Site Based Data Modelling for Indigenous Land Tenure Systems

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Aboriginal Land
Tenure in the
Northern Territory

- 30% population Aboriginal
- Mostly live in rural areas
- Maintain strong connections to land
- Protected by strong legislation:
  - ALRA (1976)
  - NTA (1993)
Review of Literature

1. Mostly Anthropology reports from Aboriginal Land Rights Act (NT) 1976
2. Significant Native Title Claims
3. Other significant ethnographies
4. Much of this stems from Radcliffe-Brown’s 1931 monograph in Oceania: “The Social Organisation of Australian Tribes”
Components of Indigenous Land Tenure?

Spatial Components

Social Components

Religious Components
Scope of this research

• Core spatial entities
• Forms a foundation on which to build a framework for social and religious analysis
KEY POINTS

A SITE BASED ONTOLOGY

...THE CORE LAND OWNING ENTITY IS THE LOCAL DESCENT GROUP
Basic Social Organisation

• The **Horde**: A small group of persons owning territory with known boundaries, and possessing common proprietary rights over the land, and everything on or in it.

• This is the primary land owning group, also known as the **clan** or the **Local Descent Group**.

• Broader territorial grouping through common language affiliation into **Tribes**, or **language groups**
Groups and Languages

L = Language / Tribal area
G = Land owning group
Modelling Groups and Tribes

- Language Group (or *Tribe*)
- Local Descent Group (or *Horde, Clan*)
Basic Group Membership

- **Father**
- **Mother**
- **Son**
- **Daughter**

**Membership inherited through patriline**

Women marry into the group

Daughters will marry out to other groups
Modelling Group Membership

Cardinality of the People_Group relationship is usually 2: Fathers side and mothers side

Recursive relationships to track genealogical descent
Spatial Components - Sites

• Individuals carry spiritual responsibility for named places – the responsibility is typically inherited through the patri-line
• Males members of a group will thus hold shared responsibility
• Sites of which a group hold common responsibility are usually clustered together to form conceptual estates
Sites

- Typically recorded as point data
- However can cover larger areas
- Can be spiritually dangerous
- Or be safe for public use
Estates

• Core areas of site clusters belonging to a common local descent group
• Not often any hard, definite lines.
Sites, Descent Groups and Language

Key to Group Interests

Sites on Rosewood

Group Interests

- Gudim
- Gudim / Larru
- Larru
- Jurmtkal / Larru
- Jurmtkal
- Larru / Mambij / Nyianyangu / Kamamangka
- Mambij / Nyianyangu / Kamamangka
Preferred mapping approach (Site based)

Less accurate mapping approach
Estate and language polygons can be derived from good site mapping
Mapping Religious Components

‘there are for aborigines two levels of ownership, the primary or religious level and the secondary or economic level’ (Woodward, 1974).
Dreamings • Ancestral beings which travelled the landscape naming and creating places.

Dreamings connect sites of common spiritual affiliation
Characteristics of Dreamings

• Form a topology of social relatedness as they travel from one estate to another.
• They sing in the language of the place (so they may change language from one place to another).
• Do not always travel – sometimes they are localized.
Modelling Dreamings

Two way derivations
Dreaming Data Model Example

MAP

RDBMS STORAGE

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QUESTIONS?