

# SOCIOSPATIAL STRUCTURES OF AUSTRALIAN ABORIGINAL SETTLEMENTS

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## Introduction

This paper is concerned with the sociospatial patterns of large Australian Aboriginal camps: the division of settlements into spatial zones (sub-camps, sub-camp clusters), each occupied by an aggregate of domiciliary groups, and possessing some common social identity and characteristic social structure. Nocturnal domiciliary groups were usually divided into nuclear families, single men's groups and single women's groups. Diurnal groups in large camps were often based on gender divisions.

Aboriginal societies are characterized as employing a number of integrated sub-systems of social organization, some components of which need to be incorporated into the ensuing analysis. The types and combinations of such sub-systems vary across the continent. They can be broadly broken down into (i) kinship, (ii) class systems, and (iii) local groups.

Kinship was an all-pervasive medium in Aboriginal camps, generating both links and distancing between particular domiciliary groups.

A number of the class systems involve categories such as moieties (two classes), sections (four classes) or sub-sections (eight classes). Kinship relations are assigned between the various classes despite the fact that many people may not be related by blood or by marriage. Thus all people in a society and within an entire region will be related in a classificatory sense through the use of such a sub-system. Another type of class system is 'generation moieties', in which a person is categorized with their real and classificatory siblings, cousins, grandparents and grandchildren, whilst separated from their real and classificatory parents, uncles, aunts, children, great-grandparents and great-grandchildren, ie. six generations are divided alternately into two categories.

Local groups each have an attachment to a defined tract of land, and thereby comprise sociogeographic units eg. patri-lineages, patricians, dialect or language groups.

This paper summarizes the findings of a much lengthier analysis<sup>1</sup> based on 15 case studies drawn from the anthropological literature and researched between 1896 and 1988. The

size of the camp populations vary, some being as large as 500 residents. Similarly the contact depth is variable. Refer table 1 and figure 1 for details of such.

A few early case studies deal with what could be regarded as 'traditional' camps, i.e. camps established within a context of a traditional hunter/gatherer lifestyle. The majority of case studies deal with 'semi-sedenterized' camps, the occupants of which, although traditionally oriented with regard to their language, domiciliary behaviour and beliefs, had come to be largely economically dependent on Europeans, either missionaries, government welfare agencies or pastoral station owners. Nevertheless shelters are self-constructed and these camps are still typified by a high degree of residential dynamics based on traditional motives (e.g. for ceremonies, in response to death).

#### Kinship and economy

Avoidance between a male and his mother-in-law was a widespread kinship requirement in Central Australia (Arrernte, Alyawarre) and the Western Desert and which shaped sociospatial structure. However under pressures of change, its spatial component has been clearly relaxed in the south of the Western Desert amongst Pitjantjatjara groups, avoidance being achieved through shelter and body orientation and visual avoidance. In Arnhem Land and western Cape York Peninsula, the spatial component was either traditionally absent or could be acceptably dropped under certain circumstances.

Agnatic sociospatial principles were also prevalent amongst many of the these groups. A predominant example is that of the Nunggubuyu of Eastern Arnhem Land who had a three-level agnatic sociospatial structure consisting of (i) patrilian sub-camp, (ii) patrilineage sub-camp cluster, (iii) domiciliary group. These levels were arranged as nested clusters. See figure 1. Patrilian sub-camps are also evident in the Alyawarre and Pitjantjatjara data, and in all of these three cases there was a sociogeographic correlation with patrilian estates. Agnatic ties can be regarded as a competing determinant to that of male mother-in-law avoidance, since a preference to maintaining agnatic ties will have as a secondary consequence by default, mother-in-law spatial avoidance. Alternatively one could argue that these two mechanisms were complementary principles achieving the same sociospatial result.

Economic ties between domiciliary groups have been stressed by two researchers as a generative principle amongst societies from Central Australia (West Arrernte, Alyawarre). Amongst the Alyawarre, the strength of such ties was inversely proportional to the intervening distance between the groups. The strongest economic ties were between the members of a sub-camp (and not between sub-camps), a phenomenon which the author argues helps to express the social identity of sub-camps. The current author further argues that economic ties were based on kinship behaviour, and if other researchers had have investigated economic practices in their study camps, they would no doubt have found similar economic principles underlying sociospatial behaviour.

#### Clustering and sociogeographic identity

There is a tendency for high sub-camp resolution in the two Arnhem Land case studies: nine or ten agnatic sub-camps for the Nunggubuyu (population 200-300), and nine language-based sub-camps at Maningrida (population 480). By comparison in Central Australia, Alyawarre sub-camps ranged from three to five (max 116-208 people), there were just four Warlpiri sub-camps (population 400-500), and only two at Jigalong (population 300). However this phenomenon needs to be considered in relation to multiple or nested clustering of groups, which imposes a more complex picture.

The Maningrida example (480 persons) illustrates the clustering into sub-camps by language groups and further sub-camp clusters (total 19) based on assorted kinship ties. See figure 3. However the evidence for the largest language group (9 sub-camp clusters) in this camp, indicates there was an intermediate level of sociospatial organization, only partly structured, but possibly corresponding to some of the four sociogeographic divisions of this language group. There were thus two, possibly three tiers of clustering in this camp.

In comparison to this example, the sub-camps of the Warlpiri, although linguistically homogeneous, were based on four sociogeographic divisions, intermediate between that of language group and patrilines. This is the only tier of clustering reported for this society. As the Warlpiri camps were of a comparable size to the Maningrida camp, we note far more extensive fission into sub-camps amongst the Arnhem Landers, not to mention further resolution into sub-camp clusters. There is another comparable example of a camp from Mornington Island in the Gulf of Carpentaria maximum population 400. Like the Warlpiri, this was also divided into four sub-camps based on sociogeographic units at an intermediate level of structure between language group and patrilines.

It is difficult to identify a single common social function of clustering for all of the case studies, given the variation in other sociospatial properties. In the cases where sociospatial units correspond closely to sociogeographic ones, it could be argued that the former are a behavioural manifestation of the latter, derived from traditional hunter-gatherer lifestyle; that is, the smaller 'building blocks' of camps comprise families who traditionally associated for most of the seasonal year (eg. patrilineages, patrilines), whilst the members of each larger-scale sociospatial unit (clan, division, community, dialect group), although associating at times for economic or ritual purposes, would do so less frequently throughout the year than the former, but more frequently than those groups comprising the largest camps. Thus, familiarity and ease with residential neighbours would be the underlying basis of the sociospatial ties and tiers in the larger camps. This hypothesis is supported by McConnel who writes (1934:335) of western Cape York Peninsula, "Throughout the camp there extends from one camp fire to another a chain of kinship, more intimate between some families than others, closer between some clans than others, and between some tribes than others. This relative intimacy largely corresponds to the local proximity of intermarrying clans and tribes on their own grounds." However as a universal hypothesis for Aboriginal Australia, this is clearly at odds with the case studies based on class divisions.

#### Class divisions

Class subsystems had a dominant role in generating and elaborating sociospatial organization in Central Australia. The most outstanding example of nested clustering is the Arrernte camp based on eight subsection classes. See figure 4. Here there was a primary spatial division in a nocturnal camp into patri-moieties with the second division based on patrilines, the third subsections, and the fourth structured according to direction by homeland. Unfortunately no population size is given for this camp.

In this example, diurnal single-sex camps also formed, being based on patri-couple links, and consisting of both classificatory<sup>2</sup> father-son pairs, and classificatory 'auntie-niece' pairs (i.e. FZ/BD). There were also numerous avoidance rules for various categories of class relatives, ranging from the broad (patri-moieties) down to the narrow (mothers-in-law).

A group of Alyawarre (Lake Nash) were also reported as employing a four-class (section) sub-system in their sociospatial behaviour, but it was used to generate a sociospatial structure based on generation moieties. The separation of fathers and sons was in contrast to the above examples but there

were still agnatic groupings possible in this arrangement (ego and his B, FF, SS). This arrangement achieved the clustering of eligible marriage partners and simultaneously, spatial avoidance of their parents-in-law.

Divisions based on generation moieties were also prevalent in the Western Desert. Examples were (i) nocturnal single-sex groups, (ii) post-circumcision, public, ritual camps, and (iii) nocturnal, male, ritual singing groups. The last involved totemic symbols associated with the two 'generation' moieties.

Agnatic principles thus also underlay sociospatial organization generated by these class systems, both the patri-couple or patrimoiety structures and the generation moieties. In both cases they simultaneously achieve male mother-in-law spatial avoidance. However, at the same time, they place together people from different sociogeographic divisions.

An unusual type of moiety division was employed in the Darling River region (western NSW) for diurnal camps, that of 'blood' moieties, a subsystem involving unusual symbolic categories with abstract indexical properties (associations of human blood types, tree sap types and viscosity, tree shade areas and sitting positions in shade for people of different blood groups).

#### Locational principle

In addition to principles generating group identities, another generative principle was employed across the continent, that of locational prescription. It has been reported in Victoria, western Queensland, western Cape York Peninsula, eastern and northern Arnhem Land, and the Western Desert. However, there is not unity of agreement in the case studies about the precise nature of this locational prescription. Many reports talk of camping in the direction of homeland, i.e. a directional prescription which may have been generated simply from the direction of approach of incoming groups into a large camp. A causal hypothesis for this phenomenon is the facilitating of ease of retreat in the case of conflicts arising in the camp. However an alternate hypothesis and probably more plausible is that there are culturally distinct notions of respect and privacy associated with such approach behaviour and camp-site selection behaviour. Some researchers speak of sub-camp groups replicating sociogeographic patterns, as if there was a conscious attempt to generate a sociospatial structure signifying a map of the land tenure of local groups.

Once again, in the Arrernte examples, the arguments concerning approach do not hold, as the locational principle was subordinate to a division based on classes (patri-moieties). There would have thus been more emphasis on replicating abstract cognitive maps in the locational behaviour of these domiciliary groups.

#### Transformation

There are clearly two contrasting types of processes that may give rise to the generation of sociospatial structures. One involves the arrival of a large group at a fresh camp-site who then consciously implement sociospatial divisions and sub-camp site selection for groups according to shared overt rules. The other type of process involves 'social accretion' whereby an individual or a domiciliary group arrives at any existing camp and attaches themselves to another domiciliary group on the basis of some social link. Such an attachment may set off other relocations of domiciliary groups particularly due to avoidance rules or perhaps economic ties, until a satisfactory arrangement results. At a certain threshold of size and complexity of relationships, sub-camp formation occurs and eventually in some cases, sub-camp-cluster formation, and even finer-grained subdivisions of nested clustering.

In many cases sociospatial generation would have involved a composite of both of the above types of processes. Sociospatial transformation also occurred on a daily basis, as the more tightly structured nocturnal groupings gave way in the morning to diurnal groupings for the day's activities. There is one example in the literature of a total internal transformation of a nocturnal structure in a short period of days, that of a Western Desert public ceremonial camp.

### Function

A range of functional arguments can be put forward to explain sociospatial structure:- (i) expressing and maintaining kin relationships through behavioural style; (ii) expressing and reinforcing social group identities of various forms; (iii) expression of the economic dependency between domiciliary groups; (iv) achieving a certain style of privacy; (v) minimizing conflict between groups through distancing and concepts of 'respect'; and (vi) safety of retreat to homeland.

### Conclusion

Sociospatial structures occurred in large Aboriginal camps across the continent to facilitate various social functions. Common properties include organization based on kinship and locational principles, a tendency to sub-clustering above a certain threshold of population size, and frequent transformation of structures. Kinship principles are dominated by agnatic ties and male mother-in-law avoidance both of which can be seen as complementary means of pattern generation. Differences between case studies consist of the extent of nested clustering and the types of sociogeographic or class units utilized in generating sociospatial group identity in camps. However there is no neat pattern of regional distribution of these differing principles within the data corpus. Notwithstanding, the use of class systems appears confined to the interior. Such class systems can be categorized into (i) patri-moiety and patri-couple structures, (ii) generation moieties, and (iii) 'blood' moieties. The sociogeographic units utilized consist of (i) language or dialect group, (ii) local groups (patrilines, patrines, hordes), and (iii) other levels of sociogeographic structure intermediate to (i) and (ii).

The author is currently analysing case studies of sedenterized Aboriginal settlements. This second stage of the study addresses the question, are sociospatial patterns being maintained under conditions of cultural change and sedenterization? If so, how important is it to acknowledge and preserve such patterns? Preliminary analysis indicates they may have been lost in some communities, whilst in others they have survived for contact periods of up to 150 years and represent important social identity systems. However in many cases they are under threat. For example in Alice Springs, the author is assisting Tangentyere Council to maintain a vigorous campaign to preserve sociospatial structures in urban villages in the face of bureaucrats who fail to acknowledge the social functions of such. These bureaucrats mistake spaces between sub-camps for under-developed land and because of such alleged 'waste', refuse to grant land tenure to other wanting squatter groups.

### Notes

1. See Menzies (1990).
2. The term 'classificatory' in this paper refers to the classes generated by the various Aboriginal class sub-systems (moieties, sections, etc.), and is not used in the more conventional anthropological sense of collateral relatives.

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TABLE 1: SOCIOSPATIAL ANALYSIS OF ABORIGINAL CAMPS - Details of Case Studies

Case Study Groups	Time of Study	Contact Dept. at time of settlement	Numbers of sub-camps in best camps	Settlement Location	Traditional or semi-sedentarized camp	Sources
<b>Artemic Groups</b>						
1. Arrente	1920-1901	In 1906 there had been three seasons of non-disruptive contacts	No data	Alice Springs, N.T.	Traditional	Gillen 1929, Spencer and Gillen 1927
2. West Arrente	1974-75	Hermannsburg est. in 1870	No data	Outstations near Hermannsburg, N.T.	Semi-sedentarized outstation camps	Stoll et al. 1979
3. Alawaarre	1967	Contact since 1870's & disruption in 1920's	Two sub-camps	Lake Nash cattle station, N.T.	Semi-sedentarized since 1910-1930s	Yallop 1968
4. Alawaarre (sample of 15 camps)	1971-75	ditto	Range from 20 to 150 sub-camps with 2-10 (one group) sub-camps, av. 30	Camps attached to Hermannsburg cattle station, NT	ditto	Denson 1975 O'Connell 1977 & 1987
<b>Other Central Australian</b>						
5. Warlpiri	1953-55	Contact since 1960s (highly variable, after 1960s population boom)	Up to 400 or 500 max.	Yupukanu, Hopper Cr., Phillip Cr., N.T.	Semi-sedentarized since 1940s	Hegsett 1962
6. Pitjanjatjara dialect groups	1941	Contact (w. 25-50 yrs. from 1905) from cultural reformation	Not specified	Oldes, S.A.	Semi-sedentarized	Bernot and Bernot 1942
7. Yankunytjatjara, Tjilantjatjara, 1966-67	1966-67	Specific contact since 1970s, mission est. since 1934	Welder at least 2 or 3 sub-camps	Harrington, U.A.	Study groups for sedentarized since 1900-1910, but first 500-700 h for 50 or more years.	Sould 1969
8. Gurdjilara, Wandjildjara & neighbours	1963-70	Mission presence from 1942, unsuccessful change at different times	200 (mid-1960s) 2 sub-camps	Jigalong, U.A.	Since 1946	Tomkinson 1966, 1974, 1978
9. Yankunytjatjara (Pitjanjatjara dialect group)	1971-72	No data	One camp, no sub-camps	Somehow near S.A., border intersection	Semi-sedentarized	Hamilton, 1972
10. Yankunytjatjara, Pitjanjatjara	1969-74	Oldes camp moved to Oldes in 1964, see retention of strictly cultural retention	Not specified	Yalata	Semi-sedentarized	White 1977, 1981
11. Pitjanjatjara	1966-76	Erromella mission established in 1937.	2 major sub-camps	North of S.A. proc. Erromella/Aranta area	Traditional ceremonial camp	Hallise 1976
<b>Arnhem Land</b>						
12. Gidjindjili and neighbours	1940	Trading post est. 1949, 400 to area westward migration to Darwin	5 sub-camps 13 sub-camps	Hamberford, N.T.	Semi-sedentarized since 1937	Hiatt 1945
13. Munghurru	1971-72	Traditional life main- tained until 1950s, followed by mission presence	9 or 10 sub-camps (even with 10 sub-camp clusters)	Munghur, N.T.	Reconstruction of traditional camp	Sierroff 1974
<b>Gulf of Carpentaria</b>						
14. Lamel, Yankal and adjacent mainland groups	1973-1976	Missing presence from 1912, displacement change 1921-1949	Est. of about 4 major sub-camps	Warrington Island, VIC	Reconstruction of traditional camp	Hamont 1983
15. Yalvawaa, Yanyanyawaa, Yanyanyawaa, Yanyanyawaa	1967 & 1971	First contacts 1940s, migration and change 1950 to 1960	No data	Boyer, Yalvawaa River basin, WA	Traditional	Barrow 1964, Barrett 1966, Barrett 1967, Barrett 1968

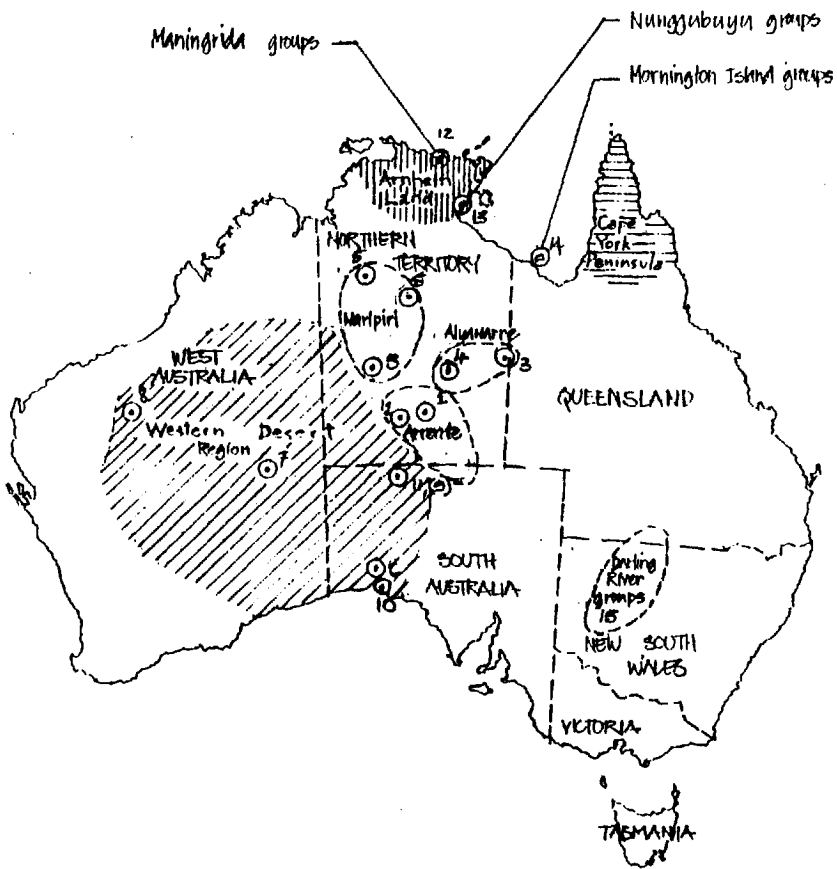


Figure 1. Location of case studies (read in conjunction with table).



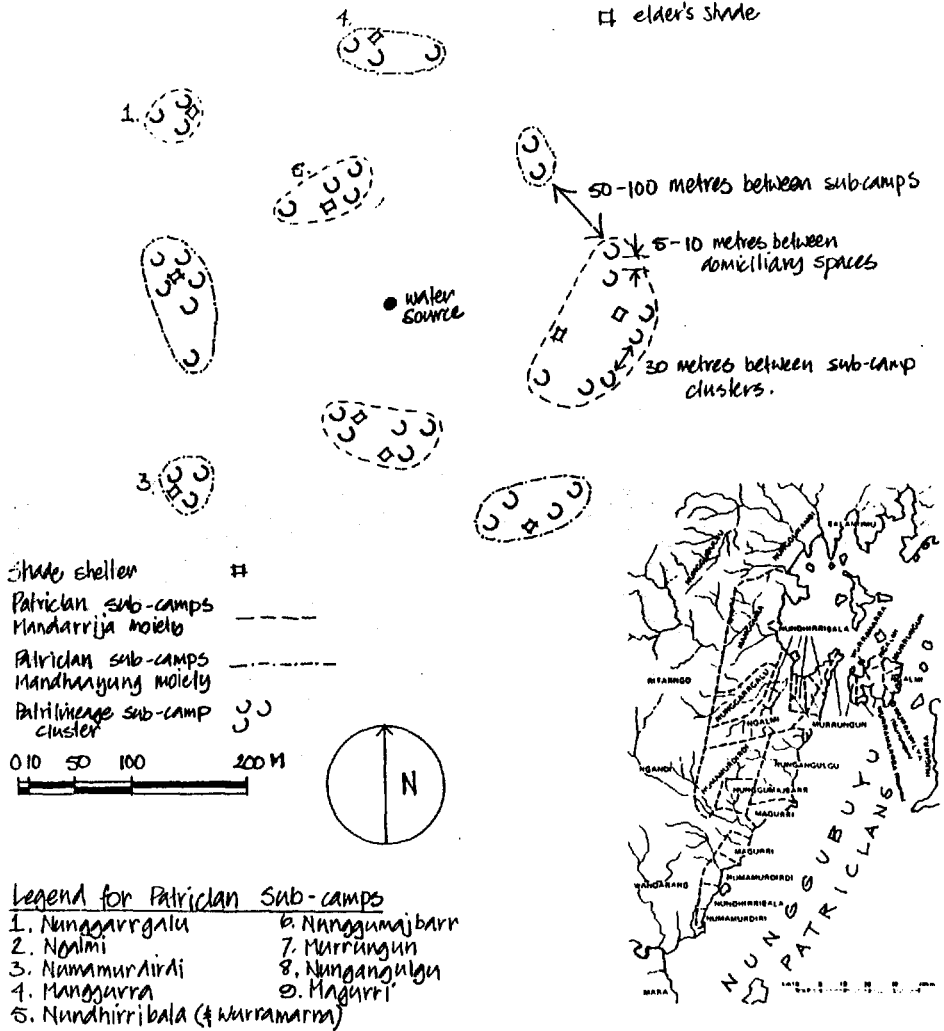
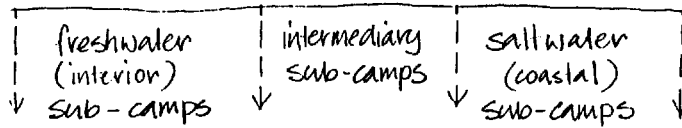


Figure 2. A hypothetical model of a maximum-sized, traditional Nunggubuyu camp (population 300) in Eastern Arnhem Land, illustrating nested clustering based on agnatic principles extrapolated from Biernoff's data (1973).

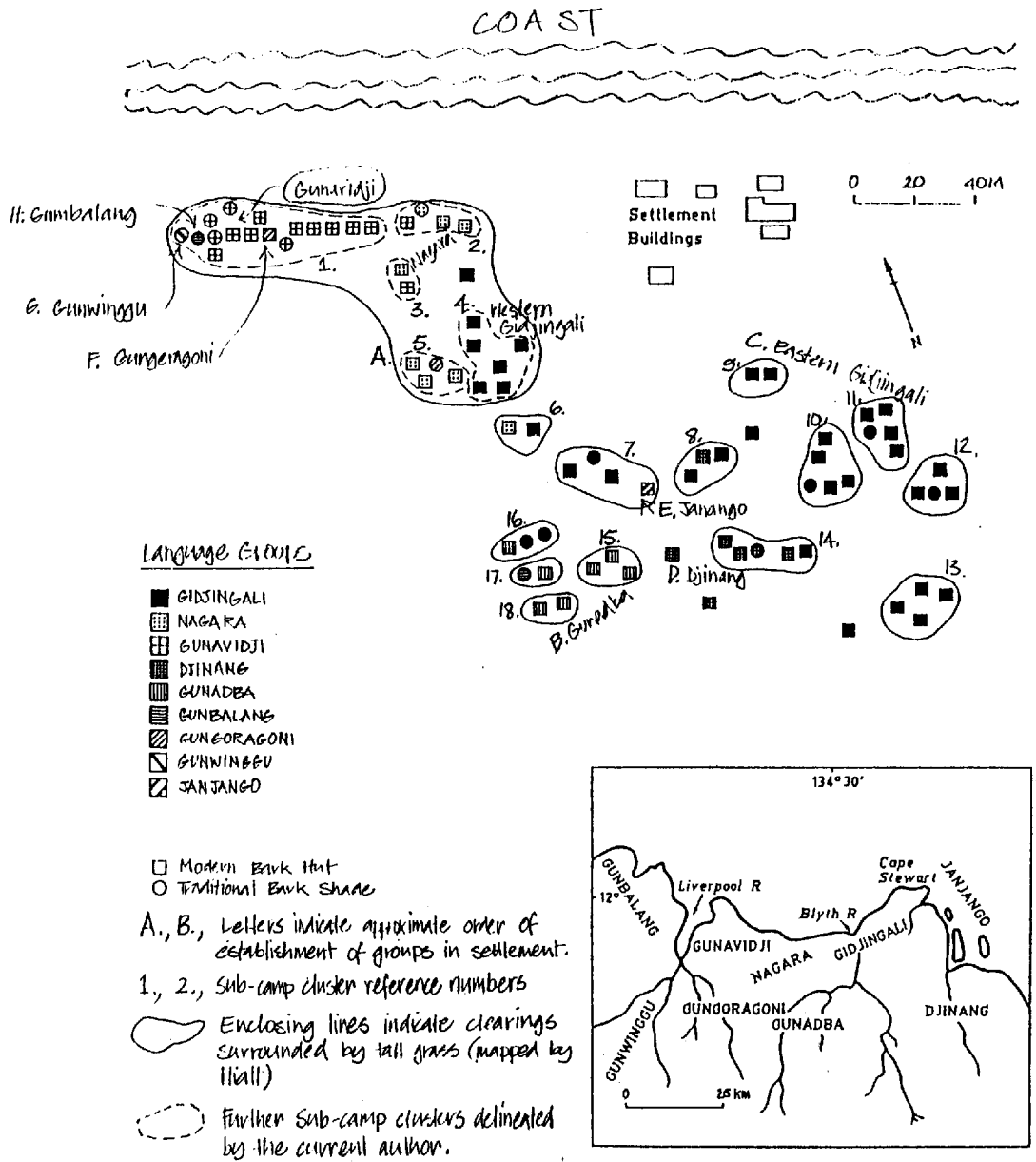


Figure 3. Semi-sedentized camp at Maningrida, northern Arnhem Land, 1960, illustrating sub-camp clustering based on language group identity. (Adapted from Hiatt 1965: maps 1 & 5)

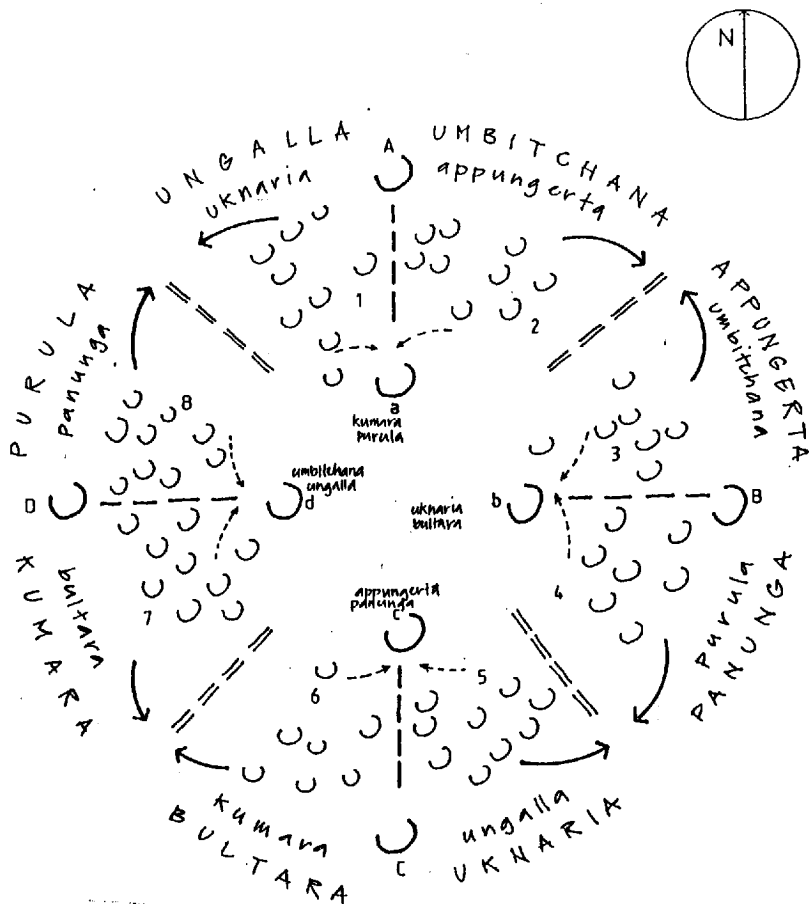


Figure 4.

Socio-spatial structure of a large Arrernte camp, gathered for a ceremonial festival in 1896 near Alice Springs, Telegraph Station, NT; illustrating sub-camp clustering according to class identity (Adapted from Spencer and Gillen 1927:501)

Legend:-

1 to 8: Eight subsection groups of the Arrernte. The three-quarter circles indicate nocturnal windbreaks, which were largely occupied by nuclear families. In each subsection group the male spouses of each nuclear family share the same social class, which is indicated in upper case (eg. 'KUMARA'). There are eight classes altogether (1 to 8). Accompanying the class name of the male domiciliary heads is that of their wives, in lower case (eg. 'bultara')..

Pairs of subsection groups form sub-camp clusters, whose male domiciliary heads comprise a patri-couple (father-son category). For example, the KUMARA, and PURULA men and their spouses and children form a sub-camp cluster.

A,B,C,D: Four diurnal meeting shelters of the men, called 'ungunja'. Each ungunja contains the men from two specific subsections or a patri-couple, plus visitors.

————> Directions in which the men from each class must walk when circling the camp to visit another group's 'ungunja'.

a,b,c,d: Four diurnal meeting shelters of the women, called 'lukwurra'. Each 'lukwurra' contains the women from two specific subsections or a patri-couple, plus visitors.

-----> Directions in which the women from each subsection must walk when circling inside the camp to visit a 'lukwurra'.