CHAPTER III

THE LOCATION AND STRUCTURE OF NUAULU VILLAGES

Residence and resources

The location of residential areas concerns the relationship between productive resources and units of consumption. In view of this, the ideal settlement layout should involve a minimization of the distance between the totality of all residences and the totality of all resources. In practice the degree to which this can be achieved is limited since resources are generally scattered and communities split up into discrete residential units, typically households. The spatial deployment of these units is very heavily dependent on political and other sociological factors.

In the Nuaulu case the minimal residential unit is the household (nima) and the basic localized resource the garden (nisi). The ideal relationship between the two might appear to be to locate the garden as near as possible to the household, or vice versa. Indeed, there are considerable pressures for the Nuaulu to do this. The sum total of these might be expressed formally as a minimum house-field distance rule. Frake (1962a) has shown for the Subanan of Mindanao a case where the pressures in favour of this rule, in terms of culturally specified priorities, outweigh those against it, such that the residence unit is actually located at an absolute minimum distance from the dry rice plots currently in use – inside them. This is consistent with the kind of social organization the Subanan display, focused as it is on the independence of the household within a system of bilateral descent. Among the Nuaulu the patriclan basis of social structure does not readily adapt itself to this formulation of the relationship between resources and residences. On the contrary, there are considerable pressures (commitment to corporate ritual, patriclan-structured kinship obligations, economic and other exchange relationships, and indeed the cosmological connotations of village arrangement itself), which are consistent with the placing of clan residential units together. The pressures for different clans to reside together are of relatively recent origin and the autonomy a clan possesses is still quite substantial. Indeed, for social relationships
between members of the same clan and members of different ones the boundaries between villages become almost meaningless. That is, membership of a particular village does not necessarily determine behaviour between members of different Nuaulu formal groups. Nevertheless, it is only to be expected that bonds of cooperation between members of different formal groups, as members of a single local group, will increase as they become more politically and economically integrated into wider central Moluccan society. Consequently, there are traditional pressures agglomerating households into clan units and more recent pressures agglomerating clans into villages (niane), which might be expressed formally as a minimum residence-residence rule.

If it is not possible to fragment residential groupings in the interest of overall economy, then it might be expected that the village should represent the actual 'central point' of the entire pattern of settlement. This, after all, is in accordance with the axiomatic statement with which this chapter began. In the case of Ruhuwa the village probably does represent the centre point of the exploited environment as a whole, although in terms of the distribution of gardens this is far from being the case. By using principal access paths to gardens (MAP 8) as 'links' in a network I have calculated by means of a simple matrix (Hagget 1969: 634-8) that the actual central point of the area under cultivation lies in the vicinity of wasi 115, at the point where the coastal path fords the Samna-ukuna river. This is some 0.6 kilometres east of the village. This very common situation whereby there is considerable divergence between the village and the actual centre of the settlement pattern has been discussed by Brookfield (1968: 427), and in the Nuaulu case provides some measure of the strength of the principle of minimum residence-residence distance (i.e. the maintenance of village centralism as opposed to dispersed households). This becomes even more striking when the mean centres and mean distances of the garden distributions for each clan are computed (MAP 10 and FIGURE 7). Such indices give some idea of the differential pressures acting against minimum residence-garden distance, although it should be borne in mind that the calculation of central points represents a measurement of distance only, and, as I hope to demonstrate, actual 'accessibility' is considerably more than a crude measure of linear proximity.

The reasons for this are explored in subsequent chapters, but it does throw into relief a basic problem for Nuaulu horticulturalists – the desire to utilize land as near as possible to the village and the difficulties involved in achieving it. In a sense, much of this monograph can be seen
as an attempt to describe methods by which the Nuaulu resolve the conflict inherent between the two rules outlined above.

Given the village as the principal local group in Nuaulu settlement organization, however, it should not be forgotten that the very site chosen for a village must inevitably affect the total pattern of settlement, the land available for exploitation and the direction it takes. For instance, in siting villages directly on the coast (whatever other advantages may or may not accrue) the shape of the settlement pattern — narrowly represented by the distribution of gardens — is immediately moulded to accord with the geographical situation presented. The same, of course, is true for the effect of any physical barrier to exploitative expansion.

In dealing with the location and structure of the Nuaulu village it is necessary to understand the pressures, environmental, ideological and organizational, which go to determine the form which Nuaulu patterns of residence take. But to begin with it is of some importance to consider the historical factors which affect the present location of Nuaulu settlement.

**Nuaulu villages prior to re-settlement**

It is not the intention here to consider in detail the factors affecting village location before Nuaulu re-settlement, but a cursory glance serves as a useful and necessary introduction to the present pattern of village distribution. Some of the more important villages and clan territories are shown in MAP 3, for the southern side of the central mountainous divide.¹

It seems that location was primarily dictated by the elementary requirements of subsistence and convenience, with a certain regard for the requirements of social relations between mutually belligerent but intermarrying clan-hamlets. No villages, either formerly or at the present time, appear to have been located above 1000 metres (MAP 2), and all were therefore below the fringes of the montane rain forest. Villages were ideally situated on prominent well-drained land that might be conveniently defended, (though there is no evidence that any kind of fortifications were erected), but near to water, invariably on the right bank of the fast flowing tributaries to the major rivers, such as the Nua and Ruatan. The siting of villages on the right bank of a river is still the case and is due to the propitiousness of the right hand in Nuaulu thought. It seems that villages were never directly located on the banks of these larger rivers, which are often swampy malarial areas. The distance
between villages was considerable, often as much as 15 kilometres, measured orthographically. Each clan-hamlet claimed certain rights over cleared land and secondary growth forest, fishing locations and hunting territory.

Settlement distribution may also have been in some way related to the groupings of Patalima and Patasiwa. At the present time migration and admixture has meant that there are considerable irregularities in the distribution of villages claiming allegiance to one or other of these groupings, but, as has been suggested, there appears to have been a territorial basis for these divisions, though what little evidence we have suggests that these were of little indigenous political significance (see above pp. 22-23). If this is correct then Patalima Nuaulu would have been restricted in their movements westwards. This may also have some bearing, together with the historical data available, on more recent Nuaulu clan movements, which appear to have been essentially southwards and eastwards.2

**Historical origins of village distribution**

Any consideration of the situation as it exists at present must begin with the political and environmental conditions which prevailed along the south coastal region, in the vicinity of Sepa, during the period when the Nuaulu were descending from the highlands. This probably relates to the period of the formation of the first administrative districts, around 1882 (Sachse 1907: 32), or possibly even earlier. For the first clear historical documentation for permanent Nuaulu villages in the highlands it is necessary to go back to a map in the *Atlas van Oost-Indië* (published between 1735 and 1747), which shows a number of localities in the central highlands labelled as Nuaulu. Unfortunately, and as far as I am aware, there are very few written records providing detailed information on the re-settlement of tribal peoples in Seram as a whole, let alone for the Nuaulu in particular. I have therefore had to rely heavily on the statements of living informants.

There can be no doubt that the Nuaulu were subject to a certain degree of pressure (for administrative reasons and in order to facilitate trade) to site villages relatively near the communities that had putative authority over them. The absence of relevant historical documents makes it impossible to judge the exact form which this took. There was probably a mutual desire to have the re-settled villages not too close to existing settlements, through mutual fear, the continuance of hostilities and head-hunting on a reduced scale and, certainly in the case of
Muslims, a fear of ritual contamination. Moreover, the retention of a minimum distance between the Nuaulu and other villages was related to the availability of suitable lands, although it is known that as late as the 1930s areas of mature forest still stretched as far as the shoreline. This is reflected, to a certain extent, in the distribution of landholdings in some Nuaulu villages.3

Since the movement from the highlands there has been an increase in population leading to the establishment of new villages. This process is at least partly related to the population/cultivable land ratio, though also to inter-clan and clan-segment conflict. The permanence and size of villages, as is general throughout much of Seram, is closely related to the extensive and elaborate use of garden huts. This is explored in depth in Chapter VI.

The present location of Nuaulu villages 4

Some attention has already been paid to the general pressures leading to the movement of the Nuaulu in toto to the coastal area around Sepa, and some indication given as to the kind of social pressures which were contingent to the siting of Nuaulu villages in their present localities. But what were the particular factors generating the location of extant Nuaulu villages (MAP 4)?

The first Nuaulu coastal settlements appear to have been simultaneously at Aihisuru (literally, 'the tree of Hisuru') and Watane ('flat place'). These two hamlets, together with Hahuwalan ('the pig of Walan') it will be recalled, constitute Niamonai, the 'old village' or, in Malay, 'kampung lama'. Naurita, the Lord of the Land in Aihisuru and the recognized ritual senior of all Nuaulu, explained to me that the splitting of the settlement into two parts, one mountain-ward (Aihisuru) and one seaward (Watane), was a conscious decision of compromise. Apparently, there was considerable fear of government authority, the missions, police and enforced schooling; and with an arrangement of this kind they were able to retain a certain degree of independence, isolation and protection. While bowing reluctantly to the authority of Sepa,5 they were careful that the mountainward villages should be sited on precipitous terrain some distance above the host village, hoping that it would thus obtain something of the autonomy isolation brings, and secure the protection which the location offered. Later, the same reasoning seems to have been applied in the location of Hahuwalan,6 and the principle appears to have been also adopted in other similar cases of re-settlement of tribal peoples from the interior.7
The movement of Nuaulu clans to the coast was a gradual and irregular operation, the first to arrive and settle being the clans Somori from Atanupa and Sonawe-aipura. Among the last to arrive were Sopanan and Nepane-tomoien, which, as has been noted elsewhere, had already spent a period of time further east. By the time all clans had descended, the area of Nuaulu settlement was said to have been considerable, occupying a large triangular area between the present locations of Aihisuru, Watane and Bunara.

Ruhuwa, some 3.5 kilometres east of Sepa, appears to have come into existence around 1930, when Nauhua, the father of Tapone (the present head of the Sonawe-ainakahata clan) was forced to leave Niamonai on account of a disapproved marriage. Subsequently, and for a diversity of reasons, segments of other clans—typically based on a single numa mone—joined the Sonawe settlement. With the movement of a segment of the Matoke clan to Ruhuwa an important structural problem arose, in that there now existed two separate but unnamed subclans of the senior clan, each of whose chiefs was a Lord of the Land. Previously there had been only one among the entire Nuaulu. The problem was in part resolved by recognizing the jurisdiction of each one with respect to his own village, but nevertheless retaining the overall ritual hegemony of the Lord of the Land in Aihisuru. The Aihisuru clan became known as Matoke hanaie (MALE) and that of Ruhuwa Matoke pina (FEMALE); the former the elder and the superior, the latter the younger and inferior, in possession of a somewhat different esoteric knowledge and body of ritual prohibitions and powers.

The most recent Nuaulu village, Bunara, has effectively come into being during the last decade. The manifest cause, according to many of the present inhabitants, was that the clans which made the move were concerned with the high death-rate and incidence of sickness among their members. This they attributed to malice shown towards them by members of other clans, expressed through sorcery. Evidently, this was also connected with social tension between clans. Maybe even the general close proximity of many of the inhabitants had the effect of promoting unhealthy conditions.

In summary, the present location of Nuaulu villages has been largely determined by two basic outside pressures, (a) the political hegemony of the raja of Sepa in conjunction with Dutch colonial government requirements for pacification and administration and (b) the actual area of land available for re-settlement along the coast. The former has led to the establishment of new political/administrative units, as in the imposition
of the concept of *soa*, the use of census units and the creation of village officials. This has tended to obscure traditional socio-political complexity. On the part of the Nuaulu there was a tendency to conform to what was absolutely minimally necessary in these respects, while precise location was effectively tempered by ideological and physical factors. The most important changes affecting the shape of the Nuaulu settlement pattern, apart from the external factors mentioned, but a direct result of them, were the agglomeration of different clans into multi-clan villages; the location on or near important paths and the proximity of large trading settlements providing the stimulus to plant cash crops and participate in the coastal economy; and finally the fact that the Pax Neerlandica meant that defence was no longer a significant consideration.

At the present time the expansion of old village sites or the establishment of new ones is still hampered by land availability and political constraints. In fact, conditions are much more difficult now than they must have been earlier. Nowadays, expansion is prevented by the presence of extensive grovelands of coconut, while, except during periods of political instability, such as the Republik Maluku Selatan period (see footnote 4), the re-occupation of mountain villages would be prohibited by the district authorities and not altogether welcomed by the Nuaulu themselves who are now increasingly being incorporated into the wider central Moluccan society and economy.

*Environmental determinants of village location*

The factors involved in the disposition of villages so far examined are broadly 'social'. This does not necessarily imply any historical or analytical priority, but rather stresses the importance of viewing environmental constraints in the context of recent history and contemporary social relations.

With environmental factors the material is familiar: villages must be built in areas within certain environmental and physical limits, dependent on the technological repertoire available to exploit that environment. In the Nuaulu case such limits are wide, only the most extreme terrains being completely avoided, such as swampland, land subject to periodic flooding, exceptionally steep land, rock outcrops and locations without reasonable access to water. Villages are located both on the narrow coastal strip (Watane, Bunara, Ruhuwa), and in the rocky hinterland between 150 and 200 metres above sea-level (Aihisuru and Hahuwalan). The respective terrains are as follows: the latter limited by
a rocky and uneven surface with a thin soil, characterized by an irregular village layout; and the former, sandy and level with relatively abundant space, allowing for a regular layout (MAP 6 and FIG. 3).

MAP 6. Ruhuwa: the village plan and environs. The enclosed spaces indicate the distribution and ownership pattern (by household) of fruit trees within the limits of the village area.

9. Mainjo
FIGURE 3. The arrangement of structures in four Nuaulu villages: (1) Aihisuru, (2) Hahuwalan, (3) Watane, (4) Bunara.
Conduits and the proximity of water

One of the most fundamental factors affecting the siting of all settlements is the accessibility of water. In the Nuaulu area, villages are always situated on the right bank of the rivers or large streams which are flowing during the wet season, and are frequently named after them (as in the case of Ruhuwa and Bunara). However, permanently flowing fresh water is usually found only in places which are otherwise unsuitable for habitation, that is high up in the hinterland where there are rocky and steep gully sides.

The Nuaulu overcome this by an elaborate system of conduits (*santehune*) constructed from split bamboo haulms, averaging 735 centimetres in length, coupled with wooden supports and secured with rope made from the fibres of the aren-palm (*Arenga pinnata*). In this way relatively unpolluted and fresh water is brought right within the village area. Conduits vary between 400 and 1400 metres in length and may be composed of over 180 separate lengths of bamboo.

Not only does the conduit system, which operates continuously, irrespective of the season, ensure a year-round supply of readily accessible water, but it also reduces contamination by tapping water as high as possible above the village and transporting it under relatively hygienic conditions. This sometimes involves completely enclosed lengths of piping. Construction of a *santehune* is undertaken by the entire village, and upkeep is the responsibility of individuals who discover breakages or leaks.

Ideological factors in village structure

In common with many other communities in the Indonesian region (van Ossenbruggen 1918), the individual Nuaulu village is considerably more than a merely haphazardly evolved conglomeration of houses, more even than a carefully planned entity designed to meet the needs of economy of movement and land usage. The village is part of a carefully ordered universe, and for the constellation of village elements to be out of order is for the whole to be out of order with the cosmos. Consequently, it is regarded as being of the utmost importance that every Nuaulu village should attempt to conform to the same basic structural ideal. In short, village layout must be seen as a visible paradigm of some very important aspects of the social system.

The focal point of each village is the *suane* (Ellen 1973: 87, figure 5), or village ritual house, and consequently lies in the very centre where it is visible and accessible. Not only is the *suane* the location for dances and
traditionally the meeting place of elders, it is also the focus of ritual activity in its own right. The Nuaulu maintain a distinction between religious activity which is performed for and on behalf of man, and that which is performed by man but—as they say—‘belongs to the Suane and is the domain of the ancestors’. The former consists of the familiar life crisis rituals, together with certain other festivals, including a great dance festival, and the latter, of the specific rituals concerned with various stages in the life-cycle of the suane or of individual clan ritual houses and sacred objects.

In construction and basic plan the suane, in which there is little variation from village to village, resembles the ordinary traditional Nuaulu house: built on piles off the ground, it has the same conspicuous swallow-tailed gable, the numerous solid hardwood supporting posts and roof of sago-palm thatch. But in several respects the two structures are rather different. Not only is it much larger and without walls, but its orientation is different, and this is crucial. While, in common with all Nuaulu houses, the roof ridge runs parallel to the coast, along an east-west axis, two entrances are not, as in all other Nuaulu houses, oriented along a mountain-sea axis, but run at right angles to it. This is so that they are in alignment with the diurnal path of the sun. A further entrance, set in the middle of the side nearest the sea, is used only on the occasion of important festivals. The suane, which is under the guardianship of the Matoke clan, also differs in certain other respects from the ordinary traditional houses: the presence of a central upright with important ritual connotations, the large drum on the right hand side of the entrance on the seaward aspect, and greater attention to decorative carving. In referring to the suane emphasis is laid on its sacredness and, almost equally, its maleness. Women only enter to take part in dances, and then only at the express invitation of men. The suane is undoubtedly the most salient feature not just of the Nuaulu village but its entire social and ritual organization.

To the seaward side of the suane is the tuaman tiai, a piece of ground measuring approximately the area of the suane itself—about 200 square metres—and used principally for dancing. Building on it is strictly prohibited, except for a structure known as the sabua, erected in conjunction with certain festivals. Similarly, the sone (Cordyline fruticosa), wainite (Languas speciosa), kokine (Musa sp.) and other bushes planted on it for use in religious ceremonies may never be uprooted or tampered with outside a ritual context, on pain of death.

Surrounding the suane on every side is the general living area of the
village, the principal features of which are the houses, or *numa*; but also within this area are situated a variety of other structures, including drying platforms, timber stores (*heute*), storage huts for coconuts, nurseries for clove seedlings and copra drying huts. As such, it constitutes the mundane sector of the village in which all the normal business of village life takes place; and yet, even here are found structural features imposing some degree of cosmological order.

While the precise location of houses within the area is not determined by such cosmological injunction so much as by kinship affiliation or marriage rules, houses themselves are bound by very definite rules relating to their orientation, structure, construction and behaviour with respect to them. Entrances, as has been mentioned, are oriented along the mountain-sea axis.

The traditional house or *numa mone* at once mirrors and contrasts with the *suane*. Each house is owned and occupied by a particular extended family group or household (also termed *numa*), units which form the minimal corporate groups of Nuaulu society.

The principal divisions of the house to be noted here are:

(a) the *hunisone*, or principal interior central space, composed of split bamboo flooring (*lante hunisone*),

(b) the *rini*, the shelf or loft in the roof space,

(c) the *pantetane*, outside platform,

(d) the *kakarane*, elevated platform along north and east sides.

Of all parts of the house, the most important for practical purposes is the *hunisone*, which comprises the basic living area. To the west *FEMALE* end is, appropriately, the fireplace, the spaces at the sides and the back of which are used for storing a wide variety of domestic objects. Directly over the fireplace is a shelf for curing meat and drying other foodstuffs. The *hunisone* is the normal location for cooking, eating, sleeping and participation in innumerable minor domestic tasks.

At both ends of the *lante hunisone* in the roof space are situated the large lofts or *rini*, stretching the width of the house. The *rini* at the west end is largely used for storing mundane articles, such as baskets, but it is here also that are to be found large quantities of pig and deer jawbones and cassowary breastbones, of which it is forbidden to dispose.

The *rini* at the opposite east (*MALE*) end is also used for mundane objects, typically male paraphernalia such as spears and bows, but the half towards the mountain side is devoted entirely to storing valuables: porcelain, brass objects, red cloths, baskets containing woven *kain timor,*
beads, bracelets and so on. Further objects are actually placed in the roof thatch, or on the mountainward wall of the house, together with objects of ceremonial attire. Often, hanging directly under the rini at the MALE end is a basket containing certain valuables in which the spirits of the immediate ancestors are said to reside.

The kakarane, a shallowly elevated platform confined to the north and east sides of the house, is primarily a sitting and sleeping place for males, but it is also used for storing valuables, as well as more mundane clothing, baskets of root tubers for planting or other food.

On the seaward aspect of every numa mone is the pantetane, a platform of constant width (around 180 centimetres) but of varying length. Much of the daytime relaxation takes place here. It is also the site where numerous male and female domestic tasks are performed. Here also the men, particularly elders, meet to discuss important matters away from midday heat.

For most of the time women are confined to their parts of the house and men to theirs. In addition to this there is a finer and more complex pattern of ritual seating arrangements for the various rites held within the house. However, the symbolism of the Nuaulu house is too rich and complex to pursue fully here (but see Cunningham 1964).

Although the basic pattern of orientation is common to all houses, and behaviour patterns with respect to them are also identical on ritual occasions, there is a tendency to reserve strict adherence to many of these formalities for numa mone. At the present time many of the houses in a Nuaulu village, about 60 to 70 per cent, are built at ground level, and non-traditional houses are felt not to require the meticulous ritual attitudes for the traditional houses containing sacred valuables.

If the SACRED and MUNDANE sectors of the village area can be seen as being circumscribed by two concentric circles, then a third, PROFANE sector, can be added by inscribing yet another. This sector occupies the liminal area between the village (niane) and the forest (wesie), and appropriately concerns activities with polluting connotations. It is here that the bosune, menstruation huts, are located in which women are confined for the length of each menstrual period, where young girls are confined for up to six months on attaining puberty and where mothers give birth to their children. Here also are erected huts for the very sick, who must be kept apart from the healthy. Here are to be found middens, the washing places at the end of the conduits, and the prescribed places for male and female defecation and micturition. In practice its polluting properties are concerned with both sexes, but more
fundamentally so for females, with whom it is symbolically associated.19

The cosmological parameters of village structure are summarized in FIGURE 4, with the addition of certain other referents relevant to the discussion. What is apparent from this figure is not merely the symmetry of these two cosmological models, but the opposed principles on which it is based: on the one hand there is a concentric symmetry (FIGURE 4a), such that the contrast between central and peripheral is congruent with the contrast SACRED: PROFANE,20 and on the other, sets of oppositions based on directional qualities of village layout (FIGURE 4b) (c.f. Lévi-Strauss 1965: 135). The second diagram could be expanded to include further oppositions involving Nuaulu concepts of orientation. For example, wind (ihute) is referred to by its source, according to whether from the mountains (ihute suara), from the sea (ihute taranunu), or from either direction along the coast (from the east, ihute ihate, from the west, ihute hanate). Though specifically relating to wind direction, these terms are used in other orientational contexts, such as in relation to the village, so that MOUNTAIN, MALE and suaru all have associated connotations in Nuaulu thought. The same is true regarding the use of prepositions of place. These sets of binary oppositions are not isolated, but are merely the manifestation in terms of the physical entity of the village of the prevailing dyadic symbolism in Nuaulu ritual and belief, which is so typical of eastern Indonesia (Van Wouden 1935), and made manifest in dualism with reference to descent groups, natural species, cosmography and the like.

![Diagram](https://example.com/diagram.png)

**FIGURE 4.** Diagrammatic summary of the cosmological referents of village structure.
Whilst there are two principles of order involved here, they are both integrated into the total model of the village. Moreover, without an understanding of the basic principles, the symbolism of Nuaulu villages would certainly appear confusing – witness, for example, the three separate contexts in which the opposition MALE: FEMALE occurs. A further point of interest lies in the triadic concentric division of the village area, such that the SACRED and the PROFANE are mediated by the MUNDANE (Stanner 1967: 230). But while both SACRED and MUNDANE sectors fall clearly within the DOMESTIC context the PROFANE sector is ambiguously neither entirely DOMESTIC nor WILD, niane or wesie. This liminality emphasizes the dangerous and polluting qualities of this peripheral area. Again, the distinction between niane and wesie is perfectly congruent with the Nuaulu attitudes towards the categories COOKED and RAW – the ideals relating to the consumption of prepared and unprepared foods, the locational appropriateness of cooked and uncooked meats.

Appropriately enough, the village is subject to ritual to maintain and re-emphasize its significance with respect to the rest of the cosmos. The ceremonial concerning this is known as aunenene usa kotua rerehoni niane haha, (clearing with fire to make the village pure). The similar ceremony found in Christian Ambonese villages is known as adat cuci negori, ‘washing the village ceremony’ (Cooley 1962: 60-4). The Nuaulu version involves the cutting and burning of all weed and grass-covered areas in the village, in which it is compared to the clearing and firing of a garden plot. All that is dead, rotting and decaying, including dead leaves and branches from still living trees, is removed. The resultant ash is symbolically washed away with water, lest the village should remain ‘hot’, the clan chiefs going round the village sprinkling water from a large bamboo. The bamboo is first cut out and the inside wiped round with sinsinte leaves (Codiaeum variegatum Blume,) by the chief of the Nepane-tomoien clan, on account of the fact that this clan originally occupied the territory. In this way dirt is removed, what is polluted made pure and what is disorderly made orderly. The ceremony is similar in some vital respects to the ritual washing accompanying the termination of a woman’s first menses seclusion and childbirth.

What has characterized the discussion of village internal structure so far is that attention has been devoted to prescriptions regarding village shape and the orientation and location of its component parts. But the model which has emerged is not merely one of ideal structure; it is a concise statement of the actual structure of the village, so far as these
particular prescriptions are relevant. It offers a neat illustration of what might be termed *ideological* rules, that is, prescriptions concerning, at face value, general (not individual) relationships in the arrangement of the various tangible components of the village or settlement pattern as a whole. The ‘rules’ are simply a reflection of the obvious utility (indeed, necessity) of making cosmology manifest in some concrete form. And yet, it should be emphatically pointed out (since the structural and descriptive approach used above might seem to obscure it), that ideology is not something which exists in a vacuum—it exists only in as much as it is a statement about actual behaviour, regardless of whether idealized behaviour is consistently realized or not. Nevertheless, although the form of the Nuaulu village is a central referent of social structure, its social organization is not consciously discussed in terms of the ideal village as it is in some other societies (c.f. Crocker 1969). In Nuaulu the model itself is not seen as a definite and proper guide to the relations between individuals, groups and communities, so much as a rather general framework. Clans, for instance, as one would expect from a knowledge of recent Nuaulu culture-history, do not, as in some communities, stand in a defined geographical relation to each other (Lévi-Strauss 1963: Fig. 9; Crocker 1969: 46).

The degree of congruity between the three separate entities of ideal model, actual village and actual behaviour can never be complete, since to some extent they are all variables in a changing system. At the physical level there is change in the component structures due to aging and new requirements, sometimes necessitating expansion. For example, when I arrived in the field, of the three ritual villages, Bunara had no *suane*, that of Niamonai was dilapidated and structurally unsound, while Ruhuwa possessed a relatively new one, for which the ritual cycle had not then been completed. Eighteen months later Bunara had begun to build a new *su(me*, Niamonai had removed its old one and the ritual was still incomplete for that of Ruhuwa. Two years later the picture was different yet again. Also, the very fact that since re-settlement there have been five localized hamlets and only three politico-ritual units demonstrates this lack of congruity. In fact there is no reason to suggest either that in former times villages always coincided with the ideal. On the contrary, this would seem rather unlikely, on the basis of constant changes in the developmental cycle of the village, though it must be expected that failure to implement the model at all would result in certain cognitive difficulties.

In this instance then the configuration and orientation of the compo-
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Neighbouring parts of Nuaulu villages are seen as being, at least in part, generated by ideational rules illustrative of significant cosmological dimensions. Yet, within the framework which this set of prescriptions offer, there is considerable room for manoeuvre. Although the orientation and configuration of the village as described cannot be altered (at least in terms of indigenous decision-making behaviour), various pressures mould the ideological model in order to generate the total village pattern as it can be observed at any one point in time. Alternatively, the process might be described in terms of the ideological construction and limitation of other generative factors. Some consideration must now be given to these pressures.

Environmental factors affecting village layout

It has already been noted that there are very real environmental considerations to be taken into account in evaluating the choice of particular village sites. Though initial choice must to some extent obviate the more dire environmental disadvantages, location will always be subject to differential physical disadvantages, either (more especially) in terms of the quality of terrain and vegetation, or, over time, by being subject to periodic attack by the elements.

Unsuitable terrain, in the form of stoniness, rock, thin soil, gullies which are readily subject to flooding, and the like, can generally be avoided and this, to some degree, will be reflected in the distribution of habitations in a single village, or it may be overcome by adapting in a suitable manner the form of habitations. The traditional elevated Nuaulu house is admirably adapted for uneven and stony ground simply by restricting contact with the ground to piles, enabling a flat living surface to be constructed above it. With the simpler houses built at ground level there begin to be distinct constructional problems in adapting to the surface of the ground, even in villages (such as Ruhuwa and Bunara) where the ground is more or less level. The problems can only be remedied by such means as supporting walls in dips and gullies with rocks and stones. Erosion during the life-span of such dwellings can undermine walls and create instability. The traditional house is also free from flooding. Ground-built houses, especially if they are on low-lying ground, require trenching to redirect floodwater.

Nuaulu villages are of two types: those actually located in coastal areas at sea-level, and those in the immediate hinterland. The former are characterized overall by their regularity of form, to the point of the geometric alignment of houses with bamboo open-work fences (pakelo),
which have no other purpose apart from decoration and the marking of paths — something which has almost certainly been adopted from coastal practice. In the hinterland villages this is not feasible and houses must be sited purely to conform to what is physically possible, thus resulting in an irregular pattern (FIGURE 4). The spacing of dwellings in such villages is largely a function of the terrain, leading to a clustering of houses on ground most suitable for building. In the coastal villages suitable terrain is at less of a premium and other factors can be taken into consideration: sufficient space for trenching (an important factor with ground built houses) and passageways, cleanliness and privacy. On one occasion I was told that six metres was the ideal space to allow between dwellings. However, this is rarely achieved and appears to be an ideal derived through contact with the rigidly geometric layout of Christian and Muslim villages such as Amahai and Ruta.

Terrain constraints, then, also affect the density of dwellings and population (TABLE 6). This is clearly the case with Aihisuru and Hahuwalan where physical expansion is limited by steep rocky declines on three sides. With Bunara, however, where terrain can in no way be argued as a relevant limiting factor, the high densities seem to be explained by the difficulty of lateral expansion due to ownership of adjacent land by non-Nuaulu coastal Muslims (see below pp. 58-59).

Within all villages, providing the ground is suitable, some land is devoted to the growing of useful trees, principally banana and sago palms, and the cultivation in dooryard gardens of a few root tubers, usually manioc. Obviously, those villages on the coastal strip provide eminently more suitable conditions for this form of minimal horticulture, but in both Aihisuru and Hahuwalan limited cultivation is possible in selected places. A census of all domesticated tree and plant species in the village area of Ruhuwa indicated a preponderance of uri (varieties of bananas and plantains; *Musa paradisiaca* L. and *M. sapientum* L.), claiming over half of the total number of individual

<table>
<thead>
<tr>
<th>Village</th>
<th>Population</th>
<th>Number of households</th>
<th>Approximate areas in hectares</th>
<th>Persons per hectare</th>
<th>Dwellings per hectare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bunara</td>
<td>150</td>
<td>35</td>
<td>1.00</td>
<td>150</td>
<td>33</td>
</tr>
<tr>
<td>Watane</td>
<td>61</td>
<td>20</td>
<td>1.25</td>
<td>48.8</td>
<td>16</td>
</tr>
<tr>
<td>Aihisuru</td>
<td>44</td>
<td>15</td>
<td>0.53</td>
<td>83.0</td>
<td>28.3</td>
</tr>
<tr>
<td>Hahuwalan</td>
<td>61</td>
<td>11</td>
<td>0.75</td>
<td>81.33</td>
<td>14.6</td>
</tr>
<tr>
<td>Ruhuwa</td>
<td>180</td>
<td>25</td>
<td>2.60</td>
<td>69.23</td>
<td>9.61</td>
</tr>
</tbody>
</table>
plants. Together, hatane (Metroxylon sagu Rottb.; sago), sesene (Ananas comosus Merr.; pineapple), nusi (Citrus limon Burm.; lime) and tobako (Nicotiana tabacum L.; tobacco) constituted a further twenty per cent; while the remainder included breadfruit, papaya, kwining, betel-vine, champedak, mango, durian and mangosteen. Species not present in the sample, but commonly found in other villages, include lemon grass, manioc and chilli (Ellen 1973: table 6, pp. 102, 460-4). In addition to plants of economic value there are also those of ritual significance already mentioned, as well as some whose value is purely decorative.

The number of fruit trees a particular clan, household or individual possesses in the village area will normally be a function of how they are placed for suitable adjacent land. Though there is no fixed reason why trees should not be planted away from the house, it is regarded as difficult since present rights in such trees are susceptible to subsequent confusion of ownership. Consequently, households on the periphery of the village or those near large open spaces tend to have more trees than other households. However, a household may sometimes own trees not in its immediate vicinity through gifts from affines. Although all land in the village is corporately owned, there is a generally accepted (if not formalized) rule that a person with trees on a particular portion of land has established planting rights on that portion. Trees planted by individuals are initially reckoned as being their own property and are inherited collectively by their male offspring. Older trees, therefore, ultimately become corporate clan property. Rights in trees are dealt with in more detail in Chapter V.

In this way the differential distribution and concentration of fruit trees and their ownership has some bearing on the evolution of the village-plan, positively in adding a further dimension for consideration, and negatively with respect to the difficulties in siting new houses on such land. The actual distribution and ownership pattern of fruit trees in Ruhuwa is shown in MAP 6. As has been pointed out by Conklin (1960: 41), tree ownership may indicate the approximate location of residences in earlier generations, making it possible (at least to a limited extent) to trace out changes in house location over a period of time.

**Genealogical organization of village structure**

In some instances environmental circumstances compel construction of the settlement in the idiom of the prevailing ideology to be substantially altered, such as in the face of demographic pressure. Nevertheless, even in the case of these particular situations it is difficult to ascribe departure
from an ideologically preferred arrangement purely in terms of the pressure of land or people or of topography; other reasons must be invoked, derived from particular sets of inter-personal and inter-group relations, commonly having a genealogical basis. These might be termed inter-personal or organizational 'rules'. There is a tendency for these to be prevalent at lower levels of settlement organization, in the relationship between garden plots or the relationship between houses. On the larger scale, the most important social factors affecting Nuaulu settlement are the pressures from adjacent non-Nuaulu. I shall now explain some of the ramifications of these pressures in relation to a more general consideration of pattern generation at the level of the village-plan, with particular reference to Ruhuwa.

*The numa as a kinship group*

The term *numa* covers both the house as a physical entity and the persons who occupy it. Although certain formal behaviour is the prerogative of the *numa* as a group *vis-à-vis* other *numa*, it is essentially characterized as all those people living in the same house, and as such is a local group, even though recruitment is almost without exception along lines of kinship and affinity. It is primarily defined by the criterion of local residence.

The members of a household are always intimately related by ties of kinship and marriage and constitute a single domestic grouping or household, forming a single labour pool. Food is prepared and cooked for the household as a whole, and its members usually eat together. To some extent, it is also a land and property-owning unit, though to say so requires some qualification. Land ultimately belongs to the clan, but rights are also spoken of at an individual level, while land owned by all individuals of a single household may be regarded as the land of that household. In practical terms this means that all gardens (together with the domestic animals, largely chickens owned by household members) are accessible to any other member and the products from such gardens serve the common hearth. It is therefore an independent unit in the economic sense, though this does not rule out economically significant exchange relationships between different households. Each household, especially if it is a *numa mone* (clan ritual house), also possesses certain sacred valuables, which individuals may possess in their own right or which are held corporately on behalf of the clan. The male elder, unless he is quite senile, is regarded as household head and guardian of its contents, and those persons under his authority are collectively known as
the *wehekuka* of that elder. If the house is a *numa mone* the clan, in theory, exercises a collective ownership and has special corporate responsibility for its upkeep and protection of its contents.

Households are small and genealogically simple. TABLE 7 shows the range in numerical composition of households for the five Nuaulu villages in south Seram. It can be seen that while the mean composition of the Nuaulu household is as low as 5.5 and the mode only 4, the range in size is considerable, though there are no single-person households. Although the household does not always act independently, its limited size appears to be of crucial importance in many economic activities.

The genealogical composition of all the households under discussion is shown in TABLE 8. It will be seen that the most prevalent type of family group is the two-generation type, of parents and married or unmarried children, that is, the elementary family. The development of more extensive families is generally hindered by a strong tendency towards partition as soon as the unit increases in size and collateral elementary families start to emerge. As will be seen, the composition and size of households is reflected in the actual shape and dimensions of domestic structures.

At any one moment in time a Nuaulu individual is, for all intents and purposes, a member of a single household only; to be otherwise invites confusion of rights and obligations. But sometimes there is irregular shifting of residence by some young married couples between that of the groom and his bride. This form of bilocal residence is by no means common and is related to the type of marriage contracted. It is equally as rare, but by no means unknown, for a single individual to alternate between households. This usually occurs when an individual’s genealogical connections with the households concerned are more or less equal in degree of relatedness.

Membership of a household may be obtained by birth, adoption, incorporation or by marriage, while birth, marriage and death regularly modify its personnel. Changes in residence may be effected by death of parents, illness, marriage, or a combination of these other factors. The relative contributions to household composition of these four modes of recruitment for the five Nuaulu villages are shown in TABLE 9.

Membership of a particular household by birth does not necessarily entitle male children to rights in the corporate property of that household and this includes rights over land and other tangible goods, valuables, titles and magical formulae. Except in most exceptional circumstances, every child born within the lifespan of a union is
### TABLE 7. Numerical composition of the household

<table>
<thead>
<tr>
<th>Number of persons per household</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>Total no households</th>
<th>Total population</th>
<th>Mean composition</th>
<th>Modal composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ruhuwa</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>25</td>
<td>180</td>
<td>7.2</td>
<td>7</td>
</tr>
<tr>
<td>Bunara</td>
<td>1</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>29</td>
<td>150</td>
<td>4.5</td>
<td>4</td>
</tr>
<tr>
<td>Watane</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>61</td>
<td>5.5</td>
<td>2, 6, 7</td>
</tr>
<tr>
<td>Aihisuru</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>44</td>
<td>4.8</td>
<td>3, 4, 5, 7</td>
</tr>
<tr>
<td>Hahuwalan</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>61</td>
<td>5.5</td>
<td>4, 6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>5</td>
<td>11</td>
<td>18</td>
<td>8</td>
<td>12</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>85</td>
<td>496</td>
<td>5.8</td>
<td>4</td>
</tr>
</tbody>
</table>

### TABLE 8. Genealogical composition of the household (including adopted kin)

<table>
<thead>
<tr>
<th>Compositional type</th>
<th>Ruhuwa</th>
<th>Bunara</th>
<th>Aihisuru</th>
<th>Watane</th>
<th>Hahuwalan</th>
<th>Total</th>
<th>Percentage total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 single generation (man and wife)</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2 single generation (unmarried siblings only)</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3 two-generation (parents and children — and spouses)</td>
<td>14</td>
<td>22</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>54</td>
<td>64</td>
</tr>
<tr>
<td>4 two-generation (unmarried siblings, child of dead or absent sibling)</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5 two-generation (parents, children, sibling of dead sibling)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6 two-generation (parents, children, sibling, children of dead sibling)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>7 two-generation (parents and children, sibling with children)</td>
<td>-</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>8 three-generation (grandparents, children and grandchildren)</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>9 three-generation (grandparents, children and grandchildren, sibling of grandparent)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>10 three-generation (grandparents, children and grandchildren, sibling of child, sibling of grandparent)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
TABLE 9. Mode of recruitment to household

<table>
<thead>
<tr>
<th>Mode of recruitment:</th>
<th>Ruhuwa</th>
<th>Bunara</th>
<th>Watane</th>
<th>Aihisuru</th>
<th>Hahuwalan</th>
<th>Totals</th>
<th>Percentage total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td>136</td>
<td>116</td>
<td>44</td>
<td>35</td>
<td>48</td>
<td>379</td>
<td>76</td>
</tr>
<tr>
<td>Adoption</td>
<td>7</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Marriage</td>
<td>31</td>
<td>30</td>
<td>16</td>
<td>9</td>
<td>13</td>
<td>99</td>
<td>20</td>
</tr>
<tr>
<td>Incorporation</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Totals</td>
<td>180</td>
<td>150</td>
<td>61</td>
<td>44</td>
<td>61</td>
<td>496</td>
<td>100</td>
</tr>
</tbody>
</table>

considered as a social member of the father's clan, irrespective of the clanship of the head of the household – and this is even the case if the child is illegitimate.

Adoption and incorporation among the Nuaulu (relationships covered by the term momoi), which together constitute 4 per cent of members recruited to Nuaulu households, appear to be explicitly geared to reallocting genealogically displaced persons within the kinship network. Rarely is it regarded as a means by which infertile couples can secure heirs. Nuaulu momoi relationships may occur in the following circumstances:

1. where the father has died: in such cases, unless the child is still dependent on the mother, it is usually considered desirable that it be brought up by the relatives of the deceased father;
2. where the father has died, but the child is still dependent on its mother, it may remain in the household where the mother is domiciled, with her parents or new husband;
3. where occasionally a mature child may continue to reside in the household of its mother, even if she has been married, it is incorporated into that household but remains a member of the clan of its father;
4. where both parents are dead, or a widowed mother has married, children may be adopted by near patrilateral or matrilateral kin.

Marriage and residence pattern

Marriage is a crucial determinant of household membership, though its effects are variable. The Nuaulu are now, whatever may have existed in the past, a strictly monogamous community. The household and the clan are both rigorously exogamous units, marriage being understood as essentially a contract between one clan and another, and the conjugal
pair the pivot by which two traditionally hostile groups are linked. But, in fact, marriage almost always involves three clans, as I shall now explain.

The central figure involved in bridewealth negotiations is the groom's mother's brother (MB), while the convenor of bride service (kona upua) arrangements, involving the presentation of meat (typically cuscus), dammar resin, betel nuts and sago flour, is his sister's husband (ZH), whose importance lies in the fact that having taken his own wife from the clan of the groom, he is regarded as being in debt to his wife's clan. Once it is apparent that the critical equations of the Nuaulu system of kinship terminology are consistent with bilateral cross-cousin marriage, certain elements of behaviour become clearer. Given the equation ZH=WB (wife's brother), the roles discussed above can be seen as a system of ideal bilateral exchange.

Marriage is preferred between bilateral cross-cousins, men in the so-called nemakai ('strong') relationship (MBS-FZS) ideally exchanging sisters. However, as TABLE 10 illustrates, such unions are rare; classificatory sisters are hardly ever exchanged symmetrically and alliances seldom persist for more than a few generations. There is some

<table>
<thead>
<tr>
<th>Type of marriage</th>
<th>By negotiation (so mai'inai)</th>
<th>By entering the bride's household (jai nisi pina)</th>
<th>Elopements (rumanai pina)</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship category:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Bilateral cross-cousin marriage</td>
<td>1 (1)</td>
<td>5 (6)</td>
<td>4 (5)</td>
<td>10 (12)</td>
</tr>
<tr>
<td>2. Other permissible Nuaulu of same generation</td>
<td>–</td>
<td>11 (13)</td>
<td>60 (71)</td>
<td>71 (84)</td>
</tr>
<tr>
<td>3. Non-Nuaulu (Jalahatan, Nueltetu, Kei)</td>
<td>–</td>
<td>1 (1)</td>
<td>2 (2)</td>
<td>3 (3)</td>
</tr>
<tr>
<td>4. Unacceptable genealogical connection</td>
<td>–</td>
<td>–</td>
<td>1 (1)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Totals</td>
<td>1 (1)</td>
<td>17 (20)</td>
<td>67 (79)</td>
<td>85 (100)</td>
</tr>
</tbody>
</table>

* The figures in parenthesis refer to the percentage proportions of marriage types.
The Location and Structure of Nuaulu Villages

evidence, partly demographic and partly related to the distribution and desire for stable relationships between clan-hamlets, to suggest that nemakai unions occurred to a greater extent formerly, and that alliances between bride-receiving and bride-giving clans were more regularized, clan A always being in a specific wife-giving and wife-taking relationship to clan B. This pattern of idealized connubial relations is re-inforced by the practice of the levirate and the sororate, again consistent with certain key equations in the kinship terminology system (e.g. W=BW, D=BD, D=WZD...). The negative injunction forbidding clan endogamy, seen in the light of the above discussion, is perfectly consistent in logical terms with the prohibition on marriage with the wife's brother, since WBW=Z.

A Nuaulu marriage may be brought into existence in any one of three ways: by negotiation (so mai'inai, literally 'big talk'), by entering into the bride's household (jai nisi pina, literally 'to eat the gardens of women') or by elopement (rumanai pina). TABLE 10 illustrates the types of union contracted for all extant marriages in the five settlements.

Marriage by elopement, as in the rest of the central Moluccas, is the most common method at the present time. The procedures involved are absolutely minimal, consisting of a pre-arranged elopement by the couple, efforts by angry kinsmen of both parties to discover them, hostility between the two clans themselves and, usually, the return of the couple after a period of time, during which tempers have been allowed to cool. In cases where the hostility of kin and clan elders can be gauged with some accuracy, it may only be necessary for the couple to make a symbolic elopement of one night to a garden hut. However, although no precise records are available for other societies, it is apparent that the number of marriages formed in this way are considerably fewer than among adjacent communities (Cooley 1962: 21). The Nuaulu, who regard it as being contrary to the wishes of the ancestors and speak with a certain degree of shame over its increase in recent years, see elopement almost purely as a device to obtain de facto recognition of otherwise disapproved-of unions. Some elopements, though, may themselves be the cause of hostility, leading to inter-clan feuding. The reason why almost 80 per cent of Nuaulu marriages are, initially at least, disapproved of by one or other, or both clans involved appears to be related to a low total population and an unequal sex ratio in favour of males (TABLE 3, FIGURE 18), which in turn affects the effective area of choice in mate selection. It is also related to the scarcity and consequently inflated value of traditional valuables required for bridal transactions; but it is not necessarily (as is true for the Christian Ambonese) an alternative to
bridewealth, which will often still be vociferously demanded by the clan of the bride, even if payment has been delayed. This is also the only form of marriage open (though not approved) to non-initiated men. Male initiation occurs considerably later than that of females, who become eligible for marriage as soon as they emerge from their first menses seclusion. This delay is related to the development of the skills required by the neophyte at the initiation itself and is the cause of tension between the inherent desire for marriage and the prohibition against it. There is, however, no restriction whatsoever on non-initiates having sexual relations.

Marriage where the groom leaves his own household and enters that of his spouse is a far more prestigious form of matrimony than elopement. It has the approval of the parties concerned and is secured by the requisite ceremonial and the undertaking of complex bridal transactions. Sometimes it is designed to meet certain specific contingencies, for example, in order for the male affine to act as provider in a household with no or too few active adult males. In such a case his period of residence is until other mature males become available. It is rarely a permanent arrangement, so much so, that of the eleven extant unions established in this way in Ruhuwa only two were still residing uxorially at the time of fieldwork. In most cases of this kind of marriage a husband tries to set up a separate household as soon as possible, though his affinal obligations will still remain intact. However, what are in one sense obligations are in another sense benefits accruing to his own clan in that in this way he is able to supply his kinsmen from the gardens of his affines—thus the name for this connubial form, 'eating the gardens of women'. It invariably happens that the bride’s clan will make a gift of land, sometimes more than one wasi (see below, Chapter V), to the husband shortly after marriage, which means that in the long run the clan of the husband gains territorially. This, to some degree, must be an incentive for such a marriage, together with a reduced bridewealth payment for the clan of the groom,24 in the same way that the potential labour of the groom is an incentive for the clan of the bride. Alienation of land is, nowadays anyway, not the result of such unions only and often occurs in conjunction with the other types of marriage; I shall return to this issue later.

In some cases it is possible to come to an arrangement whereby the parents of the wife or other affinal relatives become de facto dependents of the man who originally entered in, who thus assumes household headship. There is no question, however, of the groom being incor-
The Location and Structure of Nuaulu Villages

porated into the clan of his bride, though in similar circumstances this has been recorded for other Indonesian peoples.25 There are, of course, strong ideological objections to the residential aspects of such a marriage, and this may hasten the urgency of terminating that part of the transaction which involves uxorilocal residence. The bilocal shifting of residence discussed above appears as a partial solution to the strain between households in some instances of 'marrying-in' unions.

TABLE 11 shows the general pattern of residence, with respect to the type of marriage contracted for the Nuaulu area. Most elementary families either set up residence neolocally or are living with the kin of the husband. Despite substantial payments, the woman herself never becomes absorbed into her husband's clan, even with a negotiated marriage which always begins in a virilocal manner, and always retains a commitment to her natal clan, ritually and through kinship connections.

Of the 28 extant marriages in Ruhuwa at the time of my field census, 12 were with partners from within the village and 16 had one outside partner (all females). The complete absence of rules and preferences relating to village exogamy and endogamy reinforces what was said in the first section of this chapter concerning the essential relationship between Nuaulu formal groups and local groups at the present time.

Summarily, Nuaulu marriage is idealized as being essentially a transaction between clans in which a woman is exchanged for an agreed sum and/or services. This establishes or refurbishes an alliance in which bride-givers are superior to bride-receivers. The marriage transaction itself consists of a series of major and minor transactions: the bride-wealth, the kona upua payments (plus payments made at a later date), the smaller nesaneu payment of minor valuables from the husband of the husband's younger married sister, and the similar sasau payments of the bride to the married brother of the groom. Logically, in a system where

### TABLE 11. Residence pattern for all extant Nuaulu marriages

<table>
<thead>
<tr>
<th>Type of marriage contracted:</th>
<th>By negotiation</th>
<th>By entering the bride's household</th>
<th>Elopement</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form of residence:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Neolocal</td>
<td>1 (1)</td>
<td>4 (5)</td>
<td>47 (56)</td>
<td>52 (62)</td>
</tr>
<tr>
<td>2. Virilocal</td>
<td>–</td>
<td>4 (5)</td>
<td>16 (18)</td>
<td>20 (23)</td>
</tr>
<tr>
<td>3. Uxorilocal</td>
<td>–</td>
<td>8 (9)</td>
<td>4 (5)</td>
<td>12 (14)</td>
</tr>
<tr>
<td>4. Bilocal</td>
<td>–</td>
<td>1 (1)</td>
<td>–</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Total</td>
<td>1 (1)</td>
<td>17 (20)</td>
<td>67 (79)</td>
<td>85 (100)</td>
</tr>
</tbody>
</table>
marriage between bilateral cross-cousins is consistently practised, the exchanges surrounding a marriage are illustrated in FIGURE 5a, that is, both nesaneu and sasau payments are in a single direction (B-A). However, in Nuaulu actuality, the situation is more frequently that illustrated in FIGURE 5b, involving three clans, such that nesaneu (A-B) is from the clan of the ZH and sasau (C-B) from the clan of the bride to that of ego. This picture is altogether more characteristic of a system of circulating connubium. The many ramifications and implications, logical and actual, of these complex inter-clan exchange relationships cannot be explored here, though the essential situation is suggested in the diagrams.

![Diagram](image)

FIGURE 5. Exchange relationships and marital alliance.
Marriage is the initiation of a new transactional relationship between two clans, or the confirmation of an existing one, after which goods and services continue to flow between clans for the life of the union. Such ties also form the foundation for common group activities and act as channels for the distribution of resources. As has been shown these economic functions sometimes affect the choice of marriage-partner. The single marital transaction, however, is recognized as just one in a wider pattern of wife-giving/wife-receiving relationships which extend through a clan universe, spreading out laterally and coming into being and terminating through time. The ideal preferential pattern of alliances is only partially obtainable, due to a number of demographic, economic and social pressures affecting the size and nature of exchange transactions, the economic and social needs of the clans involved and the finite number of possible unions.

As a means of recruitment to household membership, marriage may involve both sexes, recruiting, in the case of 'marrying-in' males, to the household of their in-laws, at least temporarily, frequently until the birth of the first child; in the case of elopement, females to the household of their husband or to a newly established household altogether, and in the rare negotiated situation, females to the household of their husband. Sometimes an elopement may be effectively transformed into that of 'marrying-in' by the couple living uxorilocally. The various possibilities for residence and succession in the residential pattern are set out below:

(1) by negotiation
  virilocal
  virilocal \rightarrow neolocal

(2) 'marrying-in'
  uxorilocal
  bilocal \rightarrow uxorilocal
  bilocal \rightarrow virilocal
  bilocal \rightarrow neolocal
  uxorilocal \rightarrow virilocal
  uxorilocal \rightarrow virilocal \rightarrow neolocal
  uxorilocal \rightarrow neolocal

(3) elopement
  neolocal
  virilocal
  virilocal \rightarrow neolocal
  virilocal \rightarrow uxorilocal
**Implications of kinship relations for village-plan**

Nuaulu kinship rules and conventions concerning residence unquestionably affect the physical layout of the village – both in terms of the size and shape of individual domestic structures and in terms of their dispersion.

An obvious factor of the first kind is that the presence of an important elder (clan head, kapitane or other person of similar status) will often imply the occupation of a numa mone (clan ritual house). Thus, status is a determinant of house structure. At the same time, the size and composition of the household to some extent is a factor in the physical appearance of the house. Nevertheless, the correlation between actual size of the domestic structure and the number of persons living in it is not a high one, and this appears to be attributable to the mobility of personnel, the relatively long life of a single structure (particularly a numa mone), and the fact that numa mone are built for essentially ritual and not domestic reasons. The correlation appears somewhat better between the area of living space and the number of inhabitants past puberty, since children are seldom taken into account in the construction of a dwelling (c.f. David 1971). Households with large numbers of adults sometimes have extensions built onto the original dwelling (e.g. 20 on MAP 5), while extra space can be gained by constructing separate cooking shelters (e.g. 14, 16, 23 and 24 on MAP 5). In such households, compositional complexity may also be reflected in internal partitioning. There is a much stronger correlation between total clan population (taking men living with their wives' parents as temporary members of their host clan) and the number of separate households (r = 0.99), suggesting that there are few pressures exerted differentially on clans and that there is an equal availability of land resources for building.

Ideas and preferences about residence also affect the distribution of houses – their spacing with respect to each other. In general there is a desire to construct new houses close to the parental home, usually virilocally but sometimes uxorilocally. Often actual construction of the house follows some time after a couple has actually been living with one or other of the spouses' kinsfolk. It was generally agreed that the ideal situation was to have the houses of genealogically related persons, and by extension the entire clan, close together. Nevertheless, however advantageous the close proximity of houses of related households might be, the importance attached to the small independent household grouping is such that multiple occupation is a rare occurrence and is not catered for in the structural design of the dwelling, in contrast to
Ambonese and tribal groups further east on Seram. However, restrictions within the village, of both an ideological and physical kind, often prohibit expansion in the desired direction.

Analyses of the observable pattern of any one village must, at the very least, consider two basic rules as to the most desirable relations between houses and their occupants: the minimization of the distance between clan members, and the optimization of that between households. The advantage of the first is that in disputes members can offer ready support and also that clan identity can be expressed in the form of separate sectors of the village. The actual physical arrangement is not far off this ideal but is necessarily blurred by the fact of ‘marrying-in’. Thus, in MAP 5, the households are divided between the various clans as follows:

- Matoke: 1, 14, 16-17, 23
- Nepane-tomoiien: 9, 11-12, 18-20, 25
- Penisa: 22, 24
- Somori: 4, 8, 15
- Sonawe-ainakahata: 2-3, 5-7, 10, 13, 21

Even if clans are not always geographically discrete, clan divisions invariably are. The rationale of the second is less clear. The relationship between different households is an ambiguous one for the Nuaulu; on the one hand the close cooperation between numbers of related households requires sitting as closely together as possible, on the other hand ruptures in social relations based on petty jealousies and hostilities are best avoided and healed by tangible recognition of the fact by maximum distance between opponents. Domestic disputes (sometimes ending in divorce) and sorcery accusations can lead to both temporary and permanent change of residence at the household and village level. Factors such as the shortage of building land and the permanent nature of house structures tend to favour dense village layout and do not encourage flexibility in siting or re-siting of houses (see above pp. 43-45). In the event of serious ruptures those involved normally shift, via genealogical links, to households away from the foci of conflict, sometimes outside the village.

*Non-kinship organizational factors and village structure*

In discussing the relationships between the physical village and organizational factors I have so far concentrated only on kinship, because the great majority of such factors are expressed through the idiom of kinship. Increasingly though, other internal factors are affecting the
shape of the village. Similarly, non-indigenous ideological factors are becoming important. Thus, in some circumstances, religious conversion puts a person outside the village community, not merely metaphorically but physically also (see footnote 22) and the consequences can be quite considerable. Various pressures come from government and administrative sources. The impact of these were already beginning to be appreciable during 1969-71 with the ‘Projekt Sosial’ in Bunara, an example of government ‘development’ aid for tribal peoples in the Moluccas (see footnote 9). By 1973 the project also involved Watane and Ruhuwa. The most important physical manifestation of this government assistance has been the construction of houses of split-bamboo walling intended to replace traditional Nuaulu elevated dwellings. On the whole, the Nuaulu have been reluctant to occupy these new houses. Another innovation brought about during the last few years is the building of a permanent government rest-house in Ruhuwa. The extent to which these things will permanently alter the pattern of the Nuaulu village is as yet uncertain but it is clear that they must have some impact. Much depends on the ability of the government to complete effectively its intended programme of work.27

The developmental cycle of the village and expansion

In considering village-plans what is rarely taken into account is that, like the social groups of which they are composed, they are constantly changing entities – from their very inception till their abandonment. Though they may be inhabited continuously for many decades the physical appearance of each site constantly changes. They are not the static creations implied by the treatment given them by Fraser (1968); houses are being demolished and rebuilt; new houses are built to accommodate expanding populations; service paths come into existence; old ones become abandoned; old water sources dry up or become useless and it becomes necessary to exploit new ones; adjacent gardens are being created; old ones neglected; trees are planted and removed and patterns of ownership change, and the physical appearance and distribution of structures changes as does the entire micro-environment of the village surface.

The Nuaulu village requiring expansion faces distinct problems in its present coastal situation. The two most important of these are the claims of outsiders to land adjacent to Nuaulu villages and the sheer physical problems resulting from terrain. In Aihisuru (FIGURE 4.1, and accompanying text) steeply falling and rocky surfaces on three sides
prevent effective expansion. In Ruhuwa, the situation is more complex. Here, expansion of actual residential area can be brought about in two unsatisfactory ways. The coconut groves which occur along the coast, and which at this point are the property of Muslim clans from Sepa, can either be cut down with the payment of appropriate compensation, thus allowing lateral expansion, or the village can expand towards the mountains which is disadvantageous in terms of gradient, large stands of timber and the fact that the land is claimed by individual Nuaulu clans. As all land in the village is owned by the village as a whole, if land towards the mountains is required for expansion the clan and the particular household which has rights in that land is obliged to part with it for the common good, without compensation. In general, the result of such pressures against outward village expansion has been the inward concentration of dwellings. There is evidence that the total Nuaulu population is rising, based on a combination of field census materials (see, for example, FIGURE 14), statements by informants and other circumstantial data and head-counts from earlier literary sources (e.g. Seran 1922: 206). However, the present sites appear to be able to contain the rise without substantial expansion.

Integration of factors affecting village-plan
What has become apparent from a consideration of the factors which affect the final form the concrete village-plan will take is their number, variety and differential intensity of effect, which depends on the consensus of the community, the needs of individual groups and persons and what is possible in given environmental and social circumstances. There are ‘rules’ concerning the configuration of the various elements in the village and concerned with the distance between those various elements. The pattern of Nuaulu villages and their successional aspects are the product of a number of structurally relevant variables – political power, ritual authority, property, descent principles, subsistence requirements, emotional attachment and the like, and cannot be ascribed to a single formula. It is one of the failures of most studies of the Indonesian village to date (see, for example, those in Koentjaraningrat 1967) to consider, in an analytically relevant way, the multifarious factors that may affect village structure. Often it has seemed that villages have existed in an environmental and sociological vacuum.

The Nuaulu village-plan, like any other, must at the very least fulfil several minimum social and ecological requirements. But in attempting to maximize particular culturally determined ends, there is often conflict
between opposing demands. Thus the Nuaulu are forced to make a compromise between adhering rigidly to a prescribed structural formula and arranging the village-plan merely according to kinship, capricious interpersonal relationships and the demands of physical location. There is an inherent conflict between the symmetry imposed by ideological factors and the asymmetric demands of others. In terms of village-planning, the Nuaulu possess a basic structural schema indicative and justified in terms of the attitudes and values of the community; it is a model of certain fundamental cosmological relationships, in the Nuaulu case, purely an orientational model—a body of rules generating an ideal configuration. This basic ancestrally-ordained framework can be manipulated and skewed by environmental and social pressures, but remains valid unless a prescription as to a desirable relationship is contravened. It is therefore insufficient to say, as Fraser has done (1968: 8), that all planning solutions in tribal villages are traditional ones—'long established solutions already approved by ancestors'. To do this is to ignore the enormous pressures which go to affect any ancestrally-ordained formulation and give the village pattern in its totality. And then there are those social factors which are of external origin; the effects of government rest-house policy and 'aid' programmes, the implications of the creation of distinct administrative units for the structure and siting of villages (the imposition of the concept 'soa'), and so on.

This short investigation of the factors affecting the structure of Nuaulu villages serves as the natural focus for the description of the pattern of settlement in general. It is assumed for the purposes of analysis, though not in any arbitrary way, that the village is a fixed point, that is, a given. This permanency has already been remarked upon. Although individual sites are always changing compositionally and structurally through time, they have a finite lifespan and are closely geared to the prevailing agricultural regime, reflecting the constant changes in the location and exploitation of cultivation sites. Nevertheless, for all practical purposes, the village as a total entity may be regarded as a constant, relative to all decision-making behaviour involved in the generation of other aspects of the overall pattern of settlement. It is appropriate that the village should have this analytical priority, since the village itself lies at the very centre of the Nuaulu personal universe and their general concept of the environment.