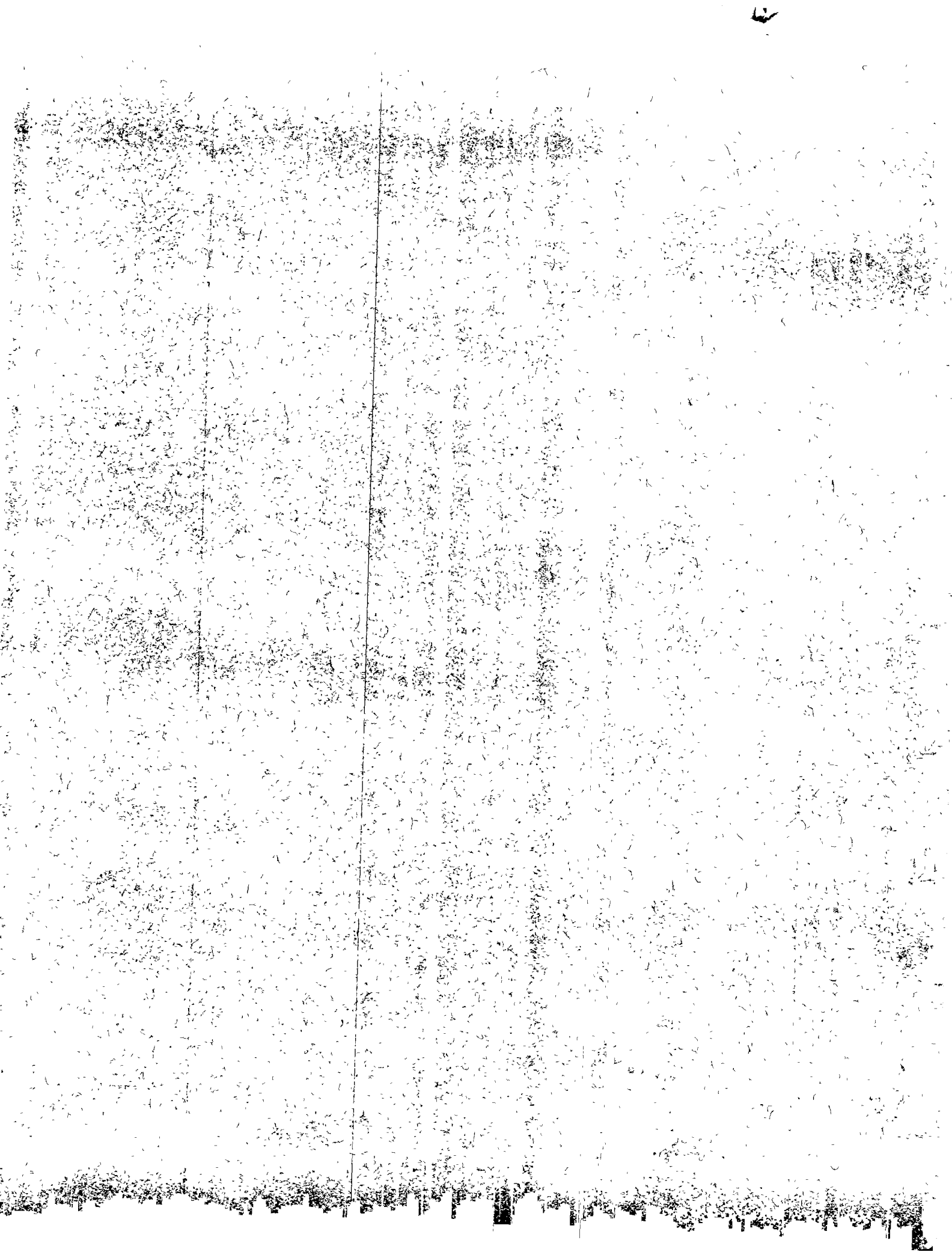


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GHANA UPPER REGION WATER PROGRAMME EVALUATION PROJECT

REPORT 5: APPENDIX THREE

THE ANTHROPOLOGY OF WATER, HEALTH, AND HAND-PUMPS

by

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Clement Chabot

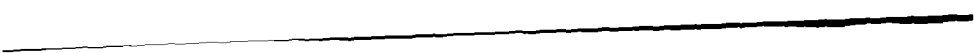
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The opinions expressed in this report are those of the authors and do not necessarily reflect the views of MFEP, GWSC, CIDA.







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## LIST OF ABBREVIATIONS

CE	Community Education
CHC	Canadian High Commission
CIDA	Canadian International Development Agency
CPP	The Convention Peoples' Party
CSM	Cerebrospinal Meningitis
CUSO	Canadian University Students Overseas
FHIG	Family Health in Ghana
GOG	Government of Ghana
GRAAP	Groupe de Recherche et d'Appui pour l'Autopromotion Paysanne (Group for Research and Support to Peasant Self Development)
GWSC	Ghana Water and Sewerage Corporation
ISSER	Institute of Statistical, Social and Economic Research
MFEP	Ministry of Finance and Economic Planning
MOU	Memorandum of Understanding
N	No Pump Sample
NGO	Non-Governmental Organization
NLC	National Liberation Council - First Military Government formed after the overthrow of Nkrumah in 1966
NPP	The Northern Peoples' Party
NRC	National Redemption Council - Second Military Government formed after the overthrow of the Busia government in 1972
ORT	Oral Rehydration Treatment
P	Pump Sample
PCV	Peace Corp Volunteer
PNDC	Provisional National Defense Council - the Military government instituted after the overthrow of Limman's government in 1981
PNP	Peoples' National Party
POP	Plan of Operation
PP	Progress Party
RWSU	Rural Water Supply Unit
SMC	Supreme Military Council - new name of the NRC after a reshuffle
SPSS	Statistical Package for the Social Sciences
URs	Upper Regions
URADEP	Upper Region Agricultural Development Project
URPE	Upper Region Programme Evaluation
URWSP	Upper Region Water Supply Programme
V	VEW and Pump Sample
VEW	Village Education Worker
VHWS	Village Health Workers
W	Wet Season Survey
WHO	World Health Organization
WSA	Water Storage Area
WUCs	Water Users Committees
WUP	Water Utilization Project

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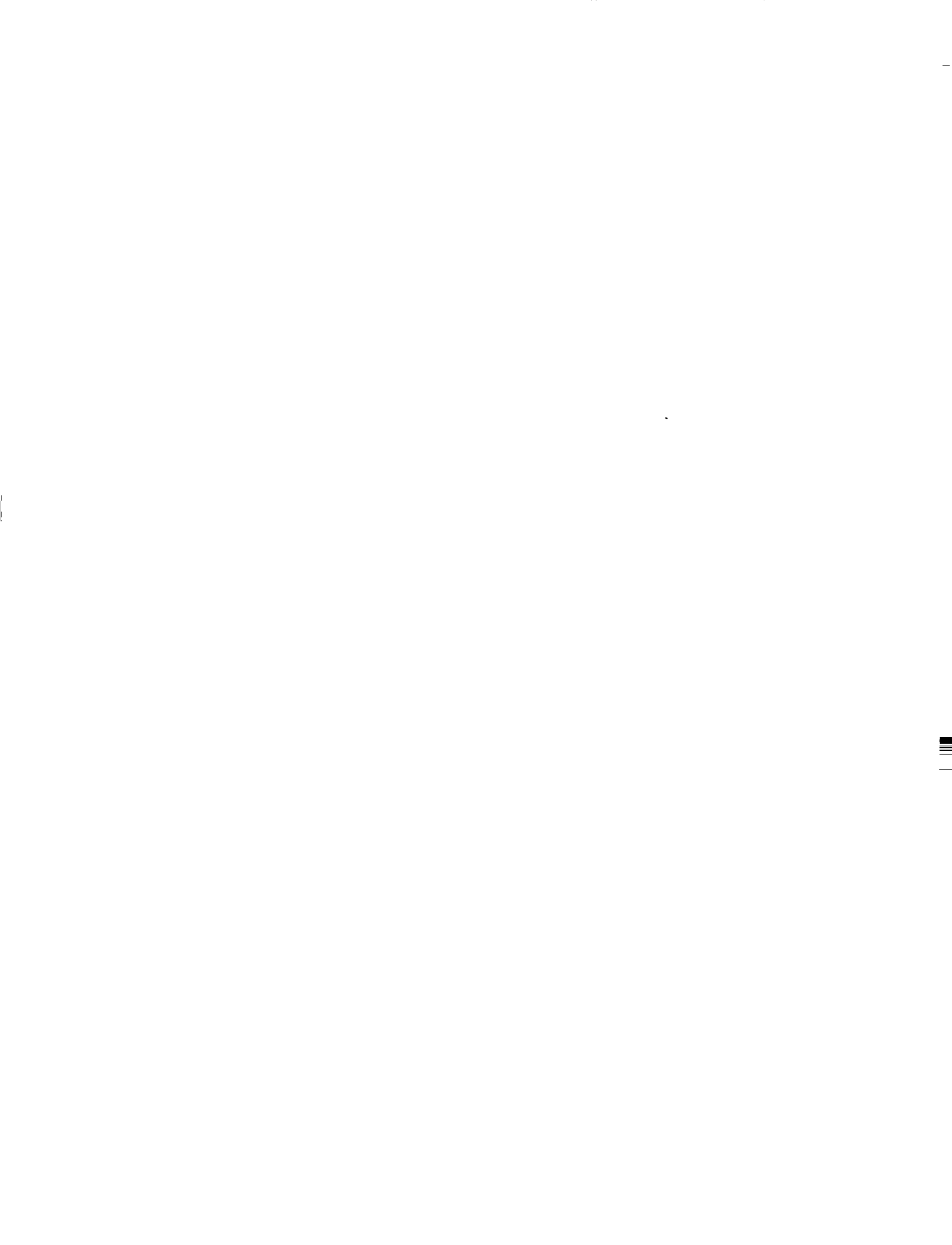
## EXECUTIVE SUMMARY

The introduction of new technologies in the form of hand-pumps and the introduction of new ideas through education affects and is affected by the cultural context within which it takes place. The challenge of rural development programmes is to provide people with the means to improve their situation and to assist them in successfully incorporating these means into their way of life.

However, "our" success is not necessarily "their" success and consequently "their" success is not "our" success. So often, development assistance from an outside source has goals, timetables, and values which are not shared by those receiving the help. On the other hand, when a village achieves a goal or desire in its own way, it may not be perceived as a success by an outsider. The most usual form of help is given on the basis of what someone outside of the community has determined as a need and is implemented in a manner determined by outsiders. For this assistance to have the maximum desirable effect, the designers and implementers of development projects must understand and be sensitive to the needs and priorities of the people receiving help.

The outsiders must appreciate the cultural context and how each project will be received and what the effects may be on the villagers. This is especially true with health related education projects where the concepts of health and sickness, and the concepts of causal links between behaviour and disease are very different from the western view. These concepts are also very strong because they are derived from the fundamental beliefs which define the culture. Attempts to modify behaviour (even those which can be the source of disease) often meet with unsurmountable resistance if the reasons for the behaviours are not understood by those who seek to change them.

When the Upper Region Water Programme was first designed in the early 1970's no systematic attempt was made to understand the values and beliefs of the people of the Upper Regions. In the case of the hand-pump project itself, this was not a major problem. However, for



the education aspects of WUP, the lack of foundation research on the cultures in the Upper Region was a severe handicap to those responsible for designing and implementing the programme.

Although not part of the Evaluation terms of reference, a preliminary review has been carried out of some key anthropological issues surrounding health, water, and hand-pumps. The following research notes were prepared by Mr. Clement Chabot who worked on the Evaluation Project as a researcher and who is also a medical anthropologist. These notes are by no means definitive but are intended to provide an anthropological perspective on several questions. These are:

- . what are the local concepts and beliefs surrounding health and disease?
- . how do these beliefs relate to the use of water?
- . how do these beliefs relate to village sanitation practises?
- . how has the introduction of hand-pumps affected the cultural tradition of the people?

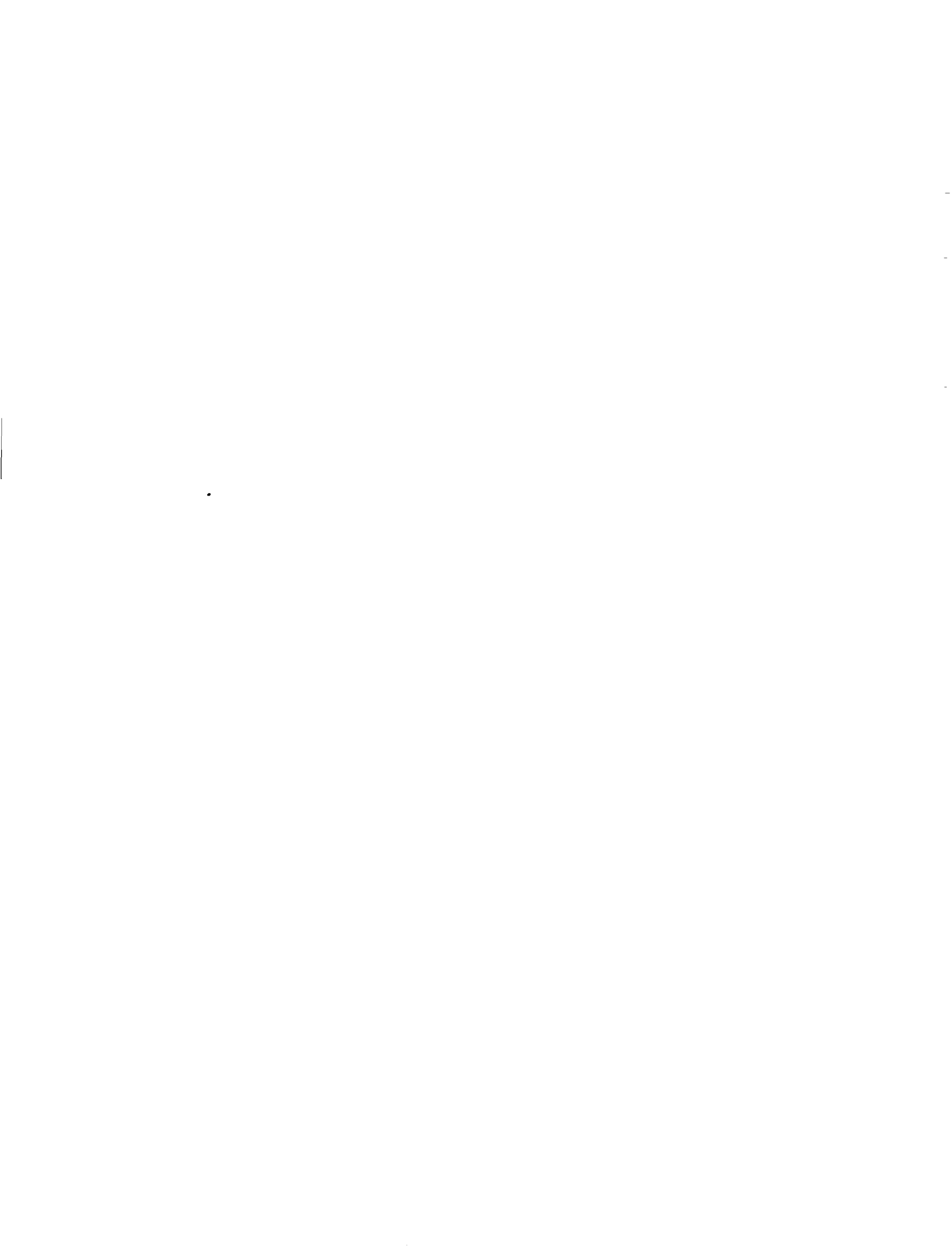
The salient observations derived from the research are summarized below.

### Health

The concept of "health" as we think of it does not exist in the Upper Regions. There appears to be no single word which denotes health - rather it is a "coolness of the body" and "rapport with the body". Health is a process which ensures the reproduction and continuation of society.

### Bathing

Bathing is of two types: usual bathing; and ritual bathing. Usual bathing is a maintenance measure aimed at restoring freshness of the body by washing away the dirt and sweat of the day or night. The number of times a person bathes depends on the type of activity a person has been involved in, climatic conditions, and personal choice.





When it comes to bathing, the notion of privacy applies only to gender, not individuals. People may bathe in the open but distance is maintained between men and women. In close quarters, physical distance is replaced by built partitions.

Ritual baths are given or taken in a variety of circumstances that include: during and after an episode of illness; after sexual relations; before consulting sooth sayers; before watering the guinea corn to make pito; and for newly borns (who are also forced to drink water after bathing).

### Sanitation

People in rural areas defecate on the fringe areas of their farms. Human faeces are seen as harmless and disease transmission is directly from person to person, not carried by agents such as flies, lice, or mosquitoes.

Privacy is not a major incentive to use latrines. Privacy is in the eyes of the looker, not the doer (with some exceptions).

Villagers do not see why everyone should defecate on the same spot (i.e. a latrine).

It is quite clear that a rural latrine programme conflicts with an array of strongly held beliefs and behaviours.

### Hand-Pumps

The installation of hand-pumps in the rural areas has made reliable quantities of water available to communities which were without at certain times of year. It has also shortened the time spent by women fetching water.

Before the advent of the pumps, minimal control existed over water sources in rural areas. The pump has brought with it the ability to control access to water and has introduced a proprietary view. The inhabitants of a hand-pump community generally consider the pump as their property. Where hand-pumps are used by more than one branch of the lineage, social conflict focusing on access to water is not uncommon, especially during the dry season. Dirty and undeveloped pump sites tend to be an indicator of conflict over water.



The introduction of the tariff (requiring levies on pump users) may complicate the relationship between the main pump users and the peripheral users (or those of other clans).

The introduction of pumps has exacerbated the old dichotomy between literates and illiterates. There is a common attitude that when drilling crews came to site a borehole, those who "spoke English" were able to influence the decision and to have the boreholes sited near their compounds.

The village education workers (VEWs) seem to have borne the brunt of some of this conflict. When they make their presentations to the villagers, it is expected that they will provide more hand-pumps. Because the VEWs are paid (they get a bicycle) while the pumpman is not, villagers often feel that the VEWs are responsible for reporting and repairing breakdowns.

Another frustration for VEWs is that while it is their duty to change old ways they are unable to demonstrate any tangible results.

Water being one of the most essential necessities for these people, they are ready to go to great lengths (but not to any length) to get it. This leaves the door open for many forms of exploitation very often defrauding villagers.



## 1.0 INTRODUCTION TO THE ANTHROPOLOGY OF HEALTH, WATER AND HAND-PUMPS

This paper contains the results of some preliminary research on of the Anthropology of Health, Water, and Hand-pumps, using the inductive approach of considering the villages' perspective.

Health is an abstract notion and a very problematic concept. It is rarely defined in its own right. Water is more tangible, although local ontology generates a rather elaborate classification of water types tied to the private, communal and public domains and in relationship to those individuals and organizations responsible for it.

In this society, water pumps are pieces of technology parachuted from above into varied social settings all over the Upper Regions. Their arrival and continued presence has had impact on the people inhabiting the areas served by the pumps. Some anticipated effects were obtained. Pump installation has definitely made life easier for great numbers of people, but there were some unforeseen effects which may hinder the utilization of the infrastructure.

## 2.0 HEALTH & THE CULTURAL CONTEXT

This anthropological look at water and health and hand-pumps illuminates a relationship constructed from observation and analysis of water-related behaviours. We start with some definitions of key terms to assist non-anthropological readers.

### **Behaviours:**

Behaviours are adaption strategies for survival. They are mainly cultural (combined genetic and environmental factors) and are in constant mutation although they may change very slowly. Behaviours are caused by and evolve in social contexts which sustain and justify them.

### **Culture:**

At one level, culture is the mediator between the natural (biological, ecological) and the social. On another level, it is the



sum total of forms of behaviours acquired by a social group. On another level, culture is the tool which allows a social group to organize its world, and its survival. Culture contains the keys to behaviours and may suggest the points where interventions can be made in order to affect change.

There is an elasticity within the societal fabric of rural societies which allows foreign ideas and tools to become assimilated, as long as the new material does not overload the justification mechanisms.

**Resistance:**

The capacity for adaptation by any given group of people is always mediated by a capacity for resistance which regulates the process of assimilation. It can range from a complete disregard and disinterest in the new input to a reinterpretation which changes or diverts the object from its original design. Rejection is a form of resistance triggered when the justification mechanisms cannot cope with the new inputs. All planned changes not prepared in consultation with beneficiaries run the risk of triggering rejection.

**Patrilineality:**

An anthropological term referring to a type of filiation. In patrilineal societies, ascendance is traced through the male line. This determines how individuals identify their links and position within the group.

**Patri-Viri-Locality:**

Refers to the residency rules of newly married couples. In this case, the new couple will set up residence on the husband's father's land.

**Matri-Focality:**

This is a rather new term, originating from the Caribbean area, (primarily Haiti) meaning that the mother is the focus around which day-to-day efforts for survival are organized. In our area of study, the yard is the smallest social unit and consists of a mother and her children. It plays an important part in the process of lineage segmentation.





**Geriatric Society:**

A social group where the power of binding decisions reside with elders: males or females. As mothers of men, old women have an importance in decision making.

**Health:**

As a working definition, we say that health is a process which ensures the reproduction of the society. It is a field of its own and merits being studied without reference to sickness, illness and disease. A general picture emerging from the local ontology of health describes it as: good sleep, the absence of worries, freshness of the body. It is a type of relationship to the body. "Health is what happens between two episodes of illness".

**Water:**

In this paper, we are concerned only with domestic water. But domestic water can be medicated thus becoming ritual water.

**Hygiene:**

All behaviours aimed at the upkeep of the body on a more or less daily basis.

**Sanitation:**

Management of refuse and excrement.

The Bolgatanga administrative district or Frafra district is composed of five major ethnic groups: Nabdams, Talihs, Zwarenes, Bawsis and Gurunsis. Although there are slight differences in language and some customs they are all patrilineal, viri-local, matri-focal and geriatric.



## 2.1 Health: The Independent Variable

Attempts at a definition of health are for the most part founded on the disease\* model. Health is thus presented as either a state, equilibrium or the absence of disease.

Whether the explanatory models are psycho-hormonal, salutogenic,\*\* homeostatic, or epidemiological; whether authors are medical doctors, nurses, anthropologists or philosophers; whether health is present in its clinical or public, preventative or curative dimensions, the explanatory path followed starts at the conceptual level from disease and from medicine at a practical level. Even the "epidemiology of health" proposed by Jansen (1), implies the transfer of the disease model to health.\*\*\* Thus, health becomes the time lapse between two bouts of disease (two episodes of illness).

Studies of health through disease may generate intuitions as to what health could be, but they do not allow a grasp of the phenomenon in its specificity and globality. Health and disease are concepts located at different levels of abstraction. Within the dominant explanatory apparatus, health is residual: what is left after the elimination of disease. It is sometimes decoded by "well-being," "state of health;" it is sometimes implied that "health is more than the absence of disease," but such processes lead to synonyms and the concept is yet to be clarified.

In the realm of categorization, health and disease belong to different referential classes. This consideration allows us to postulate the possible coexistence of both phenomena. Applying the

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\* There is an ongoing debate in medical anthropological literature as well as in ethnomedical publications on the notions of disease, sickness and illness. To simplify the text, we use the term disease as a generic term which stands for all three.

\*\* Stress related.

\*\*\* It is justifiable because the indicators of the concept of disease are numerous and quantifiable. One has only to refer to the WHO list of disease to obtain an instantaneous analytical grid. Thus, health is something which may be lost and found again after the removal of the particular disease.



principle of dissociation, we are freed from the hold of the health-disease binary opposition, thus opening a path to a study centred on the specificity of health conceptualized as a process.

The search for indicators of the concept outside the referential field of disease has impact on the methodology.

It could very well be that the word health does not exist in this cultural context. Some anthropologists and ethnologists suggest a relationship between health "coolness of the body," and "rapport with the body." This can be implied from certain indications drawn from disease, therapeutic systems and Africanist literature (Badini, Dabire, Forde, Friedberg, Le Guerinel, Twumasi and Janzen - References 2 - 8 to cite a few). In such cases, data related to health are peripheral elements of discourses and analysis often constructed for other purposes. Such signs point to the fact that the foundations of such health related discourses and practices are found in the local conceptions of the body, of the life cycle and of the world view.

## 2.2 The Concept of Body

The category "body" is applicable only to a person; for Akans, Moshies, Kussassis as well as for Namnams, it is "this fleshy envelope through the intermediary of which man enters into contact with the objects and other living, material beings" (9). We acknowledge the purely organic components of the body but studies (10,11) reveal a more complex conception which transcends a purely physiological view.

The Namnams of the Upper Regions espouse a quadripartite composition of the human body as do the Akans. Previous investigation of Namnam cosmogony revealed the following information:

- . human beings were the last creation of Na Yin (God);
- . man was made first, then woman;
- . to make the bones, he used grass, while the flesh was made with the soil of the earth;



- . the whole was given coherence and "life" through Yin Ntan (the tears of God). It is constituted by four elements: Yin, See, Yinpialug and Niguina. What is important to note is that three of the four parts refer to non-material levels which shall subsequently be referred to as the symbolic realm.

Survival of the species implies the creation of human beings. For Namnams, survival also implies the creation of ancestors. Thus, the perpetuation of society implies the arrival of new beings through birth and the creation of ancestors through death. Birth and death are thus "rites of passage" and not a beginning and an end. The life cycle which partakes of the symbolic and material worlds is nothing more than the reproduction of immediate life and, by extension, of the society. This cycle embodies the links joining the living to the founding ancestor as well as those uniting the living together.

As with the Bunaq (12), Namnams consider the body as a whole. This body seems to be the axis around which knowledge is elaborated, especially in rural areas where orality and analogy dominate. "Not so long ago we could, in Africa, grasp the filiation between human beings and the three reigns: animal, vegetable, and mineral"(13). Long before Ghana's independence, the Zoa Tendan Poaka (earth priestess or chief?) declared that above was male, below was female, and that from the land depended births, the getting of wives, good sleep and good harvests.

In the Western context, the world is organized in anthropomorphic terms, thus the importance of understanding the human body in the construction of health-related knowledge. In Namnam, such knowledge is not the prerogative of an elite(14); it is to be found diffused throughout the whole of society.

Certain authors have clarified the concept of health in different social groups. Badini insists that:

the fundamental worry of the Moaga is, in the last instance, to preserve the physical and even more the immaterial integrity of the individual, to strengthen it in wealth and to reinforce it through the acquisition of spiritually beneficial elements which will end up making one with him; he will try in different ways ... to ensure their efficiency(15).

for Kerharo, "... amongst the animists, in particular, is in good health the being which realizes the best equilibrium of vital forces and, by implication, the individual who is well fed in the global acceptance of the term: physical and spiritual"(16).





(Figure 3). All of the health and hygiene practices aim at making ancestors. The normal life cycle is one of birth, death, ancestor and reincarnation. Men come back three times and women four times.

#### 2.4 The Normal Life Cycle or the Long Life Cycle

The production process of health in Nabdam land aims at the realization of the long life cycle. The perpetuation of the social group implies the arrival of new bodies through birth but also the creation of ancestors through death. Birth and death are only "rites of passage" and not a beginning and an end.

The investigation of the network of communications between the visible and the invisible (the symbolic) revealed the ambivalence of kinkiriki (which may be translated as "fairies"). This ambivalence comes from the fact that they live and die only partially. Applying the principle of indirect lighting (Berthoud and Sabelli), it appeared that the focal point of the proof of 'humanness' of an entity is marriage and the production of a progeny who, by offering sacrifices, will remember the dead. Thus the dead become ancestors and ensure the continuation of the lineage. But the kinkiriki often dies before having produced a progeny and in this sense, ~~is never~~ considered as a full person. But he is attributed by the social group beliefs a plenipotencia of symbolic powers at birth, power which humans acquire as the years go on. As physical powers decline with aging there is an inversely proportional growth of symbolic powers which are the foundation of the authority of elders.



Friedberg is the clearest as to the body-water-health relationship:

To be in good health, this body must first of all have sufficient cold which is, in this culture, associated with water and considered a source of life ... Nevertheless, it comes out of a certain number of respondents that the body must not be too cold. In effect, another condition for good health is that blood remains fluid within the body ... in the same way hot is generally associated with danger and death, but can be necessary to life in certain cases(17).

Human beings were Na Yin's last creation. To make the bones he used grass, mud for the flesh and soft parts. The whole was given life by Yin Ntan: tears of God. It is composed of four elements: Yin, See, Yin Pialug and Ninguina.

Yin: The immortal component of the person. It is a divine gift, a guidance which returns to become an ancestor or Piriin. It is the yin which meets the yanam to be judged (in cases of witchcraft or sorcery). It is linked to the paternal line.

See: Gift from Na Yin through the maternal line. It is the part which travels at night and which may be attacked by witches and sorcerors.

Yin Pialug: Gift from God equivalent to character and governed by the guardian spirit (segers).

Ninguina: Means literally the body. It is only in the body that the man-woman relationship becomes recognized officially. It is the contribution of the living to the condensing of the energy to bring those to be born into the world of the living.

Before birth, those to be born enter into a covenant with god. This destiny is a blue print which can be modified only by appropriate offerings and rituals.



### 2.3 Gender and Age

In these societies, the division of labour is primarily determined by gender and age which are the key to behaviour codes related to water and health. The construction of male and female categories is a cultural norm and sexual 'marking' is based upon the ability of women to have children and to the duty of wives to produce them: on this depends the existence of the social group. The ownership of cattle locates children produced by a woman into a specific lineage, accompanied, as described below, by certain rituals in the bathing of a newborn child.

Being exogamous, (men send their women away and receive women from outside the clan), the circulation of women implies the constant circulation of knowledge which in itself may be vehicle for change. Gender differentiation of roles and tasks does not appear to be permanent: it begins at the approximate age of five and vanishes after menopause. Menopause is divided into two stages: social menopause, which is the important one, and physiological menopause.

Social menopause is reached when the first born son of the woman has married and his wife has given birth. Theoretically, (this can be observed in most households) the mother will not give birth again even though she may still be a potential child bearer. Freed from this obligation, she can engage in a variety of activities which may take her away from the house for protracted periods of time. She may become a sooth sayer or healer. She may begin to take part in the decision making process affecting the community. It is usually said that "she is no more a woman"; she has undergone a symbolic sex change. The next step will be for her to move out of her husband's house to live with her last born son when he is married.

Figure 1 is a schematic representation of gender and age illustrating how gender differentiation changes through life. This cycle applies only to the physical life cycle: the life of a body in its visual form. To clarify the local ontology a little further, we present two more schematics: one showing the organization of the world (Figure 2) and the second showing the life cycle which in Nabdum land does not start or end with the existence of the body



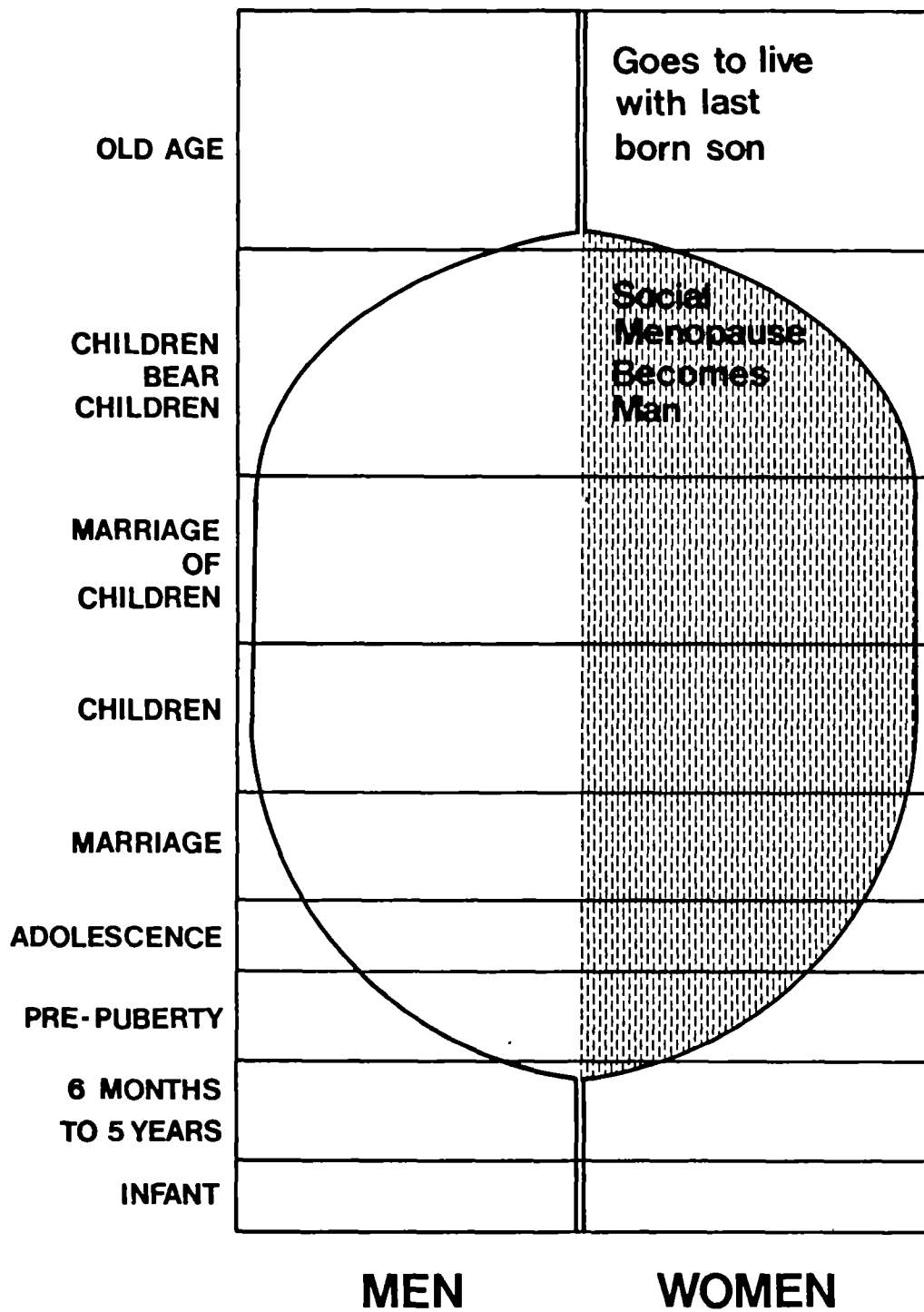


Figure 1 Gender Differentiation During Life







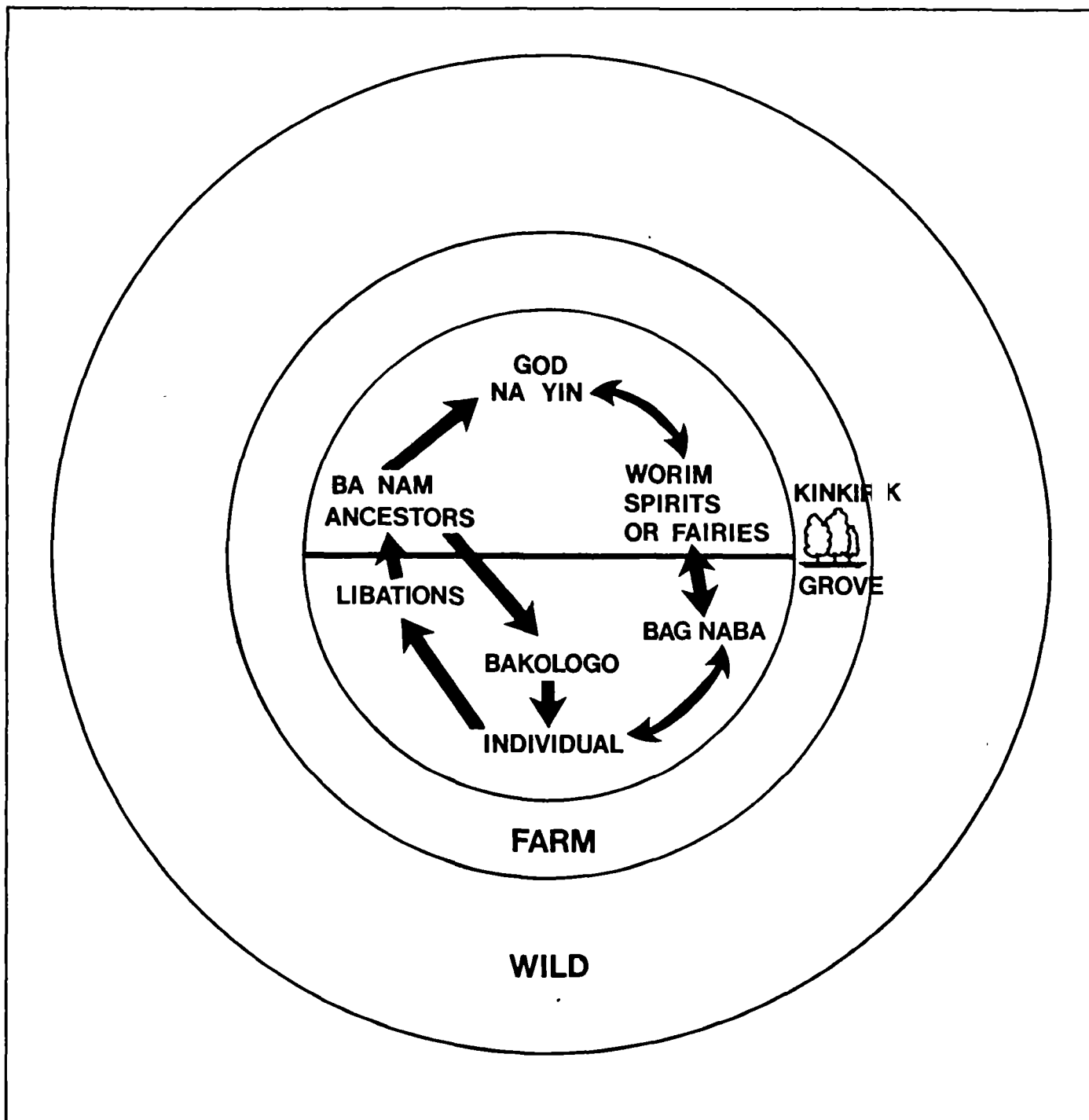


Figure 2 Organization of the World and Direction of Communications

The inner circle represents the space of human cosmogony or Normal cosmogony. The centre line identifies the separation between the visible and the invisible or the ante and post mortem. We can also see that the KINKIRIK (ogbanje in Nigeria) is not completely human, neither is it completely wild.





(Figure 3). All of the health and hygiene practices aim at making ancestors. The normal life cycle is one of birth, death, ancestor and reincarnation. Men come back three times and women four times.

#### 2.4 The Normal Life Cycle or the Long Life Cycle

The production process of health in Nabdam land aims at the realization of the long life cycle. The perpetuation of the social group implies the arrival of new bodies through birth but also the creation of ancestors through death. Birth and death are only "rites of passage" and not a beginning and an end.

The investigation of the network of communications between the visible and the invisible (the symbolic) revealed the ambivalence of kinkiriki (which may be translated as "fairies"). This ambivalence comes from the fact that they live and die only partially. Applying the principle of indirect lighting (Berthoud and Sabelli), it appeared that the focal point of the proof of 'humanness' of an entity is marriage and the production of a progeny who, by offering sacrifices, will remember the dead. Thus the dead become ancestors and ensure the continuation of the lineage. But the kinkiriki often dies before having produced a progeny and in this sense, ~~is never~~ considered as a full person. But he is attributed by the social group beliefs a plenipotencia of symbolic powers at birth, power which humans acquire as the years go on. As physical powers decline with aging there is an inversely proportional growth of symbolic powers which are the foundation of the authority of elders.



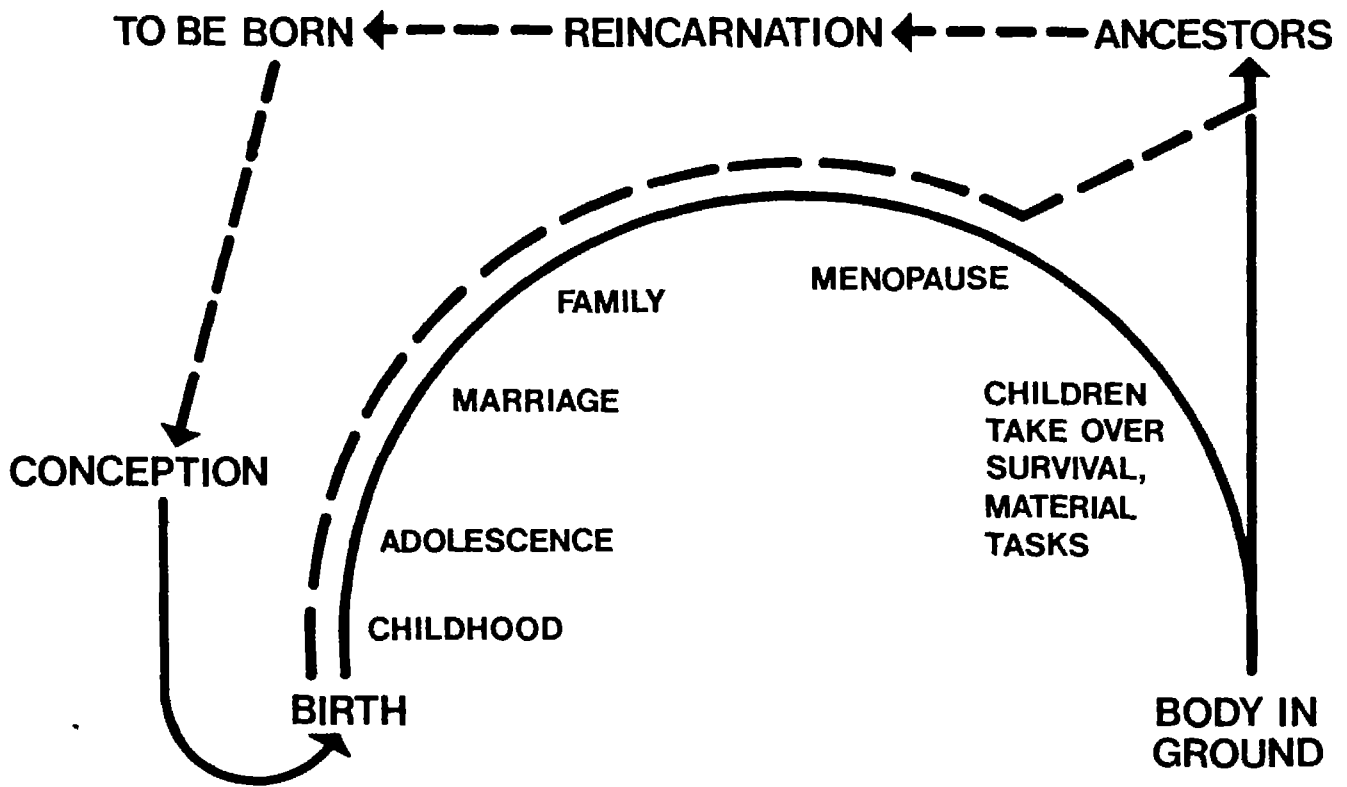


Figure 3 Cycles of Physical and Symbolic Powers





### 3.0 BATHING FOR HEALTH & RITUAL

Having now outlined the broad cultural context of the study a specific component of personal hygiene, bathing will be considered.

Local languages differentiate between washing and bathing. Pie refers to washing and is always followed by another word determining the object or part of the body to be washed: Pie futu: to wash clothes; Pie las: to wash dishes; pie nou: to wash hands. On the other hand the word So applies only to a thorough washing of the body. It is with this activity that we are concerned here.

For the ethnic groups of the Bolgatanga district, bathing is of two types, usual bathing and ritual bathing. Usual bathing is a maintenance measure aimed at restoring freshness of the body by washing away the dirt and sweat of the day or night. The number of times a person baths depends on the type of activity one has or will be, involved in, climatic conditions and personal choice. This is the most neutral repetitive behaviour, and will be described first.

What is needed for taking a satisfactory bath? The ideal bath uses the following materials: a container, usually a bucket; a cup or calabash to pour water over the body; water - hot or cold; soap; a sponge and towel.

Place: A bathroom, or walled area, preferably with a floor upon which water does not accumulate. In a hierarchy of preferences with regard to floors, cement would come first and earth last:

1) cement, 2) piece of zink or wood, 3) stones, 4) millet stocks or straw, 5) grass, 6) dirt.

Process: The bather first pours water over the body from head down or from feet up, depending on the weather. The sponge is lathered then the body is thoroughly scrubbed and soaped from head to toes. Water is then poured for rinsing. The sponge is resoaped and attention is paid to specific parts of the body: head, face, penis, vagina, anus, feet. This is followed by a final rinsing with the remaining water. The body is towelled dry.\*

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Note: \*Privacy is in the eyes of the lookers, not the doers. See notes on Environmental Sanitation.

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### 3.1 Variations in Bathing

Landlords are thought to bathe in the animal yard in order to wet the manure so that it will be ready for next farming season.

Old people do not bathe all that often. Some observed and reported behaviours point to a frequency of once every week or so.

Shepherds, whose age varies between approximately six and twelve years of age, generally do not bathe during the herding season; they swim in dams. They will swim or wash at the watering source of their cattle if there isn't a dam. They do not bathe in the house.

Children up to six years of age are bathed by their mothers. Infants bathing is ritual and falls into another category.

Bathing is generally a communal activity between people of the same age and gender groups. "Brothers and working mates bathe together".

When it comes to bathing, the notion of privacy applies only to gender, not to individuals. People may bathe in the open as can be observed at pump sites, dams, river beds and dug outs, but a distance will be kept between men and women. If space is available, physical distance will be put between males and females who will also turn their backs to each other. In close quarters, physical distance is replaced by built partitions: tall walls where male and female bathrooms are adjacent; shorter walls if male bath house is on one side of the pump and the female one is some distance away on the other side. People also use garden walls as bathroom walls. Children of both genders will bathe together.

Usual bathing allows a large margin of individual choices; such is not the case for ritual bathing. Before passing on to the next category of bathing activities, two major handicaps to satisfactory bathing in the Bolgatanga district should be noted: soap is not readily available and towels are too expensive and rarely available. Most people let the sun dry their bodies.

### 3.2 Ritual Bathing

Usual bathing does not bring into action a very wide range of cultural practices; nor does it provide a very deep inroad into the



local ontology. It could be said that it is a personal measure of hygiene in the western sense of the word. On the other hand, ritual bathing opens the door to the symbolic field.

Abstractly, rituals are mediators between the material and the symbolic fields; between the living and the dead; between the visible and the invisible; between the three reigns: mineral, vegetable and animal. Concretely, they reveal a world view and its governing or organizing logic.

Each ethnic group organizes, captures, makes order and transforms its world in specific ways. Transcultural involvement requires at least a minimal understanding of how different human groups see, understand and organize the world.

Ritual baths are given or taken in a variety of circumstances that include: before, during and after an episode of illness; after sexual relations; before consulting sooth sayers, diviners or healers; before watering the guinea corn to make the malt used in brewing pito; before adding the yeast to the pito; and for newly borns. Ritual baths cleanse, restore, strengthen and purify.

#### **Bathing After Sexual Relations:**

The prescribed behaviour of bathing after sexual relations reestablishes the separation of the genders in accordance with the order of things. Sexual relations mix the genders which must then be separated before engaging in gender specific or other ritual activities. To do so, the participants must cleanse themselves with a usual bath. Normal water and usual bathing suffice. It is ritual only in the sense that it is dictated by the occasion and the tasks to be performed, not by the elements bathers use.

#### **Ritual Bathing Of Newborn Babies or How to Anchor a Child Into Life and Lineage:**

The high rate of infant mortality is of great concern to health and development agencies in various countries. WHO health statistics categorize the 0 to 6 months of age period as crucial. Behaviours related to the care of newborn babies are often identified as causes of infant mortality.



As discussed previously, the world order demands that genders be kept separate. On the other hand, genders must cross to ensure reproduction of human beings. Newborns are thus a physical proof of a disturbance of the world order. This is an interesting paradox: in order for things to go right, the separation must be respected but in order to survive the world order must be disturbed. The area of reproduction must be investigated as behaviours and actions aim at neutralizing a necessary transgression and at eliminating a potential danger. The bathing of newborn babies falls into this group of actions and is necessary for the protection of the child.

As a rule, babies are bathed by an experienced older menopausal woman in the husband's father's house with special water (described below) until the umbilical cord has fallen. If the dowry has been settled and the new mother has delivered in her husband's father's house, the same woman will also bathe the mother.

Further rules determining who may bathe infants are revealed in the following abstracts from interviews:

"It is forbidden for the husband's (ego's) mother to bathe the first born child of her first born child (male or female)."

"This child was not bathed, it was just towelled until my aunt (ego's father's sister) came. But the child got sick so my grandfather's senior wife came to bathe the child."

#### The Water Used:

The old women will gather some leaves (different people use different leaves and the principles governing choice have not been explored), which they will put into a pot and boil with water. This hot mixture is poured into a thick calabash (is it any calabash or is it the one the women keep and is it identified with the child; is it this calabash which is broken on the path to the house when the child dies)? Water from the Baa Rogo\*, (cool water) is added into the calabash, making the water warm.

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\*There are two different pots kept by the family head: one for drinking and one for bathing. The roots that each of the pots contain are different. Sacrifices are made on the pots to activate the medicines they contain. Many respondents call it "water from the gods".



How Is This Bath Given?

"In a way that no water will penetrate the ears or the navel":

1. Woman gather leaves (unidentified type);
2. Boil them;
3. Pour water (mixture) into a thick calabash;
4. Add water from bathing Baa Rogo;
5. Place baby on its knees;
6. Put towel and water;
7. Wash baby;
8. Pour water over baby's body;
9. Dry baby; and
10. Rub body with shea butter; shape head; strengthen arms and legs.

After the ritual bathing, the baby is forced to drink. Water from the drinking Baa Rogo is brought. Water is put in the woman's hand and put to the baby's mouth. Although this practice is changing, some women still cover both nose and mouth to force the child to take the water. The baby is wrapped and should sleep soundly. Black medicine is put in front of the room where the baby lies.

These two activities aim to:

1. "cool the child"; to make it less dangerous;
2. attach it to the lineage by having it metaphorically absorb the lineage through medicated water;  
fortify the baby through assimilation of the power of various leaves and roots; and  
cleanse the baby of its previous existence and attach it to this one.

The equivalent of health is that of freshness, coolness of the  
'. To cool something is to normalize, to neutralize potential





dangers, i.e. sickness or symbolic threats. A child comes from the unknown and its arrival into the world necessitates a 'rite de passage'.

"to be in good health, the body must first of all have enough cold which is, in this culture, associated to water and considered as source of life...

But it comes out of a certain number of reflections of informants that the body must not be too cold.

Another condition for good health is that blood stays fluid in the body... in the same way, hot is generally associated to danger and to death, but in certain cases it is necessary to life". Friedberg, Claude. "Ethnomedecine et Ethnoscience: Nosologie et Etiologie chez les Bunaq de Timor (Indonesie)". in: Bulletin d'Ethnomedecine. 24(1983): 40-41. (Author's translation).

Ritual behaviours are the ones which will be the longest and most difficult to change. An education programme alone may simply not be enough to do it.

We do not think that western concepts are able to encompass all of the realities covered by local behaviours. The local concept of hygiene includes purity as well as that of personal cleanliness.

The organization of the local world view is very particular. Understanding this world view combined with problem identification could enable an effective programme of education to be developed.



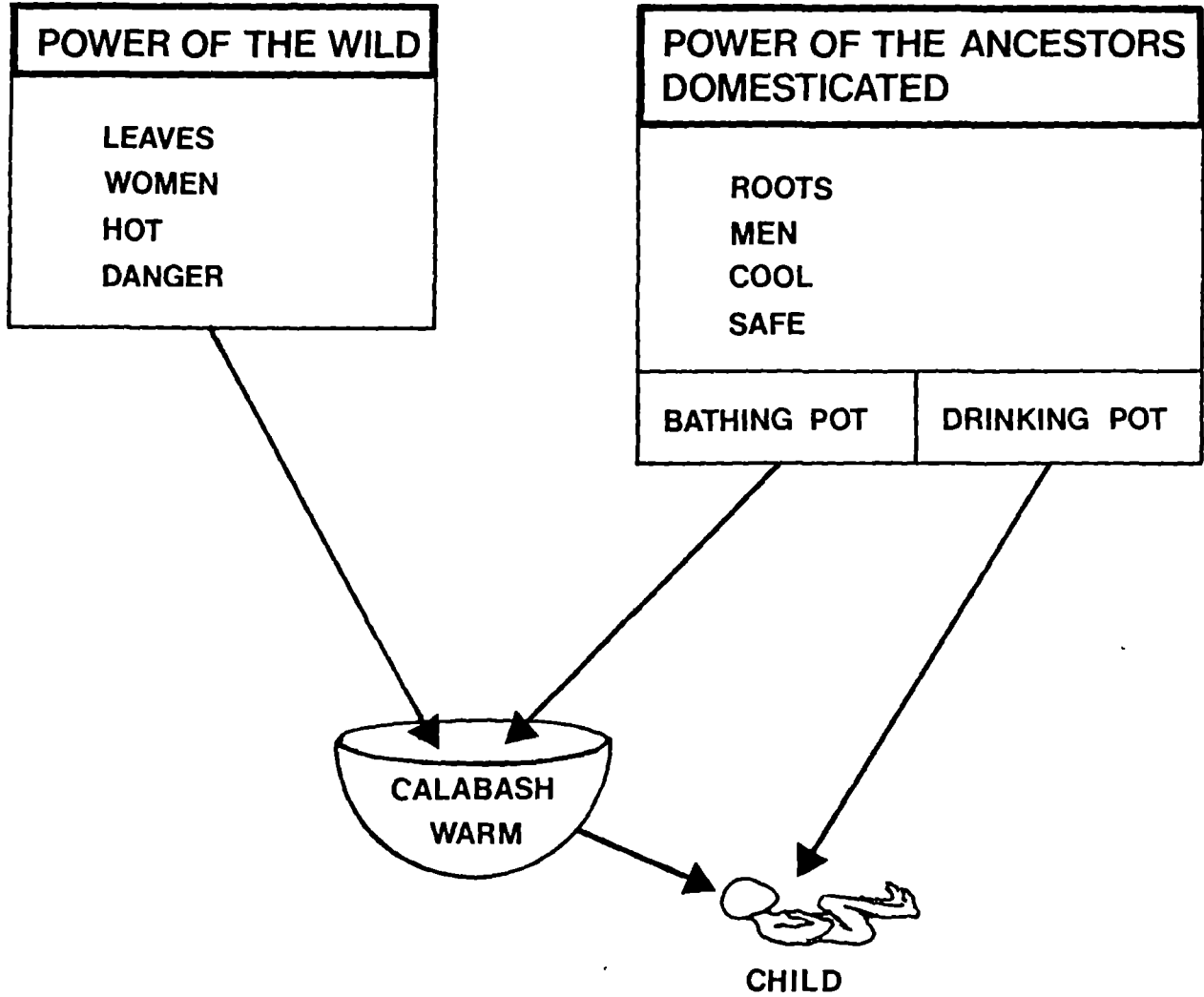


Figure 4 Bathing and Drinking as Assimilation and Neutralization

**BATHING:** Outside the body.

**DRINKING:** Inside the body.





#### 4.0 THE ISSUE OF SANITATION

The present research notes attempt a description and a primary analysis of the management of environmental sanitation in rural areas of the Bolgatanga administrative district. Although the core of the in-depth information has been gathered in the Namnam (Nabdam) area, it seems that the general principles emanating from the analysis are applicable to the majority of the ethnic groups constituent to the district. The first part of this chapter deals with human faeces; the second, animal faeces while the third describes the tampugre.

#### 4.1 Human Faeces

The work biin (plural - biina) is the general term designating human faeces. Faeces of other species will be preceded by a determinant: Cow dung - nagm biin, sheep and goat faeces - bobiin (plural - bobina) ...

##### General:

Lineage segmentation, land settlement patterns and farming practices do not allow for a high concentration of people in a given area.\* Although inheritance of the fathers' land may vary from one group to the next,\*\* people of the Upper Regions usually cultivate around their compounds which implies the necessity of a certain distance between houses. People defecate on the fringe areas of their farms. In areas where high concentrations of people occur on a regular basis, (many local markets, primary and middle schools) latrines used to be provided by the government through local councils.

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\* CF: the formula for carrying capacity in ecology.

\*\* Gurinsis, for example, share their father's land equally amongst the sons while Namnams apply the rule of first born inheritance.

Note: All vernacular words are in Nabt.



Such latrines are usually looked after by the sanitary worker who is a government employee. Faeces are disposed of in an open pit adjacent to the latrine.

**Values Governing Faeces:**

Four main ideas repeated themselves throughout the interviews:

1. Human faeces are harmless;
2. They are useful because they fertilize the farm in areas away from the house;
3. Unfortunately they smell; and
4. They are dirty.

The notion of human waste does not seem to exist as manure feeds the land and thus helps produce more food to keep human beings alive. The equation here is: healthy land equals healthy people.\*

**Harmlessness:**

Children's faeces are considered harmless in the global sense of the word. "In olden days," one informant stated, "old ladies used to eat it." Around the weaning period, a child is trained to defecate in the animal yard or on the tampugre\*\* From six years of age to pre-puberty, boys (girls when there are no boys around) are sent to the wild to herd the cattle, while girls stay with their mothers, aunts or grandmothers. In the past, it was not rare for young girls to be sent to serve an aunt or a senior sister for a number of years. Those children who attend primary or middle school get the same consideration. At that time, they are taught to defecate away from the house.

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\* "On the land depends good sleep, the getting of crops and the getting of wives." Zoa tengndan poaka to Rattray 1930.

\*\* Tampugre is discussed in depth later in the report.





Briefly, from around six years of age onwards, people must defecate away from houses, paths, roads, water sources and cooking areas. Faeces of old and immobilized people will be dumped on the tampugre.

Harmlessness of faeces sends us back to the local ontology relative to contagiousness, reincarnation and purity on one hand; of recycling, reincarnation and purity on the other. Human faeces are harmless as long as two people do not defecate on the same spot. But even if they do, it is the urine, not the faeces which is dangerous. Disease transmission is from person to person; agents such as flies, lice, mosquitoes, etc. do not count. They are considered irrelevant in the explanatory model which follows the usual "magical" pattern. Within this model, there must be physical contact between the "diseased" person (or part of)\* and the victim. So faeces are harmless in the sense that when easing, the contact between body and faeces is nonexistent; faeces leave the body and fall. But, as one eases, urine usually follows and enters into contact with any object already present on the ground, thus establishing a continuous link, a transmission line, between the body and the ground which disease or bad luck may follow to enter the victim.

"You may catch disease by sitting on the same chair as a stranger;

by stepping over-on black medicine;

by stepping over an object belonging to a contaminated person."

These shall be discussed later when dealing with tampugre.

There is a preventative belief woven into the world order which demands that things not be mixed because mixing brings havoc, strife and confusion.

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\* In the magical explanatory model, the part stands for the whole; a piece of cloth belonging to a person represents that person; and object may be "charged" so that the intended victim will be caught.



Rituals performed at birth, marriage, and funerals aim at giving individuals their proper place in a world ordered according to gender, age and lineage. Defecating on the same spot as someone else may entangle destinies, thus bringing upon oneself fortunes or misfortunes aimed at another person. Thus faeces are harmless as long as the prescribed rules are respected.

Let us follow the analogical chain. The farm around the house is called saman. Translated literally, sa is rain and man is calabash. The land is feminine and the sky is masculine, "above is male and below is female." You can have water and a calabash but if you have nothing in the calabash, nothing happens. The symbolism of the calabash is that of women. When put in relation to the human body (as observed in many rituals, more specifically through bakologo divination) a calabash is equated to a woman's stomach. It is the stomach which digests the food and the stomach in which the woman will carry children; like the farm digests manure to produce better crops. Manure is to the farm what food is to humans. It is food for the land, but not for water; it makes the land fertile but the water dirty. Once again, because it has other uses and cannot be reverted to its original state: what goes out of the body cannot be put back because the body has rejected its residues.

#### Defecation and Privacy:

Some private latrines exist within the rural areas of the district. Observations to this date render the implementation of the latrine programme rather unfeasible. It was first thought that a greater rate of success for the latrine programme could be achieved by banking on the concept of privacy and attitudes emanating from it. Once again, cultural constraints militate against an enclosed area where a cross-section of the households' inhabitants would defecate. People prefer to squat on their own farms in partially secluded areas. In the eyes of farmers, faeces are precious and not to be wasted.

Privacy is in the eyes of the looker, not the doer. The passersby may greet and converse with the person defecating, but it



is the duty of the passerby to look the other way. Briefly, privacy follows from two considerations:

1. The activation of the reproductive capacities at puberty;
2. The possibilities of rape\* for women and of ridicule for men.

Young men and women who are beginning to "build their house" i.e. newly married couples, do not like to exhibit their sexual organs openly. This is quite understandable in view of the importance put on reproduction as can be seen through the social values attached to children, and by extension to the establishment of a progeny which will ensure the continuation of the lineage. Although witchcraft beliefs partially enforce a certain level of privacy, the material concerns seem to be linked more to the fear of ridicule. It is said that a man who shows his penis in public will have it discussed by the women.

For women, a partially secluded area is a measure against rape.\* Where an enclosed building would hide all parties from view, partially secluded enclosures offer the guarantee of many eyes taking notice of the person.

#### Conclusions:

The conclusion of this section is that disposal of human faeces could be improved through measures in line with the cultural context simply by telling people "to take a hoe with them when they go to squat in their fields." Low concentration of people in rural areas, does not necessitate the implementation of a latrine programme which in itself goes against cultural norms. Short of coercive measures such as fines imposed by government agents (including chiefs) farmers do not see why everyone should defecate on the same spot. They do not see any danger in human faeces because they believe they already effectively manage them. In this context, even an education programme is considered another burden on already overburdened peasants.

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\*Rape: Women in labour, except chiefs' wives, must confess if they had extramarital sexual relations.

"Bossing a woman" is not considered rape by men.

A well known case is that of Hamile in the Upper West Regions where a man was killed after raping another's wife.



Management of human faeces can be improved with minimal effort. Simple improvements which would not demand a great level of behaviour modification are feasible. Such is not the case for animal droppings.

#### 4.2 Animal Faeces

Kinship relationships, consanguinity and alliance, act as production relationships which are punctuated by the circulation of animals. A source of ready cash in times of hunger or at planting time, animals mainly ensure the maintenance and strengthening of the family, including ancestors who take active part in the daily life. The circulation of animals and the sharing of their meat on ritual occasions sanction social processes. It revises and strengthens social networks, defines the place of individuals within the structure as well as within the world. Cows, for example, are so intimately tied to reproduction that no social sanctioning of biological reproduction will occur without the circulation of cows having taken place.

Household architecture is a good indicator of the cultural importance of animals. Generally, in the Upper Regions, animals are kept inside the compounds. In Namnam area, the animal yard or sapark is located immediately inside the gate. Two small rooms called zon(plural - zona) stand beside the gate pillars. Goats and sheep sleep in the zon, chickens under the grainery or in holes provided at building time at the bottom of walls while large animals stand in the sapark. When the vidann (landlord) reaches old age, he will sleep in the zon with the goats. When he dies his corpse is taken through the wall of the zon to his grave. This is also where bakologo divination is conducted.

The sapark provides a favourable breeding area for insects in close proximity to the living quarters which are reached by stepping over a small wall.

During the dry season, animal droppings are left on the ground within the animal yard. Minimal watering, urine as well as trampling by humans and animals transforms the dung into a powdery substance which women will carry onto the farm after the first "good" rain.





From the onset of the rains, the sapark and zona will be cleaned every morning and the droppings ~~dumped on the~~ tampugre.

Goat, sheep, and chicken manure is reserved for growing tomatoes and vegetables. Donkey droppings are, in some areas, a scarce commodity for gardening, which people undertake after the main farming season. Undoubtedly, the most precious manure is that of cows. It is used as medicine, for flooring, plastering and fuel as well as manure on the farm. It is also an excellent medium to trap termites for chickens. In addition to the manure collected from one's own sapark, more is collected from the fields. Before the first rain falls, cow dung is stacked in front of houses in mounds four to five feet high. It will be spread on the farm by the women. This is a special stack; nothing else but cow dung is put on it. It is different from the tampugre which will digest detritus.

#### 4.3 Tampugre

In one sense, tampugre is like a simple rubbish heap. Ashes, household sweepings and every other type of refuse are dumped on the mound. It is a circular area well marked by stones, located outside the compound. Once again, as occurred with the study of other cultural domains, one cannot dissociate, in praxis, the material and symbolic domains.

Tampugre derives its importance from the belief that it is the stomach of the house. It absorbs, digests and neutralizes potential dangers of contamination in cases of illness and dangers of retaliation from the spirit of animals killed in the bush.

Tampugre is not active in the field of prevention if prevention is the warding off of disease from oneself. It acts in the field of neutralization: it absorbs all dirt and bad luck and transforms it into manure which will be sent to the farm after the first rain.

Abstracts from interviews:

- "Tampugre is the work of the ancestors;
- If a woman gives birth, the placenta is put in a small pot and buried in the tampugre;
- If you die, your wife will sit there so that rituals can be performed (shaving of head...);



- When there are messages to be sent around, the chief goes on top of his tampugre, calls the name of the man living in the next house; that man answers, climbs his own tampugre, acknowledges the message by repeating it; then he calls the man in the next house to relay the message and so on until everyone is informed;
- It is the (poah sowok) ("housemaid") po h so g of the house. i.e. When a woman gives birth, she goes to her house to bring a small girl to take care of the baby;
- You cannot go to someone else's place and collect his manure or his tampugre: that would bring confusion and fighting;
- We cannot leave the tampugre which is in front of our houses and go and make another one somewhere else;
- It is the place where all refuse and bad things are sent."

This tampugre is best illustrated by the description of two rituals: one linked to illness and the other to hunting.

Illness: Bahia Peeh (to wash away the bahia) fm: Dagliga.

Sometimes children catch a disease known globally as Bahia Peeh. Such diagnosis occurs when a child, usually still breast feeding, begins to turn white. The cause is traced to contamination from a corpse: either the mother's milk has dropped on the corpse or she has come into contact with one during pregnancy in some other way. The child is taken to the tampugre where it is bathed with herbs and special water. After the bathing, "the sickness goes away: that is the work of the tampugre".

It is believed that by bathing on the tampugre, danger of contamination is eliminated.

#### Tampugre, Hunting and the Goug Festival:

The Zoog tengndaan presides over the Goug festival which occurs every two years over Namnam area. On the day of the Goug, men wearing their war paraphernalia, come out of their respective houses to climb their own tampugre. From there they call the names of their ancestors, sing war songs and perform the necessary rituals. Following this, people from all over Namnam area congregate to the Nangodi chief's house.



On arrival, people from all sections climb the chief's tampugre, sing their war songs, call their ancestors names and sing of their past deeds. The singing goes on until Zoog tengndaan appears at the chief's house. He comes and climbs on top of ~~the~~ tampugre with his sandals, comes down to stand on the chief's mat, still wearing his sandals, and calls the chief's real name three times. The chief answers him. Zoog Tengndaan then asks: "Why have you called me here?" "I called you here", says the chief, "to help me build my house". This is the formal way to say that the time has come for bush burning and the hunt. The tengndaan goes back onto the tampugre where he leads the hunters, singing, twice around before making their way to the bush.

A hunter who has killed a fairly large animal does not take part in the meat. After the kill, he is given periga (pieces of metal which he will wear on his thumbs and index fingers and click together to accompany his singing). He will play till the next morning. He does not drink water, does not turn back to look or speak to anyone, nor does he take food. He is escorted to the chief's house where he stands on the tampugre playing the periga. From there he is escorted to his house ~~where he will~~ sing and play on top of his own tampugre until the next day. Things revert to normal after the sharing of the meat is completed on the following day.

The importance of animals and of their precious manure which feeds the saman, (that part of land where the great grandfathers settled) counteracts expectations of rapid behaviour modification in relation to faeces management. "The way of the ancestors" is often invoked to justify certain practices. The tampugre is so much an integral part of the house and of cultural practices that to try to change this would be impossible in the short run.

The idea of gas generators has been considered for some time. We believe that manure from the sapark could be transformed and located in a more preferable place and possibly produce gas as well as a higher quality, neutralized manure. However, it is a basic fact that farmers will not change their ways if they cannot be assured of improved conditions and benefits.



## 5.0 HOUSE BUILDING

House building has two meanings:

1. To marry in order to produce a progeny which will continue the lineage by giving water to you and your fathers once you have become an ancestor;
2. To put up a physical building. This implies the making of a new landlord.

The following pages attempt to describe the construction of a new physical building. The process varies slightly depending on the origins of the new house owner. This is the case of a native of the area.

Namnam (Nabdham) houses are organic entities whose architecture translates into visual form the metamorphosis of a family. For example, the house built by the first ancestor of each family which came to settle on this particular portion of land will never be abandoned: it shall always be inhabited by the eldest man of the family. Following the death of the eldest, the one who is to succeed will come and build more rooms to house his family; the previous inhabitants are not driven away.

New homesteads do not go up every day but because their establishment yields a broad, comprehensive picture of the process, a description of the whole shall help enlighten the parts. The process can be broken down into four sequences: site selection, site preparation, building, finishing.

### 5.1 Site Selection

"When you want to build a new house, you have to beg for a piece of land. You go to see the tamdana\* to tell him that you want to

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\* The person whose grandfathers were using the land. It is land that was farmed before but is not anymore.





build a house where he is sitting. He will send you to the tenandaana (earth chief?) to inform him of your wish to build a house. If the tenandaana agrees, he will tell you and the tamdana to find a suitable day so that he can come and start it for you.

You then go back to the tamdana who must consult his junior and senior brothers before he can agree. Upon returning to his house, the prospective landlord will send a hen to the tamdana. Two or three days later, his women will grind flour which will be sent along with two hens to tamdana, for greeting. One hen is given to tamdana's grandfather and the other one to the bagre (juju or medicine man). After distributing the hens, the tamdana will tell his brothers of your request. They will come to your house to greet you. It is at that time that you will officially tell the tamdana and his brothers that you want a place to build your house. You take them to the selected spot. If it is a convenient location, they will say that it is a nice place to locate your house. Tamdana will then use a hoe to outline the area that will be covered by the house. Upon completion, he will say that he thinks that you will sit here. You thank them, go back to the house with them and give them a hen before they go back to their own house. Tamdana will have told you that he has completed his work."

## 5.2 Site Preparation

The purpose of this phase is to verify if the selected spot is auspicious. If not, another location must be found.

"The new landlord will find someone who has the "juju" (medicine) to come and put the nyagha (roots, barks, herbs, or more generally medicine) into the katara (small pot) and add water to it. Before using the nyagha water, the new landlord must provide a red cock to sacrifice to the pot. Men cook the meat, without pepper, and the women make saab (millet flour dish). The man does kuta (put some of the food and meat on top of the katariga).

After that he will mix some flour and kpalug (dawa dawa seed plus shea butter; meat and groundnuts can be added) and put it on sayeeng (a clay bowl broken in two where the mixture is deposited on one half

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and covered with either the other half or a stone). This sayeeng is placed on the spot where he wants to start building the house. It is left there until the following day, when the people come to see if the sayeeng is still there. If so, it is a good spot to build; if not, they will find another one.

After the juju man has gone, you choose a day to come and remove all the stones. Then you dig small holes all over the area where you are going to build. You would already have gone all around the village to ask the women to come and fetch water for you. If they come, they will sing while they work, pouring the water into the holes you have dug. If it goes far into the ground, it will make it soft for you to dig and make the tani (mud).

The following day, the young men come to make the mud. They dance on it and mix it with hoes. They gather the mud in one spot. Once they have finished preparing the mud the man with the juju (or some places the new landlord) will sprinkle nyagha water and the prepared mud all over the area, mainly with a zure (tail). If it is a good place, the mud will be of good quality and any "bad things" will go away.

If all of these rituals have been conducted and it is known that the place is good to put up a building, the tenandaana will lay the foundation. He will throw three clumps of mud away saying yi bougu (bad house) each time and a fourth clump saying yi sumbel (good house). Now begins the real construction.

### 5.3 Building

Mud is shaped into balls by the young men, which are handed to the man who shapes the walls. The first room to be built is dukiri (dukiri and nebihik are the same and mean grinding room). Then comes the dangon (kitchen) and nangombiel (the wall joining dukiri and dangon). At this time the nangombiel saab is cooked. If the new landlord has a wife, she will share the meal with him. If not, he eats alone or he can share the food with those who have put up a house before.

This meal is made on the nangombiel. If some insects come and steal some of your mud before nangombiel saab, the house is not good



again and you must leave it. If they come after the meal, which is cooked on the day you build nangombiel, it does not matter: the house is good.

The next most important room to build is the donyaanga. It is the room where they keep the juju; the room where mothers and grandmothers sleep as well as the room where dead bodies are kept for burial. Any other room can be built on that day except the zon (or zongo-room in the animal yard) which is very important.

Sleeping rooms are not all that important and can be built at any time after the zon or at the same time. The new landlord must sleep in the dukiri every night because if an animal sleeps there before him, the house will be condemned and he will have to abandon it.

When the zon and all of the walls are finished, then the dayang (gate) is built. At this time the landlord will go outside and select the area for his tampungre."

As the man will sleep in the dukiri, that room can be roofed before or at the same time as the gate is being built.

"When the dayang is completed, they will go and fetch the person who has put the nyaga in the kateriga, brew pito and call him to send the kateriga inside. He places it where he pleases and you forget about it.

After this you kill a hen, cook it; and the women cook saab. You share this meal with all your neighbours and save some of the meat for the following day. That day you sleep in the house and close your gate. You don't open your gate yourself on the next morning; a neighbour will come and push it down, then enter. You give him the meat that is left. After your neighbour has "opened you", if you sleep in the house every day, you can then open your gate yourself. You can also now sleep in every or any room you choose.

If your house is completed, you can then build your bure (silo) and bring your millet. Three years later, if everything is good for you, you call the tamdana and his family. First you send him two hens: he gives one to their grandfather and one to their bagre. If they are "sacrificing" they will say: "this man has sat in his house and everything is fine: he gets food and things are moving forward". You give them some pito and tell them that they should help you more, so that your house prospers.



They will then come to your house and enjoy with you. You cook saab with guinea fowl. When they go home you give them a hen."

Houses or rooms are usually built at the beginning of the dry season when there is still quite a lot of surface water. The men go into the bush to cut the grass and wood for roofing. The landlord or old men usually weave the grass for roofing. Wood for roofing is carried by young men, as opposed to firewood which is carried by women.

#### 5.4 Finishing

This heading includes flooring and plastering the house, dawa dawa processing, pito brewing and shea butter making which supply, through their by-products, raw materials for the process. Flooring and plastering are conducted towards the end of the dry season.

"After the building has been put up by the man, the woman in the house is responsible for the plastering and flooring which is done to keep the house neat and clean. It is the duty of the women to carry zeegi (gravel): about forty baskets. If the woman is alone, she will be doing it morning and evening until she has the quantity that she thinks sufficient. If she is rich enough, she can ask her friends to come and help her.

Once she considers that she has enough, she will go out and look for fresh cow dung which she will put in a large clay pot with water for soaking. She goes around asking her friends to come on a fixed day to help her floor her ndong (yard) or doug (room).

On that day, her friends will arrive around 8:00 or 9:00 a.m. with water. She will smash the cow dung into a thick solution and mix it with the gravel. This local concrete is then taken to the area to be floored and is beaten into the ground with very heavy hand-held wooden mallets. While the women are beating the floor, someone will be singing and praising each of them by calling the names of their ancestors while the pounding supplies the musical rhythm. The women continue pouring the cow dung water until the gravel is beaten smooth. When the work is over, she will provide a meal of round beans or any other food she has available for her friends to consume before they leave.





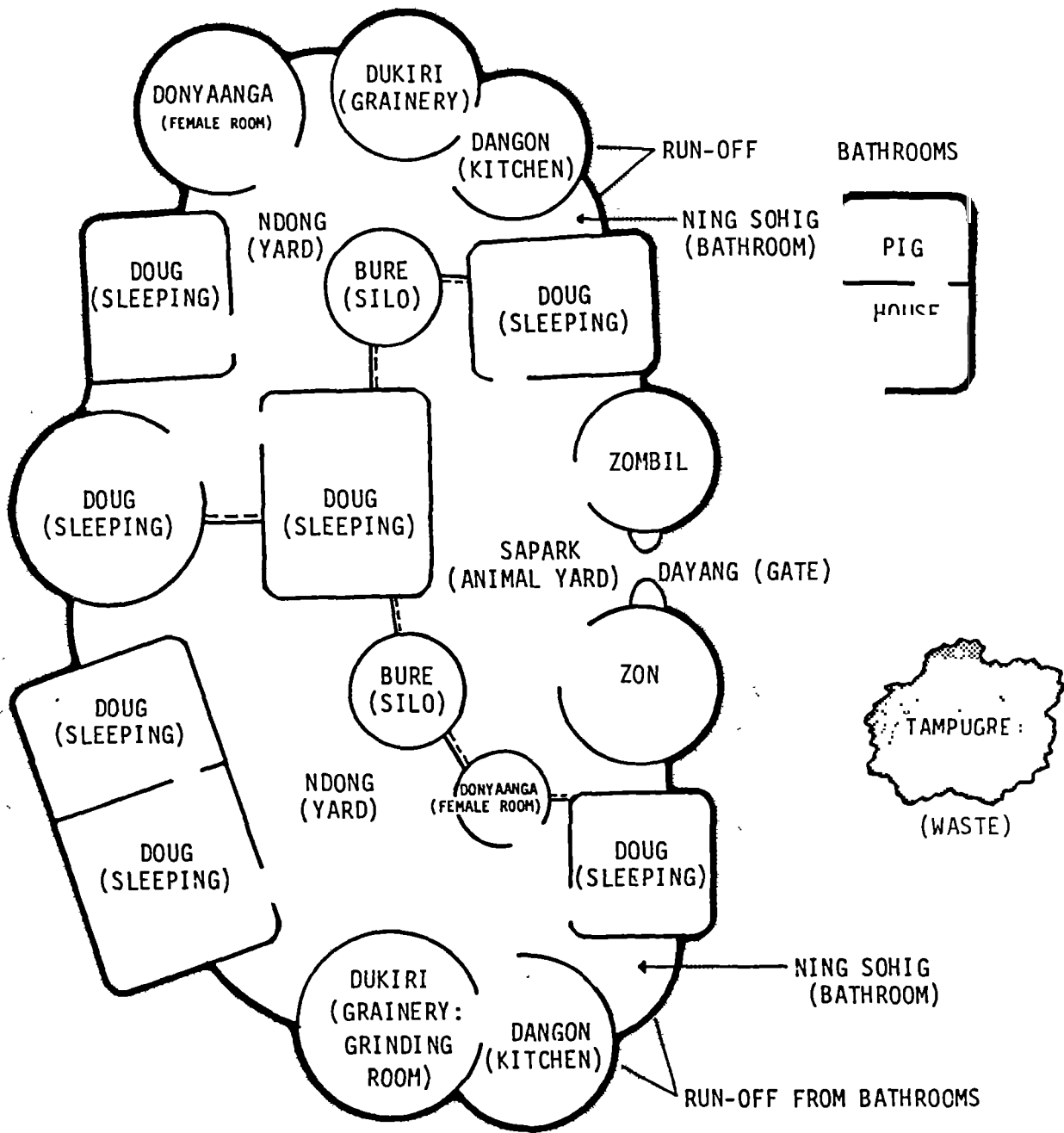


Figure 5 Typical Frafra Compound with Two Yards





She will then get the peels of the dawa dawa fruit, put them into a large pot, add water and let them soak overnight. On the third day she will pour the mixture onto the floor. Without this dawa dawa protection, the floor will peel when the rains come. Occasionally they use the leftover water from the processing of shea nuts as the fat in it also acts as a water repellent.

### 5.5 Plastering

Plastering is almost the same as flooring except that instead of gravel, boln (very fine sand) is used in the mixture. This mixture is applied to the walls and a saahing (smooth stone) is used to rub until the wall becomes very smooth. The use of dawa dawa water is not essential on walls; it is used to "make the walls more beautiful", as opposed to floors where its use is essential."

Informant: Gbenpoka Ndaana  
Village: Duusi-Bulboug

Married  
38 years old

Collector: Beatrice Tendana



## 6.0 OTHER USES OF WATER

### 6.1 Dawa Dawa Processing

The doohu tree which produces dawa dawa seeds is found on people's farms or inside the bush. Most trees belong to the chief while those found in the bush are for everyone. This tree takes six to seven years before it bears fruit for the first time; then it bears yearly.

Before making the dawa dawa (Kpalug) the fruit must be dried on the tree. Then the owners will remove them and bring them to the house for people to eat the yellow substance surrounding the seeds. The seeds must be washed carefully by the dawa dawa maker (a woman), then boiled. When they are well cooked, the woman will spread them on the ground and pick out the uncooked ones (as they will never cook properly). She will send the good (cooked) seeds to a water source to wash them a second time.

She boils these again after which she will put them in a large clay container called sare to cool down. A little flour is then added and this mixture is kept in a cool place covered by leaves. After three days, the mixture will look rotten and once the leaves are removed, the seeds will be stuck together. She will shape them into round balls for sale or keep them for private consumption.

There are restrictions imposed on the maker before and during the process: she is not supposed to have sex during the whole process. If men come to the house, she must tell them that she is making dawa dawa. If she does not tell the male visitor, after he leaves, the whole mixture will spoil and look like cow dung.

The tools and pots used in the making of dawa dawa are special and kept separate, even the water. If they are touched by anyone, "it will spoil things for her."

Main informant: Kplenkaan Kurug  
Village: Duusi-Nayiri

Widowed  
49 years old

Collector: Beatrice Tendana  
April 1985



## 6.2 The Making of Shea Butter

Shea nut trees (taahi) are found on people's farms and inside the bush. They usually bear fruit from early December to August. There are two types: from December to March is Tahi Dehi; from March to August: Tahi wan.

The tenandaana owns trees, land, stones, and bush while the chief is for the people. In some areas, chiefs do lay claim to trees but it would be a hard case to defend if they were legally challenged by tenandaanas (the Arigu-Guborogo conflict is a case in point).

If there are fruit trees on your land (farm), you may ask the tenandaana to let you use them. You then would become a tree owner. ————"The trees are owned by men but the harvesting of fruit is the duty of women. When the time has come to pick the fruit, women get up before dawn and go to their various trees. They sit there until daybreak when they begin picking the fruits. (Fruit eating bats feast on shea nuts during the night).

Some men do not own trees so their wives have to wait for the owners of the trees to pick, before they get the second pickings. Some women go in the hot afternoon and steal. They climb the tree and shake it so that the ripe fruit falls down. If they are caught, they can be sent to the chief's house.

The outer shell of the fruit (the pulp) is delicious and a treat for everyone. The fruit that is not eaten is boiled by the woman for some hours then dried for four or five days, after which she removes the seeds and uses them to make the butter.

The seeds are broken into small pieces and dried in the sun for some minutes. The woman pounds them until she sees that they are sticking together. She then puts the paste into a clay or iron pot which she places on fire to fry. The colour changes to brown when the frying is done. From there, the mixture is sent for grinding. The grinding must be done quickly while the mixture is still hot, otherwise it is too difficult. She could send it to a grinding mill, but the majority of villages do not have them so the process is done by hand in the dukiri. This done, she will pour the ground mixture back into the same container. It is left to rest for some time.





She then needs six to eight large buckets of water to "wash" the mixture. When the water is ready, she starts beating the mixture hard with her hand. The substance will become soft and water is added; when a white substance appears, more water is added until the container is filled with a white substance at the top and a thick red solution at the bottom. She will remove all the kpapoore (white substance) leaving the unwanted burima (red solution). Finally she squeezes the water out of the kpapoore.

Next she puts a container on the fire and pours in the kpapoore, which will start swelling. After a few minutes, the whole thing will turn into liquid and fill the container. By stirring it with a stick, she can reduce the swelling; as it subsides it becomes white. When it stays white for about 15 minutes, it is removed from the fire and left to settle for another fifteen minutes. After it settles, she washes the calabashes to remove the oil called selikgre leaving the waste matter called kpabuut. This oil is sold or used for private consumption.

Informant: Martha Mmabila Loliga  
Village: Duusi-Bulboug

Married  
25 Years old

Collector: Beatrice Tendana  
April 1985

### 6.3 Millet Beer Preparation: Pito Brewing

Pito brewing is done only by women and mostly during festival time. Before a woman is called a pito brewer, she must have the necessary items: large pots (dogit gara), large basins, buckets and baskets. If she has these items, she will buy already prepared malt or prepare it herself.

The best, most common pito is made from red guinea corn. If the brewer has the guinea corn, she will first wash it, then leave it in water for one day. The following day she will clean an area within the compound where she will spread the seeds and cover them with leaves. A good malt will take three days to germinate. The covering leaves will be removed on the fourth day and the germinated malt left



to dry in the sun for two days. The malt is then ready to be sent either to the mill or to the dukiri for coarse grinding.

During the making of malt the woman cannot touch the fruit of the Baobab tree and those of the gaaya tree, and she is not to have sex. The containers used to fetch water to sprinkle the malt must be kept separate as well as the calabash. If the person who has "committed these crimes" touches the water or the calabash, the malt will not germinate or even rot.

The brewer will fetch (or have someone fetch for her) three large basins of water which she will pour into her large clay pots. She will add the malt flour and mix the two. She will then pound baobab leaves or okra sticks and add them to the mixture. Once it has settled, she will remove the water off the top and put it aside. What is left at the bottom of the pot should look like porridge. This will be boiled until it becomes very thick, at which time the fire is put off and the mixture is left to cool.

After cooling, the water previously removed is added to the thick mixture. This will be boiled for many hours. When she sees that it is "a little thicker" and there is not foam on top, then it is well boiled. If it is not well boiled, there will be some foam seen on top which she will remove with a clean broom. To be sure that it is well boiled, the foam won't be seen again. The mixture is put into a calabash while it is still boiling. The fire is then stopped.

The woman then washes her basins and places them under a basket located on a stand. She pours the hot pito into the baskets to filter it: the liquid is collected in the basins. While the mixture is cooling, she washes her selling pots. The pito is poured into the selling pots and yeast is added. This is around 7:00 p.m. By 6:00 a.m. of the following day the pito is ready for drinking.

Informant: Hotel Mahiyeng Kolog  
Village: Duusi-Nayiri

Widowed - Pito Brewer  
39 Years old

Collector: Beatrice Tendana  
April 1985



#### 6.4 Special Pitos

Bagre, Banam, and Bogar Daam (Juju, fathers and head of clan pito) are special pitos always requested by the men or by the person concerned. He will tell his wife that he would like to sacrifice and needs a special pito. If there is malt already, she will share it with her friends to grind; if not, the man will give her the millet to make the malt as explained above.

With this kind of pito it is not only one woman who will do the brewing. She will send for the eldest woman of the husband's family to come and help her brew. After they have finished with this part, the men will send children to go around to all his family to tell them that so-and-so wants to brew pito to offer his sacrifices.

On the final day, all of his relatives who have been invited will start to arriving. The owner and some elders will send some few pots of pito to the place, pour some into a calabash and mix it with flour and ask the guardian, ancestors, or spirits to get up and come and drink and eat. Then follows the offering of animals.

Once this has been accomplished, they all come back to the house and start rejoicing. There everyone will give their blessings to the man saying "May God give him long life and we will continue enjoying with him always."

Informant: Kpenaam Yen  
Village: Duusi-Bulboug

Widowed  
49 Years old

Collector: Beatrice Tendana  
April 1985



## 7.0 HAND-PUMPS FROM THE VILLAGE PERSPECTIVE

It is an undeniable fact that the installation of hand-pumps in rural areas of the Upper Regions of Ghana has made water available to communities which were without at certain periods of the year. It has also shortened the time spent by many women fetching water: this can be most appreciated at the peak of the dry season. But what has happened to villages in socio-cultural terms since the installation of hand-pumps? Pumps are focusing points around which a new network of human relationships have woven themselves. This new network is of interest because it reflects the way local beliefs and practices incorporate and adapt to new technological inputs.

### 7.1 Control of Water

Before the advent of the pumps, minimal control existed over water sources in rural areas. People refusing to give or let others fetch water, even from their own private wells, were publicly reprimanded. When this failed, they were often driven away from the community. Things have changed dramatically in recent years. Pump installation has brought forth the possibility of effective control of water by controlling the pump. In this light, pumps have become a source of power which has modified the local authority structure.

Theoretically, users can be held at ransom by the legal owners as well as by the community into which a pump has been fitted. Owners can refuse to repair a fault; a caretaker can refuse to report a broken pump; the ultimate case would be removal of the pump. A pump community can refuse access to other communities or even lock their pump as has been reported in some instances.

There are also reported cases of privately dug boreholes being fitted with GWSC pumps. The owners of these have gone so far as to put pressure on the corporation to have their pumps maintained.

A hand-pump installed in one section means (in terms of power) giving the upper hand to one branch of the lineage upon others by making it possible for them to exercise control over the water source. When friendly relations exist between the sections, cooperation replaces conflict. This can be observed by the way in





which pumps and their surroundings are maintained. Dirty and undeveloped pump sites tend to be an indication that social conflict thrives in that area.

The way in which the water programme was operated reinforced the presence of the central government within rural communities. This implies a continuation of the principles of indirect rule (rule through the chiefs) which bypasses the tenandaana (land owner) as well as the traditional councils of elders. Societies, at least in the Bolgatanga administrative district, are usually composite: basically two ethnic groups will be present: the original inhabitants, whose myth of origin brings them out of the ground; and chieftaincy clans whose origins are usually traced back to Nalerigu (Fortes). (Namoos and Talih clans, for example, in the Tongo sub-district).

## 7.2 Hand-Pump Communities Versus User Communities

Before proceeding any further, a case study of relationships between a pump community and the surrounding communities fetching from their pump will be presented. The hand-pump community is referred to as HPC and user communities as UC. The hand-pump community is the section on whose land a borehole was sunk and a hand-pump installed. Interviews and verification of GWSC records were conducted in February and March of 1985 when the nearest water source was a hand-pump located a distance of 1.25 km from our informants' house. People of these UC sections did not understand why they must travel to unfriendly territory to fetch water when there is a plugged well (obstruction at 2.5 metres) in their own section.

The inhabitants of an HPC section generally consider the pump as their own property, thus justifying their claim to priority at the pump. This becomes more evident in periods of high demand for water when fights often take place between women of different sections. HPC women will even refuse to allow men from UC to fetch water before them.

"If you did not do something for them, they would not find water." (Beo-Tankoo; Pwalugu 1984).



During this dispute the following comments were heard: "those here do not have a borehole but we pay those near the pipe 20 cedis (approximately \$0.50 Canadian) to help themselves. But now that the water is not here, the pump in the other section is helping all of us. If the pump is removed, it will look as if we of this section have plotted to have it taken away."

"When they came to dig the borehole, we contributed. The first and second time the pump spoilt, we contributed; but the fourth time we were asked to make a fund in case the pump spoilt, I told my people not to contribute until something went wrong with the pump. Only the people near the borehole contributed. Whether the money was brought or not is not our concern again."

In March of 1985, the chief of HPC called a meeting of UC's headmen. He requested that an amount of twenty cedis per household be collected from all of the sections using the pump. When some people objected on the grounds that the pump belonged to the government and that they already paid lampoo (tax levy), they declared the purpose of this collection was for entertainment for the people who would come to fix the pump and for their "big men" in Bolgatanga.

Eventually everyone agreed; a sum of over two thousand cedis was gathered. When the pump broke down, the repair crew came, did its work and allegedly the driver refused to accept any gift. After the money offer was rejected, guinea fowls which were put in the back of the lorry were turned loose and left to run away. Thus monies collected were kept by HPC. UC's were told that the monies would then be used to develop the site. No records could be traced at GWSC of such a request having been made to the corporation.\*

Three successful collections were conducted, but resistance in the form of refusal to contribute occurred the fourth time. It was

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\* GWSC records indicate that standard servicing was carried out on the pump on 26-4-84. The pump was pulled to replace a broken rod and to change a drop pipe on 21-1-85. No trace could be found of a request for assistance with site development.



the form of refusal to contribute occurred the fourth time. It was at this time that fights between women of the HPC and the UC began occurring at the pump sites. Husbands and landlords refused to report the matter saying that they would deal with it in their own way.

To this date observations show that owners and users have constituted themselves into a de facto water users committee. Although some factions are disadvantaged, this is mitigated by the necessity of obtaining water and a traditional right of access to water. In crucial circumstances, such as fighting and monies collection, men are the ones who handle the problems: women and wives will report to their fathers or husbands who in turn will (or will not) take up the matter.

People can organize themselves in their own way to deal with new problems. It seems satisfactory to them since they refused outside intervention.

### 7.3 Hand-Pumps, Women and Children: The Technology and its Users

The hand-pumps which came to the rural areas of the Upper Regions were new technologies being implemented in pre-literate settings. The first pumps installed, Beatty and Monarchs, had an up-down stroke while the other pumps in existence in the region were the Godwins with a circular motion and a fly wheel. It did not take long for users to adapt themselves to the new movement to produce water from the pumps. As time went on, it became apparent that the technologies were not completely adapted for their intended use which in turn brought the necessity to "educate" users on the "proper" utilization of the pumps. There has long been an ongoing effort and debate on the necessity to convince people to use long instead of short strokes with the Monarch pumps. It seems that with the amount of work women have to accomplish in one single day, each will use the minimum effort to fulfill their water needs.

Children are often the cause of pump breakdown. They fetch water for their mothers or for the animals. Pump designers should read some of Piaget's work on child development before accusing village children of "vandalizing" the pumps by forcing stones through the



spout. Putting things through holes to see what happens is universal behaviour (many of the plugged wells fall into that category). We suggest designing a child proof spout.

Another often mentioned trouble is that of children swinging from pump handles. Adults do intervene if they judge that children are not handling the pumps properly.

Most of these problems should be alleviated by the water tariff as well as by the installation of Moyno pumps.

#### 7.4 Literacy Versus Illiteracy with Regard to Hand-Pumps

The implementation of the water programme has once again brought to light the old dichotomy between literates and illiterates. First, in relation to the siting of boreholes and second, with the village education workers.

Our village meetings, mainly those conducted in control villages (Beo Tankoo and Veo Tendongo for example) revealed the common attitude that when the drilling crew came to site a location for a new borehole, those who "spoke English" were able to influence the decision. Literates have easier access to the apparatus of state, so the villagers believed that they could sway the decision to their own advantage.

This type of problem is a daily occurrence for the village education workers because they live within the community and work in surrounding areas. Below are some abstracts of a round table conducted with three village education workers to exemplify the type of mistrust existing between literates and illiterates.

Q: How do people see you?

A: Most of them are illiterates and they say that those bicycles were meant for them. They were given to us because we are literates: they say we diverted and collected the bicycles for ourselves.

Q: What problems do you encounter in your work?

A: We encounter so many problems. One, you go to talk to somebody about hand-pumps and they expect more hand-pumps. Two, we as VEWS they say that it is our work to go to the office and report broken down hand-pumps. Three, because they say that we are paid





and were given bicycles, they feel that if the pumpman or anyone else goes to report a broken pump, it is a complaint against us: it means that we are not doing our work. We explain to them but still they do not understand. They think that we are mechanics.

Q: And with the office people?

A: They treat us as GWSC employees. But most of us are doing double work.

Pump mechanics and repair crews who come in from town are considered as strangers coming to help villagers and are treated in accordance with the traditional laws of hospitality: technically, they should be provided with food and a gift upon departure. Their presence in the community is temporary; such is not the case for VEWs who bear the brunt of discontent.

In the eyes of villagers, VEWs are the only continuous link between the office and the communities. Because they have benefitted, (personally as can be observed by villagers through bicycles, caps, shirts, and bags) they enjoy a higher status than their counterparts or age mates. The immediate resentment (one VEW had his bicycle vandalized - tires cut to pieces during the night) is fed by the ongoing distrust of literates by illiterates. The fact that their duty is to modify behaviours, to change old ways without being able to demonstrate any tangible results does not help either. This becomes clearer with site development.

## 7.5 Site Development

### Organization of Communal Work:

Communal work is generally organized on the farming pattern. When a landlord invites people to work, he will notify them a few days earlier by sending messages to the houses of the participants. On the day of the work, he will provide food, pito, and water. A fowl will also be presented. Usually, no monies will change hands (except in the case of people asked to work on cash crop farms or on the women's groundnut farms if she does not have children to do the work). Work parties usually consist of younger men in their physical prime. Two age groups will normally do the work: 17 to 25 and 25 to 35 years of age.



As the work is being carried on, musicians will often be present to encourage the people to work harder by singing their praise and that of their forefathers. The weeding of farms is usually conducted in this manner: Front, musicians; second line, the farmers with their hoes, working together in a straight line; young girls follow immediately (this is the time when girls choose husbands amongst the young men) and lastly, women and old men who encourage the farmers.

In order to thank the work party and encourage them to come again with more people, the farm owner will use his own discretion and may give a goat or a sheep to those who have come to work on his farm. (In some areas it is a dog).

In the past, only landlords could organize or call communal farming. Nowadays, due to the changing ecological and economical situation, most young men who have farms and who can provide food can also ask for communal labor. The process is more involved in the case of the site development activities sponsored by the Water Utilization Project.

The Cultural division of labour which classifies some tasks as feminine and others as masculine necessitates the involvement of both men and women in the construction of extended pads and cattle troughs. Men will dig the ground, set the forms and mix and pour the concrete under GWSC supervision. Women, as carriers, will provide water, sand, and stones. This is an ideal situation. Site development goes better in some areas than in others. Some of the problems are:

1. Collection of monies for inputs.

At the community level, all users must contribute otherwise animosity will build up "as some would eat free". This may take some time before concensus is reached.

2. Costs.

Cement, the main input needed for site development, has been subsidized in the past. New government policies are affecting the price of cement. Some villages are discontented because they reason that: Village A built their extended pad, gutter, cattle trough, even bathrooms for so much; therefore, why should they have to pay more?



3. Timing.

"You tell them to collect sand and stones to make the cement and it will take them years and years to come together to do it; we have trouble if there is no cement. They will tell us that we force them to do it and then we don't come to do the work: "you make us punish our men and women for nothing." They say "in my case, they are now taking me to be a liar."

If the water programme intends to be taken seriously, a little more care should be taken when making promises. When anyone linked with the water programme comes into the community it does raise expectations, no matter how careful one is.

Water being one of the most essential necessities for these people, they are ready to go to great lengths (but not to any length) to get it. This leaves the door open for many forms of exploitation, very often defrauding villagers. There was a man going around the district claiming that he was with Water and Sewerage, pretending that he was booking for the digging of boreholes. He collected monies and gifts. He stayed in Pelungu, Nangodi, Sekoti, and a number of other villages.

A disturbing episode in the film Not Far from Bolgatanga should be mentioned. There is a scene where the interpreter asks a woman why people do not use the hand-pump. The woman declares that her people believe that the water coming from the pump is "urine from the ancestors". What is not mentioned in the film is that the borehole in question has been sunk through a grave. Thus, the image of the people of this area projected on millions of Canadian television screens was one of ignorance and superstition while the mistake was on the side of the well diggers and the film makers.



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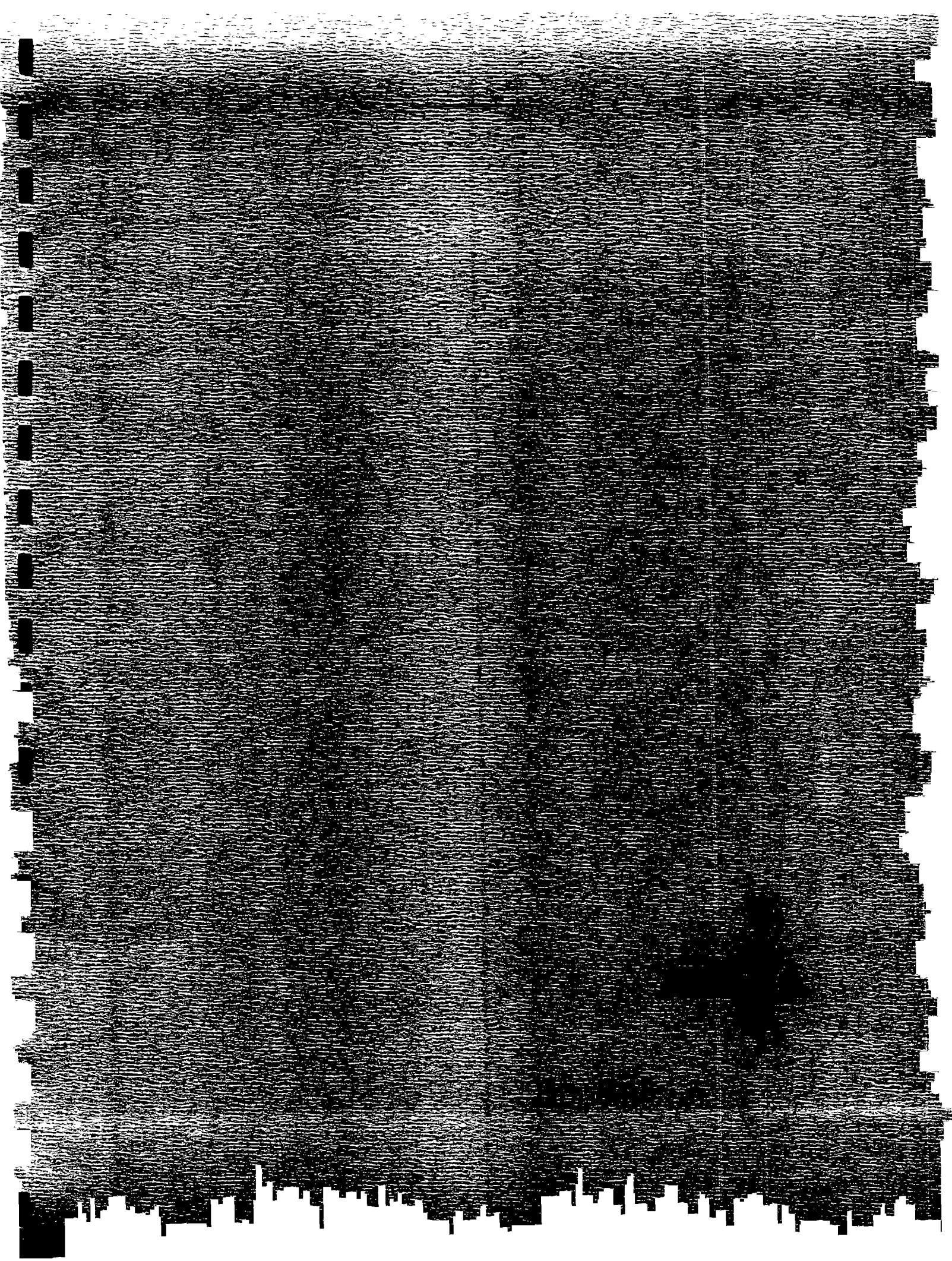


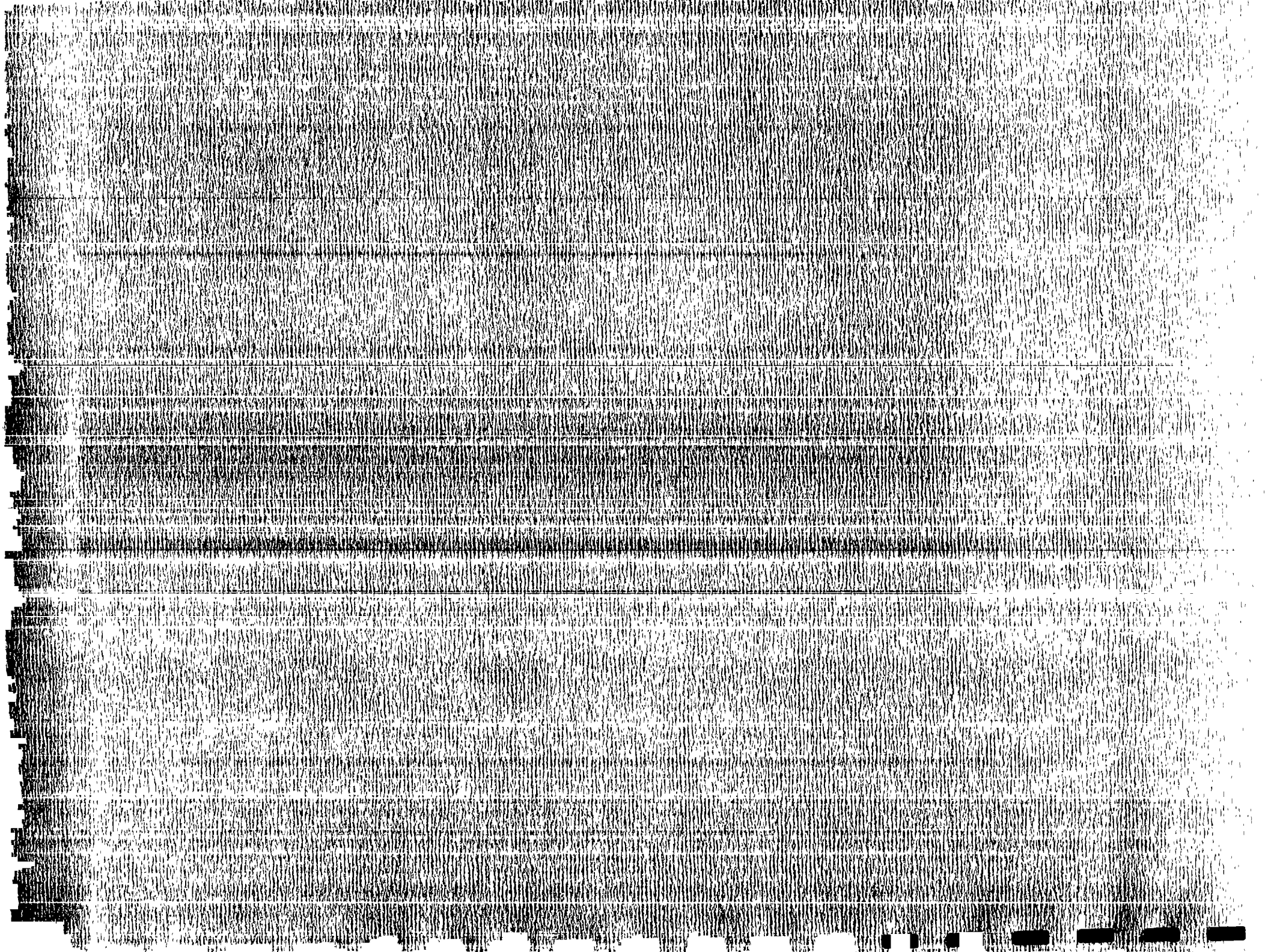
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The International Development Research Centre had graciously supplied an extensive bibliography on bio-gas production as well as supplying some documents amongst which are Saubolle, B.R. and Bachman, A. Fuel Gas from Cow Dung. Sahayogi Press, Kathmandu. Second edition 75 pages.

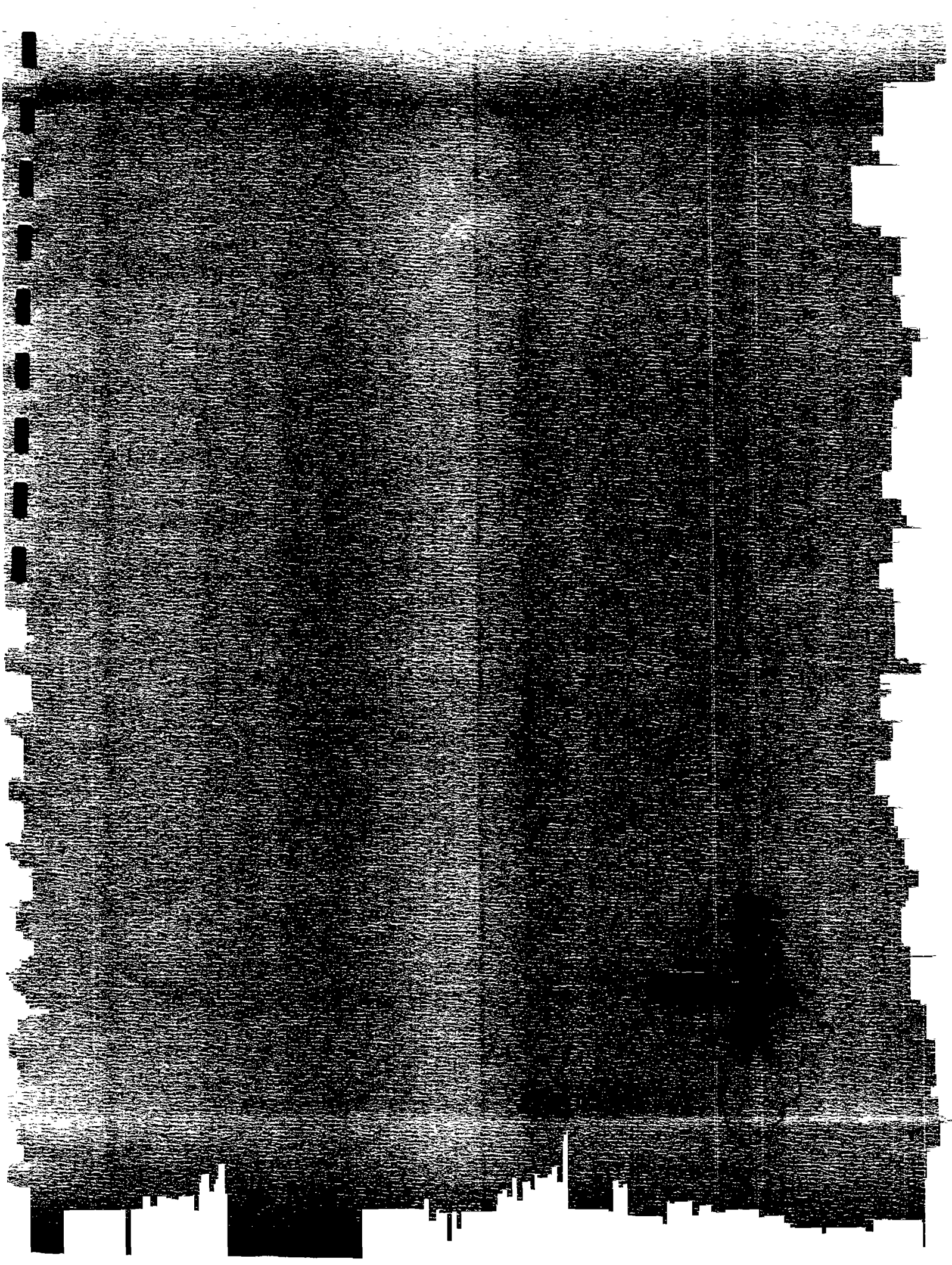
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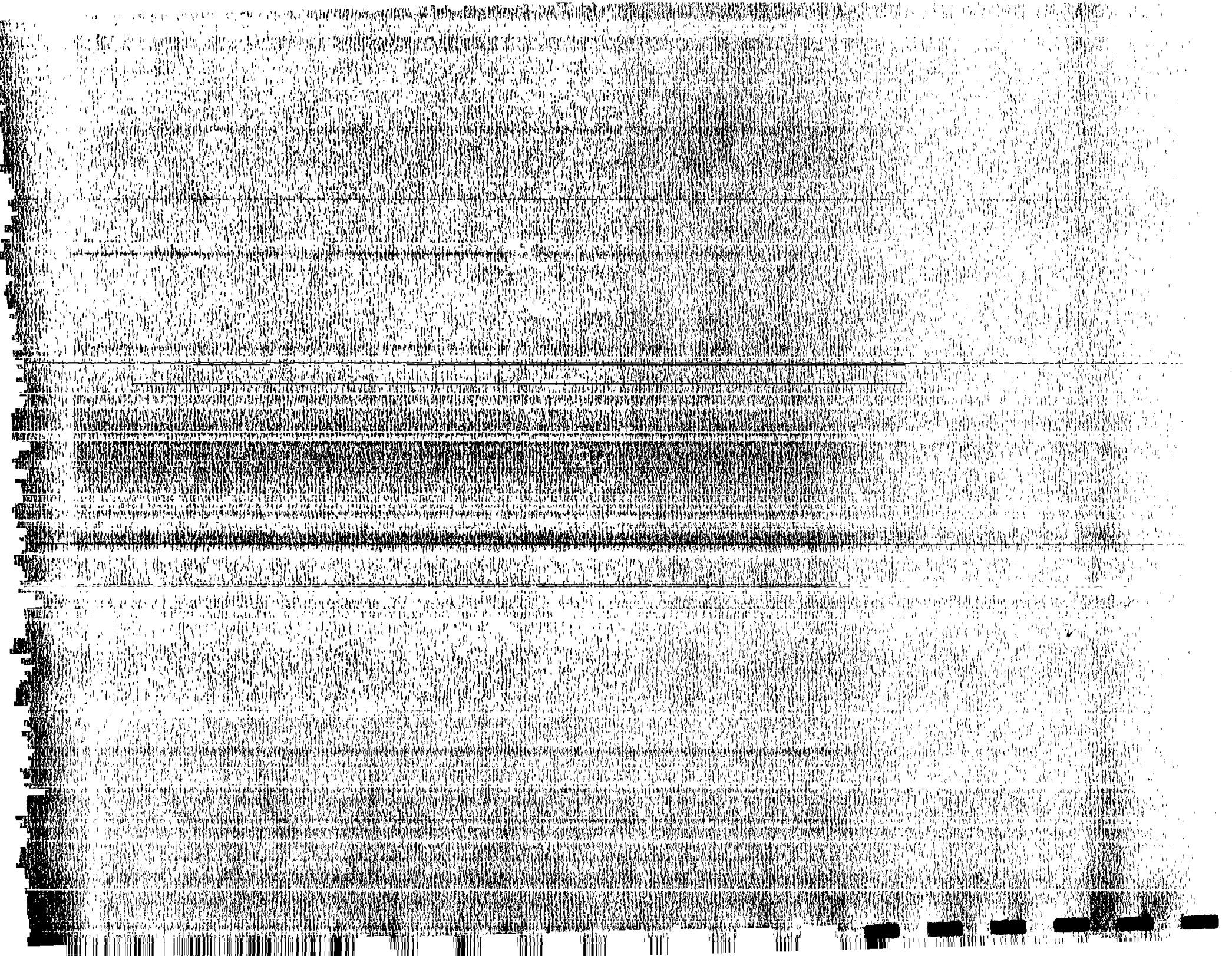












## RESEARCH METHODOLOGY

### Type of Data to Collect

We expect to build our primary data bank through the collection of daily discourses and practices related to the body. It seems necessary to establish a tentative primary classification of discourses as the health of infants, pregnant women, youth, middle age, and elderly will vary significantly. There are those on the architecture of the body, its physiology, its symbolical dimensions and links, its place within a more encompassing whole. It is from these discourses that we will identify relevant practices or aspects of practices.

A second type of discourse which may not be directly linked to the body, can allude to it, thus augmenting the data gathered from direct conversations. It could be labelled oral literature: myths, stories, legends, songs which are told only after the sun has gone to sleep.

### Exploratory Phase

This phase was part of the introduction of the Evaluation Project to the 31 Survey Areas of the Bolgatanga district. The number of villages would be slightly higher if we included pretest and pilot villages where meetings were, in general, lengthier and more time was spent on health matters.

The third component of village meetings tried to probe local views on health. Although such open-ended conversations produced some useful information, we were disappointed with the quantity and type of material yielded in such circumstances. For example, the symbolical sphere was alluded to in only two public meetings.

As lineage, and by implication the family, are the main organizational structure of the ethnic groups inhabiting the Bolgatanga district, it is not surprising that information made available at public gatherings would reflect consensus as not many individuals would be willing to expose their "secrets" in public. Occasionally, the crowd will try to give answers they feel will



please interviewers. One-to-one interviews as well as small group interviews hold the promise of more satisfactory results.

### Phase Two

The survey population was restricted to one ethnic group, the Namnams (Nabdams), which allowed us to ensure a physical presence in the cooperating villages. It also made it feasible to use anthropological techniques such as participant observation, direct observation, short open-ended interviews, and story collection as well as key informative, in-depth interviews.

### Personnel

Consequent to problems of accurate reporting and translation encountered during phase one, some assistants who we personally knew, who lived in the villages marked for investigation, and who were interested were employed. Their data collection task complements others they are engaged in. They are:

- . Nicholas Nam, Nangode;
- . John Musal, Sekoti;
- . Robert Tii Bugre, Dagliga; and
- . Henry Anongre and Robert Aduko, Kongo (these two persons are fifth form students of Bolgatanga Secondary School who were working for the duration of the Christmas school break).

We also tried to obtain the cooperation of Miss Beatrice Tingdana of Dusi to work in the Pelungu area.

### Procedure

After a brief meeting explaining the type of information needed, each worker was given a notebook and a pen. Periodical meetings were held to identify areas and topics to be investigated for a certain duration.



To this date stories-collection, large-scale short questioning on health, small-scale, in-depth interviews on the human body, and divination have been employed.

### Stories

Our goal is to collect over one-hundred stories. To date, we have collected thirty without the use of tape recorders. Originally, we were looking for health- or body-related oral literature. It became evident that such information appears as discrete elements in most types of stories collected regardless of the type or topic. We now insist that stories not be on illness, sickness, or disease.

### Open Questions

We repeated these open-ended questions on health to eighty individuals to date:

1. What is health?
2. How do you maintain it?

These questions were also the subject of a one-page essay by fourth form students of Zanlerigu Continuing Middle School. These same questions are put to groups in pito houses, at markets, when visiting houses, and to groups of old men.

This short ongoing survey was quite revealing in the sense that from the first interview every respondent mentioned the necessity to visit the baga (bakologo diviner) to maintain health. It is usually the household head or landlord who is responsible for the health of the people under his "roof."

Both ritual and herbal procedures are identified as reinforcing and maintaining health.

### In-Depth Interviews

In-depth interviews are presently utilized to help us construct Namnam anatomical charts. In addition to conversations on the





descriptions of the human body, its different parts, how they are joined together, their relationship and purpose, respondents are encouraged to draw pictures. Butchers, diviners and most of all, undertakers, have an extensive knowledge of the human body in its cultural context. Conversations usually begin on hunting, proceed to animals, and then respondents are asked if it is the same for human beings. The topic thus opened, we are usually able to gather some priceless information. The only drawback is the time necessary to establish rapport with interested respondents. One interview with a butcher took almost half a day, making great demands upon his time, and we could not afford to buy him millet beer.

### Translation

Translation in a cross-cultural context presents a series of problems demanding constant attention. Kleinman identified a series of problems and commented that transcultural research is "very difficult, long and loaded with systematic misunderstandings"(22).

We insist that our collectors write, when possible, the vernacular and the translation which is later discussed in group meetings. Even in English, if the reporting remains close to the structure of the vernacular, we may discover the sustaining logic.

Our insistence on having at least a certain amount of local language committed to paper aims at facilitating our comprehension of the local language as well as to enabling us to apply some of the linguistic analytical techniques.

In order to obtain decent translations, we must insist on accurate reporting. Often the investigators sum up the respondent's answers, thus destroying a wealth of pertinent details.

### Transcription

Long stories and in-depth interviews are transferred to sheets of paper. Short interviews of one or two points are recorded on filing cards. Each piece of information bears the following identifying items:



Respondent:

- Name
- Gender
- Village
- Age
- Marital Status
- Section

Interviewer:

- Name
- Date
- Time
- Interview Type

Story Title:

- Main Themes.

Interpretation

Documents are scanned to discover recurrent elements. Once these have been identified, a second reading is made in order to identify "new arrivals." For example, data yielded during village meetings have confirmed imasum as the local equivalent of health in some villages, (imasum: coolness; in some villages, e.g., Guose, Nkunze, people specified ninguina imasum as body coolness). Pebsum refers to air (this has ~~yet to be~~ looked into).

Our interest in the human body aims at finding the oral/anal concepts and relationships as a great number of debilitating diseases follow the faecal-oral transmission. This has marked implications for the sanitation of the environment, mostly on how to deal with or change behaviours related to human faeces.



