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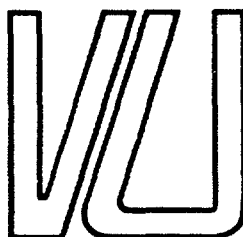
LEIDEN

TRADITIONAL "SOCIAL SECURITY SYSTEMS" AND SOCIO-
ECONOMIC PROCESSES OF CHANGE: THE CASE OF SWAZILAND;
opportunities for research.

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TRADITIONAL "SOCIAL-SECURITY SYSTEMS" AND SOCIO-ECONOMIC PROCESSES OF CHANGE: THE CASE OF SWAZILAND; opportunities for research.

PREFACE.

This paper aims at an outline for a research project to study the historical and actual functioning of the so called traditional social security system in Swaziland and its relationship with processes of socio-economic differentiation and nuclearization.

The traditional social security system is defined here as the set of traditional institutions, that is based on a principle of economic solidarity. This system provides, by the transfers of factors of production, goods and money, a subsistence base to those, who could otherwise not reach subsistence level because of old age, invalidity, sickness, death, unemployment, maternity, lack of factors of production, employment injury and pregnancy. In this way it ensures the survival of a homestead. This set of institutions function(ed) between economic units (households) within a homestead or between households of different homesteads. In most cases the institutions are based on kin relationships (within as well between homesteads), although some are based on alliance, on friendship or on systems of mutual help.

Nowadays two important socio-economic processes can be noticed in Swaziland. The first one is an increasing socio-economic differentiation between households, as the result of the penetration of market relations into the Swazi economy. Several categories of homesteads can be distinguished, which have different access to means of production and have different ways in which subsistence is guaranteed. The hypothesis is that the practicing of traditional social security institutions is different within this context of socio-economic differentiation, because some categories do not need this system anymore for survival. If these institutions are still practised it is on an unequal base (explained later) and strenghtens in this way the process of socio-economic differentiation.

A second socio-economic process is nuclearization, a change process whereby a growing number of households act independently from the homestead or actually leave the homestead. It is not clear what exactly

is the influence of nuclearization on the traditional social security system, but the danger exists that it tends to undermine the economic subsistence base of households/homesteads.

In order to better understand the processes of change, that occur on S.N.L. it seems important to get a better insight into the functioning and contents of the traditional social security system and its relationships with change processes like socio-economic differentiation and nuclearization.

1. PROCESSES OF CHANGE AND TRADITIONAL STRUCTURES IN SUB-SAHARAN AFRICA: A MARXIST INTERPRETATION.

In the 1970s French anthropologists (Claude Meillassoux, Pierre-Philippe Rey, Georges Dupré, Emanuel Terray and Maurice Godelier) tried to relate marxist conceptions to the analysis of non-capitalist societies, namely social formations in sub-Saharan African countries. The discussion which has taken place among these anthropologists is known under the name 'modes of production debate'. Within this discussion two points are central:

1. the defining and describing of pre-capitalist modes of production in developing countries;
2. the concept of 'articulation': the central idea of this paradigma is that in the development of a society various modes of production do not replace one another, but that a new mode of production can develop on the basis of the continuing functioning of older, subordinate modes of production. Processes of change ('development') can be seen as the conjunction of different modes of production.

During the 1970's and 1980's other participants entered the debate like Harold Wolpe, Goran Hyden, Coquery-Vidrovitch, Paul Hirst and Barry Hindess, Henry Bernstein and many others ¹.

In the 1980's the discussion regarding the first point faded away because the highly theoretical and abstract level of the debate gave little guidance for empirical research. The discussion on the concept of articulation is the more concrete at the moment, especially the question how pre-capitalist formations reacted and react to the penetration of capitalist relations of production (e.g. wage labour).

Two points of view can be distinguished within this discussion (Geschiere 1985). In the first point it is argued that the pre-capitalist mode of production can withstand to some degree the penetration of capitalist relations of production and is able to function relatively independent from the capitalist mode of production. In this case one can speak of 'articulation': capitalism is not able to

¹ Also participants with respect to other continents joined the debate like for Asia Alavi and Banaji and for Latin America Laclau, Kay, Goodman and Redclift and others.

reproduce itself without the pre-capitalist mode of production, but on the other hand the pre-capitalist society does not need capitalism for its reproduction. Only via the transformation of the old relations of production of the pre-capitalist mode of production, capitalism is able to extract surplus (products or labour) from the pre-capitalist society.

This point of view is advocated by e.g. Meillasoux (1975), Rey (1973,1975), Wolpe (1980), Geschiere (1978, 1985), and to an extreme degree by Hyden (1984) ².

The other viewpoint stresses the destruction of the pre-capitalist society as a result of the intrusion of capitalist relations of production; the pre-capitalist society does not function anymore and is mainly capitalist. Traditional structures and institutions still exist, but this does not mean that there is also a pre-capitalist mode of production. The content of these structures and institutions has radically changed and cannot be considered as pre-capitalist anymore. In this point of view there is no place for the concept of articulation; the pre-capitalist society has simply been destroyed and can now be characterized as capitalist. This way of thinking has been further developed by e.g. Dupré (1982) and Bernstein (1978).

Defining modes of production.

Important in the mode of production debate is of course the question: when can we speak of a new mode of production, at what moment has the new, capitalist, mode of production replaced the old one? It seems impossible within this debate to avoid the discussion about defining pre-capitalist modes of production. At least some attention must be given to this problem.

Rey introduced the concepts of 'formal' and 'real' subordination of labor. As long as a ruling class does not interfere with the production, there is no new mode of production but at best an appropriation of surplus (tribute, plunder), which does not determine directly the reproduction of labour processes. When a dominant class succeeds in reorganizing the relations of production (e.g. the relations of

² According to Hyden capitalism has not entered yet the pre-capitalist society. It is possible for the pre-capitalist ('peasant') mode of production to function totally independent from the capitalist mode. The peasants from the pre-capitalist society have always an 'exit option'; they can withdraw from the market and go back to the 'economy of affection'.

cooperation) and to bring them under her control (formal subordination), this is a start of a new relation of exploitation. Nevertheless it is still technically possible for the direct producers to continue their labour-process, notwithstanding the intervention from the ruling classes. When a ruling class succeeds in introducing improvements in production (real subordination) her domination becomes irreversible. Then it is technically impossible for the producers to continue their production-processes without intervention from the ruling class. Of course these interventions appear as technically necessary and therefore legitimated. Only in the case of real subordination of labor can one speak of a new mode of production.

A strong point in Rey's option, according to Geschiere (1985:254), is that a transition from formal to real subordination is not an inevitable process, but depends on political struggle; the focus of the struggle is the control over labour processes, but this struggle is not only fought out at the economic level. Political or ideological initiatives can be decisive.

Although these concepts of Rey's need further elaboration. it is a strong point against, for instance, Bernstein, who sees the transformation of the pre-capitalist relations of production into capitalist as an inevitable process. As Wolpe already said (1980:41): "It is one thing to argue that the pre-capitalist relations of production may be transformed into capitalist relations; it is quite another to assume that this is both an inevitable and necessary effect of the CMP" (capitalist mode of production, AL/HT).

In those cases where pre-capitalist relations of production still seem to exist, and using the concepts of articulation and formal and real subordination, it should be possible to analyze the complex relationship between the reproduction of the capitalist economy on the one hand and the reproduction of productive units organized according to pre-capitalist relations and forces of production on the other hand.

The discussion among Marxists about the application of marxist concepts to social formations that were/are not capitalist, is still going on³. In the meantime concrete social formations in Africa (mostly at

³ See for instance the recent publication of R. Raatgever: 'De verwantschappelijke economie, essays in de historisch-materialistische antropologie' (The lineage economy; essays in the historical-materialistic anthropology, translation AL/HT), 1988.

national level) are being studied and analyzed with the (neo)marxist theories in order to find explanations for the complex processes of change, that take place in these countries.

The remaining part of this paper will be devoted to the concrete situation of Swaziland, a small country in Southern Africa.

2. THE CASE OF SWAZILAND.

2.1. (NEO)-MARXIST ANALYSIS IN SWAZILAND.

Recent publications show that the historical-materialistic method of analysis is also alive in Swaziland: Bonner (1982), Levin (1985), Daniel/Stephen (eds.)(1986) and Neocosmos (ed.)(1987).

Interesting is the study of Neocosmos (1987a, 1987b), because it comes close to the discussion mentioned earlier on (the articulation of) modes of production and the influence of capitalism on pre-capitalist societies and structures.

In his study Neocosmos opposes to those writers on Swaziland (e.g. Russell, De Vletter, Sibisi a.o.), who argue that the 'traditional' Swazi society has not changed since the advent of capitalism and can reproduce itself autonomously: "Just because Swazi society in "the past" (...), was able to reproduce itself quite independently as an agro-pastoral society (...) it is asserted, that today, Swazi rural society, which is no longer in any meaningful sense agro-pastoral (even if, for the purpose of argument, we maintain that it is still non-capitalist) is still capable of independent aoti-reproduction. Such a notion is quite simply preposterous." (Neocosmos 1987b:24).

"The advent of capitalism in Africa did fundamentally change the nature of all African societies without exception. This does not mean that we have to agree with notions of simple destruction (capitalism was also constructive in many important ways); neither does it mean that we have to agree with notions of linear proleterianisation. What it does mean however, is that we have to reject systematically the historically vacuous assumption of dualist juxtaposition of social systems in which the "traditional sector" is seen as unchanging and unchanged." (Neocosmos 1987b:24).

According to Neocosmos the history of Swaziland can be considered as a process of petty-commoditization of agricultural production. Petty commodity production is a part of generalized commodity production. One of the main features of generalized commodity production (capitalism) noted by Marx and many others is the private and individualized nature of production. What this means is that production takes place, not as much in a collective manner as under pre-capitalist modes of production, but in "independent...individualised entities (enterprises,

economic sectors, countries and so on), which look only to their private interests and which appear isolated from one another"(Gibbon/Neocosmos, 1985:171). Marx argues that this individualized and private forms of production develop from pre-capitalist relations, principally through the undermining of collective relations by exchange mechanisms. It is the process of integration into market relations, commercialiation, which lies at the root of the privatisation process. Petty-commodity production then can be defined, then, as a concept which "...refers to a phenomenal category of commodity producers who posses the means of production necessary to produce commodities and who engage in production on the basis of unpaid household labour alone. It is argued that such producers are capable of reproducing themselves as private producers of commodities without employing wage labour and without selling (part of) their labour power"(Gibbon/Neocosmos 1985:170). Petty-commodity producers are privatised and invidualized in their social form.

According to Neocosmos the above mentioned process of commoditization has developed in Swaziland as well, a process that is still going on. Many factors, some more important than others, were responsible for the transformation of the pre-capitalist mode of production and thereby for the commoditization of the peasantry.

The earliest mode of production in Swaziland can be described as a lineage mode of production, whereby heads of the different lineages controlled production through their control over cattle and women. The economic order was a combination of agriculture and animal husbandry; the political order entailed the conjugal exchanges between lineages, whereby the heads of the homesteads controlled cattle and therewith labour. So, political control was based on the possession of cattle, which was a necessary good for the brideprice.

Trade changed the situation insofar that it presented an opportunity for young men to acquire cattle without interference by the elders. One dominant lineage however succeeded in monopolizing trade and brought major changes in the political order:

- the introduction of chieftancy; the other heads of lineages became chiefs, subordinated to the dominant (royal) lineage;
- the forming of age regiments; the young men had to do tribute labour for the royal lineage, in order to raise the production of commodities for trade. In exchange these men were given cattle,

which was another method for the royal lineage to undermine the power of the heads of the other lineages.

It is from this period in the history of Swaziland that the chieftancy and tribute labour originates, which Bonner (1980, 1982) comes to describe as a "tributary mode of production"⁴.

Other changes that were important:

- the introduction of the plough, which caused a change in the gender division of labour, at the same time increasing levels of production;
- the substitution of maize for sorghum, although shifting cultivation remained the main practice.

The most important change, according to Neocosmos, was the land partition of 1907 whereby the Swazi lost two thirds of their territory to white land owners. The one third that was left was called Swazi Nation Land (Hughes 1972). The land partition radically altered the whole basis of Swazi society by transforming it from one founded on agro-pastoral production to one based on peasant production, where the control and access to land became more fundamental both economically and politically (Neocosmos 1987(b)).

The land partition destroyed both the economic and the political order and created a new rural society. Although the old 'traditional' structures, such as chieftancy and tribute labour as a system of political and economic control, still exist today in form, their content has changed radically over time.

When we first look at the economic order, we can see that the land partition, which was announced in 1907 and completed in 1914, restricted the areas where Swazi could live and as a result destroyed the practice of shifting cultivation, which required abundant land. This implied that the basis of existence had to change. This was one of the reasons migration for wage-labour started. In 1904, about 1000 men (5 percent of the male working population) migrated from Swaziland. By 1911, after the land partition and the hut tax were enacted, migration had risen to 5000 or 25 percent of the male working population. In 1936 the figure was around 9500 or 30 percent of the male working population (Booth 1982). However, as Neocosmos notes, a large percentage did not

⁴ There has been a discussion about the definition and application of the concept of "tributary mode of production" to Southern Africa. This discussion is still going on, but the main trend is to reject the concept.

enter the labour market and he concludes that they must have been engaged in what he calls 'petty commodity production'. The importance of cash heightened and cash became necessary not only for paying taxes but for consumables and means of production.

The increasing dependence on the cash economy also had consequences for the political order, for the control of the chieftancy over cattle could no longer operate as before: "by this period of course the power of the chiefs over labour through their control over bridewealth was being systematically undermined" (Neocosmos, 1987b). It was the control over land allocation however, which enabled the chiefs to recapture their undermined position within Swazi society. "While under lineage society the chiefs and aristocracy were reproduced and controlled labour through their monopoly over bridewealth, now their relations with the peasantry, and their position of power (including their continued control over labour) was based on their monopoly over land, which they could allocate to or withdraw from homesteads" (Neocosmos 1987(b)). For the agricultural producers this access to land was absolutely necessary for their subsistence.

We see that under colonialism Swazi Nation Land is created with the whole political apparatus underlying it. "Traditional" forms from the old political order of the Swazi were used, but a different content was provided to these traditional forms, which are still operating nowadays within a capitalist context. This new political order gave opportunity to the chiefs to intensify the profits from the old traditional structures like tribute labour. "Traditional forms of control were now being provided within a new context of social relations". "They were either directed towards the private accumulation of members of the ruling class and/or served the purpose of reproducing state control and domination along with a novel form of direct flat-rate taxation all justified by an ideology of tradition (Neocosmos 1987(b):94).

In sum we see a change in Swazi society from a lineage mode of production to a capitalist mode of production. The economic order changed from agro-pastoral activities to wage labour and (non)agricultural petty commodity production. Within the political order old forms acquired a new content and the power base of the aristocracy was changed from cattle to land.

What Neocosmos finally wants to indicate is that the increasing intrusion of capitalist relations into the Swazi society has fundamentally changed the pre-capitalist Swazi society. The peasants on Swazi nation land are petty-commodity producers, a part of a capitalist mode of production. Speaking about a traditional society is speaking about a society which does not exist anymore. The result of the process of petty-commodification has been an increasing differentiation among homesteads. According to Neocosmos the view on Swazi society as being a society in which a traditional and capitalist sector can be distinguished, in which the traditional sector can act independently from a capitalist sector, is based on the assumption that the rural population of Swaziland is socially homogenous. According to Neocosmos this is not true and the view on an existing traditional sector must be rejected. What can be called 'traditional' institutions are in essence not traditional anymore, but have, although existing in form, another content nowadays and also another effect. These institutions should be object of investigation.

The proposed research wants to give a contribution to these theoretical discussions about the existence, role and contents of 'traditional' institutions nowadays in contemporary Swaziland.

2.2. THE TRADITIONAL 'SOCIAL-SECURITY SYSTEM' AND PROCESSES OF CHANGE ON SWAZI NATION LAND.

The traditional social security system

Social security is in nature a Western concept. The I.L.O. defined social security as "the protection which society provides for its members, through a series of measures, against the economic and social distress that otherwise would be caused by the stoppage or substantial reduction of earnings resulting from sickness, maternity, employment injury, unemployment, invalidity, old age and death; the provision of medical care; and the provision of subsidies for families with children." (I.L.O., 1984:3).

The most common way in Western countries to provide the protection is by the way of official institutions, organized by the state and/or companies. These official institutions are almost absent in developing countries. Other, informal, institutions provide for the protection mentioned by the I.L.O.

Fuchs (1984:15) concludes: "In order to obtain a correct and complete picture of social security in the Third World, consideration must be given to, which is called in English, occupational welfare. Therewith is adressed the whole complex of social actions at the level of the economic unit, which is constituted by the various agreements within units as well as through collective arrangements"⁵ (translation AL/HT)

Fuchs proposes to use the following table, based on types of economic resources recieved by families, to analyze social security in developing countries:

Table 1: TYPES OF ECONOMIC RESOURCES RECEIVED BY FAMILIES FROM THREE INSTITUTIONAL LEVELS

Form of resource	Formal Institutional Sector		Household sector
	Economy	Government	(Kinship group)
Unrestricted Cash Grants	Factor income	Transfer income	Allowances and gifts
Restricted Cash Grants, Vouchers and Subsidies	Employee or Fringe bene- fits	Earmarked transfers or subsidies	Expense payments and gifts for particular purposes
Goods and Services	"Perks"	Social and personal services	Reciprocation and gifts of goods and services

Source: Fuchs, 1984:16 (derived from Rein/Rainwater, 1981:4)

⁵ The original text is:
"Um ein richtiges und vollständiges Bild sozialer Sicherung in der Dritten Welt zu gewinnen, ist ferner die Einbeziehung des Bereichs notwendig, der in der angelsachsischen Terminologie als occupational welfare bezeichnet wird. Damit ist der gesamte Komplex betrieblicher Sozialleistungen angesprochen, der durch die verschiedenen innerbetrieblichen Abmachungen sowie durch kollektive Vereinbarungen konstituiert wird".

As already said, formal social security systems are not yet well developed in African countries, although a lot of African countries have in one or another way some social security provisions (see Mouton, 1975). These provisions, however, protects only a small part of the population from economic or social distress. The greatest part of the population is dependent on resources, which originate from the household sector, the righthand side of table 1.

The underlying principle of the transfers of resources within the household sector is in most cases the so-called economic solidarity. The economic effect of economic solidarity is that differences in productivity level between households do not lead automatically to differences in consumption levels. Differences in productivity can result from sickness, old age, disability, unemployment, pregnancy, employment injury, death or lack of factors of production. So this principle of economic solidarity provides at the same time, through its (economic) redistributive effect, social security to members of society.

The set of institutions, based on this principle of economic solidarity and which provides for the transfers of resources as mentioned in the right column of table 1, was already present in Africa before the advent of capitalism. When speaking about a 'traditional' social security system, this set of institutions is meant⁶.

These traditional institutions function within several networks. Elwert (1980:353) distinguishes four networks in which economic solidarity features:

1. Kinship (patri- or matrilinear)
2. Alliance (through marriage)
3. Organisations for mutual help
4. Friendship-relationships

So I want to define 'traditional social security system' as:

⁶ The term 'traditional' is used here, because no better word seems to be available to label the mentioned set of institutions, that is not based on a formal institutional sector. The term 'informal' could be used, but some institutions were or are in no way informal in the traditional society. The distinction between capitalist and pre-capitalist is not proper either, because that is one of the questions. Pre-capitalist forms can obtain a capitalist content and form. Thus, the term 'traditional' seems to be the most proper word to indicate structures and institutions that originated from the traditional society.

The set of traditional institutions that, based on a principle of economic solidarity, redistribute factors of production and/or money, goods and services between households in order to decrease up to a certain extent differences in consumption- and/or productivity levels, and functions within networks of social relationships.

Detailed descriptions of the social security aspect in the traditional economic system of Swaziland are rare and for a portrayal of this system we are, of course, dependent on anthropological studies such as those of Kuper (1965) and Marwick (1966). The literature mentions two practices, which are very common throughout Africa, although everywhere they have different names:

- lilima: a co-operative labour practice, whereby people (kin or others), help each other by providing labour in return for beer. Marwick (1966) distinguishes three kinds of lilima, depending on the reward (lilima) which is given:

- 1.lilima letshwala: beer is the reward
- 2.lilima lenyama:the reward is meat
- 3.lilima lenkomo: reward of beer or meat for rescuing an animal.

Only the first two types of lilima refer to the co-operative labour parties. Chiefs, on the other hand, demand tribute labour, which is called 'umemo'(Kuper 1965)

- kusisa: lending cattle to kin who rear it in return for access to animal produce and the oxen for ploughing (Kuper 1965).

These two practices still seem to exist on Swazi Nation Land.

Besides the two practices mentioned, there is also an extended network of mutual obligations and rights with respect to the transfer of goods and money. The question is if this can be considered all as a part of the traditional social security system. According to me a difference has to be made between obligations for payments, resulting from the fact that a person 'is part of society' (for example brideprice) and transfers which are done as the result of one's own decision. A further elaboration on this point has to be kept in mind, when doing the research.

Transfers of money, especially the remittances of wages from migrant labourers, have been the subject of a study by Russell (1984). Russell concludes that these remittances are in no way regular and that they

are not given to the homestead but only to certain persons within the homestead.

In another study Dutting (1986) emphasizes that money is earned by an individual and therefore is an individual possession. Earnings belong to a person and although every individual has a set of obligations towards others, every person decides by him-/herself how money is spent. This does not mean according to Dutting that an individual is not supposed to share his or her wealth; claims on it are always made, but the decision to share is a personal one, and if one refuses one is only stingy and irresponsible. However, Dutting does not describe "the set of obligations towards others".

Kappers (1987) did a survey to informal women's savings and credit organisations. Four types can be distinguished: funeral organisations, Rotating Savings and Credit Organisations (ROSCA's) or so-called Stokfels, Christmas savings organisations and other funds raising groups. Kappers analyzed the role they play in the monetarization of the rural production system.

As the transfers of money got already a lot of attention in Swazi literature, the main focus of the research will be those institutions that provide for the transfers of goods and services (including factors of production). Information on transfers of money will be mainly obtained from existing literature and less from own fieldwork. The functioning of traditional social security institutions will be described and analyzed and special attention will be given to their redistributive effect, in which the social security aspect of these institutions is present.

Differentiation among homesteads.

The process mentioned earlier of increasing dependence of peasants on market relations caused processes of change, and especially processes of differentiation among homesteads that still continue today.

The conceptualisation of socio-economic differentiation is a discussed issue in literature on Swaziland. Neocosmos even concludes that "... the failure of the literature on rural Swaziland, both historical and contemporary, consists in the fact that it considers the rural population as essentially socially homogeneous" (1987b:32).

However, a few authors have taken account of differentiation among homesteads. One of them is Low, who developed for Swaziland the

'homestead development cycle'. His theory is an application of the 'family lifecycle theory' of Chayanov. Main criterium for distinction is the consumers/producers ratio of a production unit. Using the development of this ratio as main criterium Low distinguishes five stages in the development of a homestead: establishment, expansion, consolidation, fission and decline. In the first three stages the amount of land, cattle and means of production increase, while these decline in the latter two stages. In this way Low explains differences between homesteads, differences that are, like Chayanov, temporary and based on demographic differentiation among agricultural production units.

A sophisticated attempt to date to measure socio-economic differentiation is provided by the Vletter (1983). His "Rural Homestead Survey" study is also based on the homestead development cycle, but De Vletter acknowledges that this cycle theory is an oversimplification of the very complex transformation process of homesteads. (1983: 60,61). De Vletter wanted to indicate 'wealth' with help of indicators like income, beds, cars, etc.

Neocosmos (1987) signals some problems with conceptualising differentiation as differences in distribution and income. By using this operationalization De Vletter was only concentrated on issues of distribution rather than production. Further, De Vletter made no distinction between means of production and means of consumption. By equating the two De Vletters study hides and removes the existence of, what Neocosmos calls, structural differences within which peasants live and which determine their so called differing "rationalities".

Another problem is that all homesteads are seen as deviation from the ideal homestead, as possessing more or less the same qualities, as being deviations "at the margin", as being superficially and not essentially different. (Neocosmos, 1987b:34). Using as point of depart the Rural Swazi Homestead, being an ideal type of how the homestead was and supposing his historical continuity leads to the proposition that in essence the agrarian population is a homogeneous one, in which only differences exist as the result of demographic or natural factors. Neocosmos rejects this point of depart.

Neocosmos himself did also a survey, in which he stresses structural

differentiation among homesteads, which is not dependent on the homestead's lifecycle. As result of his survey (Neocosmos/Guma, 1985) Neocosmos comes to define four structural categories of homesteads, distinguished by the manner in which existance is secured:

The 'poor' were defined as those homesteads which did not produce enough for all their agricultural production to ensure subsistence and who, in addition, did not engage in non-agricultural petty-commodity production. Clearly their subsistence needs are secured partly through agricultural production, partly through the sale of their labour-power. The 'lower-middle' were defined as those homesteads which, like the poor, did not achieve subsistence in their agricultural production, but who, inlike the poor, did engage in non-agricultural petty-commodity production.

The 'upper-middle' were defined as those homesteads which did produce enough from all their agricultural production to achieve subsistence, primarily on the basis of household labour.

The 'rich' were defined as those who not only achieved subsistence levels but who also employed wage-labour from outside the homestead (or else who did employ resident wage-labour in conjunction with the ownership of expensive items of equipment such as tractors or irrigation).

Neocosmos uses the terms 'rich' and 'poor', but these do not refer to wealth, but to "structural categories, distinguished by their position in a system of production relations in agriculture" (Neocosmos 1987b:47). This is also Neocosmos' argument against the 'domestic development cycle' studies, in the case of Swaziland, Low. These studies acknowledge that social differentiation among homesteads may exist, but this social differentiation however is only explained by the biological cycle and reproduction of the homestead. According to these theories, it is possible to distinguish several categories of homesteads, because homesteads can be in different phases of their 'domestic life-cycle'. Neocosmos suggests that differentiation among homesteads is not only a matter of being in one phase or another, but that there is a structural differentiation among homesteads, which is not dependent on the homestead's 'life-cycle'. This structural differentiation is determined by the position that various categories of homesteads have in the system of relations of production in agriculture.

As Neocosmos remarks himself, the extent of differentiation is even underestimated because intra-homestead and intra-kinship differences were not studied. (Neocosmos, 1987b:50).

According to me, a strong point in the differentiation concept of Neocosmos are his criteria for distinguishing categories, as the way homesteads provide for their subsistence and the different access to and amount of means of production homesteads have. In stressing these point he legitimates the existence of categories of homesteads, which are structurally different from each other, with different rationalities. For one homestead non-agricultural production is possible, because of easy access to the necessary means of production, the other has not and is forced, for example, to sell his labour-power.

Question is what categorization is suitable for the research. Each categorization seems to have its own advantages and disadvantages. For the proposed research hopefully the data can be used of De Vletters and Guma/Neocosmos survey. I think, the proposed research can contribute to the discussion around the concept of differentiation, when households and the process of nuclearization are included in the differentiation concept.

The social security system must be analyzed within this context of differentiation. Questions can be asked if (parts of) the social security system is (are) still essential for a all categories homesteads to reach subsistence and is still practiced by all categories, and if so, has it a still its redistributive (social securing) aspect, which it was supposed to have.

Mamdani (1987) for example did a study in Uganda and concluded that some practices, in a context of differentiation, had been transformed from cooperative redistributive forms into highly unequal relationships. "Practices co-operative in form cease to be so in content once they are affected between households in unequal positions" (Mamdani 1987:203).

The next example is derived from Mamdani (1987:203-204). Three household scome together to pool their cattle and their labour for joint herding. Th only difference with the past is that they no longer share a common economic position; the poor peasant household has two cows, that of middle peasant eight cows and that of the rich 24. They

pool the cows together and build for them a common kraal near the home of the rich peasant. They rotate herding, each owner being responsible for ten days in tuern. While the labour is shared equally, the ownership is not equal. The result can be seen in the following table:

Table 2: Ownership of cows and contribution of labour in one herding pool

Peasant household by stratum	Number (%) of cows in pool	Amount (%) of labour contributed per turn
Poor peasant	2 (5.9%)	10 (33.3%)
Middle peasant	8 (23.5%)	10 (33.3%)
Rich peasant	24 (70.6%)	10 (33.3%)

Source: Mamdani, 1987:203

Not only are the benefits of co-operation shared unequally, so are the risks should any of the cows stray into the nearby farms and damage crops. From the point of view of a poor (middle) peasant, it of course better to herd 34 cows for ten days than to herd two (or eight) every day of the month. And yet, the real point is that the equal sharing of labour disguises the unequal returns to each household. In practice, this form of 'co-operation' is really a transfer of unpaid labour from poor and middle peasant households to rich peasant households.

Mamdani said further: "Spontaneously developed unequal relations, wether open or disguised, develop in relation to each of the major productive forces: implements of labour, land and labour" (Mamdani 1987:204).

In sum, it seems important to place a research to the functioning of the traditional social security system within the context of differentiation, which is also present on Swazi Nation Land, in order to draw conclusions on the redistributive effect of mentioned set of institutions, in which the social security aspect is hidden.

Nuclearization.

An other process of change, which is closely related to differentiation, and referred to here as nuclearization, might threaten the future of the traditional social security system.

Two forms of nuclearization will be distinguished:

- nuclearization within homesteads: the situation when the economic emphasis of the household remains on the homestead, but the economic units (households) within a homestead (e.g. sons with their wives and children) tend to act more and more independently from each other with respect to the process of maintaining the homestead (reproduction of the homestead).
- nuclearization as a process of actually breaking up the homestead into smaller households, who live apart from each other. A common example being a household which migrates to town and so transfers the economic emphasis from the rural homestead to the new living environment.

It is interesting to investigate whether this process of nuclearization actually takes place on S.N.L. and whether a correlation exists between this process and the four class categories distinguished. If the process of nuclearization takes place in its two forms, it might jeopardize the homestead as a whole and so the base of economic solidarity, which is a main condition for the functioning of the traditional social security system.

However, the relationship between the traditional social security system and nuclearization is not clear. The question of causality cannot be solved yet. On the one hand one can suggest that a traditional social security system seems to be necessary for a process of nuclearization. On the other hand, in second instance, nuclearization might have strong repercussions for the traditional social security system. Especially in the second case a distinction has to be made between households left behind and the leaving household. When a rich household leaves, followed by a solvation of the relationships, this means a considerable loss for the households left behind. When a poor household leaves and its migration is successful the financial burdens of the households left behind decrease. The latter can even claim from the migrated household if relationships are still good. Failing migrants, however, increase the financial burdens of the households

left behind (Yap 1976:164).

Further research seems to be necessary to identify the several aspects of nuclearization and its relationship with the traditional social security system. As far as I know, no research has been undertaken on nuclearization on Swazi Nation Land.

Research level

The household will be the research level instead of the homestead. A homestead can be defined as the dwelling place of the rural population on Swazi nation Land (in most cases a few huts and a kraal), which traditionally acted as the centre of an economic unit, where an extended family⁷ provides for itself through subsistence-oriented production.

In a lot of literature on Swaziland the homestead is considered the same as a household.

Black-Michaud (1981) indicates that this can be done for a lot of research in Swaziland, but also stresses the importance of making a distinction between a homestead and a household. This distinction between homestead and household has always been a point of discussion among social scientists in Swaziland.

For the research in question the distinction between homestead and households need to be made for several reasons:

1. The household (tindlu) seems to be the basic unit for consumption and non-agricultural production and although agricultural production takes place at the homestead level (Russell 1983) the factors of production are delivered by the several households, forming the homestead. With regard to the research questions will be if households still share their factors of production within the homestead, how the agricultural product of the homestead is distributed among households, if households share other goods and

⁷ The concept extended family is well-known to every social scientist and their description can be found in every sociological handbook.

A nuclear family can be defined as a family consisting of a man, his wife and their children. In this context nuclear family will also refer to a family consisting only of a woman and her children, a form which is highly common in Swaziland.

An extended family can be defined then as a cluster of kin-related nuclear families, which live together and generally consists of three or more generations.

if there is an exchange with external households and/or homesteads.

2. The use of a homestead alone, as an unit for survey analysis distorts reality by obscuring possible stark inequalities between the households of which the homestead might be constituted. According to Russell (1983) any such inequalities arise through incomes generated outside the homestead, and in which the homestead per se has no share.

So, taking Russells conclusions serious that inequalities between households exist, the household seems also to be the proper unit to analyze socio-economic differentiation.

3. In general the household consists of a two generation family, which can be referred to as nuclear family. To analyze nuclearization the household again can be used as unit of analysis. Households might function in an independent way within homesteads or homesteads can become equal to households in the sense that households actually leave homesteads and form a small (nuclear) homestead on their own.

2.3. RESEARCH PROBLEM AND RELATED QUESTIONS.

The research problem can be summarized as follows:

What can be said about the functioning of the traditional social security system nowadays on Swazi Nation Land, within a context of socio-economic differentiation between homesteads, and how is this system threatened by the process of nuclearization.

In relation with this problem the following research-questions are formulated:

1. What was the past and is the present practice and, possible redistributive effect of traditional institutions with respect to sharing factors of production and wealth and who practices these forms?
 - a. With respect to the sharing of factors of production:
 - how do traditional forms of co-operative labour operate: what is their content, who practice them (who helps who and what category of households) and within what context (kinship, mutual help, friendship, alliance)?
 - how do forms of sharing capital (tractors, ploughs, cattle (kusisa)) function: what is their content, who practice them and within what context?
 - are there forms of cooperation with respect to non-factor inputs like seeds, fertilizers, credit, etc.: what is their content, who practice them and within what context?
 - do people, who have fallow land, give it to other people and if so: in what forms and how are these arranged?
 - b. How do networks of transfers of consumption goods between households operate: what is their contents, who practice them and within what context?
 - c. How do networks of money transfers operate: what is their contents, who practice them and within what context?
2. If there are forms of the traditional social security system, as mentioned under 1.a/b/c, which are practiced by all four categories of 'households', what can be said then, given the existing

socio-economic differentiation among households, about their redistributive effect. Are there indications that one category profits more from these forms than others do?

3. Can we notice a process of nuclearization and what is its influence on the traditional social-security system?
 - a. What indications can be identified for the two forms of nuclearization as distinguished and within what category(ies) of households?
 - b. What is in both cases the result of these two forms of nuclearization for the traditional social-security system?
 - c. What can be said, then, about the relationship between nuclearization and the social security system?

LITERATURE

General

- Binsbergen, W. van en Geschiere, P. (eds.)
1985 Old modes of production and capitalist encroachment; anthropological explorations in Africa, Monographs from the African Studies Centre, Leiden.
- Dupre, G.
1982 Un ordre et sa destruction, Paris: O.R.S.T.O.M.
- Fuchs, M.
1985 Soziale Sicherheit in der Dritten Welt; zugleich eine Fallstudie Kenia, Baden-Baden: Nomos Verlagsgesellschaft
- Geschiere, P.
1985 'De zwaarbeproefde veerkracht van Afrikaanse boerensamenlevingen; recente interpretaties vanuit het "produktiewijzendebat"', Antropologische Verkenningen 1985, 2:235-261
- Hyden, G.
1980 Beyond Ujamaa in Tanzania: underdevelopment and an uncaptured peasantry, London: Heinemann
- I.L.O.
1984 Introduction to social security, Geneva: I.L.O.
- Meillassoux, C.
1975 Femmes, greniers et capitaux, Paris: Maspero
- Mouton, P.
1975 Social security in Africa; trends, problems and prospects, Geneva: I.L.O.
- Raatgever, R.
1988 De verwantschappelijke economie; Essays in de historisch-materialistische antropologie, Brugge: Walleyndruk N.V.
- Rey, P.P.
1971 Colonialisme, neo-colonialisme et transition au capitalisme, Paris

On Swaziland

- Black-Michaud, A.
1981 "Homesteads versus households when collecting socio-economic data", Research division of the ministry of agriculture and cooperatives, research discussion paper no.1, Mbabane
- Bonner, P.
1980 "Classes, the mode of production and the state in pre-colonial Swaziland", in: S.Marks/A.Atmore: Economy and society in pre-industrial South Africa, HongKong: Longman Group
- Bonner, P.
1982 Kings, commoners and concessionaires; the evolution and dissolution of the nine-teenth century Swazi state, Cambridge: Cambridge University Press
- Booth, A.R.
1982 "The development of the Swazi labour market 1900-1968", South African Labour Bulletin vol.7(1982)6
- Booth, A.R.
1986 "Homestead, state and migrant labour in colonial Swaziland", in: J.Daniel/M.F.Stephen: Historical perspectives on the political economy of Swazi-land; selected articles, S.S.R.U.: S.S.R.U., University of Swaziland
- Bowen, P.
1986 "The role of anthropology in social science research in Swaziland", Department of anthro-pology, University of Western Australia, University of Western Australia
- Daniel, J. / Stephen, M.F. (eds.)
1986 Historical perspectives on the political economy of Swaziland; selected articles, S.S.R.U., University of Swaziland: S.S.R.U.
- Derman, P.J.
1977 "Stock and aristocracy: the political implications of Swazi marriage", African Studies 36(1977)
- Dütting, G.
1986 Women, work and income in rural Swaziland, Faculty of Social Sciences, Cultural Anthropology, University of Amsterdam: University of Amsterdam
- Guma, X.M. and Neocosmos, M.
1986 "Some aspects of poverty among Swazi rural homesteads", Reserach paper S.S.R.U. no.23, S.S.R.U., Kwaluseni, Swaziland

- Hughes, A.J.B.
1972 Land tenure, land rights and land communities on Swazi Nation Land in Swaziland: a discussion of some inter-relationships between the traditional tenurial system and problems of agrarian development, Durban: Institute for social research, University of Natal
- Kappers, S.
1986 "Sizanani; let's help each other", paper presented at the Research Seminar on Swaziland, 26-27 february 1986, Free University Amsterdam
- Kowet, D.K.
1978 Land, labour migration and politics in Southern Africa: Botswana, Lesotho and Swaziland, Uppsala: Scandinavian Institute of African Studies
- Kuper, H.
1960 "Kinship among the Swazi", in: A.R.Radcliffe-Browne / D.Forde: African systems of kinship and marriage, Oxford: Oxford University Press
- Kuper, H.
1965 An African aristocracy: rank among the Swazi, Oxford: Oxford University Press
- Levin, R.M.
1985 Hegemony and crisis: Swazi royal power in transition, Liverpool: University of Liverpool
- Low, A.R.C.
1986 Agricultural development in Southern Africa: farm-households economics and the food crisis, London
- Low, A.R.C.
1983 "Rural development and farm homestead economic behaviour", in: F. de Vletter: The Swazi rural homestead, S.S.R.U.: S.S.R.U., University of Swaziland
- Mamdani, M.
1987 'Extreme but not exceptional: towards an analysis of the agrarian question in Uganda', Journal of Peasant Studies, vol.14, no.2, 1987
- Marwick, B.A.
1966 The Swazi: an ethnographic account of the Swaziland protectorate, London: Frank Cass & Co
- Murray, C.
1980 "Migrant labour and changing family structures in the rural periphery of Southern Africa", Journal of Southern African Studies 6(1980)2

- Neocosmos, M.
1987a "The agrarian question in Swaziland; some observations on historical commoditization and the post-colonial state", in: M.Neocosmos: Social relations in rural Swaziland: critical analyses, University of Swaziland: S.S.R.U., University of Swaziland
- Neocosmos, M.
1987b "Homogeneity and differences on S.N.L.", in: M.Neocosmos: Social relations in rural Swaziland: critical analyses, University of Swaziland: S.S.R.U., University of Swaziland
- Ngubane, H.
1983 "The Swazi homestead", in: F. de Vletter: The Swazi rural homestead, University of Swaziland: S.S.R.U., University of Swaziland
- Potholm, C.P.
1977 "The Ngwenyama of Swaziland: the dynamics of political adaptation", Uitgever: R.Lemarchand: titel van de bundel: African kingships in perspective, Frank Cass & Co
- Rosen-Prinz, B.D. and Prinz, F.A.
1978 "Migrant labour and rural homesteads: an investigation into the sociological dimensions of the migrant labour system in Swaziland", I.L.O., Geneva
- Russell, M.
1986 "The landed proletariat, coming to terms with the contradictions to terms", Free University Amsterdam, Amsterdam
- Russell, M.
1984 "Beyond remittance: the redistribution of cash in Swazi society", S.S.R.U., University of Swaziland, Kwaluseni, Swaziland
- Russell, M.
1983 "The aged in Swaziland: prospects for an old age problem", in: McDaniels, M.C.: A report on the proceedings of the seminar on the "aging", held at the University of Swaziland, 21/22 april 1983, Kwaluseni, Swaziland
- Russell, M.
1983 "Boundaries and structures in the Swaziland homestead", S.S.R.U., University of Swaziland, Kwaluseni, Swaziland
- Sibisi, H.
1980 "Traditional securities and the response to "modern" economic oppurtunities", Ministry of Agriculture and Cooperatives, Mbabane, Swaziland

- Stephen, M.F.
1986 "Small is beautiful"; an overview of the Swazi economy",
in: Daniel, J./Stephen, M.F.:
Historical perspectives on the political economy of
Swaziland; selected articles, S.S.R.U., University of
Swaziland: S.S.R.U.
- Vletter, F.de
1983 The Swazi rural homestead, S.S.R.U., University of
Swaziland: S.S.R.U.
- Vletter, F.de
1982 "Labour migration and agricultural development in
Swaziland", in: F.A.O.: Labour migration and agricul-
tural development in Southern Africa, Rome
- Yap, K.S.
1976 Thala of Tunis; een antropologisch onderzoek naar een
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