Lesson 1 – ASK THE EXPERT – Conversation with Dr Troy Sternberg on Field work methodologies.

KEY FINDINGS OF THE RESEARCH

What was the most important discovery of your research?

The continuing and at times increasing exposure to climate hazards in the Gobi Desert is a significant regional challenge. Conditions differ greatly in the two countries yet there may be serious consequences for livelihoods and environmental sustainability in the two societies. In this way climate hazards can become a major social, environmental and governance issue**.**

Was there anything that concerned you the most from your research – for the local communities or wider global issues?

The environmental approach in China appears to be unsustainable over time. It is matched by 'ecological resettlement' and 'closing down the grasslands', programmes that are based on policy rather than environmental or livelihood factors. These efforts will have serious impact on local communities. On a larger scale the rapid increase of mining in the Gobi will change development and policy and draw international attention to the region.

RESEARCH METHODOLOGY

Why did you choose the three study regions?

You choose study sites first for research interest and then the feasibility of conducting research. The practical side of research includes questions of access, weather, transport, people to work with, places to stay and field work expenses. Mongolia is great for fieldwork – you can go everywhere, talk to anyone, camp anywhere. Logistically it can present some challenges due to a lack of infrastructure (roads, electricity…) but this is more than compensated for by the hospitality in the countryside. I often stay with herders who like the interaction and have many questions. It is an excellent way to get insight into their lives. However, food is boiled mutton every day, and fermented horse milk in summer.

I chose the **Mongolian** site because it was seriously affected by the 2010 extreme winter. I was familiar with the region so knew much about the background conditions. I could arrange the logistics from the capital so time in the field was productive. It was also an area of interest for a Mongolian researcher who accompanied me.

China is quite a contrast. Often government permission is required, people can be reluctant to talk or give only 'safe' answers, some hotels do not allow foreign guests, camping is restricted, evening banquets are important - too often little actual work is accomplished. Relationships are very important in China so developing connections are essential for research.

In China **Minqin County** is very interesting because people are farming a desert, thus nothing is natural. Only great investment and infrastructure makes agriculture possible. I was able to research in the area because I had visited the year before and became friends with local researchers, one of whom was excellent at fieldwork. As a researcher she understood the local dynamics; as a translator she spoke great English and could convey the subtle nuances of the situation. She was also adept at getting permission and encouraging participation. The personal interactions made Minqin a success.

Xilingol was a good place to assess climate hazard impact on herders and provided the opportunity to compare/contrast farmers and herders in the Gobi. The trip was co-organised by the Chinese Institute of Geography, making the work 'official' and eliminating local problems. Though their participation made the fieldwork possible you sacrifice some independence and effectiveness as invariably our methods and objectives differ at times.

Have you always specialised in studying the Gobi Desert?

Yes. It is personally interesting and academically less studied than other deserts

When you planned your research – what did you have to consider logistically? *(such as arranging visas/timing/locations?)*

Logistics are key part of research. First is developing the research objectives, fieldwork plan and selecting locations. Then you organise cooperation and details in the country – people, transport, equipment, etc. While doing this you get visas, plane tickets and local permission as needed. Time of year is important as winter is very cold (-40 degrees centigrade), summer hot (to +40 degrees centigrade) in the Gobi so any fieldwork has to be carefully planned.

You have completed research in quite remote areas – was this particularly challenging? Did you employ an interpreter? How did you make the connections with the rural communities?

With planning research in remote areas is feasible and rewarding. The key thing is transport. 20 years ago in the Gobi horses and camels were used for travel – you can imagine how slow

that was! With the transition to capitalism and rapid development there are now many used cars and trucks in rural areas. When you rent the vehicle the driver/owner comes with it as part of the price. I travel with water, food and cooking equipment to be independent. In China trips are planned around the next hotel so there is not the same feeling of remoteness.

I always use translators when I am trying to understand people and local dynamics. My Mongolian language skills are only OK for physical research – measuring water or vegetation conditions – and I do not speak Chinese. A good translator is important - I try to work with academics as they understand the study purpose and design. In Mongolia I have used the same academic/translator since I started.

Perhaps surprisingly, people in rural areas like to talk to outsiders. Often they ask if I have animals or how big my field is, what crops I grow. They have comments about things on TV or want to know something about my life or family. One Mongolian said my visit was 'new entertainment' whilst in China a man watched me for half an hour because he had not seen a foreigner before. It can be easy to make connections - people like to share food and stories.

Research techniques: How long did you spend in the field? What techniques were used?

Most of the fieldwork was in May – June 2012. Techniques included interviews, discussions, data analysis and site observations. Across the region fieldwork involved interviews with residents, discussion with officials and local researchers and observation of communities, environment and the role of government in the countryside. It is important to draw one's own conclusions from 'facts on the ground' and question statements that cannot be verified. A detailed survey was developed to address questions about hazards, livelihoods, perceived risks and personal risk strategies. Interviews were primarily conducted in homes with some memorable sessions conducted in vegetable fields in China. The kindness of farmers and herders enabled the fieldwork to take place and gave valuable insight into their lives, conditions and thoughts.

How many people did you work with?

I worked with 2 researchers in Minqin County, 3 in Xilingol and 1 in Mongolia.

How were the researchers recruited?

The Mongolian researcher was quoted in an *Economist* article on Mongolia entitled "the Last Best Place". I located him at the Mongolian Institute of Geography in 2003, and we have worked together since 2005. This year he is a Visiting Researcher at Oxford University. I met the Chinese researchers through giving presentations. In June 2011 I spoke at Lanzhou University in Gansu Province. After the talk, the two researchers invited me to Minqin County. This established our relationship and enabled me to set up fieldwork. Similarly, I

met the Xilinhot researchers after being invited to speak at the Chinese Institute of Geography in Beijing in 2007.

What activities did you typically carry out each day?

In Mongolia the day starts with a discussion of grassland conditions, water sources and where we might find herders. Time is spent talking with herders, observing their animals, checking water access and driving in search of gers (tents). Lunch is a quick stop to boil water for soup and tea with bread and cheese, a meal shared with a family or if in town a very simple restaurant, usually without a menu. When in a town we try to talk with the mayor, the nature & environment person or town meteorologist to get their perspective and hear what the government plan for the area is. We continue this approach through the afternoon. As evening comes we look for a good campsite, prepare dinner and talk about the day.

Fieldwork with people from the Chinese Geography Institute is quite organised. The town and hotel for the day is set so I work to get the best interviews and information possible. The Chinese approach is different from mine – a meal is never missed. Often sightseeing or digressions creep in; as a foreigner I try to keep the day focused. Some of the difference is cultural, such as the unwritten protocol when meeting officials, that an outsider has to adjust to. The work in Minqin was more efficient as we were individual researchers rather than representatives of the government. Each day provides a sample of rural life, driving and returning to town at night.

You mention the strengths of extended interview in the research (valuable insights into lives conditions and thoughts). Any more strengths to add? Are there any limitations with extended interviews that you found?

An **extended interview** gives the respondent the time and freedom to express thoughts and ideas that may not fit in a questionnaire. Some people are shy or wary; a longer time frame gives a chance for trust to develop and the confidence to be more direct or go more in-depth. The process centres the discussion within the local person's frame of reference rather than reflecting an outsider's impression of what may be important. In Mongolia tea is always served first; this sets a nice tone for discussion.

A limitation is the time involved. Sometimes the answers may wander from the question or occasionally the person does not have a lot to say.

In your article in* Applied Geography *you mention collection of rainfall and drought data. Do you know how this kind of data is collected in the field? Did you collect this yourself or use other's field work?

The precipitation data is usually collected by a local government meteorological office. Each town or site has instruments that record daily conditions; the information is forwarded to

the provincial and national weather centres. I use the precipitation data to establish a drought history for each site. I encourage local meteorologists to do this but it is a new concept for them.

When you returned to Oxford – what were your first steps before you start writing your paper? E.g. did you complete any statistical analysis on any quantitative data collected? How do you start to sort through so many interview responses? Do you complete this by yourself?

You try to review the information and enter the data into the computer for analysis but sometimes the process takes time. Entering the data may require help especially where translation is needed. It is much easier with the internet as data can be emailed back and forth. Computerising the data, analysis and statistical review is a time-consuming process.

Usually some questions come up during the fieldwork that I want to examine further. Not all of the fieldwork will relate to a paper but it all helps to ground my thinking. Sometimes it is the observations and lingering impressions that inspire an article, such as the striking interaction of the government with the environment in China. The question of how viable herding and farming are in the Gobi is a topic I want to pursue. A comment about how the government is 'closing down the grasslands' may give me a paper theme and title.

How long after you have completed your field work are you expected to produce an article or lecture?

On my project there is no set timeframe for results. An article is focused on an issue or topic whereas a talk can bring in other factors and have a looser structure. This makes it quicker to talk about research than to write an article. Also, an article is for a particular research interest whilst a talk can be accessible to a wider audience. The whole process from field work to writing the paper can take between six months and two years. The pressure is to present your findings as part of developing research expertise.

As students we often learn that academic journals are seen as the most 'valid' – why is this?

The idea and strength of academic journals is that all articles are read and reviewed by experts in the field before being accepted for publication. This ensures the quality and validity of the paper because one has to convince knowledgeable scientists (your peers) that the work is worthy of being published. The investigation must be repeatable, robust and grounded in previous study; it should answer questions and inspire new ideas. Once field work has been completed, analysed and written in article form the 'paper' is submitted to a journal. This is refereed (reviewed) by several experts. Revisions may be suggested and the author(s) must revise or withdraw the paper. This thorough process establishes the findings' credibility and enables one to quote information from an academic journal as 'scientific research shows....' rather than 'I read it

on the Internet'. The term to describe this process is that journal articles are 'peer reviewed'.

There are many different geographical journals. How does a researcher choose which one to publish his/her article in?

For me the article content needs to be appropriate to the journal. Some journals favour a more scientific approach, or climate related topics or a mixture of human and environment concerns. I look at articles I read that related to my work, recent articles in a range of journals and a journal's stated objective.

FUTURE ISSUES

Are you planning to go back to the Gobi Desert to continue your research?

Yes. This summer (2013) I am organising a seminar at Mongolian National University and plan to do the same in China. If possible I will try to do more fieldwork in the Chinese Gobi.

Do you for see any future impacts of your research? (e.g. may this go to the Mongolian/Chinese authorities to support the communities you studied?)

Researchers always hope that research may have an impact beyond academics. One way is through articles and conferences that may be of interest to bureaucrats, NGOs, international agencies and other researchers. Another way is becoming recognised as an 'expert' and engaging with government representatives and policy makers and advising/consulting on projects or specific questions. Organising seminars and workshops, developing media contacts and stressing the importance and relevance of research findings through podcasts or policy briefs can increase interest in one's research. It also helps if a topic becomes 'important', such as climate research.

My work will get more attention in Mongolia as the country is vulnerable to climate hazards and knows it needs to improve mitigation. Also, the government pays attention to international research about their country. In China I hope working with the Institute of Geography will encourage interest in the work. Working with local scientists conveys ideas and findings that they may then stress within their country.