

Sitting Down and Talking it Through: How Consultation Can Lead to Better Designed Environments for Remote Indigenous Communities

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Abstract

This paper focuses on the consultation and negotiation practices employed in the provision of housing and built environments for the remote Aboriginal communities of central Australia. This AHURI-supported research arose from concerns that living conditions were not improving in the communities of the Anangu Pitjantjatjara Lands and the Ngaanyatjarra Lands of South Australia, Western Australia and the Northern Territory, despite extensive programs for housing and infrastructure delivery.

Effective consultation is widely accepted by practitioners and service providers as pivotal to the design and delivery of built environments appropriate to such communities. Yet standardisation of housing and project management services has resulted in design and building outcomes that require less consultation and negotiation between clients, architects, builders and service providers. For housing and infrastructure to be culturally appropriate and physically sustainable, there is a requirement for an understanding of community needs and preferences which identify issues beyond the pragmatics of standardised housing.

We report on interviews with design practitioners and project managers experienced with working directly with remote communities, and discuss the role of architects and other consultants in cross-cultural consultation and negotiation practices through examples drawn from these interviews. We also identify the cross-disciplinary consultation practices of design consultants, service providers and project managers that affect project management, data collection and evaluation programs involved in the design and implementation of built environment projects.

Our findings demonstrate that a consistent approach to consultation, negotiation and participation in the design, development and maintenance of their built environments is essential to enable and facilitate the physical, cultural and environmental viability of remote Aboriginal communities.

Keywords

Consultation, built environment, remote Indigenous communities

Introduction

This paper focuses on the consultation and negotiation practices employed in the provision of housing and built environments for remote Aboriginal¹ communities in central Australia, particularly in the Anangu Pitjantjatjara Lands and the Ngaanyatjarra Lands of South Australia, Western Australia and the Northern Territory. The substance of this paper is based upon recent AHURI supported research which investigated effective cross-cultural consultation and cross-disciplinary methodologies which are effective in improving Indigenous built environments (see, Lee and Morris, 2005). The particular emphasis in this paper is on housing design for Aboriginal people in central Australia in relation to effective consultation methodologies, design expertise and centralised record keeping to support the provision of appropriate and sustainable project outcomes.

A defining reference and impetus for this work came from Paul Memmott's (1997) review of consultation in remote Aboriginal communities that recognised that housing needs continue to fail to be identified, predominantly due to the limitations of mainstream consultation practices and a lack of meaningful communication by architects and service providers. One of Memmott's central concerns was that cross-cultural communication problems arise from assumptions and misunderstandings of well-meaning architects, builders or bureaucrats due to differences in language, values, beliefs and experiences relating to the function and purpose of housing (see, Memmott, 1997, p.23).

Our initial literature review identified a number of existing cross-cultural consultation practices between practitioners and their clients employed for a wide variety of projects and particularly for built environment projects. What emerged from the review and subsequent interviews with a range of practitioners and service providers was that there were numerous and proven cross-cultural consultation methods employed in areas such as land management but comparatively fewer effective methods used for built environment projects. The research revealed that those methods that are proven to be effective in identifying particular community housing and planning needs are not practiced consistently nor applied uniformly in National, State and Local Government guidelines and policy frameworks. The research also revealed that there were no recorded cross-disciplinary consultation practices between the various agencies and specialist service providers to facilitate the implementation and delivery of Indigenous built environments.

This research has recently been published by AHURI (2005) and has been summarised in the Research and Policy Bulletin, *Effective consultation for improving built environment outcomes for remote Indigenous communities*. This paper is an elucidation of the six key points summarised in the Bulletin.

¹ The terms Indigenous and Aboriginal are used here for particular circumstances. Indigenous is used where the discussion is of a general nature where concepts and findings can be broadly applied, and the term Aboriginal is used in the specific reporting of situations described through interview in central Australia.

1. Mainstream patterns of housing and infrastructure

As a preamble to understanding some of the issues associated with Indigenous housing it is useful to describe in general the mechanisms which underlie mainstream low density housing and planning patterns upon which Indigenous housing and planning appear to be based. The archetypical element of the Australian low density urban fabric is the three bedroom detached house, sited centrally on a fenced quarter acre block, aligned contiguously with other similarly sited houses flanking the street. House design options are typically based on house plans suited for nuclear family arrangements of two parents and two to three children where current national dwelling averages are 2.7 persons per house (see, Memmott, 2001).

The planning of subdivisions and the provision of infrastructure which support detached housing is largely the responsibility of planners and engineers employed by local or regional councils. The determination of planning and infrastructure outcomes appears to obey a complex interplay of technical precedents which invite and receive little or no participation from the people likely to inhabit such subdivisions. However, the high demand for serviced blocks of land would suggest a significant mainstream acceptance of standard planning for low density suburban land provision and for the lifestyle opportunities they afford.

Additionally, owners of blocks of land wishing to build a house have available to them a variety of design options provided by building companies, speculative builders, house designers and architects. Added to this is a plethora of housing publications and periodicals specifically focused on the design of the family home. Building companies provide a number design options based on the number and type of internal rooms in a choice of historic and international styles. For the new home buyer who has difficulty reading plans, the choice of a house design is facilitated by 'display homes' or, where no built example of a house design exists, designers and architects will often provide 'artists impressions' or scale models.

Of the majority of new detached houses only a very small proportion are purpose designed by architects². Mainstream preference for non-architecturally designed houses is driven by economic factors and market influence. Building companies achieve economies through standardised design and construction strategies offering low cost houses which incorporate consultation, design and supervision services and costs. The other issue is that mainstream cultural and social preferences result in a market response to changing housing demand such as recent housing trends suited to single person households. This market driven response to changing demand is confined to mainstream housing markets.

One principal shortcoming of standardised housing is environmental performance. Relatively recent requirements by local councils for minimum environmental performance standards achieve results which fall far short of innovative alternative and affordable strategies. A case in point is the widely used performance programs for modelling thermal performance of houses such as NatHERS (Nationwide House Energy Rating Software) and FirstRate (House Energy Rating Software) which focus primarily on levels of

² Royal Australian Institute of Architects advice based upon local council development applications

insulation, largely ignoring significant factors such as ventilation, orientation and thermal mass. By increasing the insulation, house performance ratings can be improved to achieve 5 and 6 star ratings which, while appearing to be environmentally responsive, are significantly lower than can be achieved by alternative options such as reversing the brick veneer to gain higher thermal mass and by orienting the house to the sun rather than the street.

Such innovations challenge dominant and pervasive mainstream cultural preferences for houses which appear to be of brick construction and which orient the principle façade to the street. Claims by building companies that the designs of detached houses are ‘unique as you are’, camouflage the uniformity of a housing typology immutably replicated in Hobart, Alice Springs and Cairns, despite the extreme climatic contrasts across Australia. The thermal inefficiencies that result from such preferences are countered by heating and cooling systems powered by cheap energy reticulated to cities and regional centres across the country.

In spite of notable environmental deficiencies, the Australian detached house and the planning and infrastructure which support it represent an economical and robust solution to mainstream aspirations and preferences.

Current mainstream housing and planning practices parallel many similar practices in remote Indigenous communities. The transfer of mainstream systems is common practice despite the substantially different social, environmental and logistic conditions operating in central Australia.

2. Standardised housing and planning in remote Indigenous communities

Key point:

The current provision of standardised housing and planning for remote Indigenous communities fails to reflect the diverse cultural and climatic issues particular to each community, including the multi-dimensional and interrelated issues of the built environment, which cannot be reduced to a narrow definition of ‘housing’ (AHURI, 2005).

There are reasonable qualitative and quantitative arguments for the provision of standardised housing and planning in remote Indigenous communities. The qualitative argument presumably seeks to establish an equivalent *standard* of quality between mainstream and Indigenous housing and planning, and the quantitative argument, similarly, seeks to establish economies of scale achieved through *standardisation* of housing and planning.

In relation to a qualitative argument, if the provision of housing for Indigenous people is not to be discriminatory, particularly in comparison with housing and infrastructure standards established for the wider Australian community, then it would appear reasonable to base housing and infrastructure provision on ‘standard’ mainstream practice in housing provision. This notion is reinforced by national policy:

The quality of Indigenous housing in rural and remote areas should not be less than the standard applying to urban areas (see, Commonwealth State and Territory Housing Ministers' Working Group, 1999, p.3).

A quantitative argument suggests that the provision of standardised housing and associated planning patterns is justified by the imperative to maximise the number of houses within limited budgetary or funding regimes and also to fulfil conservative housing preferences which arise out of a desire to achieve equality, acceptance and status demonstrated by familiar housing types (see, Memmott, 1997, p.27).

A quantitative or economic argument is further reinforced by highlighting the range and choice that mainstream housing design options provide without the need for client consultation and architectural design services. Presumably the cost savings achieved by curtailing such services implies that the range and choice of housing design options available to remote Indigenous communities is adequate, and the savings can be better spent.

Our research finds that the complex, multi-dimensional and interrelated issues of the built environments of remote Indigenous communities is not recognised by the limited or narrow meaning of housing and of standardised housing provision. Overcrowding, for example, is a serious issue in most remote communities, and is generally responded to by the provision of houses based on bedroom numbers. In attempting to be non-discriminatory in providing housing similar to that of the mainstream community, significant cultural issues are ignored resulting in practices which, while inadvertent, are clearly discriminatory. Standardisation of housing designs and project management approaches has been adopted to allow for economies of scale, and to facilitate more effective implementation of programs to provide shelter in areas of high demand.

Yet the provision of standardised housing and infrastructure derived from mainstream models is the dominant type provided to Aboriginal communities in central Australia. These models take little account of the diversity of local conditions and house types continue to be defined in terms of the number of bedrooms, ranging usually from two to four, despite surveys in the Northern Territory that have 'found that the average number of permanent residents per house was 8.9, and per bedroom, 3.2' (see, Memmott, 2001, p.12). Variations to standardised house layouts are limited in spite of numerous alternative design proposals by architects and builders over many years, and despite design and fitout changes based upon recommendations contained in the *National Indigenous Housing Guide* (see, Healthabitat, 2003). When such responsive design options are adopted, the resulting improvements to the function and amenity of houses have been proven to assist in advancing the health of inhabitants. However, standard construction systems, including prefabricated steel framed and clad houses or masonry block work houses, exhibit few qualities that improve environmental or social conditions.

Community planning layouts continue to be determined by the functional and economical reticulation of power and water resulting in housing densities similar to Australian suburban subdivisions. This is despite growing concerns for the sustainability of existing water supplies and existing power generation systems. Street layouts employ variations on grids, crescents and cul-de-sacs, which pragmatically achieve vehicular

access to community buildings, such as the store, and houses sited on contiguous blocks usually face the street.

The paradox for many Indigenous people is that they retain their unique culture within a context of standardised housing and associated planning patterns. The dynamic factors in Indigenous life effecting housing needs include:

- Changing household numbers in relation to extended family transitions between houses and communities often resulting in overcrowding;
- Aggravations between family, language, age and/or gender groups exacerbated by either the close proximity of houses or the lack of traditional separation;
- Sensitivities arising from cultural protocols and living preferences not adequately accommodated by standardised housing layouts. (see, Lee and Morris, 2005, p.9)

These factors at both domestic and community levels often lead to stress and disillusionment resulting in damage and abandonment. It is questionable whether the economies of scale justifying housing standardisation account for the costs of maintenance, replacement and ongoing social dysfunction.

Another aspect of standardised housing and planning is the disregard for the climatic and topographical context in which houses are sited. Houses are generally oriented to the street rather than to the sun, so that the potential to maximise the benefits of the winter sun or to moderate the effects of the summer sun are not exploited. While these patterns are no different from the norms in non-Indigenous communities, the climatic extremes of desert environments and the costs to households for energy heating and cooling in such remote locations have compounding consequences.

In spite of recent building design innovations which are responsive to environmental needs for shading and insulation, typical steel framed houses still achieve an undesirable level of thermal conduction between outside and inside. Block work houses have no insulation and are known for their tendency to radiate accumulated summer solar heat into houses at night making internal environments unliveable. These houses are also difficult to heat and maintain at a comfortable level of warmth in winter.

The range of housing failures associated with water supply, water heating, wastewater disposal and unsafe electrical installations can be attributed to poor design and inadequate on-site supervision. Focus on these problems has led to Federal Government support for the *National Indigenous Housing Guide* which provides minimum standards aimed at improving health and safety outcomes for Indigenous housing. However these recommendations are not uniformly adopted by housing and infrastructure providers as they have no legislative backing nor are they universally recognised.

3. Impediments to effective cross-cultural consultation

Key point:

Current consultation approaches used by consultants, service providers and contractors are usually limited by budget and time restrictions, and are often based on methodologies and timeframes suited for conventional rather than cross-cultural consultation. (AHURI, 2005)

Experienced architectural practitioners and project managers, working closely with the communities for whom they provide services, recount a number of consultation methods that they employ to inform design outcomes. Yet these proven practices are not consistently applied due to a number of issues; contractual, logistical and social, which often lie outside the consultants' ambit.

The changing nature of consultation practices has seen the traditional architectural method of obtaining a brief evolve into to a more effective participatory approach. Simple question and answer communication results in the apparent lack of engagement and disinterest of Indigenous communities. It is recognised that it is essential to engage people more in the consultation process in order to engender a sense of ownership in their houses, and that therefore consultants need to develop skills and experience in cross-cultural consultation.

In reality, Indigenous communities have been inundated with consultants over many years, and are used to a lack of (timely) action resulting from such meetings. They have become weary of talking, have become disengaged and tend simply to focus on the end result. Recognising that ineffective consultation practices have been linked to less than successful outcomes, the architects that we interviewed are firmly of the view that design consultants cannot design and act only on assumptions based on previous practice or on second hand and insufficient data without participatory engagement with the client group.

Increasing bureaucratisation and standardisation of design and project management for housing and infrastructure has resulted in a decrease in face-to-face consultation with the client. Architects report that it is becoming more usual to consult with central agencies, service providers or a representative body rather than with individual families in the initial stages of housing allocation, brief formulation and design discussions. The issue is political and beyond simple expedience. It is important to negotiate with the community who will determine the constituency of the representative group and the protocols and practices involved in consultation and negotiation.

Conventional delivery programs seeking to achieve cost and timeline effective projects can interfere with the development of good working relationships between communities and architects, suppliers and building contractors. While there is an increasing contractual requirement to define a scope for consultation within the project methodology in architectural and planning projects for Indigenous communities, the scope specified by the various commissioning agencies is generally established through working to performance-based aims, with a minimum requirement for cross-cultural consultation based upon numbers of meetings.

Architects report that it is increasingly the case that consultants who do not have demonstrated consultation skills and experience are successful in the bidding process due to lower fees and faster implementation timelines. Recently successful contractors are engineering companies who apply a standard design/implementation/budget based methodology. Such cost effective building programs are often undertaken without good quality assurance regimes, 'on the ground experience' or sufficiently skilled people to undertake the necessary consultation and negotiation. This compromises the identification of local social and environmental issues that support the good design and robust detailing of new houses.

Remoteness is also an issue as it is harder for consultants to support the travel and time needed to undertake the necessary project inspections. This important component of the consultation cycle allows for ongoing communication with clients, enabling education about their house and its use and maintenance, while at the same time allowing for fine tuning in the delivery of design intent in consultation with building contractors.

One outcome of insufficient funding for consultation is that many experienced architects confirm that projects can ultimately only run at a loss if they choose to undertake sufficient community-based meetings beyond the scope of the contract and the fee agreement. Of concern is that disillusionment with the process will result in the number of ethical and experienced consultants working in remote areas diminishing over time.

Architects reported on the consultation methodologies that they have found to be effective in building a culture of trust with their clients. In commercial consultancies it is becoming increasingly difficult to achieve these desired methods, as funding is unable to support the necessary time, travel and follow-up consultation to develop informed relationships. While consultation methodology standards that can be tailored for specific projects exist, this does not replace important relationship building with communities, which is essential to ascertain which methods will be appropriate for diverse community needs and structures in remote areas. Different groups have differing abilities to understand representation, scale, planning and imagined outcomes in complex settlement planning and housing projects. Responsive consultation programs are essential in the negotiation of mutually acceptable outcomes.

The assumptions and expectations of Indigenous clients for their houses and landscapes are often limited to the houses they have seen and experienced, and they may be unaware of the opportunities afforded through responsive design to support different ways to live. However, the primary concern with bedroom numbers correlating with numbers to be housed are changing and so to are the expectations in what is regarded as a suitable house. The people are beginning to recognise that their living systems require alternative design solutions; for example, spatial separation is now an important factor in influencing house layouts. One architect's response to this dichotomy is to design houses that appear conventional but where the internal planning provides interior layouts for living, bedroom and wet area zoning that differ from typical housing. But it is clear that generic designs result when consultation is undertaken with a generic client body within a standardised delivery regime.

The perception within Indigenous agencies and communities is that standardised construction methods suit the standardised mainstream housing designs with which they are familiar. Experienced consultants confirm that consultation with, and education of, Indigenous clients is needed to turn around these perceptions including demonstration of the health and cultural benefits of living in more socially (and environmentally) responsive houses.

The consultation process will be more effective if a range of professional expertise is used to inform the architectural process. For example, the development of cultural briefs by skilled anthropologists is essential background for the design of extended family or aged care facilities, where room types are based upon social and family relationships.

Another example is where the involvement of practices such as landscape architecture and planning is used in the mapping of Country to ascertain where and how people live and also in determining the cultural appropriateness of proposed sites rather than only considering functional or conventional servicing requirements.

One project manager confirmed that budgets rule the scale and innovation of planning and delivery as the decisions correlating costs and house numbers are foremost in funding agencies agendas. This tends to promote generic mainstream solutions. However, there are exemplary projects that demonstrate that better designed houses, based upon intensive cross-cultural consultation, are more costly in the short term. One architect confirms that for his practice, more time to consult results in a more attuned/sophisticated design outcome, yet funding ultimately remains the determining factor. He recognises that architects should be at the front end of consultation, but as direct communication with communities is increasingly being discouraged, other methods of obtaining social and environmental information, such as post occupancy evaluation, become essential components of the consultation process.

The National Indigenous Housing Guide recommends designing houses according to an environmental health perspective through the application of robust hardware standards (see, Healthabitat, 2003). This recommendation effectively links good planning, building and education methods to specific design outcomes. The architect's scope for consultation therefore requires discussion beyond the basic house layout to include aspects of the fitout to a reasonable level of detail, to inform the specification of material and hardware to houses that support local healthy living. However, this important document does not currently include guidance on consultation methods.

Effective consultation values the need to work with people beyond the planning of physical structures such as houses and yards. One method employs a structured checklist of prompts to gain understanding of the ways a clients live in houses, through speaking about social relationships and the ways people would prefer to live and work in rooms. It invites comments on the way previous houses operated, how outside yard areas and verandahs should work, and on building orientation, materials and colours. There is also a section for the architect's own observations regarding site influences, site context such as pedestrian patterns, vehicle use and climate.

Effective cross-cultural consultation can elicit information that guides innovation in house design and siting linked to local conditions. There is a need for more consultation tied to innovative outcomes and diverse solutions, yet mainstream funding of standardised housing programs has not resulted in improved living conditions. Innovation can be achieved by trialling new ways of defining project scope and delivering housing and infrastructure with involvement from a range of consultants and stakeholders. While published guidelines are appropriate to establish minimum standards and good practices, they can also set up conditions for a lack of innovation. Some service provider guidelines seek to achieve minimum standards which, rather than encourage innovation, reinforce a culture of economic pragmatism, standardisation and uniformity.

4. Linking architectural design and consultation methods to standardised housing outcomes

Funding bodies also distinguish the correlation between architecturally based consultation and increased construction costs. There is a perception that more complex housing solutions directly impact upon the difficulties involved in building a non-standard house, and for this reason, mainstream generic housing solutions have been adopted, often with little consultation and negotiation with the end-user. One innovative program however has attempted to combine architectural design and a standardised approach.

A comprehensive consultation process occurred in 2000/2001 through the Papunya or Central Remote Model (CRM), an Indigenous Housing Association Northern Territory (IHANT) pilot program for standardised housing designs, conceived to engage Aboriginal community representatives in developing a range of standard house designs for application in remote areas. Following a period of building new houses formulated through purpose-built designs, it was decided to trial a standardised approach to enable more 'streamlined' and cost effective delivery methods, resulting in more houses being built within current timelines, facilitated through major project management contracts.

During the development of the CRM project, architects and designers with experience in consultation (and design) in remote areas worked collaboratively with communities to translate regional cultural and environmental considerations into workable house plans. Two architectural firms were eventually selected to produce six generic designs in response to agreed planning and specification needs for typical living conditions that would also respond to the diversity demanded by seasonal and cultural changes in occupancy numbers and social relationships. Following the delivery of a number of houses the CRM model also required the evaluation of user satisfaction soon after initial occupancy.

An IHANT commissioned evaluation on the CRM (see, SGS, 2003) found that there were measurable successes in the delivery of housing including cost effective buildings and timelines and the provision of training and employment for people wishing to work in their communities. Additionally, environmentally and culturally appropriate housing was seen to impact upon the extension of the economic life of houses due to broad community acceptance. The review also noted that certain issues required further attention regarding clear communication strategies, definition of 'the objective measure of need' and the determination of benchmarks for community capacity, all of which suggest that consultation and negotiation processes have been reduced in the move to standardisation.

However, concerns were also reported to us of problems with the CRM model where communities and managers considered that they had been excluded from the allocation and planning process. While the CRM process does allow for limited consultation, the communities involved said that the management regimes for these projects result in the loss of local control during planning. This leads to a lack of understanding of the types of houses available and the people are reported to feel disengaged with the process of getting a house.

As noted above, with the inception of programs based upon standardised designs,

there is an expectation by project managers and government funding agencies that standardisation will reduce consultants' fees by removing the up-front costs of the full design and implementation service of the consultant, together with reducing documentation costs. Yet, our interviews confirmed that effective consultation is widely accepted by practitioners and service providers as pivotal to the delivery of built environment projects appropriate for remote Indigenous communities. Best practice consultation is a process that is ongoing and cyclical over the life of built environment projects from inception to completion. It facilitates the definition, documentation, maintenance programs and post occupancy evaluation of such projects, and the CRM evaluation confirms that where such communication is curtailed, even well conceived and designed projects will not be widely accepted unless they are negotiated with the end user.

5. Effective cross-cultural and cross-disciplinary consultation and negotiation practices

Key point:

Participatory consultation and negotiation practices essential to identifying areas of need in remote Indigenous communities require both effective cross-cultural and cross-disciplinary consultation in the planning, design and delivery of appropriate built outcomes (AHURI, 2005).

Shortcomings in the design and robustness of much Indigenous housing in remote areas have led to the perception that the people use their facilities in the 'wrong' way. However, many interviewees confirm that this perception is erroneous because the house, its services and hardware, are inappropriate for the end user. Gaining understanding into why houses don't 'work' requires housing providers to develop an understanding of local living practices which in turn promotes responsive design solutions and associated household education programs. Rather than providers making assumptions about the need for behavioural change, appropriate design solutions allow occupants to operate houses and infrastructure more effectively.

Because social and environmental conditions vary from place to place, consultation at the inception of housing projects is essential in determining the particular customs of each community and family. Participatory consultation also involves Indigenous people in their own building projects to encourage and support local communities in managing these programs. Effective program management encourages (rather than directs) consultants and contractors to work with communities to promote educational and skills development during all phases of built environment projects.

There are numerous cross-cultural consultation protocols and methodologies that are employed for a wide range of Indigenous projects. This research identified consultation practices that varied considerably in the level of engagement with communities and the level of appropriate expertise brought to the consultation process. The range of approaches used by the various consultants and agencies is influenced by a consultant's disciplinary training or tied to their contractual responsibilities and scope of work.

Participatory and inclusive practices promote a number of benefits including:

- rapport developed between client and consultant;
- community and consultant expertise demonstrated;
- appropriate questions asked;
- responses negotiated 'on the ground';
- and local knowledge imparted.

Such relationship building is only achievable through sustained consultation, from project inception to completion, through practices that are cognisant of Indigenous time scales and social responsibilities. Less participatory consultation reduces the ability for relationship building. Common practice involves conducting an initial consultation to establish desired plan configurations and technical needs, followed up some months later with a presentation of design options. These options are usually developed from a standard plan and conveyed to the client through two-dimensional drawings. Agreement as to a final solution is required by the consultant or service provider at the end of the meeting. However, community advisors report that communities consider their options are reduced during such limited consultation, as there is little room for meaningful negotiation in the absence of viable design alternatives that facilitate informed decision making.

In cross-cultural consultation, people need to be comfortable to talk with the consultant. Learning how to gain useful information is an essential skill of experienced consultants who know that it is preferable not to ask direct questions. The interviewees have confirmed the following points regarding effective consultation:

- Consultation takes time, and the process is about relationship building;
- An informal or relaxed conversation rather than a formal agenda will allow for more direct questions to develop over time;
- The concerns of men and women should be developed separately with a consultation team that is gender balanced;
- Through asking both young and old people to draw their town and houses, important stories are set down that help to develop a cultural agenda to inform planning;
- Key questions are concerned with preferences for cooking, sleeping and living, what is for sale in the store, the numbers people who will be living in the house, and when, rather than how many, bedrooms are required;
- Utilising simple modelling systems that enable social and health issues to be discussed during planning such as: sketching the land in the dirt, mapping existing places using colour-coded symbols for houses, providing scaled mock-ups and using familiar scale indicators, such as swags, to explain layouts allows time for people to identify where and how they want to live;
- Well considered feedback is more likely to be offered when information is presented at meetings and sufficient time is allowed for the community to discuss the project at another time and place;

- Consultants should remain open to new ideas through interacting with people who may hold a different cultural perspective, and be aware that unexpected and important aspects may be brought up during consultation;
- Provide timely schedules for delivery of consultation and feedback together with project programs that provide immediate results and avoid unnecessary meetings;
- Good consultation guides community expectations allowing negotiation of competing demands, balanced by budgets and local conditions;
- Spending a good length of time with the people in the community gives consultants credibility. This is reinforced by practices such as driving rather than flying in to communities thus demonstrating that the consultant appreciates the realities of distance and remoteness;
- Give something tangible back during consultation, such as repairs or assistance;
- Make the results of cross-cultural consultation usable and palatable for funding agencies in order to influence innovative design outcome. (see, Lee and Morris, 2005, p. 28-29)

However, well-designed housing and infrastructure systems, based upon local knowledge gained from good cross-cultural consultation, will be undermined if effective cross-disciplinary communication is not a key aspect of project management and implementation systems. Planning processes imposed upon Indigenous communities by service provider and project management regimes are reported to be uncoordinated, too numerous and undertaken with a range of consultation styles.

A consistent issue raised in many interviews is that the avenues of communication between consultants and service providers often fall short of good practice. Improved coordination of major projects will result if structured consultation between service providers, project managers and communities become accepted best practice.

Failures in cross-disciplinary consultation and communication can be linked directly to problematic outcomes in remote area planning. Key findings include:

- Planning and implementation of community projects demands a complex range of expertise and knowledge, informed by cultural aspirations. Effective consultation between all parties will ensure appropriate coordination and communication across diverse parties;
- Determination at project inception, of the responsible bodies for planning, coordination, implementation and the communication systems that support the project ensures adequate community participation;
- When consultants confine their planning to their narrow areas of expertise with little awareness of alternative environmental or technical factors it is unlikely that effective implementation can occur; and
- To make decisions based upon a range of consultation approaches and planning options, the community and their advisors will respond to what most easily translates to 'on the ground' outcomes. If plans are not coordinated by consultants and service providers as clear actions, communities are unlikely to agree upon their implementation. (see, Lee and Morris, 2005, p. 37)

The effectiveness of cross-cultural and cross-disciplinary consultation is compromised by the failure to integrate, consistently apply and coordinate these methods. There are identifiable barriers to effective consultation which include: limited budget allocations for consultation that are often based on timeframes for conventional rather than cross-cultural and remote area consultation; limited cross-cultural communication and consultation skills of consultants; limited architectural design and technical expertise of consultants; and a standardised approach to housing, planning and service provision, inferring less need for consultation, community engagement and service provider coordination (see, Lee and Morris, 2005).

6. The need for consistent consultation policy

Key point:

The consultation methodologies required, which identify particular community housing and planning needs, are not practised consistently nor applied uniformly in national, state and local government guidelines and policy frameworks. (AHURI, 2005)

The variety of Commonwealth, State and Indigenous agency bilateral agreements and funding regimes that provide for housing and infrastructure in remote central Australia are managed under a number of programs aimed at alleviating housing demand, yet framed by stringent fiscal policy. The Commonwealth-State Housing Agreement (CHSA) sets out the framework for housing assistance and includes guiding principles, funding amounts and major housing program elements, guided by the principles set down in the Ministerial report *Building a Better Future: Indigenous Housing to 2010*. This framework is then administered across central Australia by some five or more State and Territory agencies located generally in the major coastal cities together with a number of regional Indigenous councils operating from their associated Lands.

In addition to the provision of new houses, a range of repair and maintenance schemes and community infrastructure programs are funded through special grants and/or associated Indigenous agencies. Each Indigenous community, whether directly administered by a State or agency authority or through contracted project management schemes, is faced with a range of consultants and service providers seeking decisions on their housing needs and aspirations. This is not facilitated by inconsistent practices in consultation and negotiation.

Our interviews found that 'In the view of many community advisors and external consultants, communication with agencies and providers can be distant and lack a personal approach, especially when key management is based in the major cities at some distance from the communities' (see, Lee and Morris, 2005, p. 34).

Due to a lack of coordination between the many service providers (and their consultants) charged with the delivery of buildings, landscaping and services (such as power, water and communications and road making), effective project management has

been undermined through a haphazard approach to planning, information gathering and feedback.

Reported outcomes of poor communication between service providers and consultants include: buildings sited in unsuitable places due to pragmatic expedience rather than cultural preference or good environmental planning; multiple planning consultations over a number of years by a range of different consultants with varying expertise in remote areas; and buildings with specific technical hardware requirements unable to be effectively occupied due to a lack of supporting infrastructure (see, Lee and Morris, 2005, p.35)

While guidelines and protocols for both cross-cultural and cross-disciplinary consultation do exist in Commonwealth and Indigenous agency healthcare programs, they are not necessarily documented and accessible for use in built environment projects. Housing and infrastructure development in remote central Australia draws upon consultants and contractors from all states and territories, many of whom are successfully winning projects despite a lack of 'on the ground' experience or a robust project methodology that includes good consultation practices.

In light of the lack of coordination and communication between agencies, the absence of uniform National, State, Local Government and Indigenous agency guidelines for consultation methods is a serious impediment to the appropriate design and maintenance of built environments in remote areas. As a consequence, other processes that support communication between service providers and experienced architects, builders and consultants should be advanced to enable the sharing of expertise and knowledge. Methods such as; design and technology standards workshops, data gathering and information sharing systems, and the formulation of consultation and communication protocols specific to built environments will all work to support improvements to the design and sustainability of Indigenous built environments.

7. Recording the consultation cycle

Key point:

Consultation requires well-maintained recording from project inception to completion and occupation. Consultation records, particularly post occupancy evaluations, are essential information to inform subsequent projects and facilitate improved outcomes for remote Indigenous communities (AHURI, 2005).

A great deal of documentation is produced over the course of even simple building projects. In typical architectural practice this information is then filed by architectural and specialist consultants, local council and building and other associated contractors. This practice is also the norm in the design and delivery of built environment projects in remote areas, resulting in a lack of readily accessible data to inform future projects.

The difficulties in obtaining past information and the results of evaluation are amplified when mainstream communication and data collection regimes are not available. This is exacerbated by the rapidly changing profiles and conditions of Indigenous communities and is one of the major reasons for over-consultation of communities causing mistakes in the future planning and implementation of built environment projects. A lack

of data and insufficient time and money to gain access to dispersed information can lead to ill-considered and poorly documented projects.

Good practice suggests that effective post occupancy environmental surveys are an important aspect of data collection that enables evaluation of projects to inform future projects. However, post occupancy evaluation (POE) is not widely adopted as a formal process or requirement of built environment projects, especially for new houses, because many project management and service delivery regimes do not regard it as part of the consultation cycle. The architects that we interviewed suggested that ideally, POE's should be carried out over twelve months to two years so that initial evaluations can be tested to ensure they are robust and reflect changing environmental and social influences.

Given stringent budgets and increasingly limited architectural involvement in 'on the ground' building programs, POE is currently undertaken as an informal process and data collected is often anecdotal and focused on local issues. These results are not easily translatable for wider application, therefore POE methodologies need formulating with objective and transferable outcomes in mind. Consultants report that statistical data is required to support the anecdotal evidence of various living customs in Indigenous communities. In consultation with the occupiers, such data can be used to assess the successes and limitations of house designs including evaluations that assess the capacity of the house to facilitate social interaction. It has been noted that evaluations of the technical hardware do occur, but rarely are the social or cultural aspects of the effectiveness of the house and its infrastructure reviewed. Additionally, POE is effective if it is linked to maintenance regimes as a non-negotiable aspect of the consultation programs of design and construction projects. Experienced architects and planners regard independent evaluation as essential in documenting the technical (and social) data needed to build up a technical database for central Australia.

When undertaken as separate contracts POE surveys are costly and time consuming and programs have been curtailed due to a lack of officers, especially Indigenous officers, to carry out the work. One area where POE occurs as a matter of course is during upgrading and renovation commissions. In these contracts architects become the preferred consultants charged with data collection through detailed evaluation of past projects and their successes and shortcomings, identified through consultation with the occupants and their communities and through observation of 'on the ground conditions'.

8. The benefits of a centralised and accessible database

Key point:

A regional database on outcomes from cross-cultural and cross-disciplinary consultation outcomes about built environment programs would be of value for clients and service providers, as it reduces the need for repeated and often invasive consultation, and provides the scope for informed future program planning. (AHURI, 2005)

Expanding upon the need for comprehensive and well organised data, we found that records relating to built projects in remote Indigenous communities tend to document project management data rather than consultation outcomes, and are maintained by the

former consultant rather than by a community or a centralised database. This tends to reflect and reinforce the unequal relationship of clients with service providers, affording the community little opportunity for informed project scrutiny, contrary to policy trends encouraging Indigenous self-determination. But, it is an added administrative burden for each community to maintain their own records in a local repository due to the need to support information gathering, the technological requirements for storage and retrieval, and the day to day management of such a resource.

If data obtained from cross-cultural consultation such as: the consultants involved and their qualifications; the issues raised; the modes of communication; the number and length of meetings; the decisions agreed to; and the expected outcomes of those decisions, were recorded on standardised templates and entered on a central database, histories could be accessed and future consultation informed.

An ethical approach to the collection and maintenance of records is essential to the development of such information repositories. Development of protocols for the design, information gathering and subsequent storage and retrieval mechanisms of such extensive databases require consultation with clients, service providers and the consultants and project managers who, by and large, have acted as the custodians of this information to date.

The benefits of a centralised and accessible database go beyond reducing the need for over-consultation of people including the ability of architectural consultants and project managers to inform future built environment projects through access to a wide range of regional as well as local data.

Additionally, regional and local policies for development can be informed by past trials of building systems and technologies in order to evaluate the installation of new systems. For example we were told of the instance of where national policy required the installation of solar pumps in remote areas to promote sustainability. In reality, pumps failed, and the system eventually became unworkable as there was no expertise available for repair. Despite local knowledge that the existing diesel system could be maintained through local expertise and spare parts the solar installation remained, although inactive, to support the policy imperative. (see, Lee and Morris, 2005, p. 24)

Effective consultation between service providers ideally ensures effective coordination of projects. When this does not occur, poor outcomes result, such as buildings wrongly sited in technically unsuitable places. Accurate data on existing conditions held in an accessible repository supports identifying potential problems.

In the development of project delivery models that influence improvements in project management, it is essential to continually review existing practices. Project managers confirm that project management systems that define clear parameters, and monitor the outcomes of consultation, lead to improved built outcomes. Effective evaluation of built outcomes in relation to project management systems includes checking designs and hardware against cultural, environmental and community standards, as well as technological specifications. Consultation that includes a range of methods for obtaining such information over and beyond the life of building projects should also include a system where data collected can be readily submitted to a central database.

A consistent approach to the development and implementation of built environment projects requires a database of the cross-cultural and cross-disciplinary consultation

undertaken in order to serve the mutual interests of clients and service providers in confirming the client aspirations and contractual obligations of each party. Such an approach establishes a basis for comparison between diverse communities by identifying local conditions and the dynamics of their living systems.

9. An overview of principles for effective consultation

Our findings identify and document the concerns and recommendations of practitioners with experience in a variety of consultation practices in remote Indigenous communities. In summary, we found that:

- Standardised housing and planning fail to reflect the diverse cultural and climatic issues in remote Indigenous communities;
- Cross-cultural consultation is usually limited by budget and time restriction;
- Identifying areas of need and implementing appropriate solutions requires both effective cross-cultural and cross-disciplinary consultation;
- Consultation methodologies need to be practised consistently by all relevant agencies and service providers;
- Effective consultation requires well-maintained recording from project inception to completion and occupation;
- A regional database on outcomes from cross-cultural and cross-disciplinary consultation would reduce the need for repeated and often invasive consultation, and provide the scope for informed future built environment programs (AHURI, 2005)

Our analysis of the various consultation methods utilised in remote area projects suggests that a number of general and interconnected principles for effective consultation can be proposed, which are briefly described below:

Engagement – to achieve negotiated and mutual understanding of the aspirations of clients, consultants, managers and providers, over extended timeframes, and to work towards the adoption of agreed protocols for communication between all parties.

Communication – to develop appropriate communication processes based upon local conditions, language and cultural aspirations, achieved through the negotiation of effective and coordinated project specifications. Good communication also involves clear documentation and timely implementation of the expected outcomes arising from and promised during consultation.

Reciprocation – to enable inclusive, reciprocal relationship building based upon increasing knowledge and awareness of the physical, cultural and environmental conditions and available expertise in communities.

Feedback - with the direct involvement of Aboriginal clients, undertake post occupancy evaluations and extend information gathering beyond physical and technical issues to embrace social, cultural and environmental factors.

Continuity- is essential to enable building cross-cultural and cross-disciplinary relationships through effective and enduring communication systems including centralised data collection. This, in turn, can influence good practice models for project design, implementation and management for ongoing community development. (See, Lee and Morris, 2005, p.47-48; Lee and Morris, 2004, p.136-138)

It is undeniable that these principles support the concept that effective consultation processes are cyclical and consistent. Linear and limited consultation methods confined to project inception and initial planning contribute to built environment outcomes that do not sustain the social and environmental health of Aboriginal communities.

In summary, effective consultation is widely accepted by practitioners and service providers as pivotal to the delivery of sustainable built environment projects to remote Aboriginal communities. It is clear that effective evaluation and dissemination of good practice consultation can set the agenda for future housing and infrastructure development and has driven policy as a result. The development of a national and/or regional database documenting both cross-cultural and cross-disciplinary consultation practices, in relation to evaluated built outcomes, will further inform the development of workable and responsive consultation guidelines.

Implicit in the adoption of improved consultation methods is the collaboration afforded between consultants, service providers and Indigenous communities. Opportunities for the development of new standards for design and building in remote Indigenous communities arise from improved consultation and negotiation focused on achieving local aspirations beyond minimum standards. The promotion of design solutions that embrace innovation, new technologies and responsive social and environmental outcomes is facilitated by consultation practices that encourage sitting down and talking it through.

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