

Politics and demography in a contact situation: the establishment of the Giles Meteorological Station in the Rawlinson Ranges, West Australia

Laurent Dousset

On 24 October 1955, a restricted internal note circulating at the Weapons Research Establishment (WRE) presaged what would become the major reason for important changes in Indigenous people's lives in the Central Reserves of Western Australia:

In connection with the Maralinga Project it has been decided to establish a permanent meteorological radar station at the nominal 600 mile point along the centre line of the range. The exact point cannot be determined until a more detailed reconnaissance is made. ... It is proposed now that a joint reconnaissance and construction team should leave Finke on the Adelaide–Alice Springs railway line, about 5th November 1955, and travel across through Mount Davies to the general area in which it is felt the final point may be chosen.¹

In December of the same year, the reconnaissance survey team chose a site in the Rawlinson Ranges, WA. The patrol officer accompanying the team on this survey later termed it a 'rush trip' in which 'there was no attempt made to select a site that would interfere as little as possible with the Aborigines'.² Some months later, Len Beadell, then Chief Surveyor of the WRE, graded a track from Mulga Park to the Rawlinson Ranges, where the meteorological station, named Giles in honour of the explorer,³ was to be built.

The aim of this paper is twofold. Its first part provides first-hand material illustrating the conditions in which the Giles Meteorological Station (Giles MS; see Figure 1) was established and outlines the policy and behaviour of officials and employees of the WRE in relation to the Indigenous people of the Rawlinson Ranges. This part of the paper is principally based on direct quotes from archival documents.⁴ It illustrates the

¹ National Archives of Australia (ACT) A6456/3–R136/005: folio 176.

² National Archives of Australia (ACT) A6456/3–R136/005: folios 191–193.

³ Beadell 1965.

⁴ I have not considered in detail secondary sources relevant for other contact situations in the Western Desert. The aim is a detailed description of one particular circumstance, the Giles Meteorological Station and the Ngaatjatjarra-speaking people, for which I have at my disposal both archival information and detailed ethnographic material.

contradictory policy adopted by the WRE and its Native Patrol Officers at Giles MS, which oscillated between attitudes of segregation and ideals of assimilation.

The second section of this paper uses the same archival material, as well as data I collected during fieldwork among Ngaatjatjarra-speaking people – the traditional owners of the area – to illustrate socio-demographic changes and their implications in the Rawlinson Ranges since the establishment of Giles MS. The formal kinship structure of Aboriginal groups of the area will be employed to demonstrate how migration to missions and stations from the Rawlinson Ranges area, as a consequence of the WRE policies, significantly accelerated further migration. The data provided in this part of the paper strengthens the hypothesis that the process of congregation at stations and missions had an exponentially escalating effect and further, that this accorded well with the national interests as defined by the WRE. That is, the more people congregated, the more rapidly settlement progressed, and the less likely the WRE need be involved with – and account for – Aboriginal Affairs. However, this part of the paper also shows that Indigenous people, rather than passively succumbing to the dramatic changes, actively engaged in the maintenance of the bases for social interaction through their migration and congregation. Congregation was a means, indeed a necessity, for the preservation of the extensive social networks already in existence.

Background: from Ernest Giles to Giles Meteorological Station

WRE officers were not the first non-Indigenous persons to visit the Rawlinson Ranges. The British explorer Ernest Giles, during his attempt to traverse the central and western deserts more than 70 years before the WRE survey, reached the Rawlinson Ranges on 10 January 1874. Some days later, he lost one of his party west of Lake Christopher and named this desert 'Gibson' after him.

With few exceptions, Giles' accounts of his journeys are not an important ethno-historical source, since they largely concern geographical features and his struggle to find water. His encounters with Indigenous people are most often portrayed by Giles as violent and dominated by his fear of being captured by what he believed to be genuine cannibals. Some meetings, nevertheless, seem to have been more peaceful. Particularly interesting is an encounter at the Rawlinson Ranges, during which an Aboriginal man held Giles' chin – a gesture meaning 'man' – indicating that he knew there were more white men like him.⁵ The interest of this short episode lies in the fact that although hundreds of kilometres away from the nearest colonial settlement, the Aboriginal people of the Rawlinson Ranges were nonetheless aware of who had arrived on the continent. Other evidence for this claim, and against a description of desert families as being isolated from other groups and tribes, are Tietkens' reports on his observations of smallpox among the Gibson desert Aboriginal people encountered during his journeys with Ernest Giles.⁶ The flow of information and the diffusion of illness help testify to the Western Desert's extensive social networks which, at least partly, explain the capacity of Indigenous people to subsequently adapt rapidly when, following the establishment of the Giles Meteorological Station, large numbers of groups and families congregated around a limited number of stations and missions.

⁵ Giles 1993 [1875]: 182–3.

⁶ Tietkens 1882.

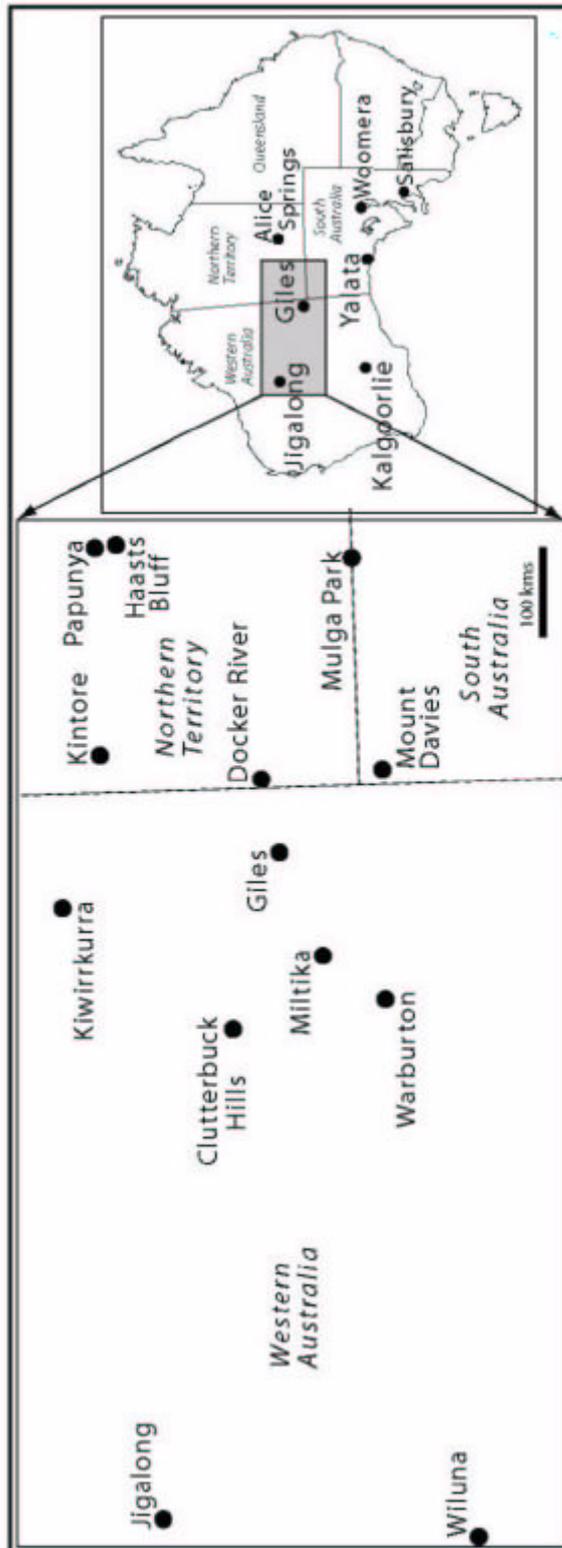


Figure 1: Location map

The contact frontier progressed onto other more favourable regions. The harshness of the Rawlinson Ranges environment and its unsuitability for cattle raising spared Aboriginal people there from lasting intrusions into their homelands, until the arrival of the WRE. The exception was the Warburton mission, established in 1934 by William and Iris Wade of the United Aborigines Mission (UAM) some 200 kms from the present location of the Giles Meteorological Station. However, direct contact with this mission, which had been established on a new, small reserve adjacent to the Central Reserve (gazetted in 1918) was minimal. Some Aboriginal people periodically visited the mission; others obtained billycans, axes and other utensils through exchange with neighbouring families. First-hand descriptions of the existence of white people at Warburton – that is, reports made by members of the Rawlinson population themselves – reached the Rawlinson Ranges at a time when the groups far north of the Rawlinson Ranges – from the sandhills-country – seemed to have already expanded southwards and eastwards independently of colonisation in the late 1940s or the early 1950s.⁷

Norman Tindale of the South Australian Museum made an expedition in the vicinity of the Rawlinson Ranges. He visited the Mann and Musgrave Ranges from May to July 1933, as well as Ernabella to the east in August. In 1935 he visited the Warburton Ranges to the west, accompanied by CP Mountford.⁸ These expeditions yielded scientific publications and Tindale's many field notes were lodged in the South Australian Museum. Tindale reportedly explained later to a WRE patrol officer for the Rawlinson Ranges that there were 'a number of natives somewhere in that direction who are conscientiously and deliberately avoiding white contacts'.⁹

Despite various gold-hunting and other adventurous expeditions in the area,¹⁰ the Rawlinson Ranges remained beyond colonising interests until February 1946, when Great Britain approached Australia with the intent to establish a common weapons research program, including the testing of missiles. In 1948 the Long Range Weapons Establishment was created, and in 1955 it became the Weapons Research Establishment (WRE), with headquarters at Salisbury near Adelaide, a rocket range launching pad at Woomera, and the atomic testing area at Maralinga/Emu.¹¹

Besides the nuclear tests, especially in the Maralinga/Emu region, the WRE also planned to fire rockets from Woomera over the Gibson Desert and into the area of the Great Sandy Desert. In 1955 it was decided to establish a central weather and control station at the 600 miles point from the firing area, which would provide weather reports for choosing suitable launch conditions. The WRE had employed a Native Patrol

7. The reasons given by these early migrants for the expansion is an unprecedented death toll amongst their families, especially the older members and the incapacity to forage sufficiently for survival.

8. Tindale 1933, 1935a, 1935b.

9. National Archives of Australia (ACT) A6456/3-R136/005: folio 164.

10. The most famous of these adventurers are probably Lasseter (see Idriess 1939) and Terry (n.d.). Other expeditions around or close to the Rawlinson Ranges were Miller in 1892, Lamp and Macpherson in 1893, Breaden and Oliver in 1897, Hill in 1899, Maurice and Murray in 1901-02, Hann and Giles in 1903, Brumby and Brown in 1930 and Wells in 1930-31. Terry (n.d.: 272ff) lists the expeditions prior to his 1930 journey.

11. More information on the background and history of the WRE can be found in the Royal Commission into British Nuclear Tests in Australia 1985; Milliken 1986; Morton 1989.

Officer whose task was to make certain that no Indigenous movements would interfere with the tests, and that no Aboriginal people would be in danger from them. This officer accompanied the party into the Rawlinson Ranges in 1955 to choose a suitable location for the weather station. The Chief Surveyor of the WRE was in charge of extending the existing track to the planned station, and a construction team of about 40 men was transported to the Rawlinson Ranges in 1956. The station began generating meteorological data in August of the same year. Thus it had taken less than a year to choose a site in a largely unknown area, grade a track and build the meteorological station.

The public was told no more than was necessary about the project, especially as the station was established on an Aboriginal Reserve. Public knowledge about the direct relationship between Giles Meteorological Station and the WRE had to be minimal. Indeed, Dunlop and Gray's film *Balloons and spinifex*, produced by the Australian Commonwealth Film Unit and the Bureau of Meteorology during the construction of the station, presents the team as pioneers and heroes facing a harsh environment for the benefit of meteorological science, and Maralinga or Woomera are only mentioned in passing, although Giles Meteorological Station remained under the responsibility of the WRE until 1972.

Before discussing the impact of Giles Meteorological Station on local Aboriginal families, I will describe the prevailing climate of the early years following the establishment of the station. Two questions arose during archival research. The first relates to discourse about the Indigenous people of the Rawlinson Ranges by patrol officers and other officials. Reports and correspondence show that WRE employees had a clear understanding of the impact of the station on people's lives: how did they reconcile this understanding with their task as government officials and organisers of projects held to be in the 'national interest', and what rhetoric did they use to legitimate courses of action? The second question relates to the concrete conditions in the Rawlinson Ranges: how did officers implement their policies and what was the Indigenous reaction? The answers to these questions reflect a dichotomy between simultaneously applied policies of assimilation and negation of Indigenous culture in general, and the policy of segregation and 'protection' in local areas.

'De-tribalisation' and attachment to land

Reports and internal notes of the WRE testify that the available information about Aboriginal culture was not always of substantial anthropological depth, but was nevertheless sufficient to allow decision makers, as well as their agents, to obtain a good understanding of the impact of their policies on the local Aboriginal people, and to be in a position to predict the consequences of those policies. While reserves, as Rowse writes, were seen by the Commonwealth government as 'transitional, temporary homes for Aborigines' that 'must not be allowed to perpetuate "segregation"',¹² employees seemed, however, to have had difficulties interpreting and applying this understanding in the field. The following extract from a letter written by a Native Patrol Officer and addressed to the superintendent in Woomera in 1950 – that is, before

¹² Rowse 2000: 36.

the establishment of Giles Meteorological Station – illustrates his understanding of the implications for Aboriginal people of removal from their land:

The country that each tribal aborigine looks upon as peculiar to his family is very important to both his domestic and secret life. It is his birth place – his spirit's home. He believes that ceremonies within its boundaries and certain places are necessary for his existence, to ensure the continued supply of game and foodstuffs on which his life depends. If deprived of this by force, he is likely to die of homesickness. If he leaves it voluntarily, he quickly degenerates into the useless outcast seen, among other places, along the East–West line. In fact, he becomes de-tribalized.¹³

On the one hand the general policy, the transitional status of reserves and the particular situation in the rocket range area where Indigenous peoples had to be removed for their own security, all implied that 'de-tribalisation' was a necessary step for the assimilation of Indigenous people into the dominant society. On the other hand, patrol officers understood and regretted that their presence and actions would have an impact on Indigenous culture in a profound and irreversible way. Indeed, reports written by Native Patrol Officers depict 'de-tribalized Aborigines' and 'outcasts' as having 'no pride of race, no faith in their secret life, no law, no ambition except to exist with as little effort as humanly possible'.¹⁴ The trigger for creating 'de-tribalized' Aboriginal people was associated in the field with the dispossession of, or removal from, traditional lands.¹⁵ Eventually, however, patrol officers adopted a rhetorical position, well reflected in Hasluck's writings, according to which 'there was nothing that could be recognised as a homogeneous and integrated aboriginal society. Here and there throughout the continent there were crumbling groups of aboriginal people bound together by ancient tradition and kinship and living under a fading discipline'.¹⁶ Contact with and use of western goods were seen by patrol officers as the first signs of a fading society, and therefore legitimated the removal of Aboriginal people from their traditional lands.¹⁷ The quasi-systematic driving of people away from the Giles Meteorological Station further back into the Rawlinson Ranges (see below) was eventually replaced by a removal to distant stations and missions, in particular Papunya and Warburton. The rhetorical position of the officials legitimised the passage from a segregationist to an assimilationist attitude in and around the Giles station.

Local politics: assimilation with segregation

While assimilation became the implicit policy from the 1940s onwards,¹⁸ segregationist and protectionist attitudes were still detectable, even in official guidelines. The concept of having one Australian community or society, adhering to a common set of customs and believing in identical principles,¹⁹ is obviously indissociable from a certain amount of enforced segregation of those who do not want, or do not have the means, to adhere

¹³. National Archives of Australia (ACT) A6456/3–R136/004: folios 15–19.

¹⁴. National Archives of Australia (ACT) A6456/3–R136/004: folios 15–19.

¹⁵. See National Archives of Australia (ACT) A6456/3–R136/005: folios 202–203.

¹⁶. Hasluck 1988: 131.

¹⁷. In Central Australia and probably elsewhere in Australia, western goods, especially food, have also been a social technology applied by administration, missions and settlers to actively change the nature of cross-cultural relations, as Rowse (1998) convincingly demonstrates.

to the concept. Rowse writes that the words used to define assimilation 'not only sustained differences but also denied it. People who were different (from those enacting the policy) would be treated differently (from those enacting the policy) until they became the same (as those enacting the policy)'.²⁰

However, whilst in the midst of assimilation policy, Giles Meteorological Station early on became a place in which segregation and ideas or ideals of assimilation were in contention. One major reason for the mixed and ambivalent local policy was that officials had not expected to encounter so many of these 'shy primitive aborigines'²¹ in the Rawlinson Ranges. Beadell, who had been organising the road construction to the Rawlinson Ranges, still claimed in 1994 that it was an 'uninhabited desert waste-land [and] was the most isolated', and that it was 'the most suitable area in the world for a rocket range'.²² Internal memoranda in 1956, however, testify to the astonishment and helplessness of officials confronted with the real situation. A letter by the acting Controller of the WRE to the superintendent in Woomera states:

The presence of aborigines in the vicinity of the Desert Meteorological Station is causing some concern, and it has been established that the native population is actually far greater than at first expected.²³

Problems, indeed, had emerged early during the construction of the Meteorological Station. An internal letter dated 10 May 1956, this time from the Superintendent in Woomera to its Controller, warns that:

There are 50 Aborigines camped at the site whose lack of camp hygiene is conspicuous. For reasons of the health of the white men and safety of equipment, alone, it is recommended that blacks be kept to the north and whites to the south of the Rawlinson Ranges.²⁴

Many more such notes and letters circulated through the WRE, and a radio message sent on the 14th of May 1956 asks the WRE patrol officer to:

co-operate immediately with Beadell ... and discourage presence of Aborigines in the vicinity. They must not be employed in any capacity at all and must not be given any water or rations except in case of urgent medical necessity.²⁵

In 1957 it was recommended that an incinerator be ordered to Giles Meteorological Station so that food remains would be destroyed and not distributed.²⁶ Some months later, however, patrol reports testify that the situation was still not satisfactory

18. Assimilation was only officially defined in 1961 during the Native Welfare Conference in Canberra. However, there are previous allusions to assimilation within States, such as in Queensland where it was said as early as 1937 that 'the destiny of the Aboriginal people lay in their ultimate absorption by the white race' (Queensland Parliamentary Papers 2, 1938: 1097; State Library of Queensland, *Assimilation era*). For an analysis of assimilation policies in Central Australia, see Rowse 1998, particularly, but not exclusively p. 107ff.

19. Bennett 1989: 23.

20. Rowse 2000: 17.

21. National Archives of Australia (ACT) A6456/3-R136/005: folio 164.

22. Beadell 1994.

23. National Archives of Australia (ACT) A6456/3-R136/005: folios 341-342.

24. National Archives of Australia (ACT) A6456/3-R136/005: folio 240.

25. National Archives of Australia (ACT) A6456/3-R136/005: folio 245.

26. National Archives of Australia (ACT) A6456/3-R136/005: folios 390-391.

in the eyes of the officials. Below are extracts of such a report illustrating the tragicomic situation that existed at Giles Meteorological Station:²⁷

On arrival at Met. site camp, I found 71 aborigines camped within 100 yards of the white men's camp, enjoying free food and water, rides in and on land rovers, trucks, grader and bulldozer. I moved them all to Sladen Waters [north of Giles Meteorological Station] and recommended to Mr. Nossiter's men that they did not give the natives anything south of the Range, or permit any to ride in or on any vehicle.

The patrol officer then left for the Blackstone Ranges to the south and returned some days later:

On return to the Met. site, I found 50 natives camped almost with the road construction team. I moved them all back to Sladen Waters.

My next trip was a quick visit to Mount Fanny. ... I returned to the Met. Site camp. Here it was suggested that the natives be used to remove sticks from the airstrip. I agreed that they may as well work as they were being fed anyway...

He left Giles Meteorological Station again for a longer trip, to Mount Fanny, Blackstone, Barrow Range and back to Giles:

The aborigines had again collected at the Met. site camp and were convinced that a bullock and large supplies of flour, milk, tea and sugar were being brought from the south for them. This arose from the white men's habit of saying 'Yes' to all that they do not understand.

What appears like a game between the officer and Indigenous people in fact hid another tragedy, which the patrol officer would soon discover: Aboriginal people had picked up some serious illnesses and were seeking help.

Confirming their belief in the incapacity of Indigenous people to resist Western goods and services, officials thought that when they stopped handing out food and water, the Aboriginal people would 'quietly move away'. However they also anticipated the need for 'strong action to be taken with some of the younger men'.²⁸ The WRE decided in the same year (1956) that a second patrol officer should be appointed and should be stationed at Giles Meteorological Station itself. This officer was to enforce the agreed policies of minimal contact. Indeed, an administrative order set up by the controller of the WRE in February 1957 states:

Great care must be taken by all persons associated with this Establishment in dealing with aboriginal reserves. Unwitting damage can be quite as disastrous as deliberate damage to the well-being of aborigines. Where persons skilled in the handling of natives are not on hand on any occasion, staff of this Establishment should exercise extreme caution in making any form of contact whatever with natives, especially in the remote areas where it may be expected primitive natives will be encountered. It must be remembered at all times that intended kindness may in many cases result in harm to the natives.²⁹

²⁷. National Archives of Australia (ACT) A6456/3-R136/005: folios 265-273. Unfortunately, the report does not indicate the number of days that elapsed between the various trips cited in the following series of quotes.

²⁸. National Archives of Australia (ACT) A6456/3-R136/005: folio 252.

²⁹. National Archives of Australia (ACT) A6456/3-R136/005: folio 386.

The controller then reiterated the obligations and conditions to be met by staff entering the reserve.³⁰ These rules concern the prohibition of trade for 'ethnological specimens' or using Indigenous waterholes and disallow giving Aboriginal people 'White man's food or water'. Generally speaking, 'a person entering the Reserve [should be prevented] from clashing with the aborigines, shall not encourage or permit the aborigines to congregate near any camp and shall accept the responsibility for ensuring that none of the party is intimate with female aborigines'.³¹

The same controller, however, had obviously had a rather different view on the policies to be adopted towards Indigenous peoples only some months earlier. In May 1956, he asked for a meeting with the patrol officer in order to discuss 'details of assistance we might give in assimilating aborigines and of training them to work on stations or in other useful and appropriate occupations'.³² Moreover, in 1959, the patrol officer stationed at Giles Meteorological Station suggested that 'the Reserves be reoriented and maintained to give protection to Aboriginal people while they are trained in the pastoral activity', and that 'the unemployed on the fringes of the Reserves be encouraged back onto the Reserves for training and employment'.³³

The dichotomy between assimilation and segregation, and the ambivalent policy resulting from this situation, is also apparent in the encouragement given by the government and the WRE for Aboriginal people to hunt dingoes, resulting in scalps being traded for a variety of goods, despite the fact that, at the same time, handouts of food to locals were prohibited in order to minimise contact.

Personnel experienced internal questioning and doubts regarding the coherence of the WRE's adopted policy. It was claimed that the government had decided to 'keep the Aboriginal people segregated' and that there 'would be no roads in the reserves'. At the same time, it was also recognised that it was 'impossible to keep tribal Aboriginals segregated for ever'.³⁴ A restricted note written by a patrol officer to the superintendent at Woomera states that this policy of segregation had obviously been amended, however not through what he considered to be an appropriate policy of assimilation. It is worth quoting this note at length as it illustrates the contradictions the officers tried to deal with in the field, as well as the 'automatic' or mechanical relation believed to tie 'de-tribalisation' to contact:

The Government had a choice of two alternatives: -

- (a) to keep the tribal Aboriginals segregated
- (b) to make contacts - thereby automatically ensuring their de-tribalisation - and train them to fit into our civilization and be useful and self-respecting citizens.

The Government decided on the first alternative and issued a statement which, inter alia, included promises that:

³⁰. Similar conditions were prepared by the Aborigines Protection Board in June 1955 with respect to granting Southwestern Mining Ltd. and the Mines Department access to the Reserves (National Archives of Australia (ACT) A6456/3-R136/005: folios 145-146).

³¹. National Archives of Australia (ACT) A6456/3-R136/005: folio 386.

³². National Archives of Australia (ACT) A6456/3-R136/005: folio 248.

³³. National Archives of Australia (ACT) A6456/3-R136/007: folios 98-101. See also folios 102-106 & 159-168.

³⁴. National Archives of Australia (ACT) A6456/3-R136/005: folios 202-203.

- (a) there would be no roads in the reserves
- (b) contacts would be made only by 'fully qualified native patrol officers'.

In my opinion the wrong decision was made since it is obviously impossible to keep tribal Aboriginals segregated for ever ...

I understand that the policy has been changed though oddly enough I, as Dept. of Supply Native Patrol Officer, was not informed ... The new policy appears to be a third and disastrous alternative whereby contacts are made by completely unqualified persons and no provision is made to train the Aboriginals to fit into the twentieth century. The result is certain to be a degeneration from self-respecting tribal communities to pathetic and useless parasites.³⁵

The various reports, notes and letters quoted so far show that the guidelines regarding Indigenous affairs at Giles Meteorological Station and the surrounding areas were contradictory, reflecting the inability of field officers to deal either with the policies, or with Indigenous people in the Rawlinson Ranges. These officers certainly found themselves in a difficult situation, obeying segregationist guidelines but simultaneously implementing assimilationist ideals. The latter seems to have been an inevitable consequence of the rhetoric discussed above, and this legitimated the WRE's interests and actions in the Rawlinson Ranges once Aboriginal people could be considered 'de-tribalised', that is, as soon as contact was made.

On the one hand, there clearly was a segregationist attitude towards Aboriginal people that was explained as a means to preserve as long as possible the traditional state of social structure and individual behaviour. On the other hand, the traditional status of Indigenous groups in the Gibson Desert, and the Western Desert in general, was seen as an obstacle to the development of the military and scientific infrastructure. The closure of Ooldea mission and removal of its inhabitants to Yalata, further south, was another example of the WRE's endeavour to free the area for its military and scientific experiments. Brady explains the complex situation that reigned at the mission and writes:

[T]he establishment was forced to close down suddenly (as a result of internal politics within UAM [United Aborigines Mission]) in June 1952, and 'their people' were handed over to a rival group, the Lutherans.³⁶

However, a letter written by a Native Patrol Officer to the Superintendent at Woomera in November 1950 already testified that WRE had planned to close - or at least provoke the closure of - the mission:

I would like to repeat my recommendation that the Mission be moved and add that the Ooldea Area be made a prohibited area for aborigines, except for those legitimately travelling on the train.³⁷

Only one month following the closure of the mission, the Group Captain testifies to WRE's satisfaction with the situation:

Now that the natives have been moved from Ooldea to the coast, there appears to be little chance of many of them being found in the range area in future. It is

³⁵. National Archives of Australia (ACT) A6456/3-R136/005: folios 202-203.

³⁶. Brady 1999: 3.

³⁷. National Archives of Australia (ACT) A6456/3-R136/004: folio 20; see also the patrol report of July 1950 (National Archives of Australia (ACT) A6456/3-R136/004: folios 8-12).

highly probable that range activities can be extended for about 500 miles along the north side of the Transcontinental Railway line without any effect whatever on the aborigines, and this highly satisfactory state of affairs is likely to continue and improve in future.³⁸

The passage from the segregationist and protectionist attitude to an assimilationist and negationist³⁹ policy was undertaken in conceptual terms. Contact with western goods was the trigger for recognising the first signs of a fading society, a 'de-tribalised' society whose alienation from traditional lands would not be seen as problematic.⁴⁰

That Native Patrol Officers at Giles Meteorological Station did alter their behaviour from one of segregation to one giving way to assimilation is illustrated by the recollections of a Ngaatjatjarra man, who was a young adolescent during the Giles period described so far:

They [Native Patrol Officers] did not want people to sit around Giles, and they would drive them away, sometimes to Warupuyu [Sladen Waters], sometimes to Kutjuntari [Gill Pinnacle to the east]. The station people [Giles staff] had these big German hunting dogs to chase people away. And, you know, T.'s father, they say he got poisoned meat from them. He sat down to cook it and never got up; and sometimes, the station people, they would shoot with guns to frighten people when they came to get food ...

One day there were two big trucks at Giles, those open ones. I don't know; may be it was that old fellow, may be the middle-aged one [the two Native Patrol Officers]. They were good fellows, not like station people [Giles staff] or mission people [Warburton]. He said: we'll take you to the mission; you got to go to school, and all these other things. And everybody went into the trucks. You know, all the family was at the mission, so we did go ...

I didn't like mission-time [Warburton]; the schoolteacher was too hard, got no heart; and when Docker got a bore, and then an airstrip and a shop [ration-depot], we came back and sat down there.⁴¹

Whether the patrol officers' decision to transport people to Warburton was a genuine effort in the direction of assimilation remains uncertain. What is obvious, however, is that it suited the ambition of the WRE to segregate Aboriginal people from the vicinity of Giles Meteorological Station.

Socio-demographic consequences of removal and migration

The grading of tracks for the establishment of Giles Meteorological Station in the Rawlinson Ranges was doubtless a major precipitating factor in the exodus of Aboriginal

³⁸. National Archives of Australia (ACT) A6456/3-R136/004: folio 44.

³⁹. The word 'negationist' is used here to reflect Hasluck's opinions quoted earlier, where he negates the existence of an Indigenous society.

⁴⁰. Another argument advanced for 'de-tribalisation', albeit in a document written before the establishment of Giles MS, is that the 'laws of the tribe are enforced by superstition and imposing of penalties not tolerated by our laws. They break down on contact with whites because: (1) it is seen that white people suffer no magical harm when they unwittingly offend against the law; (2) they can claim police protection from normal results of crime against the tribe' (National Archives of Australia (ACT) A6456/3-R136/004: folios 15-19).

⁴¹. Recorded by the author in April 2002. The original quote contains Ngaatjatjarra-words, which I have translated.

families to missions and stations. Despite the earlier guidelines framed by superintendents and other persons in charge at the WRE, officers in the field transported Indigenous peoples towards bigger centres, such as Warburton Mission or Papunya, away from the Rawlinson Ranges. Patrol officers claimed that these transportations (or removals) were voluntary, and undertaken in response to requests from the Aboriginal people concerned. While this may indeed have been the case, it is nevertheless useful to consider these requests in the context of a changing socio-demographic landscape. This second part of the paper discusses this social context and its evolution, and demonstrates how, in accordance with the Indigenous kinship structure, removal and migration had a reinforcing effect on movements towards settlements. Once migration and exodus had reached a certain level it became difficult for the remaining families to maintain the usual level of social life, forcing them to follow their predecessors in order to maintain the social networks that criss-crossed the Western Desert. As the quote above explains, Indigenous people knew that many other Aboriginal people had reached these missions and stations, and that it was necessary to follow them in order to keep social interaction at a satisfactory level.

These extensive and long distance social networks and their maintenance are not only post-colonial phenomena resulting from improved means of communication and transportation between members of 'modern' communities. Their ancient existence and importance have been illustrated by archaeologists who found 'exotic' material that had travelled throughout the desert, having been traded or exchanged from group to group.⁴² These extensive networks are also illustrated by more recent anthropological work, which shows that intermarriages between distinct and distant families, as well as mechanisms of betrothal, were – and are – one of the vehicles for large scale and pan-regional solidarities.⁴³

Various reasons have been advanced to explain why Aboriginal people of the Western Desert abandoned their nomadic way of life and moved towards settlements. For example, Glass, a linguist who had been working in the Warburton mission, blamed the drought in the early 1960s and the attraction of Western goods.⁴⁴ Others attributed it to the establishment of the WRE, and Long attributes such moves to a combination of curiosity and the need to keep in touch with kin and family.⁴⁵ I concur with this last interpretation, but I would add that the need to keep in touch with family and kin was more a matter of social imperative than individual choice.

Before proceeding, it is necessary to briefly describe the Rawlinson Ranges people. Ngaatjatjarra-speaking people are one of the more than 40 culturally cognate dialectal groups that constitute the Western Desert cultural block, covering more than 600000 km² and stretching from about Yalata in the southeast to Jigalong in the north-

42. Gould 1980: 141ff; see also Veth 2000. The existence and importance of these social networks are also illustrated by the rapid diffusion of the section system – a type of social category system well represented in Australia – throughout the Western Desert from the end of the 19th century at least (a detailed study of this diffusion is in preparation, but see McConvell 1985 and 1996 for some general aspects on the diffusion of language and social organisation in Western and Central Australia).

43. Dousset 1999b.

44. Glass 1993.

45. Long 1989a; see also Meggitt 1986 [1962]: 336 and Reynolds 1982.

west.⁴⁶ The dialectal group cannot be considered a corporate and land-owning entity. However, the regional sub-groups⁴⁷ that constitute these dialectal groups can be localised, even if territorial confines are fluid by definition and responsibilities over specific sites are usually shared among people belonging to, or living with, separate sub-groups. The Ngaatjatjarra were composed by five such sub-groups that, as far as my investigations have revealed, did not have Indigenous names, but which I will identify here by naming central sites in their usual range of foraging. Along the southern edge of the Rawlinson Ranges is the Purli Karil group (literally 'rich hill'). These families would usually forage along the southern edge of the Rawlinson Ranges, as far as Kulail (in the vicinity of Docker River) to the east, and Patjarra (Clutterbuck Hills) to the west. Northeast of the Ranges is the Tjukurla-Kulail group, and northwest the Patjarra-group. The eastern (Tjukurla-Kulail) group would also forage along the northern edge of the Ranges, where the Kurruyultu-group is located, but would occasionally travel along the southern edge of the Ranges as far as Patjarra. The western (Patjarra) group, would travel along a series of waterholes to the north and northeast, but occasionally also along the northern edge of the Ranges in the area of the Kurruyultu group. Further north, in the sandhills country, the Kurkurlta group travelled as far north as Kiwirrkurra, but also along the waterhole line used by the Patjarra group to the west and southwest. All these groups were not isolated, but frequently intermarried and jointly fulfilled ritual obligations, including with neighbouring groups of distinct dialects, especially to the north and west.

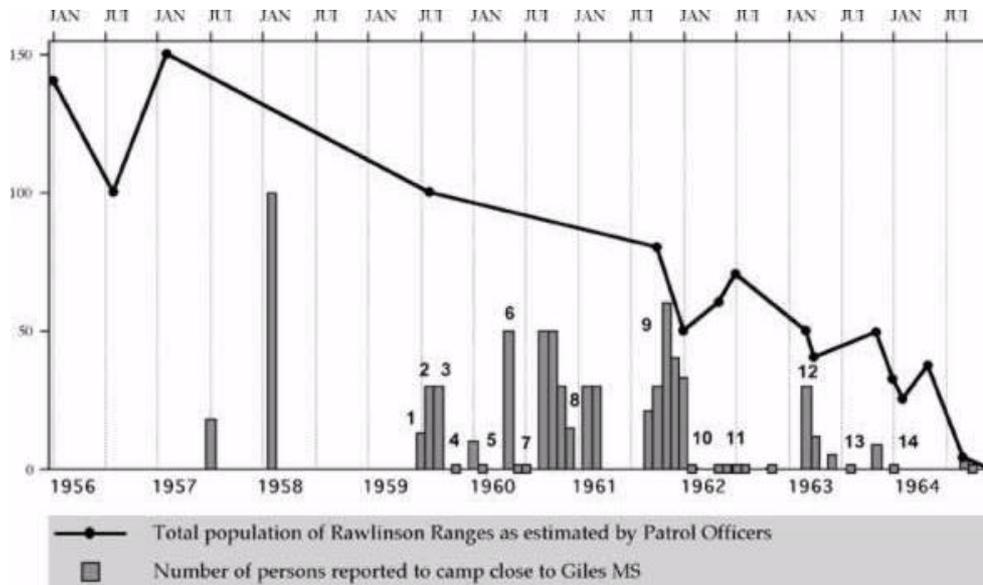
While members of all of these groups, but more specifically of the Purli Karil and the Tjukurla-Kulail groups, occasionally travelled eastwards, for example to Ernabella- especially after Giles Meteorological Station had been established - Ngaatjatjarra-speaking people's movements were usually limited in the south to about level with today's location of Mitika (see Figure 1). As far as I can establish, movements to the Warburton Ranges or southwards into the area of Mt Davies were rare, even though some persons seem to have been married to people from further south. However, this pattern only significantly increased with the establishment of Docker River station in later years.

Why did migration have an exponential effect on migration itself? A first step to interpretation is to estimate the demographic figures of the Rawlinson Ranges area during the establishment of Giles Meteorological Station and its first years of activity. While it is possible to establish the approximate composition for each of the subgroups mentioned above through the collection of genealogies and life histories, it is not possible to determine who was where at what time. Figure 2 illustrates the demographic structure at Giles Meteorological Station and in the Rawlinson Ranges. The information provided is largely based on reports submitted to the WRE by Native Patrol Officers. While these numbers seem in many cases to be rough estimates, they nevertheless indicate the scale of demographic change in the area accurately enough. In addition,

⁴⁶ Berndt 1959. See Tonkinson 1991: II, map 1 which shows the approximate extent of the Western Desert cultural bloc.

⁴⁷ I prefer the notion of 'sub-group' rather than 'local group', as the latter is associated with (usually patrilineal) land-holding units constituted by principles of descent, a notion that is not applicable in the Western Desert.

Figure 2: Population figures in the Rawlinson Ranges and at Giles Meteorological Station from 1956 to 1965 (estimates from archival material^a)



Some notes and extracts from patrol reports

- 1 A family of 13 is removed from Giles MS because they are considered to be living 'too close'
 - 2 Staff of Giles MS complain that 'Natives steal', officer investigates
 - 3 Drought; people are 'tolerated around Giles'
 - 4 Families disperse to the east
 - 5 'Natives moved towards Ernabella'
 - 6 People move back to Giles MS for 'red ochre ceremony'
 - 7 Dispersal to the east for hunting, then move towards Areyonga
 - 8 Patrol officer removes families from Giles MS and transports them eastwards
 - 9 A large number of people are sick
 - 10 A large number of people supposedly moving to Warburton, the remaining ones are dispersed by the patrol officer south and northwards
 - 11 Dispersal after rain
 - 12 People move back to Giles MS and receive water
 - 13 Dispersal after rain
 - 14 Patrol officer transports 37 people to Papunya, the remaining ones to Warburton
- a. National Archives of Australia (ACT) 993-286/63: folios 61-71. National Archives of Australia (NAA) (ACT) 1733-77/62: folios 2-3, 24-25, 123-125. NAA (ACT) A6456/3-R136/006: folios 64-67, 120-121. NAA (ACT) A6456/3-R136/007: folios 57-59, 95-96, 109-114, 129-131, 144-146, 183-184, 186-187, 204-209. NAA (ACT) A6456/3-R136/008: folios 5-8, 11-12, 32-34, 49-52, 59-60, 61-64, 71-73, 82-83, 88-91, 95, 117, 172-174, 203-204. NAA (SA) D250/3, 56/1245: PT1, PT6, PT7, PT8. South Australian State Records GRS 1278/1 R 22.004 R JAN 1962: folio 116. AIATSIS Library reference pMs 1034: J.P.M. Long, *Visit to the Petermann Ranges, September 1961. General Report and recommendations / Daily Journal of visit to the Petermann Ranges September 1961*. Commissioner of Native Welfare 1957.

estimates of the population density in other areas of the Western Desert, as well as figures resulting from genealogical work I have carried out among families of the Rawlinson Ranges and the area north of these, will be compared with the figures reproduced in the patrol reports. The decline of population density in the years following the establishment of Giles Meteorological Station will be contextualised within the kinship system in order to illustrate its effects on marriage practice, which, jointly with ceremonial activity, can be considered one of the most important socialising mechanisms of Western Desert culture.

Figure 2 reflects the officers' periodic efforts to disperse the population around Giles Meteorological Station (as mentioned above) and their estimates of the total population of the Rawlinson Ranges. It is notable that this population decreased from 150 to zero during a period of approximately nine years. In this respect it is important to note that Ngaatjatjarra-speaking people have never completely left their homelands, but went away on visits to Warburton, Laverton, Wiluna, Mt Margaret and some even as far as Perth. By 1967 many had already returned to the Docker River area, just east of the Rawlinson Ranges, where the Welfare Department had sunk a bore,⁴⁸ and soon after they established outstations, and later communities, in the vicinity of culturally important locations.

A similar decline in the population density can be shown to have taken place in the entire Ngaatjatjarra-speaking area. This area can be vaguely defined as a square between Docker River, the Clutterbuck Hills close to Lake Christopher, somewhat south of Jupiter Well and south of Kintore, covering a surface of about 100000 km². The pre-contact population for this area can be estimated to have been around 500 people. This figure is an approximation based on the genealogies I have collected among Ngaatjatjarra-speaking people, and has been tested against figures from other sources.

Meggitt estimated a density of one person for every 35 km² for the Warlpiri people in Central Australia, resulting in 1103 people for the 100000 km² considered here.⁴⁹ Long, a patrol officer of the Welfare Branch, suggested that the density was less in the Western Desert, at about one person per 200 km², that is, about 500 people per 100000 km².⁵⁰ Tindale wrote that the density in arid regions was about one person for every 260 km², that is, 385 people for the area considered here.⁵¹ The Berndts calculate that the entire Western Desert bloc had a surface of about 670000 km², of which the population at the end of the 1960s was about 3200 people, that is, 478 people for every 100000 km².⁵² However they also claimed that the population was as high as 18 000 people before contact, a figure that would indicate, for the area considered here, a highly improbable population of 2700 people. Cane calculates, for a small area in the Great Sandy Desert with a population of 15 people, a density of 1 person for every 170 km², that is about 588 people for 100000 km².⁵³ For the Rawlinson Ranges Yengoyan⁵⁴

48. Long 1989b: 32.

49. Meggitt [1962] 1986: 32.

50. Long 1971.

51. Tindale 1974: 7.

52. Berndt & Berndt [1964] 1992: 26; Berndt 1959: 86.

53. Cane 1990: 151.

54. Yengoyan 1968: 189.

quotes a number, given by a Native Patrol Officer, of 172 people for every 14000 km², that is about 1229 people for 100000 km². However, the Rawlinsons is a 'rich country' (cf. *Purli Karil*, 'the rich hill') and would sustain a greater number of people than the sandhill country to the north of it.

The various reports produced by patrol officers help to contextualise these estimates. In 1966 they (wrongly) claimed that the central Western Desert was probably uninhabited, and in a report to the Acting Director of Social Welfare the same year, Long indicates the following figures for the northern part of the area: 35 people arrived in Papunya in 1956, two families in 1957/58 and 127 people between 1962 and 1966, that is a total of at least 168 people (some, however, were from the Lake Mackay area, further north).⁵⁵ On the other hand, it is difficult to estimate the population for the southern part because of the movements in and out of the Warburton mission. However, a calculation from the various reports submitted allows an estimate of 225 people for this southern part. The total would therefore be about 400 people. With the exception of Meggitt's figures for the Warlpiri - who live in richer country than the Ngaatjatjarra-speaking people - and the estimate of the Berndts regarding pre-contact demographic figures, all other figures fit well with the numbers I have proposed, which also reflect the data of the genealogies collected.

Combining these figures with archival reports and the genealogical data, Figure 3 shows three demographic estimates for the area: one for 1956, one for 1968, and, as a test case, another in 1966. The decline of the number of nomadic hunter-gatherers in the area is striking and rapid.⁵⁶

Such rapid decline in population had an important effect on the feasibility of social and cultural imperatives such as ceremonies and marital alliances being met. It was also a cause of distress for the people staying in the desert, who became more and more isolated. I will consider the question of marriage as an illustration of how problematic social life can become in these conditions. To begin with, it is necessary to outline the kinship system of Ngaatjatjarra-speaking people.

The Ngaatjatjarra, like other dialectal groups of the Western Desert, have a highly complex kinship system, which Elkin termed 'the Aluridja type'.⁵⁷ This is not the place to detail this system, and some general explanations will suffice for present purposes.⁵⁸ The Ngaatjatjarra kinship system is of the bifurcate-merging type: kin categories are distinguished in accordance with generation and sex in such a way that father's sister's children and mother's brother's children are cross-cousins, while father's brother's children and mother's sister's children are parallel cousins or, indeed, siblings. These

⁵⁵. Long 1966.

⁵⁶. It is important to understand that the families that returned to the area from the late 1967s onwards could not be considered as being sedentarised, but were using the depot station at Docker River as a source for certain services and goods, accompanied by stays of variable duration. (A similar account and subsequent developments of White-Aboriginal relations for Jigalong, on the western edge of the desert, can be found in Tonkinson 1988 and 1991: 160ff). In this sense, the expression 'decline of nomadic hunter-gatherer' used here should be interpreted in its most narrow sense.

⁵⁷. Elkin 1938-40.

⁵⁸. The Ngaatjatjarra variant of the Aluridja kinship system type is developed in Dousset 1999a, 1999b, 1999c and 2002.

principles are extrapolated to all known persons so that co-generational can always be distinguished as being either classificatory (distant, genealogically speaking) siblings, or classificatory cross-cousins. This principle of potentially endless extension of kin-categories was termed by Radcliffe-Brown⁵⁹ the 'non-limitation of range'. Moreover, only classificatory cross-cousins - cousins that are genealogically removed - are potential partners or in-laws. Overall, more than 97% of marriages are congruent with these principles. Ngaatjatjarra-speaking people also have social categories, a four-section system that lies like a sociocentric grid over the various kin types. Sections -

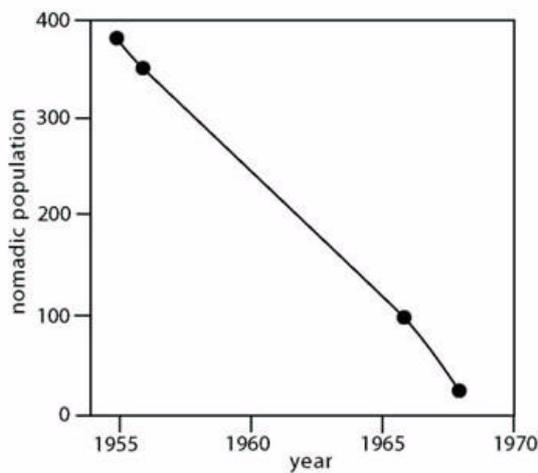


Figure 3: Estimation of the nomadic population decrease between 1955 and 1968 in and to the north of the Rawlinson Ranges for an area of about 100000 km². (The starting population figure is a minimum estimate; the resulting population in 1968 is reasonably accurate)

named Karimarra (also Milangka), Tjarurru, Panaka (also Yiparrka), and Purungu - are ascribed at birth in accordance with the child's father's and mother's sections, and function as general labelling devices. Hence, a Karimarra woman marries a Purungu man and has Tjarurru children. These children marry Panaka people, whose women have Purungu offspring and the men have Karimarra children. Because this system is, generally speaking, compatible with the structure of kin categories, and because it is easier to understand, I will develop the points addressed here using the section system.

Every person belongs to one of the four sections. These sections are in a specific relationship to each other as described above; they summarise kinship categories, and reflect some of the marriage rules and patterns recognised by society. Indeed, every section has a corresponding mother section, a corresponding father section, and a corresponding spouse section. A person's spouse is in a predefined section in accordance to that person's own section. If not, the marriage is considered irregular or 'wrong', and couples attempting such unions can expect sanctions. However, because a person's inter-marrying section also contains other, non-marriageable, categories of kin, sections are not marriage classes and so cannot be interpreted as defining accepted marriage-types in an encompassing manner. Nonetheless, they can be used to test a marriage's regularity in accordance with the normative kinship system. It is important to understand that the spouses defined in a four section system already include what, among other systems such as the eight subsection system, would represent second and

⁵⁹. Radcliffe-Brown 1930-31: 44.

third choice spouses (distant first cross-cousins or other members of the same alternate generational level). The example quoted below therefore reproduces the maximum number of spouses that are tolerated, and not solely the ideal-typical prescribed spouses.

As a model case we will nominate an even distribution of the population among these four sections, so each section contains 25% percent of the total population. We further accept that gender is evenly distributed. The consequence is that any person of a certain section and gender has just 12.5% of the population among which to find a tolerated spouse. Moreover, 45.2% of the population is already married (my calculation from a sample taken from a Ngaatjatjarra-speaking community), which leaves only 5.7% of the population as potential spouses. Additionally, it is necessary to eliminate from this reduced number those persons who are regarded as genealogically or spatially 'too close' and therefore prohibited as spouses. Spatially close persons are those who were born on the same site, have lived together for extended periods, or claim affiliations to identical sites in the landscape. From this diminished figure, it can be readily seen that the probability of finding a partner of the correct spouse relationship in accordance with the kinship system largely depends on the total population, so a decreasing demographic density rapidly reduces the chances of finding a socially acceptable partner. To illustrate this situation I have compared two hypothetical populations from each of which 50 people leave for a mission or other settlement (Table 1).

Table 1: Effect on marriage possibilities of a sample migration from the desert

	Case 1	Case 2
Starting population	500	100
Number of potential spouses	29	6
Number of people leaving the desert	50	50
Remaining population	450	50
Number of potential spouses	26	3

Table 1 shows that the more people leave the desert, the more difficult it becomes for the remaining people to find a regular marriage partner and, therefore, the more likely it is that they will eventually have to move out of the desert as well, in order to maintain the structural integrity of their kinship system and marriage rules. Moreover, among those who tried to maintain their nomadic way of life and minimised contacts with settlements, irregular or unusual marriages were the consequence. A family that was still nomadic in 1967 comprised a man and his five wives, for example, even though polygyny was not a dominant feature and polygynous men usually had no more than two wives. This man complained that his 15 year old daughter had no prospects for marriage.⁶⁰ In 1971, patrol reports noted the marriage of a man who was not initiated, something that would not have been tolerated under normal circumstances, and still is not today.⁶¹ Another example from 1967 mentions an adolescent living with

⁶⁰. Interview by the author in 1996.

⁶¹. Public Records of Western Australia AN 1/8, ACC 1419, 31-10, 1968-70.

a woman of over 50 years old.⁶² There is also the example of a man who had been brought to Papunya but left the settlement several times, walking back with his family to his homeland south of Lake Hopkins. Eventually, however, extreme isolation and lack of prospects for his children finally forced him to return to the settlement.⁶³

This need to move to missions and settlements was expressed by Indigenous people themselves. It was necessary to break their isolation in order to find appropriate partners for their adolescents, as well as in-laws for themselves, because these are the means through which families establish links with one another, share and exchange goods and knowledge, create social networks through relatedness, and, indeed, *form* a society. Long reports similar ideas for the Pintupi, the northern neighbours of the Ngaatjatjarra, and their migration to Haasts Bluff:

In later years, especially when emigration had reduced the range of social contacts for those who remained, it was the young people who were most immediately and drastically affected, although all would have felt concern about such problems as the lack of suitable marriage partners and the lack of a proper range of people to attend initiation rituals.⁶⁴

Long goes on to explain that the new arrivals from the desert at Haasts Bluff led 'to something of a cultural revival'.⁶⁵ From 1963 onwards, WRE patrol officers openly recognised these problems, acknowledged the accelerating effect that migration from the desert was having on migration itself, and conceded that officials and policies were active agents in these changes.⁶⁶

Conclusion

This paper has explored the historical and cultural contexts surrounding the establishment of the Giles Meteorological Station in the Rawlinson Ranges by the Weapons Research Establishment in 1955–1956, and the conditions that existed in the area in the first years of the station's operation. I have shown from official records that the field officers' stance towards Aboriginal people was divided between assimilation and its contrary, segregation. Indigenous people were a disturbing element for the Weapons Research Establishment's activity, because their number had been underestimated and because Giles Meteorological Station was established on an Aboriginal reserve. While the Establishment knew and understood a great deal about Indigenous society and its strong and vital relationship to land, the negation of this society, as inherent in Hasluck's writings, was a conceptual artifice, preparing the field for assimilationist attitudes that would sanction, and even promote, the departure of Indigenous people from the Rawlinson Ranges.

I have discussed the impact of migration to missions and other settlements upon Indigenous families and its effect on their ability to sustain their traditional social activities in the second part of this paper. A simple demographic exercise, using the formal

⁶² National Archives of Australia 1733 78/67: 56/1245.

⁶³ Life history collected by the author in 1996.

⁶⁴ Long 1989a: 23.

⁶⁵ Long 1989a: 23.

⁶⁶ See Gould 1969: 167; National Archives of Australia A6456/3–R136/008: folio 15; South Australian State Records R22.010: folios 2585–2589; Public Records of WA AN 1/8; ACC 1419; 31–10; 1961–4: 1–2.

kinship structure and population figure estimates, showed that the rapid decline of demographic density in and around the Rawlinson Ranges following the establishment of Giles and its accompanying infrastructure, such as laying down of tracks, was a predictable outcome. However, I have stressed that Aboriginal people did not passively succumb to these effects, but actively engaged in these migrations in order to maintain a necessary level of social interaction for the preservation of pre-existing networks that were mainly based on regional inter-marriages and ritual cooperation.

Aboriginal families temporarily left or were removed from the Rawlinson Ranges and travelled throughout the western and southern parts of Western Australia. Soon after, they returned to their homelands and established themselves once again where, close to a century earlier, an old man grasped Ernest Giles' chin and explained to the explorer that, to the west, there were more people like him.

Acknowledgments

I would like to thank Bob Tonkinson, Danuta Warne and the anonymous readers for their comments on an earlier version of this paper. The research undertaken for this paper was financed by a postdoctoral fellowship and an ARC postdoctoral fellowship at the University of Western Australia.

References

Primary sources

Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) library
National Archives of Australia (NAA) [formerly Australian Archives] ACT and SA
Public Records of Western Australia
South Australian State Archives (SASA)

Secondary sources

- Beadell, Len 1965, *Too long in the bush*, Rigby, Adelaide.
- 1994, 'Introduction', in *The Gunbarrel highway* (map), compiled by J. Deckert, Westprint Heritage Maps.
- Bennett, Scott 1989, *Aborigines and political power*, Allen & Unwin, Sydney.
- Berndt, Ronald Murray 1959, 'The concept of 'the tribe' in the Western Desert of Australia', *Oceania*, 30(2): 81-107.
- Berndt, RM & Berndt, Catherine Helen 1992 [1964], *The world of the first Australians. Aboriginal traditional life: past and present*, Angus & Robertson, London.
- Brady, Maggie 1999, 'The politics of space and mobility: controlling the Ooldea/Yalata Aborigines, 1952-1982', *Aboriginal History*, 23: 1-14.
- Cane, Scott 1990, 'Desert demography: a case study of pre-contact Aboriginal densities', in *Hunter-gatherer demography*, B Meehan & N White (eds), Oceania Publications, Oceania Monographs 39, Sydney: 149-159.
- Commissioner of Native Welfare 1957, *Annual report for the year ended 30th June 1957*, Government Printer, Perth.
- Commissioner of Native Welfare 1961, *Annual report for the year ended 30th June 1961*, Government Printer, Perth.

- Dousset, Laurent 1999a, *A la recherche des Aluridja: parenté et organisation sociale chez les Ngaatjatjarra du Désert de l'Ouest Australien*, PhD thesis, Ecole des Hautes Etudes en Sciences Sociales, Paris.
- 1999b, 'L'alliance de mariage et la promesse d'épouses chez les Ngaatjatjarra du Désert de l'Ouest australien' *Journal de la Société des Océanistes*, 108: 3-17.
- 1999c, 'On reading Theodore Strehlow's "Aranda regular and irregular marriages"', *Strehlow Research Centre, Occasional Papers* 2: 45-59.
- 2002, 'Accounting for context and substance: the Australian Western Desert kinship system', *Anthropological Forum*, 12(2): 193-204.
- Dunlop, Ian & Gray, J 1958, *Balloons and spinifex*, The Australian Commonwealth Film Unit with the cooperation of the Bureau of Meteorology.
- Elkin, AP 1938-40, 'Kinship in South Australia', *Oceania*, 8(4); 9(1); 10(2); 10(3); 10(4): 419-452; 41-78; 198-234; 295-349; 369-89.
- Giles, Ernest 1875 [1993], *Geographic travels in central Australia from 1872 to 1874*, Corkwood Press (M'Carron, Bird & Co.), Melbourne.
- Glass, Ameer 1993 [1978], *Into another world: a glimpse of the culture of the Ngaanyatjarra people of central Australia*, IAD & United Aborigines Mission Language Department, Alice Springs.
- Gould, Richard A 1969, *Yiwara: foragers of the Australian desert*, Collins, London.
- 1980, *Living archaeology*, Cambridge University Press, New York.
- Hasluck, Paul 1988, *Shades of darkness: Aboriginal affairs, 1925-1965*, Melbourne University Press, Melbourne.
- Idriess, Ion L 1939, *Lasseter's last ride: an epic of central Australian gold discovery*, Angus & Robertson Ltd, Sydney.
- Long, Jeremy PM 1966, 'Recent immigrants to Papunya 1962-1966', Letter to the Acting Director of Social Welfare, 22nd September 1966.
- 1971, 'Arid region Aborigines: the Pintubi', in *Aboriginal man and environment in Australia*, DJ Mulvaney & J Golson, (eds), Australian National University Press, Canberra: 263-70.
- 1989a, 'All their own work: the story of a 1956 Pintupi emigration', *Northern Perspective*, 12(1): 16-23.
- 1989b, 'Leaving the desert: actors and sufferers in the Aboriginal exodus from the Western Desert', *Aboriginal History*, 13(1): 9-43.
- McConvell, Patrick 1985, 'The origin of subsections in northern Australia', *Oceania*, 56(1): 1-33.
- 1996 'Backtracking to Babel: the chronology of Pama-Nyungan expansion in Australia', *Archaeology in Oceania*, 31(3): 125-44.
- Meggitt, Mervyn J 1986 [1962], *Desert people: a study of the Warlpiri of central Australia*, Angus and Robertson, Sydney.
- Milliken, Robert 1986, *No conceivable injury: the story of Britain and Australia's atomic cover up*, Penguin, Ringwood Victoria.
- Morton, Peter 1989, *Fire across the desert: Woomera and the Anglo-Australian joint project 1946-1980*, Australian Government Printing Service, Canberra.

- Radcliffe-Brown, A.R. 1930–31, 'The social organization of Australian tribes', *Oceania*, 1(1–4): 34–63; 206–46; 322–41; 426–56.
- Reynolds, Henry 1982 [1981], *The other side of the frontier: Aboriginal resistance to the European invasion of Australia*, Penguin, Ringwood Victoria.
- Rowse, Tim 1998, *White flour, white power: from rations to citizenship in central Australia*, Cambridge University Press, Cambridge.
- 2000, *Obligated to be difficult: Nugget Coombs' legacy in Indigenous affairs*, Cambridge University Press, Cambridge.
- Royal Commission into British Nuclear Tests in Australia 1985, *The Report of the Royal Commission into British Nuclear Tests in Australia*, 3 vols, Australian Government Printer, Canberra.
- State Library of Queensland, *Assimilation era*, at <http://www.slq.qld.gov.au/ils/100years/assimilation.htm>
- Terry, Michael n.d., *Untold miles: three gold-hunting expeditions amongst the picturesque borderland ranges of central Australia*, Selwyn & Blount, London.
- Tietkens, William Henry 1882, 'Smallpox and Australian Aborigines', *Transactions of the Royal Society of South Australia*, 1881/2(5): 112–3.
- Tindale, Norman 1933, *Journal of an anthropological expedition to the Mann and Musgrave Ranges, north west of South Australia, May–July 1933, and a personal record of the anthropological expedition to Ernabella, Aug. 1933*, South Australian Museum, Adelaide.
- 1935a, *Journal of the anthropological expedition to Warburton Range, Western Australia, July–September 1935*, South Australian Museum, Adelaide.
- 1935b, *Sociological cards: expedition to Warburton Range, 1935*, South Australian Museum, Adelaide.
- 1974, *Aboriginal tribes of Australia*, University of California Press, Berkeley California.
- Tonkinson, Robert 1988, 'One community, two laws: aspects of conflict and convergence in a Western Australian Aboriginal settlement' in *Indigenous law and the State*, B Morse & G Woodman (eds), Foris Publications, Providence, USA: 395–411.
- 1991 [1978], *The Mardu Aborigines: living the dream in Australia's desert*, Holt, Rinehart & Winston, New York.
- Veth, Peter M 2000, 'Origins of the Western Desert language: convergence in linguistic and archaeological space and time models' *Archaeology in Oceania*, 35(1): 11–19.
- Yengoyan, Aram A 1968, 'Demographic and ecological influences on Aboriginal Australian marriage sections', in *Man the hunter*, RB Lee & I De Vore (eds), Aldine, Chicago: 185–190.