Reflections and Notes on CDU ARC Linkage Project Field Trip to Kabulwarnamyo, Western Arnhemland.
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Bininj residents and visitors to Kabulwarnamyo

Lofty Bardayal Nadjamerrek (Traditional Land Owner), Mary (Lofty’s wife) arrived the last night, Peter Cooke (Northern Land Council- Caring For Country Senior Project Officer) who lives and works there permanently, Emmanuel Namarnyilk, Nigel Gellar (Senior Ranger for Manwurrk Rangers), 2 other Bininj CDEP/Manwurrk Ranger workers, Kim McKenzie filmmaker and his assistant who were there for a month to do filming, Murray Garde (Linguist) arrived on the last night and has spent a great deal of time working with Lofty and Peter Cooke recording, translating and researching.

Where is Kabulwarnamyo?

Kabulwarnamyo is the name of a newly established outstation in the stone country between the headwaters of the Mann and Liverpool Rivers, in Western Arnhem Land. It is not located on the 1:250 000 Milingimbi Special map (2000 edition) but various sites which are in the nearby vicinity can be located on hard copy 1: 50 000 maps and on Fugawi. There is bitumen road access to the East Alligator River followed by 4wd access on an extremely rough dirt road (beyond Mannmoyi) in the Dry season, which took us 10 hours in a loaded up troopie. For Wet season access, there is an airstrip at the nearby outstation Malgawo - a bit dodgy (short and has rocks in the middle of the runway). There is a larger airstrip at the outstation of Manmoyi which you drive through on the way to Kabulwarnamyo and has an outstation school serviced by Gunbalanya CEC. The BAC helicopter is chartered to provide transport to inaccessible places in Lofty’s estate.

Infrastructure of the camp:

Physical
The camp is set amongst open dry sclerophyll woodland. There is a fresh water spring running alongside the camp. There are numerous rock outliers surrounding the camp, which house significant rock art sites.
Various family/group camps have been established and are made of suspended wooden platforms with mozzie dome tents and a large tarpaulin roof over the top.
Power is supplied by solar panels. Water is supplied by rainwater tanks and a pump from the spring.

The placement of technology at Kabulwarnamyo

Peter Cooke’s camp has a shelter for computers/office setup and Murray Garde’s has a similar setup with computer, TV/video and DVD viewing and editing. There is a large tin shed for the public telephone and general operations. Whilst we were there a new shed was being built to house technology. The office/knowledge centre is placed next to the existing shed and is in the ‘centre’ of the camp. The office will have a cement floor and fly-mesh walls which will make for a more insect and dust-free environment.

“As soon as the slab was finished and dry Lofty moved his camp and began to set up his painting ‘studio’. Peter Cooke talked to Lofty about situating the computers and technology next to his working space at the far end of the slab and discussed the concept of Lofty doing his painting and others ‘tapping’ on their technology next to him. Lofty reckoned it was
gamak (good). I asked Lofty if I could work over next to him and we began to congregate there. I moved the laptop over to continue writing my notes … Technology and Tradition side by side on the cement slab… the beginnings of ‘Kabulwarnamyo knowledge centre’.” (G. Meehan, July 2004, excerpt from field notes)

**Technology in use**

General Macintosh environment, with a PC laptop for Fugawi. Mac laptops are favoured for general use. Three small external hard drives. Fire hotspots are checked daily via satellite and internet. There is an excellent Canon video/film camera, DVD and video player, large television. Kim Mc Kenzie has recently been film and editing training with two of Lofty’s family members. Software in use includes: i-photo, I-tunes, Filemaker Pro, Fugawi, email, Opera (specialist Geoscience web browser), Internet explorer, Powerpoint, Quicktime Pro, I-movie, Final Cut Pro. Murray uses Shoebox for his dictionaries.

**Context that affects the use of technology**

The physical isolation of Kabulwarnamyo limits communication especially for supplies, mail etc. Darwin suppliers often send out wrong stuff. Being in the stone country the temperatures get in the high 30’s which makes for a physically and mentally demanding work environment. Dust, insects and humidity affects the smooth running of technology. Lofty and Mary have a large extended family in Oenpelli which often commits them to spending extended periods of time in Oenpelli. The younger generation of the family are firmly based in the Oenpelli area which means that people are thin on the ground to carry out building, maintenance, training, research, land management etc. There is no airconditioning, so storage of data is tenuous. An adequate system of data storage and backup is essential. Download on the internet is slow (the best speed is 28 kb/sec) and technical errors can result in no access to internet for days.

**Yes, to a map interface**

Driving in to Kabulwarnamyu from Oenpelli, in front seat next to Lofty Nadjamerrrek, he pointed out landmarks all along the way. Lofty would say the name and then ask me to repeat it sometimes 2 or 3 times until I pronounced it correctly. The finest inflection was picked up and corrected over the roar and grinding of the troopie on the rough dirt road. He gave no information about the landmark, just the place names. He was teaching, as he has always done, teaching me language-pronunciation and culture-place. The intergenerational transmission of knowledge. If I were to travel that journey with him many more times in the future no doubt he would teach more and more cultural details of each place. This teaching is hooked on the concept of place. A map interface of Lofty’s knowledge database. (G. Meehan, July 2004. Excerpt from notes)

“Younger people are learning a lot from Lofty by being around him on country. Sooner or later it’ll need to be recorded if not for this and next generation then for those living 30-50 years from now. No secret-sacred stuff will be on the database. There will be information for Lofty’s family and people they are related to. Lofty is really interested in passing on his knowledge to his grandchildren” (G. Scott, July, 2004 Excerpt from notes)

Peter intends to take Lofty and others out on country eliciting stories about places, their environmental history and resource availability. Knowledge is structured around language and clan estates which has led to the desire to develop a map-based interface.
“The amount of traditional knowledge been given freely by Lofty is high and possibly instrumental in keeping the culture here strong. This promotes the idea of further discussion into the credentials of a system involving the upload of resources from digital cameras etc. for display in a nearby setting (to the camp) in order to combine images of places and objects with discussion.” (B.Anbins-King, July 2004. Excerpt from notes)

Peter mentioned that he would like a database that is not constantly in review. He would prefer a finished product that can be updated when needed. He envisages a placename search or list which then centres on a map. Lofty and the Manwurrk rangers believe that Land management information in the database is a priority.

**Questions and Puzzles**

In collating map based information, Fugawi has been sufficient to use so far but not being useable on Macs has been a hindrance. According to Peter, GIS experts don’t necessarily understand that a simple map interface linked to photos, audio, video files may be adequate. ArcGIS is not being updated for Macs. Peter chose Fugawi because it was recommended by people in DIPE and was inexpensive. The problem is to find a good mapping program for Macs. Fugawi does not work on Macs, nor does it allow seamless movement from one map to the next. It also has problems showing thumbnails of more than a limited number of photos for each waypoint. Peter thought that maybe Fugawi could run on a Mac through an emulator.

It was suggested that ARC project could develop an on-line file of best-user practice for people to refer to in developing IK database projects. Something like the existing mapping manual from Canada ‘Chief Kerry’s Moose’ [www.nativemaps.org](http://www.nativemaps.org).

For the purpose of recording people, we talked about the need to research for a piece of technology that is discrete and unobtrusive, especially in terms of the microphone which is generally a large object that is uncomfortable to hold in the face of people. We resolved to search for a microphone that will allow young indigenous women and men to feel comfortable to record each other.

**Research Findings and Resolutions**

After much discussion it was proposed to look into developing “a map where you can drag and drop those resources (e.g. photos) that are lined up in a box onto the map, and then choosing sound files or movies or whatever and dragging them on as well. This would work something like selecting songs from the iTunes panel in iDVD. It might require preset folders covering the area of the map, each having an area of 100 square meters or so pre-prepared in the program. In effect, when one selects a location on the map it will open to this folder with previously attached resources. The map should also have the ability to slide between different map types i.e. topographical to satellite, and the ability to accept both types from various organizations, such as the fire mapping information on the net and other government departments. This could have a similar interface to i-life package programs.

These points are specific to the Kabulwarnamyo project but are also helpful in the formation of our ‘general product specifications’” (B.Anbins-King, July 2004 excerpt from notes)

It was suggested to use Filemaker Pro as an interim measure while database prototype is being developed.

DAT recorder is to be replaced by iPod/griffin mike or similar with a spike reducer. We trialed the iPod and were happy with the ease of use, the quality of recording and the ability
to quickly download and burn to a cd. It is able to be plugged into a car battery if out bush. Peter will investigate and purchase i-river.

Both Kim McKenzie and Murray Garde expressed an interest in collaborating with the CDU on this project.