie aside, an equally predictable 'fall' as the interests of the commercial sector gained ascendance in the calculus of material, social, and political control.

This, then, stands as a summary evaluation of the growing body of data and interpretation. The various 'findings' on Barolong agriculture do not constitute any form of contest, but rather record a set of historically specific phases in an overall process. What is more, they are themselves expressions of that process, so that, whether or not they suffer errors of precision, they do, I believe, attest to the general pattern of movement. It is the latter, of course, that is of primary import, and our interpretations and refinements are to be judged according to the degree to which we have contrived to explain it.

IV. Conclusion

How, then, has the present reconsideration of Barolong agriculture served to refine our understanding of economy and society in this context? And what are its further implications, both analytic and applied? Above all else, it is scarcely necessary to labour the point that the transformation of this community cannot be adequately comprehended in terms of 'one big change'. It is, quite plainly, reducible neither to static 'before-and-after' imagery, nor to the linear 'modernisation' logic which

pervades orthodox theories of social and economic development. To be sure, the Barolong conundrum only becomes resolvable if we set aside the very general predisposition, whose roots lie deep in our own folk conceptions of human history, to think of social change in the Third World as a natural progression from 'tradition' to 'modernity'; a uni-directional and cumulative evolution which is limited purely by such intervening variables as indigenous socio-cultural conservatism, the absence of necessary means or competence, and other situational 'factors'. For this presumptive model--which, self-evidently, as been implicit in much of the analytic discussion of Barolong--obscures the essence of the processes which it is intended to explain.

Most immediately, it fails to account for the obvious fact that processes of transformation, here as elsewhere, have a logic all of their own: they generate, by their very form, entirely new structures which not only refashion prevailing modes of social and material practice, but also contrive new opportunities, new constraints, and new contradictions. Thus, just as the recent metamorphosis of Barolong began with a complex and singular interaction between the external forces of late colonialism and the endogenous dialectics of a local system,²¹ so the historical movement to which it gave rise reconfigured the essential fabric of community life. And it did so in such a manner as to affect every household, whatever its position in the emergent order of rural classes. For example, as is demonstrated by their performance during the earlier phase of the metamorphosis, the middle and lower peasantry did not come to under-produce by virtue of some primordial, 'traditional' inability to take maximum advantage of their ecology under the existing conditions. Patently, they lacked neither an ethos of commercial farming nor the competence to realise their motivated goals; agricultural skills may be unevenly distributed through the population, but they do not correlate simply with socio-economic status (Comaroff 1977:Ch. 3). Rather, the reasons for their diminishing productivity are to be found largely in the structural effects of the rise of agrarian capitalism itself: the fact that it fragmented the peasantry into local classes whose relative 'success' and 'failure', 'rise' and 'fall', was of needs inversely and antagonistically related (see below).

It is this general point which, in my view, must underlie any refinement in our understanding of the transformation of Barolong. Until now there has been a widespread tendency, among both outside observers and planning agencies, to treat this local economy as a case of more or less accelerated arable 'development'; to seek to establish, albeit implicitly, the aggregate degree to which it has come to resemble a Western farming community. For it is the latter that constitutes the tacit template against which relative 'success' is measured, and that guides the pursuit of appropriate applied strategies. Indeed, this general logic has led to the incessant formulation of farmer typologies (cf. Heisey, *infra*), an exercise whose final goal lies in identifying the productive profiles of the different sectors of the population, so that each may be encouraged to 'modernise' and increase the scale of their operations from within. The objective may be admirable, but the logic is incomplete insofar as it fails to locate production in its total structural and historical context. Farmers do not fall into the various categories by virtue of the intrinsic

nature of their operations alone; rather, the 'types' themselves, and the situation of particular households within them, depend equally on relations between producers, and their development over time. For example, it was evident in 1974/5 that the lower peasantry and non-farming workers of Ramatlabama village suffered their predicament not because they represented as endemic 'type' (or 'types') of producer that had not yet modernised; per contra, the local politics of economic control had contrived circumstances in which a very few large operators had gained exceptionally tight dominance over every aspect of social and material existence, and had ensured the availability of land and labour by subordinating those around them. In other words, the subsumption of what are clearly unfolding class relations into farmer typologies has the effect of misplacing analytic attention: it focusses upon the manner in which farmers conduct themselves rather than on the relations and structures which, over time, lead them to act in the ways they do. In short, it describes, and reacts to, symptoms while leaving the causes largely unattended.

The alternative which I have suggested is to confront squarely the anatomy of the transformation of Barolong; to identify its temporal and structural logic before we proceed any further to deal with its surface expressions. Summarily stated, this process is, irreducibly, about the development of African agrarian capitalism, a historical movement which, under specifiable conditions, tends to occur within and alongside encompassing processes of underdevelopment. And it has a periodicity that may be summarily typified at two interrelated levels.

At one level, the process is marked, within the communities in which it occurs, by the 'rise' and 'fall' of the peasantry at large. The earlier phase of this cycle is characterised by the availability of improved techniques and opportunities apparently open to all and, in conducive socio-cultural circumstances, by some years of optimistic production and small scale investment. It is the phase during which uniform rises in gross yields may occur, but during which (1) uneven capital accumulation and expansion begins to fragment the peasantry, (2) previously abundant (and, perhaps, equally distributed) resources take on a new value and scarcity, and (3) property that was either communally owned or was the object of reciprocal exchange relations becomes privatised and commercially negotiated. As this stage unfolds, inequalities grow increasingly acute, and competition over the control of the means of production is expressed both in private transactions between farmers (e.g. share-cropping arrangements and land expropriation; the coercive sale of services; the recruitment of labour; and so on) and in the public sector (e.g. the deliberations of the Land Board in its allocatory and arbitral functions; the deployment of local offices like the chiefship and other authority positions; the election of representatives to policy making councils; and so on). In the upshot, as the later phase of the cycle takes its course, the majority of the peasantry--middle-range and smaller farmers both, although in contrasting ways--find themselves under heightening pressure as expansion is an increasingly remote possibility, and contraction an ever-growing threat. While a few of the middle peasantry succeed belatedly in joining the ranks of the new bourgeoisie, most can no longer afford either to sustain mechanised means or to continue hiring services, and are forced to decrease the amount of land they crop; furthermore,

whatever capital they acquired initially tends quickly to dissipate, sometimes making it impossible to meet payments on implements, buy high quality seed and fertiliser, or purchase labour. The lower peasantry, likewise, still has the same cash needs--for taxes, education, and domestic necessities--but it, too, finds the avenues to surplus production closed, and is compelled to resort to the sale of labour (in the urban or rural sector) and/or to farm with the lowest possible production costs. Since this may involve, as it did in Barolong, the use of manure instead of chemical fertiliser, poor seed instead of good hybrids, their own labour in direct exchange for that of others, and, often, donkey draught, the entire agricultural enterprise once again becomes extremely hazardous. Under these conditions, moreover, the lower and middle peasantry become yet more vulnerable to the designs of the capitalist class.

At the second level, the process of transformation may be seen as the playing out of the logic of class formation itself, of the maturation of a new bourgeoisie, and of the realisation of the contradictions inherent in this particular mode of agrarian capitalism. Clearly, a full analysis from this perspective must await lengthier treatment, but, briefly, the essence of the matter is as follows. Prior to the metamorphosis of Barolong, as we already know, the community was characterised by the existence of scattered, independent, and egalitarian households, a large proportion of which responded to the changes in exogenous circumstances in the late 1950's, as they were bound to do (see above; 1982). However, these circumstances were, wittingly or not, designed to encourage commercial farming and surplus production, and the mobilisation of the necessary wherewithall, within the confines of Barolong;--this being the corollary of a colonial policy which treated artificially bounded chiefdoms and 'tribes' as hermetic units of administration and development engineering. Now, as the early phase of the process took shape, the stage of initial capital accumulation, the only way in which those who succeeded, the nascent bourgeoisie, could consolidate and expand was by acquiring labour from inside Barolong itself. At first, they recruited those who, by virtue of necessity, had to work for others; but, later, as the scale of production grew, this supply was insufficient. In addition, the investment in machinery created a perceived demand for larger hectarages; indeed, the expanding demand for land and labour is a fundamental prerequisite of capitalist agriculture. But, since the only sources for satisfying this demand lay in the community itself, a community made up mostly of farmers after all, it did not take long for the commercial operators to begin to view the pursuit of their own interests as a zero-sum game; as intrinsically opposed to those of other producers. For, in order to expand, they required the labour of some of those who worked then on their own account--as well, at times, as their land. The fact that this perception was acted upon, of course made it a self-fulfilling prophecy. Antagonism over the control of resources, and the elaboration and expression of class consciousness in the forms described elsewhere (1980; 1982), went hand-in-hand; and, as they did, so the ideological tenor of peasant-capitalist relations, and the contradiction whereby the interests of one sector negated those of the others, took its present shape. In the event, as the bourgeoisie consolidated itself, so the middle and lower peasantry were defined with ever sharpening clarity: socio-economic polarisation is, finally, an expression of the maturation of a class system.

There is much more to be said about the logic of such processes of transformation but, for now, the point ought to be clear. The analytic implications of this reconsideration of Barolong agriculture lie in the demonstration that, if we are to understand African peasantries, simpliste models of development or underdevelopment will not do. For, just as so-called 'traditional' societies have histories, despite our tendency to ignore or deny them, so modern peasantries are less 'things' than relations and processes. As such, they require to be understood not in time but over time; not in themselves, or even for themselves, but in relation to their total spatial and temporal contexts. In the case of Barolong, this has involved explaining, first, why a demonstrably underdeveloped community underwent a metamorphosis which produced, in its wake, agrarian capitalism; and, second, how the latter reconfigured the essential features of local economy and society.

From this explanation there flows a number of practical corollaries. For it follows that any effort to 'develop' Barolong by cosmetic means is likely to founder; indeed, to be drawn into the very structure of inequalities which it is intended to ameliorate. This has already happened, of course: the Tribal Land Act, which aimed among other things to subvert any remaining proclivity towards chiefly autocracy and to increase the equal distribution of land in the cause of social justice, became a vehicle for the capitalist class in Barolong to expand its own interests at the expense of others. Similarly, the extension of state loan finance, meant partly to help small farmers increase the scale and productivity of their enterprises, has primarily been deployed by the same class to tighten its control over the local economy.

The examples are numerous, but that is not the only or the essential point. Clearly, all development policy carries with it an ideological provenance and, in Botswana, its orientation has been to encourage the capitalist sector while attempting to protect the human rights, and roster the material well-being, of the mass of the population. Whatever the merits and demerits of such a commitment, and the matter is one on which reasonable minds may disagree, it is not easy to translate into effective policy. In Barolong, where the capitalist sector is now securely rooted, and where an (external) image of widespread productive success prevails, the problem of development planning, as Heisey notes (infra:38), is especially difficult. All manner of suggestions have been made: for example, Heisey (op. cit.) himself stresses the need for making more draught available to smaller farmers, while Staps (1981:51ff) argues for a revised land-use plan. These are well intended proposals and may turn out to facilitate the realisation of existing ideological imperatives; but they will do so only insofar as they do not exacerbate the contradictions that still pervade Barolong, and are not absorbed into its extant antagonisms. For the only initiatives that are likely to reverse the cycle of polarisation, and to give new and enduring impetus to the peasantry at large, are those that address the structures of inequality themselves; that reverse rather than reinforce emergent lines of internal division, and transcend the hegemonic control of the commercial sector over the means of production. Suitable strategies are not easy to formulate; they are still more difficult to put into practice, since they run counter to the perceived interests of the most powerful section of the local population. It is not

my intention to offer yet another program for the achievement of these objectives; the one formulated some years ago (1977) to this precise end has, in any case, been largely ignored. The argument there was much as it is now, namely, that all such programs ought to be integrated efforts to attend to the multi-dimensional character of a peasantry caught up in the complex denouement of its own history.

FOOTNOTES

* I should like to thank Louise Fortmann and Emery Roe for suggesting that I write this paper. Jean Comaroff, Emery Roe, and Paul Heisey offered valuable critical comment on an earlier draft.

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1. Comaroff (1977). A research report, covering largely the same data base, was later submitted to the Social Science Research Council (U.K.) under the original project title, The Formation of a New Political Order: The Barolong boo Ratshidi Case (Grant no. HR 3011/1; 1978). In addition, two papers have been published on the subject to date (1980; 1982), and a monograph is currently in preparation.

I should like to make a general qualification to the analysis at the very outset, lest there be any misunderstanding. Throughout the present essay, I refer to 'Barolong', 'the community', and 'the chiefdom'. In an administrative sense, Barolong is both a bounded community and a constituted chiefdom. However, the very point of this and the earlier studies is to show that the latter has undergone historical processes which have divided it internally, negated any possibility of enduring cohesiveness, and eroded the very reality of 'community', at least as this term is ordinarily understood. Hence, in using these terms, I refer specifically to a social and material context, not to some Durkheimian-like unity of social solidarity.

2. These measures--which include such considerations as the adoption of modern (mechanised) techniques, gross yields, unit outputs per hectare, and so on--have been discussed elsewhere (1977; 1980). As I have repeatedly pointed out, they may give an altogether misleading picture of agricultural performance and its alleged improvement, especially when calculated at the aggregate level of communities, chiefdoms, or whatever (see also Heisey, infra). In addition, they are intimately related to an ideology which celebrates the growth of capitalist farming, and so reflect value judgements of a very particular orientation. I shall return to some of these issues in the text below.

3. Staps (1981) seems to hold that the case for or against the occurrence of a transformation in Barolong depends upon the absolute extent of the rise in outputs between the pre-1960 period and the present, thus missing entirely the point of the earlier analyses (see p. 9 above; below,

passim). For the sake of scholarly accuracy, it should also be noted that he makes two minor criticisms of The Structure of Agricultural Transformation. The first (1981:9) argues that, pace a statement in that study (p. 73), there is no freehold land in Barolong. In fact, the issue depends on whether the farm Panjane, originally a part of the territory but now freehold, is still to be included or not. As Heisey points out (infra:48), the question is highly ambiguous and, finally, 'rather metaphysical'; I am happy to bow to Staps' strong opinions in the matter. The second criticism refers to my statement that 'the success of the Barolong farmer is frequently attributed to . . . higher average rainfall . . . and a greater proportion of fertile soils (of Class 1) than is available to most other communities' (1977:31). We are then told that my 'presupposition is false . . . he even fails to mention his sources' (1981:16); that there are no Class 1 soils in Barolong. Had Staps read the passage more carefully, he might have noted that the 'presupposition' was not mine at all; I was reporting a common view, to be found within Botswana, that the 'achievements' of this community may be explained by ecological factors. Indeed, my own argument was the exact opposite. By affirming that Barolong is not advantaged by its soils, Staps further reinforces that argument.

4. Heisey (infra:fn. 21) notes the various published calculations of the amount of grain necessary to provision an average household (i.e. of six members). Since the population of Barolong rose from some 4000 to 11,000 between 1943 and the mid-1970's, it seems clear that, during the colonial period, its farmers produced grain at somewhere around subsistence level, although their yields would have fluctuated with ecological fortunes.

5. As Schapera notes (op. cit.), rates of migration had risen dramatically in the 1930's, especially during the depression, and had remained high.

6. Staps (1981:30) in fact augments this picture, albeit unwittingly, when he comments in passing that, 'according to local information', most Barolong used to work on Boer farms. This, of course, implies that they had the material need to do so.

7. I base this on the 1943 population of 4000 residents, at an average household size of six members.

8. For additional data on contemporary stock holding, see Schapera (1947, especially p. 133).

9. It is true that, from the 1930's, cattle were debarred from crossing between the Protectorate and South Africa. By all accounts, however, the cordon came to be increasingly porous and did not dissuade Tshidi stockholders with large herds from making use of the high quality pastures to which they had access in Barolong.

10. Tlhareseiele, Papatlo, Ngwatsau, Makokwe, Tlapeng, Kgoro, Oxpan, and Mogwalale; see Schapera (1943).

11. Ntseane's careful study is limited to one area of Barolong, and is encompassed by Heisey's more general essay. Staps' various points are also made, rather more comprehensively and cogently, by Heisey, and so will only be referred to when independently relevant.

12. Since Heisey's essay was not available to me in final form at the time of writing, my annotations are to MS pagination.

13. Because mine are the only published statistics covering production in 1973/4, there is no equivalent data base with which to compare them; quite rightly, therefore, Heisey's evaluation focusses upon the internal consistency of those statistics.

14. To wit, figures on total production for 1973/4 show yields to be 'between 4 and 5 times as much as estimated in 1980/1' (Heisey, p. 18)--although no evaluation is offered for the reliability of the latter estimates. Staps (1981:21) adds that, if the 1973/4 figure were correct, Barolong would have produced 22 percent of the national crop yield. Even if this were unlikely--after all, it did produce 14 percent in 1980/1--it is hardly necessary to observe that, had Barolong yielded 31,500 metric tonnes, the national crop must have been concomitantly larger than officially recorded. This, in any case, strikes me as probable, for, during the mid-1970's, a large proportion of grain from the Southern District sold in South Africa was neither reported nor fully accounted for in national figures. Indeed, Staps' faith in such official statistics is unwarranted. Having witnessed the collection of data of this type on several occasions, my own is much less firm; although, as Heisey has pointed out to me (personal communication), there do appear to be differences in the reliability of surveys done at various times, those of the early 1970's being more accurate than some later ones.

15. Heisey (p. 51ff), in generously seeking to give my statistics the benefit of every doubt, does not alight upon the discrepancy between cultivated, planted, and harvested hectarages. Staps (1981:33), on the other hand, does. He implies that these statistics are yet more unbelievable, since, for them to be correct, over 30,000 ha of arable land must have been harvested--which means that still greater areas must have been planted. And, as he believes the total arable area of Barolong to be less than 33,000 ha (see text, below), this would have exceeded all available land. However, according to the Agricultural Survey--whose data are trusted more than any others by Heisey (p. 49)--harvesting ratios in Barolong are very striking indeed; the greatest being 99 percent (of grains) in 1971/2 and the lowest, 78 percent. Given the extremely optimistic indigenous regard for cropping prospects in 1973/4, and the level of productive activity in that year, exceptionally high harvesting ratios are not unlikely. In fact, at the Farmer's Day celebration after the 1973/4 season, the Regional Agricultural Officer, Mr. F. Pullen, remarked, in congratulatory spirit, that virtually no land in Barolong had been left unplanted or unharvested that year; the perception was not only my own.

16. Among other things, Heisey (p. 49) notes that Agricultural Survey estimates of arable areas, which were purportedly based on measurement,

may have missed unploughed fields; they certainly yielded lower figures than have other studies. Another survey, the ALDEP measurement, arrived at a figure of just under 33,000 ha, some 4500 ha lower than my own. It was based on aerial photographs, but, not having been party to it, I cannot pass judgement on its accuracy.

17. This is also true, by implication, of Staps' account (1981). On the one hand, he dubs my own report of the transformation 'fallacious' (p. 33) on the grounds that (1) 1973/4 was not an average year (which I never claimed it to be, suggesting rather that it had been an exceptionally fruitful one); and (2) for reasons similar to those offered by Heisey (see above, 1 and 2), that outputs could not have been as high as 31,500 metric tonnes. Yet, on the other hand, not only does he record (p. 22, Table 11) an area-wide mean yield of 1414.63 kg--over 40 percent higher than the factor which I used above to show that the 1973/4 output was possible--thereby making the mid-1970 statistics even more plausible; but, in addition, his own figures (p. 22, Table 10) themselves record a gross rise of almost 1000 percent on the most optimistic pre-1960's yields.

18. Elsewhere (1980; 1982), I have accounted for the emergence of these internal forms, and have analysed the genesis of the transformation; it is not necessary to reiterate the analysis here. It should be noted, however, that Staps (1981:3311) offers a crude and reduced version of the same analysis, according to which the scatter of households, and the 'automatic' license given to them by the chief to plough at will (rather than await permission), facilitated the production of gradually higher yields in Barolong. Empirical errors aside, this explanation is inadequate: there are several other comparable instances (op. cit.) where similar patterns of scatter and lack of chiefly control have not led to a similar outcome. Staps also chooses to cast aspersions (p. 29) on my 'anthropological explanation' of internal arrangements by 'asking' whether the ideological stress on individualism was a cause or an effect of the transformation, adding that 'as a geographer and not an anthropologist, I [Staps] am not capable of valuing these Tshidi characteristics'. The matter, it seems to me, has little to do with disciplinary affiliations, the very fact that Staps phrases the question as he does calls into doubt his understanding of the earlier analyses.

19. Unit yields have not diminished in the same manner, but appear to have fluctuated widely during the late 1970's and early 1980's. Staps (1981:23) suggests that such fluctuations depend on the relative proportions of large (high producing) and small (low producing) farmers who plough in any given year, an equation that is largely determined by rainfall. This explanation would obviously be consistent with the increasing polarisation of the community.

20. The one change on which I have not commented concerns rates of stockholding, which seem to have risen over the past decade. In 1974/5, I calculated that 47 percent of Barolong households held cattle (mean herd size: approximately 22), while Heisey reports an estimate of 60-64 percent (mean herd size: 22-31) for the later period (infra:3-4). He also suggests that cattle holding and arable operations have come to be correlated in scale, and derives a typology of farmers from this fact. Since I have

no data on patterns of acquisition during the late 1970's, I cannot offer more than a simple speculative reason for the change. It is possible that, just as large farmers have continued to invest a portion of their profits in stock, so (former) middle-range and smaller farmers, increasingly faced with poor returns on their arable activities, have sought to reduce risk and dependency by diversifying their operations as well. This, again, would be consistent with the diminution of optimism, among all but the bourgeoisie, surrounding the prospects of cropping profitably in a community controlled largely by powerful commercial grain farmers.

21. I have desisted from recounting my earlier analyses of the genesis and initial phases of the transformation of Barolong, as they may easily be read in other places (see fn. 1). I am aware that, as a result, many of my present assertions lack sufficient substantiation in their own right; however, given limitations of space, all I can do is to invoke those studies as collateral support for an argument formulated here in more general terms than I should have liked. The same qualification, of course, applies also to the various comments concerning the later phases of the process, i.e. the playing out of internal contradictions attendant upon the formation and polarisation of agrarian classes.

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