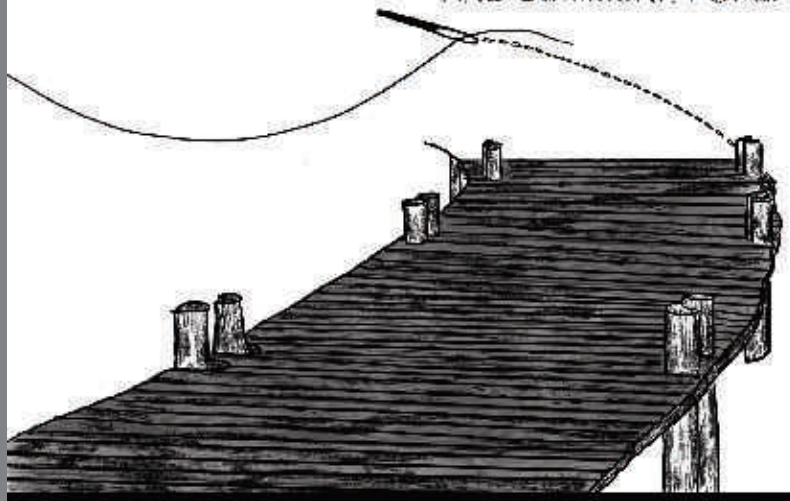
BRIDGING
KNOWLEDGE CULTURES

A GUIDE FOR COMMUNITY PRACTITIONERS AND COMMUNITY ORGANISATIONS



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Illustrations by Indu Harikumar

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1 About the Bridging Knowledge Cultures project

This chapter give a brief overview of the Bridging Knowledge Cultures project, and its partners

One of the biggest challenges faced by academia and community practitioners engaged in the field of Community-University Research Partnerships (CURP) is the establishment of truly respectful, mutually beneficial and equitable knowledge creation partnerships with diverse communities, social movements and organisations. Not unusually, conflicts between knowledge cultures are based on divergent views of ownership of the research process and control over its knowledge creation, validation and dissemination. Conflicts between the worldviews and traditions of different knowledge cultures in research partnerships remain, rather than being the exception, reifying power differences that inhibit consensus building among partners, leading to the privileging of one knowledge system over others. These considerations lead us to ask the following question: **in establishing trusting and respectful CURP, how can diverse knowledge cultures be bridged so that perceived or actual power inequalities between collaborating CURP partners are taken into consideration in a way that makes these connections sustainable, secure over time, and able to contribute to better lives, social justice, climate solutions or healthier communities?**

To answer this general question, the UNESCO Chair in Community Based Research and Social Responsibility in Higher Education decided to lead a global research project titled 'Bridging Knowledge Cultures' (BKC) that looked at 10 CURP experiences working in different research areas, such as prenatal health, water management, early childhood education, etc. We used the Knowledge for Change (K4C) Consortium[1] as a 'laboratory' that allowed us to analyse the interaction between diverse (even conflicting) knowledge cultures involved in CURP, and how collaborating partners within and outside academia address extant power inequalities.

The results of the research have been presented in a book, ***Bridging Knowledge Cultures: Rebalancing Power in the Co-Construction of Knowledge*** (Brill, 2024). This guide, based on the book, is intended for community practitioners and community organisations who are engaged in, or hope to build, CURP. It is a reflection of the value and centrality of community knowledge in the engaged research process, providing practical recommendations to help remove barriers and address power dynamics, which prevent community groups from collaborating effectively with mainstream research institutions.

The project defines knowledge culture as a set of local value-based practices, rules and beliefs, which, in a given organisation, community, area of professional expertise and/or discipline, create and reinforce shared meanings, expectations, identities and generalised rationales about knowledge production processes (creation, validation, dissemination and use). A knowledge culture as it relates to CURP is embedded in the traditions and history of both, its participating members and its partnership configuration, and thus includes its own intra- and inter-organisational structures, alongside roles, division of labour, norms, formal and informal arrangements and mechanisms, collective beliefs, (im)personal interactions/relations and cultural forms – e.g., images, symbols, heroes, rituals and vocabulary/language. These cultural elements shape the way knowledge production is performed within and across organisations and/or communities in any given CURP setting.

[1]Launched in 2017, the K4C Consortium is an international partnered training and research initiative of the UNESCO Chair in Community-Based Research and Social Responsibility in Higher Education, which aims to develop research capacities for the co-creation of knowledge through collective action by community groups and academics working together in training hubs around the world on issues related to the UN Sustainable Development Goals. There are currently 22 K4C hubs in 10 countries around the globe (Indonesia, India, Malaysia, Ireland, Italy, Canada, South Africa, Colombia, Cuba, Uganda and Tanzania). For more information about K4C visit www.unescochair-cbrsr.org

2 What is a community knowledge culture?

This chapter describes what a community knowledge culture is, its different forms, how it is different from academic/theoretical knowledge cultures, and why it is important.

The BKC study introduces the concept of knowledge cultures as an important concept to understand and share in the context of knowledge democracy, knowledge equity, or knowledge activism. We note that there are different cultures of knowledge production, validation, sharing and action within academia and outside of academia. The study shares a generalized view of academic knowledge culture, a culture where knowledge is produced along specific methodologies, is validated through peer review processes, is shared most often through academic conferences and is not always acted upon beyond papers, articles, conferences, or books. Within academia, there are many variations of what counts as excellence in knowledge production according to disciplinary traditions; broadly speaking, academia follows a long tradition of western scientific principles.

A community knowledge culture differs markedly from an academic knowledge culture. Community knowledge cultures and community knowledges are much more diverse according to the specific location and context. The knowledge cultures of Indigenous communities vary widely from community to community but understand that knowledge is created in ceremony, in relation to the land, that it includes spiritual elements and is collective in spirit. The knowledge culture in social movements has its own characteristics, but places a priority on action of some kind. The key point in our study is that there is a big difference between generalized knowledge cultures in academia and knowledge cultures in community or non-academic setting. This guide prioritizes the sharing of stories about knowledge cultures from different parts of the world and from different types of community structures. Our point is that the knowledge created, validated, shared and acted upon within a community knowledge culture is no less valid than knowledge created within an academic setting. But, historically, community-based knowledge has been dismissed, ignored and disrespected in comparison with knowledge produced within an academic knowledge culture.

Community knowledge is an essential source of communities' survival across the globe, which helps them deal with health, environmental and other crises. Community knowledge is closely interwoven with people's everyday lives, and exists across a wide range of subject areas, depending on the needs of the specific community. It helps people complete their daily activities and provides useful means to cope with changes in their surroundings.

There is no one word for "knowledge"

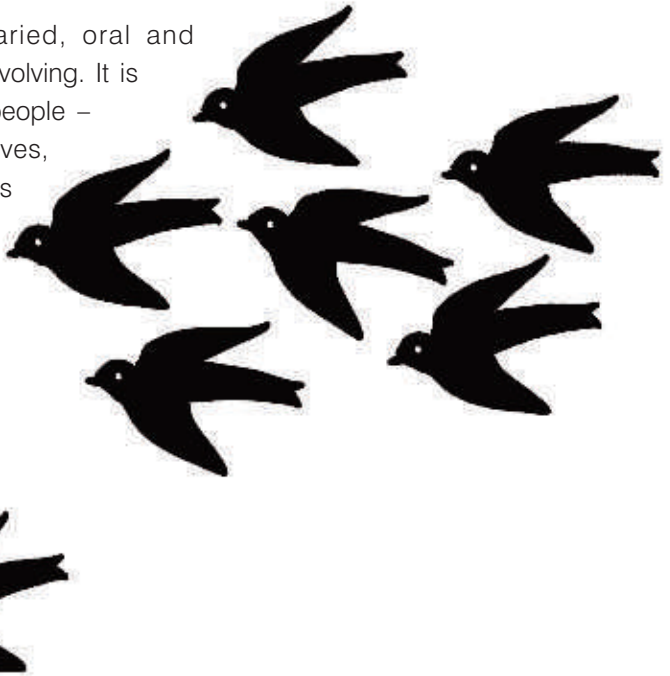
The words used to translate the English word "knowledge" into local or mother tongue languages not only indicate different aspects of reality that are known, but also different perceptual and cognitive processes involved in the act of knowing.

- In Indonesia, the term *pengetahuande* notes knowledge as having the capacity to see, understand, and realise.
- In the Javanese tribe, a different ethnic group within the Indonesian nation, there exist the words *ngelmu* (deep understanding of certain disciplines), *kawruh* (physical and mental understanding), *pepadhang* (clarity of explanation), or *pitutur* (quotes).
- In Malaysia, people use the term *pengetahuan* when speaking of knowledge. It originates from the root word (verb) *tahu* meaning 'to be aware of'. Other synonyms of pengetahuan include *faham, mengerti, mengetahui, sedar, mengakui,* and *enga*.
- In Hindi, one of the languages of India, the term *gyaan* means intellect or knowledge, while in Sanskrit *vidya* means learning and originates from the word *vid* that means 'to know'.
- In Urdu, the words *agaahi* or *shaoor* refer to 'awareness', while *marifat* means 'knowing'.
- In Spanish speaking countries, like Colombia, knowledge is usually translated as *conocimiento* (a noun from the verb *conocer* that refers to a perceptual process that is direct and immediate, and indicates a conscious contact with the known object through experience and, in particular, perception).
- Another term in Spanish that can be translated into English as to know/knowing is *saber.* Contrary to conocer, the verb saber indicates an indirect, prolonged and inferential process supported by reason that also implies the ability to learn. The noun related to the verb saber is *sabiduria*, which is translated in English as 'wisdom'.
- Another related word in Spanish is *saberes*, which is associated with ancestral, referring to the traditional knowledge that arises from the daily relationship woven in the interactions between human beings, between human beings and nature, between human beings and the social and natural phenomena that surround the experience of encounter between academia and communities.

Community knowledge is produced in several ways, but most often emerges from people's practical experience. As local knowledge is mostly gained through practice, the learning processes do not require formal education or training. For example, local health traditions in India are evidence-based and experiential, based on various streams of knowledge: oral folk stream (folk medicine); codified classical stream (Ayurveda, Siddha, and Unani medicine); allied systems (yoga and naturopathy); and systems of foreign origin (Homeopathy, western biomedicine).

Indigenous knowledge is created and shared based on a broader use of all the senses and on a relational ontology which interprets and creates knowledge in a multi-modal and collaborative way with the non-human world and non-linear temporal perspective. For example, in Gulu, Uganda much of the knowledge production and learning is done through ceremony, dreams, dance and food around the traditional learning space, the campfire. For the Maasai communities of Tanzania, knowledge is created and transferred in a dynamic and horizontal way. The Maasai knowledge system can indeed be considered a continuously evolving living classroom or laboratory, where there are no formal roles as 'teachers' and 'students', and everyone learns from each other.

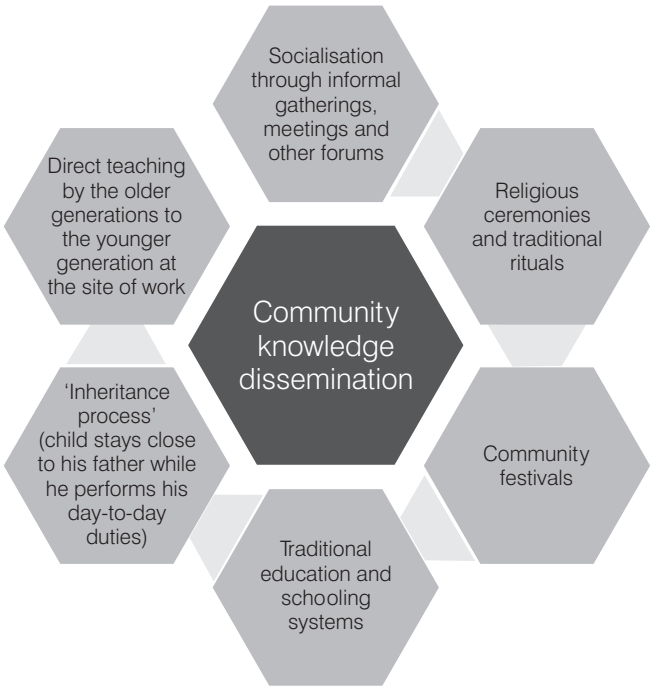
Community knowledge systems are diverse and varied, oral and undocumented. Such knowledge is dynamic, innovative, evolving. It is generated over centuries by sensitive and intelligent lay people – tribals, farmers, artisans, shepherds, barbers, housewives, wandering monks. Most importantly, community knowledge is produced according to the needs of the particular community and, therefore, differs according to regional, cultural, linguistic and socio-economic specificities.



Community knowledge production mechanisms cannot be separated from the knowledge dissemination process. Community knowledge is created in the process of sharing it in different, informal ways and through a variety of conduits. Oral traditions, rituals, customs and art forms of knowledge transmission and sharing have existed and sustained communities for millennia.

Knowledge dissemination takes different forms in the community

Communities preserve their knowledge in ways very different from how academic scholars store knowledge. Academic knowledge is primarily stored in written texts and repositories like journals, newsletters, books and libraries. Community knowledge is stored in the oral traditions, folklore, art, music, dance, poetry, and even tattooing customs and practices. Community knowledge surpasses the barriers of language and written text, since it needs to be easily accessible in understandable forms for the benefit of the community. In different geographical regions, Elders of the community become the knowledge holders and are responsible for passing on the knowledge to the next generation. Human memory is a repository of knowledge for a community.



Communities store and transmit knowledge in myriad ways

Poems
used to remember the past in the present, encapsulating physical environments in memory construction

Proverbs
use figurative and literal meanings and carry lessons about ways of life that are most significant for the younger generation that has not yet experienced life in full

Music and dance
aim to humanise the individual and bond humanity. The sound of music and movement of dance is a spiritual force that energises and enriches the mind.

Documents on land access and ownership
Land embraces the ecological, cultural, cosmological, social and the spiritual

Stories/folktales
expresses experiences, validates experiences, nurtures relationships and understanding in ways consistent with traditional worldviews andcosmologies

Agricultural practices, equipment, materials, plant species and animal breeds
These knowledge systems ensure minimal livelihoods for local people

Religion and spiritualism
relationships between the natural and supernatural world, the living and the dead, and the normative continuity between an individual and community

Why is community knowledge "lesser than"?

Validation of knowledge, that is, the process of ensuring that the knowledge being created, shared or used is trustworthy and can be relied upon to make informed decisions, is one of the knowledge production processes where power imbalances between research partners becomes more evident. In the academic world, knowledge is validated by pre-defined authoritative persons (i.e., 'the expert in the field', 'the peer reviewer'), who are 'qualified' to scrutinise the knowledge produced, according to specific rules and criteria (e.g., objectivity, reliability, generalisations) that define who can possess and share the knowledge (through journal articles or book chapters, for instance) in order to contribute to the advancement of that specific field or discipline. Community knowledge, on the other hand, is generally validated by its practical application, after its production and dissemination. When a certain knowledge, such as techniques for daily activities for fishing, farming or artwork, is practiced by the community, it is community-validated. In community settings, knowledge validation is crucial because information is often passed on through informal channels, and does not need to be fact-checked or peer-reviewed.

Such a validation process by communities may be seen as insufficient from a Western scientific perspective and the academic partner may not accept it as 'legitimate'. Community knowledge is then often not considered as authoritative or as accurate as knowledge that is produced and stored in the academic world. Traditional modes of knowledge sharing and transmission within communities (including direct sharing through generations, poems, storytelling, socialisation, through gatherings and so on) are not recognised as knowledge by academia. This reflects a clear power imbalance in favour of academia.

The regional syntheses and case studies developed for the BKC project suggest that,

globally, traditional knowledges are often racialised or simply classified as inferior, evil or witchcraft. Scientific/academic knowledge receives higher appreciation and is considered 'more valid' and superior.

Knowledge produced in communities is valuable because:

- Community knowledge cultures are highly advanced that involve complex understandings of various subject areas.
- Community knowledge is usually produced across long time periods; the insights drawn are thoroughly verified through several generations.
- Community knowledge cultures are inextricably linked with individual and collective values, as well as higher level philosophical and spiritual dimensions of human existence, which makes the learning process more meaningful.
- Knowledge built in communities is directly related to the needs of everyday life situations.
- Community knowledge is both pragmatic and normative.
- The process of knowledge creation and transmission/dissemination in communities are inherently intertwined and cannot be separated, suffused with spirituality.
- Community knowledge production and sharing are functional and need-based, rather than extractive.

Values of the community and surrounding eco-system shape internal validation of knowledge that is being produced, stored and shared.The validity of community knowledge is demonstrated by the survival techniques that have been successfully used by countless generations, rather than by the criteria of modern occidental science.

Community protocols for knowledge validation are based on principles of cooperation (not competition), culturally resonant ethics (not procedural and bureaucratic), and responding to changes in the 'business of life' (not pre-determined and permanent). 'Community certified' and respected Elders are designated and accepted as knowledge-keepers and behaviour 'regulators', which is not substantially different from elderly and tenured full professors and institutionally promoted officials as knowledgeable academics.

The essence of community knowledge is indeed found in the language of the people. In order for community knowledge to survive and prove itself useful in the modern world, so must the language and oral traditions to which it is intricately linked.

Community members have a critical role in knowledge co-creation, systematisation, and dissemination – by questioning the accuracy of information, seeking out sources to confirm or refute 'expert' knowledge, and sharing their own worldviews and experiences to help validate or refine existing knowledge. Community organisations, such as those participating in the BKC project as hub partners, also play a role in knowledge validation by providing reliable information and resources to community members, facilitating conversations and information sharing, and promoting critical thinking and fact-checking skills. Knowledge validation in community settings can help overturn existing unequal power relations between higher education institutions and communities by bridging their diverse and sometimes conflicting knowledge cultures, in a way that helps prevent the spread of misinformation and build trust among community members, which is essential for effective communication, collaboration and decision-making for the common good.

3 Systematisation and facilitation of community knowledge: Case studies

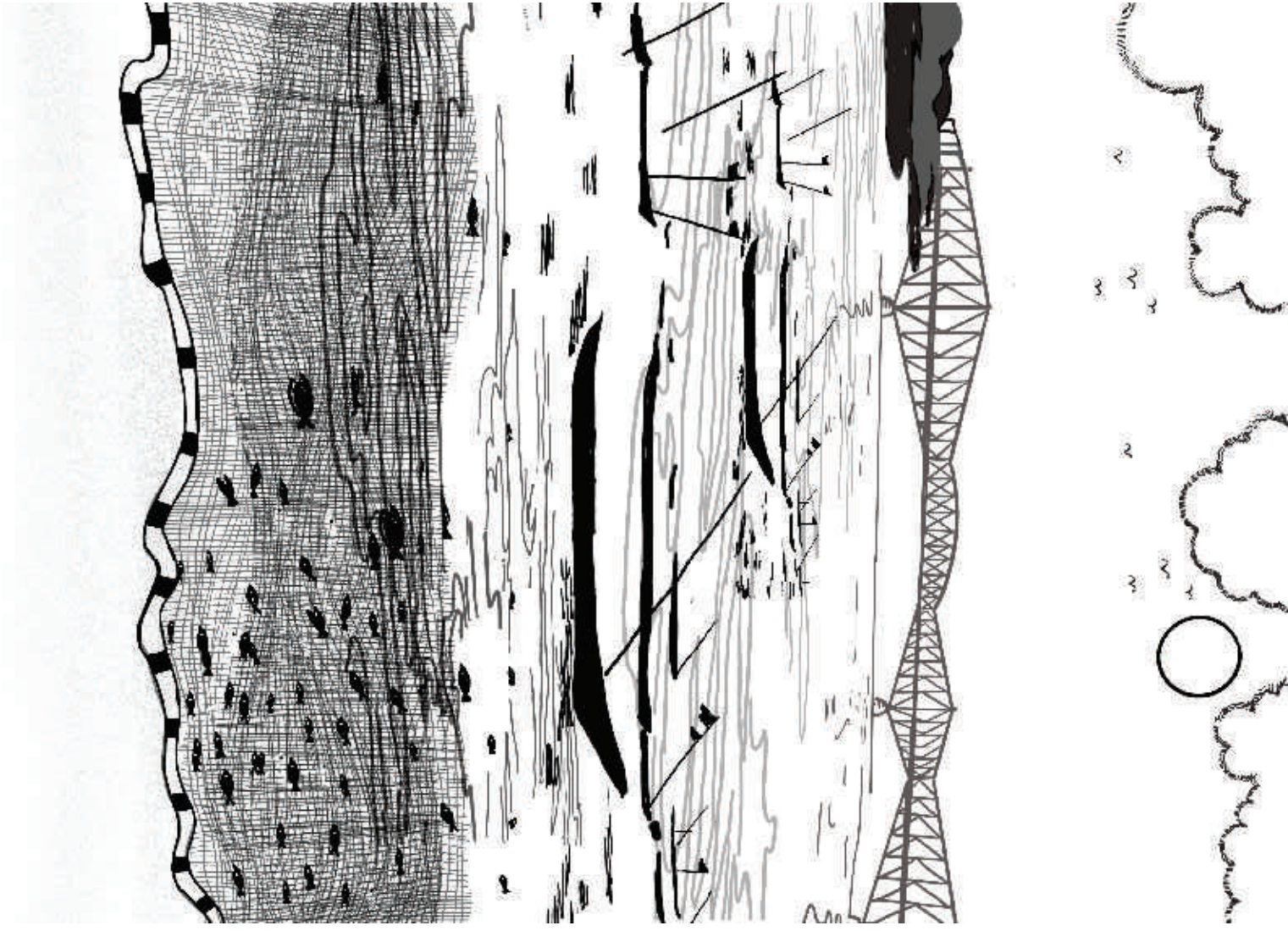
The case studies presented here are a summary of the larger case study available in the book. The focus in these shorter versions is on the community knowledge/value community organisations brought to the research done by the individual K4C Hubs.

Each of the ten K4C hubs conducted its own case study on their local knowledge cultures, reflecting on the socio-political context where the hub is embedded and the nature of their partnership. The full case study describes the methodology, 'maps' the knowledge cultures in the hub, conducts a comparative analysis of academic and community knowledge cultures found in the hub, and makes suggestions for bridging knowledge cultures that could be applied locally in their hubs and transferred to other similar research partnerships. Each case study is further informed by an analytical framework on knowledge cultures designed from inputs from regional syntheses prepared by four regional research teams.

The ten K4C hubs that conducted the research for the case studies are:

1. The UINSA K4C Hub based in Surabaya, Indonesia
2. The Mizan K4C Hub located at the Universiti Sains Islam Malaysia (USIM), Nilai, Malaysia
3. The Sangwari K4C Hub located at Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, India
4. The Manipal University Jaipur (MUJ) Hub in Jaipur, India
5. The Gulu K4C Hub at Gulu University in northern Uganda
6. The South Africa (North) K4C Hub, formed by mentors from the University of the Free State (central regions) and North-West University (northern regions)
7. The South Africa Durban K4C Hub located at the Durban University of Technology (DUT), South Africa
8. The Nyerere K4C Hub located at The Nelson Mandela African Institution of Science and Technology (NM-AIST) in Arusha, Tanzania
9. The Colombia K4C Hub located at University of los Andes, Bogota, and University of Ibagué, Tolima in Colombia
10. The Salish Sea K4C Hub located at University of Victoria, Canada

LEARNING IN THE KENJERAN FISHING COMMUNITY OF INDONESIA



The Nambangan-Cumpat fishing community living on the Kenjeran coast is the locus of the research carried out by the UINSA K4C Hub based in Surabaya, Indonesia. The hub has been working through Kuliah Kerja Nyata (KKN), or student community engagement program, with communities in East Java. Among the hub's partners are Civil Society Organisations (CSOs), city offices, regional district governments, and community partners.

The Nambangan-Cumpat fishing community is dependent on the sea for their lives and livelihoods. Historically, this fisherman community has existed since the 1700s in Surabaya. The fisherman of the community are traditional, having stronger ties to ancestral beliefs and to the land, water and ecosystems. As fishermen, they can adopt more advanced fishing techniques and tools. Yet, they have chosen not to accommodate advances in fishing into their traditional fishing methods. They have also affirmed their traditional character by joining the Indonesian Traditional Fishermen Association (KNTI).

Almost all roles within the Nambangan-Cumpat community are involved with sea-related activities, and the community is, in general, shaped by the culture and knowledge of fishing. The composition and classification of the fisherman community of Nambangan-Cumpat is based on many working roles. There are those who play the main role of fishermen and are called ***nelayan***. The term is used to refer to those who go out into the sea and catch fish. They are usually (if not all) males, between 20 and 60 years of age, own fishing equipment, and have the skill to carry out traditional fishing at sea. Then there are those called ***ibu nelayan*** (fisherman's wives), ***buruh nelayan*** (fishermen workers), and ***pengepul*** (fish marketers/brokers). Those who are not fishermen work in roles related to the fishing culture, such as making and repairing nets, or marketing the catch.

One of the most interesting findings related to knowledge culture of the Nambangan-Cumpat community is the ways in which the community, particularly the ***nelayan***, have developed their own mechanism and traditions in spotting, categorising and naming areas of the sea. When a fisherman goes to sea, his family and friends also know the name of the area towards which he is headed, and the direction. They argue this helps them if they need to go to his rescue. The naming also helps in terms of communality, as together they agree on which areas are in season (that is, offers large quantities of fish) or where to gather at certain times. Location naming is validated by its continuous use in the daily lives of the fishermen. The validation process involves sharing the name locations of the sea among everyone in the community.

The ***kidung***, or lyrics of praise sung along with the mandatory prayer, are heavily influenced by the life of a sea based community, containing specific advice for the fishermen, their families and the surrounding community. The songs composed as part of the kidung are hummed while at sea looking for fish. They praise the God that has blessed them with the wealth of the sea; it also contains the story of the daily life of fishermen.

Knowledge of the fishing techniques used by the Nambangan-Cumpat fishermen has been passed down from generation to generation. This means that fishermen understand and practice the techniques because they learn and practice them by observing senior fishermen. This transfer of knowledge of fishing techniques through learning by doing includes knowledge of climate, navigation, weather readings, character of water, currents and wind, at different times of the day, week and month. Technical knowledge of a physical nature, such as how to cast, set up and pick up nets, diving and collecting marine products can be mastered relatively quickly by new, younger fishermen. Knowledge that is non-practical but needs experience, such as navigation and weather, usually takes longer.

Arguably, knowledge transmission is dominated by learning from the elders. The community mechanism through which the community produces knowledge and learns from observing elders does not necessarily mean that space for reviewing, questioning and or even revising their knowledge is closed. There are indeed occasions when the younger generation finds that some of the knowledge they gain and learn from the seniors is no longer relevant. New issues such as climate change, ways in managing the fish produce more effectively, dealing with Covid-19 pandemic and waste management, are some of the interesting new knowledge lessons occurring within the Kenjeran community. The process of discussion, reviewing, rethinking and then revising is part of the knowledge production culture within the community to generate new knowledge that will later be communicated and transmitted to future generations.

Communication, contact or interaction between the knowledge culture within the Kenjaran community and the scientific knowledge culture from academia is already there. There are a numerous modern products that the fisherman have begun to use, among them fish-finder devices, in order to detect fish movements, and GPS, for navigation. The dive fishermen have learnt new diving skills through technical guidance from the Frog Troop Command (Kopaska) of the Indonesian Navy. The fishermen have shown a high level of accommodation and acceptance of new technology and scientific knowledge, knowing that one way their community knowledge culture can survive is through interaction with other knowledge cultures.

The full case study "What Academia Can Learn from the Kenjeran Community of Indonesia. Experiences of the UINSA K4C Hub, Surabaya, Indonesia", by Nabiela Naily, M. Helmi Umam, Noor Wahyudi and Misbakhul Munir can be accessed at doi: 10.1163/9789004687769_004

Learning With The Orang Asli Community of Malaysia

The Orang Asli are indigenous communities of Peninsular Malaysia. Their settlements in the area of Negeri Sembilan and some other states around Peninsular Malaysia are located close to local community villages. It is common understanding among the local village communities of Peninsular Malaysia, that the Orang Asli have their own traditions, customs and ways of living. The Orang Asli have thousands of published and unpublished manuscripts, including recorded materials, which explores the philosophy, knowledge and wisdom of the Orang Asli, their culture, traditions, education, and their struggles from the pre- and post-independence era of Malaysia. Unfortunately, the Orang Asli's knowledge of the world has rarely been shared with the local communities that live alongside the Orang Asli settlements. The Mizan K4C Hub has begun using the Community Based Participatory Research (CBPR) approach to increase understanding of the culture and identity of the Orang Asli, and how it can be sustained and preserved.

The Orang Asli Temuan community in Negeri Sembilan practice ***perpatih*** and is a matrilineal society. The process of appointing descendants in this custom is based on the 'belly of the woman'. In the perpatih custom, properties are owned by the female; customary law requires kinship or family property be transferred from mother to daughter. The perpatih society regards mothers as the most important figures.

Traditionally, the leadership of the Orang Asli community is not formal and the basis of their community leadership is to preserve community equality. There is no social structure and rank, except communal responsibilities that have been entrusted to community representatives. No community member is dominant. The entire community respects the customs and rules that have been established and inherited from previous generations.

In the context of continuing community knowledge and skills, the Orang Asli acknowledge the wisdom of their elders. Community members who are acknowledged as leaders are selected from among the elders who are highly respected for their knowledge, experience, skills as well as having a spirit of patience, enthusiasm, justice and tolerance towards all. Leaders normally have some specific set of skills, for example, traditional medicine, and are able to stand as mediators related to any social issue or disturbance in the community. Leaders also need to have deep understanding of the customs and taboos of the community.

The soul, traditions and knowledge of the Orang Asli are tied closely with their customary land. They have a close connection with the environment, taking from the forest and rivers only that which they need. Loss of land acutely affects indigenous identity. In a community mapping exercise among the elders, the original boundaries of the village were drawn on the map, which showed that earlier the territory of the village was larger. This generated discussion on the issue of land (dis)possession. The elders shared their hopes that the government would

improve the physical infrastructure and economic wellbeing of their village.

With the passage of time, the Orang Asli Temuan community has changed. The community is now more open to external influences, especially when it comes to urbanisation, globalisation and immigration. Nowadays, their

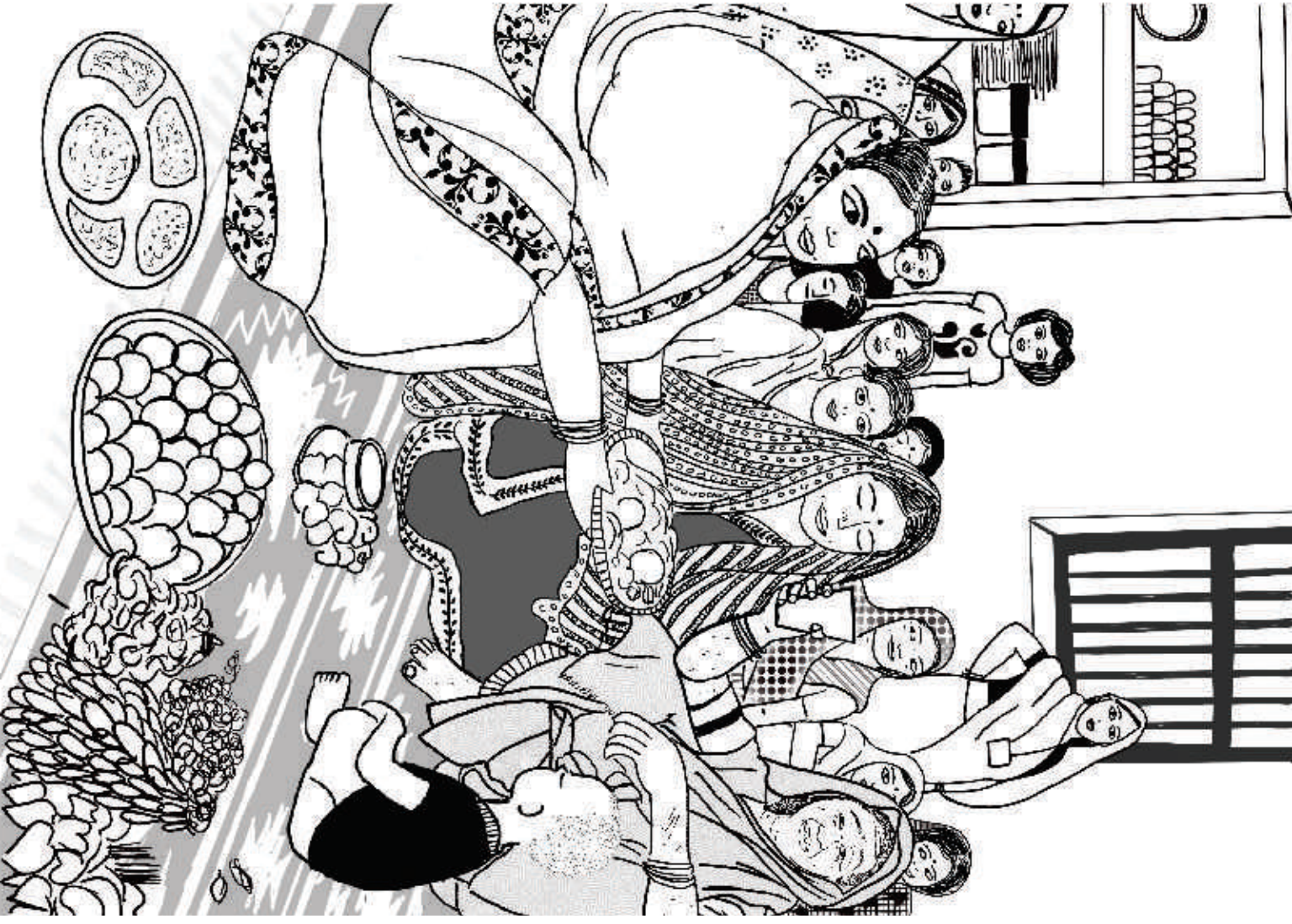
leaders have to have better education and knowledge as they are expected to help the community face modern challenges, while also retaining their original culture, language and traditions.

Similar to other countries with large indigenous population, in Malaysia too a large gap can be seen between indigenous peoples and non-indigenous populations with regard to socio-economic, education and health status. School dropout is common among the Orang Asli. As an indigenous population undergoing epidemiological and socio-economic transition, the Orang Asli community also faces growing infectious diseases and non-communicable diseases. In the focus groups discussions with women, the issues involving schooling and the future of their children, the village economy and infrastructure, alcohol addiction and common chronic diseases were the focus of the discussions. Education and health were also the top concerns among the youth.

Despite the high mobility rate of Orang Asli in Peninsular Malaysia, the community is still known for their unique knowledge and culture, especially in the context of sustainable living. The Orang Asli youth remain connected with their community and are motivated to give back to community. Education has exposed them to various types of skills, knowledge and opportunities, but most of them still live in the village with their parents. Preserving the Orang Asli knowledge, culture and heritage, and sharing it with other local communities needs further exploration and support.

The full case study "Learning with the Orang Asli Community. Experiences of the Mizan K4C Hub, Malaysia", by Mahazan Abdul Mutalib, Izawati Wook, Mohd. Dzulkhairi Mohd. Rani, Khairunneezam Mohd. Noor, Aminuddin Mohamed, Norhyisyamudin bin Kamil, Jufitri Joha and Muhamad Hanapi bin Jamaluddin can be accessed at doi: 10.1163/9789004687769_005

Maternal Health Care in Rural Communities in Chhattisgarh, India



In India, as in other parts of the world, improving maternal health is a challenging task. Lowering the maternal mortality ratio (that is, number of maternal deaths in a given population of women of reproductive age) means improving the well-being of women throughout pregnancy, childbirth, and the postpartum period.

Maternal deaths are preventable if women have access to and receive adequate maternal health care services and knowledge. The public health system in India focuses on providing comprehensive care to mother and child. However, a large proportion of women across the country still do not have access to health services and rely on traditional practices during pregnancy and childbirth. How can this community knowledge be inter-twined with public health goals to achieve better maternal health outcomes, especially for rural and indigenous women?

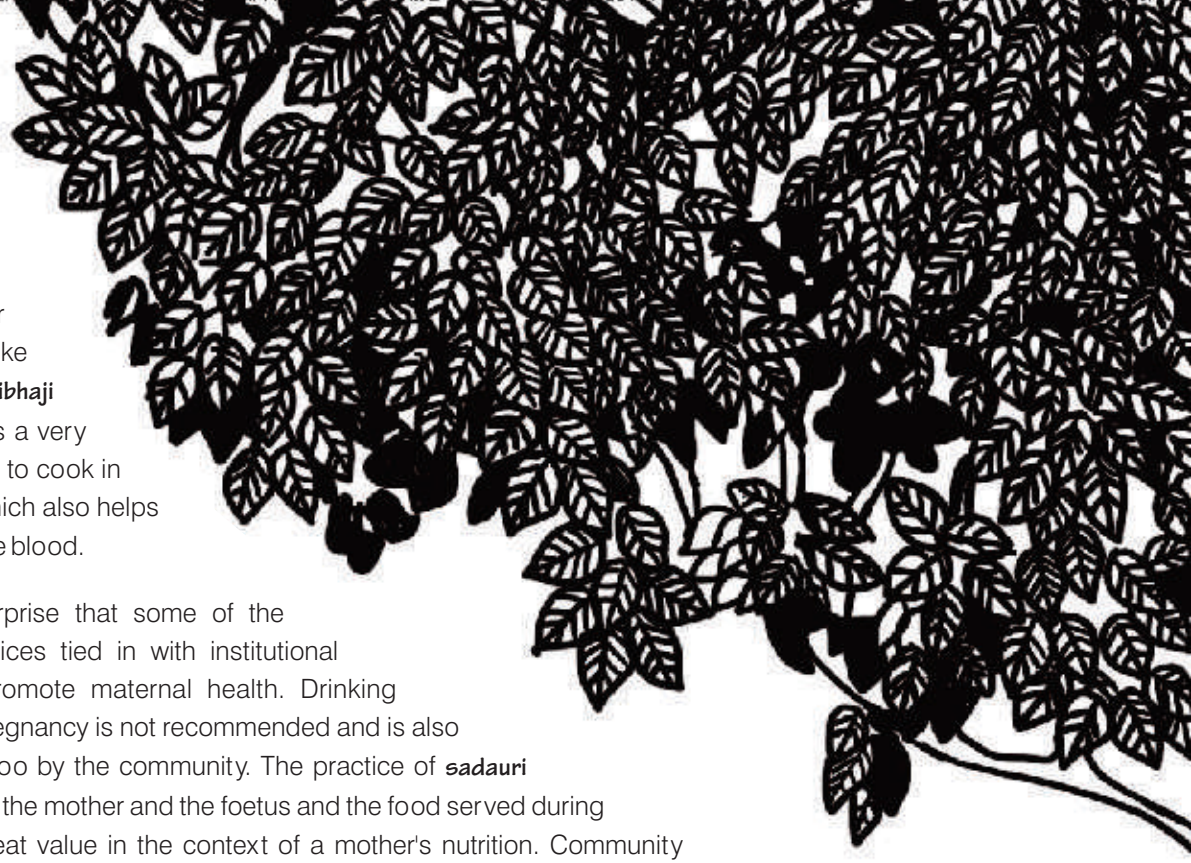
The research undertaken by the Sangwari K4C Hub in Raipur attempted to find some answers. The systematisation exercise was supported by Panchayat (local governance institution) officials, community health workers (anganwadi workers and mitanins) and traditional birth attendants (dais). The community that participated in this project was the residents of 15 villages around the university. Students from these villages study at the university.

In rural communities of Chhattisgarh, maternal health is preserved through various rituals and cultural norms, which include diet, hygiene and daily routines, that the mother is expected to follow during pregnancy and after child birth. Community knowledge regarding nutrition is embedded in the dishes that are cooked and eaten.

Elder women in the community narrated how they include milk, apples, pulses and pomegranates in the diet of pregnant women. These foods are considered to "cool the body". Fruits like wood apple, papaya and pickle should be avoided. Such knowledge was inter-generational – these women had learnt what to eat and what to avoid during pregnancy from their mothers and grandmothers.

Immediately after the delivery, the diet is changed. Mothers of new borns are encouraged to drink milk, have food cooked in ghee (clarified butter), and consume nuts and jaggery to regain strength and be able to breastfeed the baby.

To celebrate the pregnancy, traditional items called ***rakhiyabadi, sadauribadi*** (nuggets), and ***chhattisa*** (laddus with dry fruits, black pepper, dried ginger powder, jaggery, ghee and medicinal herbs) are prepared by the elder women of the house. These are stored in jars/tins for the pregnant woman to eat. Eating these increases strength and helps in producing breast milk.



To increase the levels of haemoglobin, dishes with spinach and other leafy vegetables like **lalbhaj**i and ***chaulaibhaji*** are prepared. It is a very common practice to cook in an iron vessel, which also helps increase iron in the blood.

It was not a surprise that some of the community practices tied in with institutional knowledge to promote maternal health. Drinking alcohol during pregnancy is not recommended and is also considered a taboo by the community. The practice of ***sadauri*** (baby shower) for the mother and the foetus and the food served during the event has great value in the context of a mother's nutrition. Community practice is to keep the baby and mother in isolation for six days after delivery. Institutional deliveries also recommend that baby and mother remain isolated for several days post birth. This is useful for avoiding infections.

Challenges with accessing institutional and public health services remain, and get compounded with over-reliance on traditional beliefs that can put a pregnant woman at risk. Mothers-in-law believe it is better for a pregnant woman to eat less, to keep her stomach light. Health professionals advocate eating well during pregnancy to meet the additional nutritional requirements of mother and baby. In rural areas, pregnancy is not considered to be a special time in the life of a woman. Women continue to do physical work such as household chores and work in the fields. It is believed, continuing physical activity during pregnancy helps in smooth labour and easy delivery. However, it is medically advised to avoid doing heavy work during pregnancy. Only light exercise is recommended. Pregnant women in the community said that they follow any advice given by the elder women as they fear something may happen to their baby if they don't follow the traditional practices.

Understanding the gaps between community knowledge and scientific maternal healthcare can be useful in formulating new policies and making changes to existing schemes so that communities can adopt scientific health practices along with traditional practices for overall improvement in maternal health indicators.

Ultimately, knowledge is bridged through interactions. People's interaction gives the platform for communities to share and create new knowledge. The Swasthya Mitanin (paramedical professional) in Chhattisgarh's public health outreach is a crucial link in building and sustaining people's interaction. Mitanin in Chhattisgarhi means friend, a female friend. In most parts of Chhattisgarh, there exists a traditional custom that a girl of one family is bonded to a girl of another family through a simple, enchanting ritual ceremony, and after this ceremony they become mitanins to each other. It is this custom that was built upon to create a new type of mitanin – the Swasthya Mitanin, or a friend of the community for their health care needs.

The full case study "Bridging Knowledge in Maternal Health Care in Rural Communities. Experiences from the Sangawari K4C Hub, Chhattisgarh, India", by Reeta Venugopal, Priyamvada Shrivastava, Anuradha Chakraborty and Aniksha Varoda can be accessed at doi: 10.1163/9789004687769_006

Understanding Community Waste Management Through Service-Learning in Jaipur, India

The MUJ K4C hub in Jaipur, India considered the case of waste management as an ideal example to understand how community knowledge can be valuable in managing the solid waste challenge in India's cities given the limited financial resources of municipal authorities to reach every household for waste collection. The research also highlights how power in the production and dissemination of knowledge in community-university programs is tilted in favour of higher education institutions.

The waste management practices in two villages and two urban slums located close to the university were documented to understand how knowledge in a community is created, shared and validated. The Sarai Bawari

community mentioned how, for ages, they have been segregating kitchen/vegetable waste and feeding it to animals. It was very clear from the discussions that those who have been managing waste locally through traditional practices are happy and proud of it. However, with Swachh Bharat Mission (SBM), a system of waste segregation at source was introduced without any consultation with the local community. The traditional sustainable waste management practices of local communities that protect the environment by recycling and reusing waste have not been incorporated into current sanitation programs in India's cities, which rely heavily on public resources of local bodies. A new system was imposed – that of giving their segregated waste to the garbage collection van. The local communities remain hesitant to replace their knowledge that has been validated over a long period of time and accept the new SBM rules.

In the absence of the mandated government waste collection mechanism being effective, communities find their own solutions that solve their contextual problem. They usually dispose of their domestic waste on a vacant piece of land. This is unsustainable but considered a more straightforward, less time-consuming alternative. The community was using dry waste as fuel and were aware it causes pollution, especially the burning of polythene. But they were not aware of how it can be safely disposed.

Acceptance of and learning new methods to reduce and manage waste is higher when mediated through trusted community based organisations. The hub's community partner, Mahila Housing Sewa Trust (MHT) had facilitated the formation of a Community Action Group (CAG) as part of its community interventions. CAG members were trained on various aspects such as the importance of collective leadership, structure of the local municipal corporation, entitlements and government schemes for urban poor and slum development, etc. Training provided by MHT played a pivotal role in the dissemination of knowledge which was then leveraged by the community to access various entitlements and services. The CAG managed to get legal water connections for almost all households, thus improving the overall water, sanitation, and hygiene conditions in the slum. MHT also helped them set up a waste pit for organic manure. The community was willing to learn new knowledge/adopt new solutions, and validate the knowledge into the community, because it was created in consultation with them, and was useful to them locally (the manure could be used to grow trees).

MUJ practises service-learning, by making students partner with the community living in the rural areas surrounding the university. The role of Mahila Housing Sewa Trust, a local civil society organisation and MUJ's community partner, in facilitating interaction and knowledge transfer is critical in the service-learning program.The CAG leaders trained by MHT were indispensable in facilitating community engagement for the BKC research.

Interactions with the community gave us a sense of how they view the university. The locals view academia as an isolated entity, unconnected to their daily lives. They perceive the authoritative status enjoyed by academia by virtue of the university's formal recognition in the education industry and its financial strength. They acknowledge the community does not enjoy the same status as the university even in general society. The lack of a platform to facilitate knowledge sharing between locals and the university means there is no integration of community knowledge into the knowledge that the university is imparting to its students.

Partnership is essential in knowledge creation and knowledge sharing. But there is a lack of trust between the university and community. Sporadic engagement from MUJ's service-learning program doesn't help to build lasting relationships of trust. The community is only willing to partner with the university (or any other organisation) if they know them well and the project intends to address issues relevant to them.

In this context, knowledge intermediation by a community-based/civil society organisation that the community trusts to identify needs and priorities and support the co-creation process becomes helpful. In MUJ's research for the BKC project, the support of MHT community facilitators and the community leaders trained by them was invaluable.

The full case study "Understanding Community Waste Management through Service-Learning. Experiences from the Manipal University Jaipur K4C Hub, India", by Madhura Yadav, Minali Banerjee, Siraz Hirani and Manish Sharma can be accessed at doi: 10.1163/9789004687769_007

Engaging in a Movement of Cognitive Justice in Uganda

In the poem Wer pa Lawino, the poet Okot p'Bitek asserts that Afrikan culture and values need not emulate European standards in order to be recognised. The poet's work is filled with the recognition that indigenous knowledge systems are fighting a losing battle in the face of modernisation. The section of the poem, "The graceful giraffe cannot become a monkey", highlights the differences between the Whites and Africans, and the pride of an Acholi woman in her culture and identity amidst colonial attacks on it. In general, the feelings in the poem are more of pride, pity, protest, anger and boldness.

p'Bitek warns in his poems against using European frameworks to interpret Acholi life. He explains that it cannot be translated, but rather needs to be understood in Acholi, because the meanings are foundationally different. Sustaining pride in Afrikan Indigneous Knowledge Systems (AIKS) and relationships is at the core of the multi-layered sense of community and research at the Gulu K4C Hub based in northern Uganda.

Elements of AIKS are revealed in the relationship between indigenous communities and their ecosystems. Among several communities within Uganda, designated forested areas were not subjected to firewood gathering or timber logging. This was primarily due to the belief that spirits of the ancestors/gods lived within these large trees and cutting them down would infuriate the ancestral spirits, which in turn would rage against the community's crops and livestock. What if the message in regard to the trees was not to do with disturbing the spirits but more about conservation?

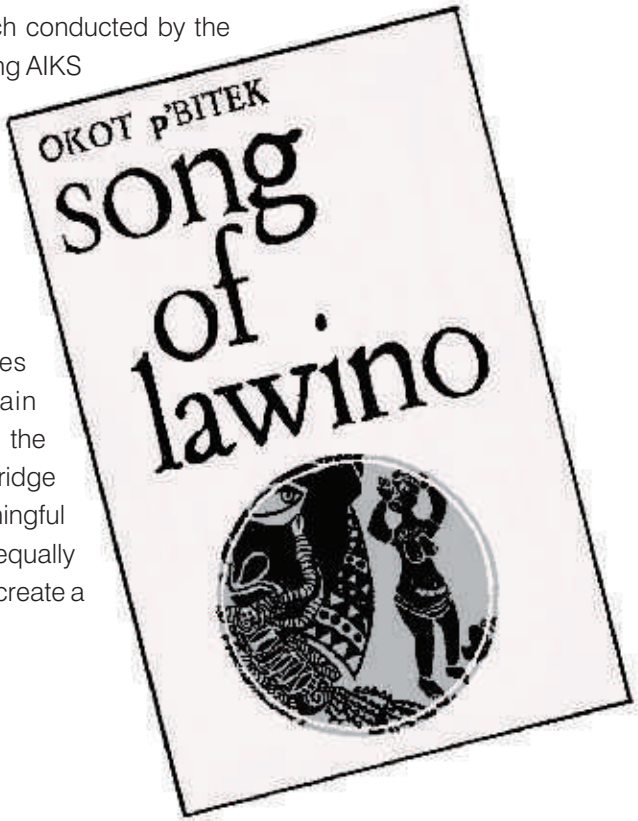
The Acholi have a saying that you do not defecate on the river banks, otherwise the mother of the river will twist your intestines and cause you to die. Other sayings state that you do not sit on the grinding stone, otherwise your mother will die. These teachings appear aimed at ensuring hygiene behaviour of children within the community. Defecating on the river banks would disperse human waste into the river system, affecting downstream communities. A young child with an uncovered bottom would pollute the grinding stone, used for processing the family meal. When looked at from this perspective, it is difficult to discount these knowledge systems which are connected to the practical needs of daily life.

The herbal medicine and indigenous knowledge program at Gulu University uses an IKS framework of transdisciplinary learning that integrates chemistry, biology, pharmacy, agriculture and spirituality. The program delivery uses some classroom lecture sessions; however, it is mainly based in a collaborative and experiential learning model that relies heavily on the prior learning of herbal medicine practitioners. It revolves around validating the experience and knowledge of the practitioners, preserving biodiversity and culture, integrating business and marketing, as well as medical research and copyright procedures to meet the licensing demands

of the National Drug Authority. Gulu University has a laboratory that is used to test new products, but much of the research and learning is done through ceremony, dreams, dance and food around the traditional learning space – the campfire. The hub has also led a series of inter-nation gatherings of indigenous knowledge holders from the Bunyoro kingdom, Buganda kingdom, Busoga kingdom and Acholi chiefdom. There is a strong focus on bringing Acholi elders together to inform and lead these inter-nation gatherings.

"Often the most important resource is forgotten: The knowledge and power of working together."

This observation by a participant in the BKC research conducted by the Gulu hub is an important point when it comes to building AIKS which relies on the ontological assumption of shared experience and values the diverse skills and knowledge that exist in the community. Relying on money as the only conceptualisation of wealth demeans community knowledge and plays into the carefully constructed hierarchies of knowing.



Challenging the epistemic narrative that separates culture from knowing, and knowing from certain communities, is therefore a foundational activity in the search for cognitive justice and any attempt to bridge knowledge cultures requires efforts to include meaningful epistemic dialogue and reciprocal relations which equally value different contributions (financial or otherwise) to create a flourishing society.

The full case study "Engaging in a Movement of Cognitive Justice at the Gulu University K4C Hub, Uganda", by David Monk, Gloria Aber, Alice Veronica Lamwaka, Martin Odoch and George Openjuru can be accessed at doi: 10.1163/9789004687769_008

Developing an Understanding of Traditional Maasai Water Practices in Tanzania

Rural communities of sub-Saharan Africa have indigenous knowledge, a form of wealth that remains unrecognised, under-valued, and which is gradually eroding. The Nyerere K4C Hub in Arusha, Tanzania, chose Maasai community water practices to explore the Maasai knowledge culture, and learn how different knowledge cultures can work together. Hub partners and Maasai village leaders narrated and co-investigated their different knowledge cultures in Nduruma, a village 40 km from Arusha city.

The water canal is the village lifeline. Water is a shared resource. The Maasai relationship with water is one of sustainability. A village leader explains: “The water canal [in our village] was established a long time ago by our forefathers. They built it from scratch, during the colonial era [before 1961]. At that time, there were no established villages – the Maasai were living freely, there were no maps, no delimitations, no modern land use planning, etc. Our village was not as arid as it is today. There used to be rivers; and from these large rivers, our elders dug trenches to transfer water to their pasturelands. It is drier these days. So, this canal is even more important today than it used to be in the 1960s. Now, the water canal serves two sub villages of Nduruma-Kati and Olmaroroi. But the canal goes as far as the neighbouring Mlangarini village. The water canal brings the village communities together to manage the water in the canal as 'canal members'.” The elders feel Maasai traditional water management practices are somehow better than what is usually taught in formal engineering classes.

Learning to manage and conserve water in daily life is the 'living classroom' in which knowledge is transferred between generations. A Maasai elder explains: “The canal is not just water; it is water for this and future generations. We are water stewards. There is a difference between wealth heritage and knowledge heritage. Our ancestors made us inherit knowledge, not wealth. They did so with a purpose: they knew that by making us inherit good knowledge, we will definitely find wealth. This inheritance process works by ensuring that the Maasai child stays close to their father as the father performs his day-to-day duties. *[Note: the Maasai culture is predominantly patriarchal]*.

As the child stays close to the father and sees his father working, they acquire knowledge. This is practical knowledge. But these fathers and grandfathers also acquire knowledge from their children and grandchildren. The children do not passively watch their elders to learn. They work alongside their fathers and grandfathers. So, it is a living classroom for both groups – knowledge exchange between elders and the younger generation.

Maasai elders explained how their knowledge system, unlike the post-colonial, colonized classroom, is highly dynamic. “Our [the Maasai] knowledge system is based on values. Younger generations must respect older generations. We have a highly strict ethical system. We cannot separate values and ethics from knowledge. They

go together. For example, the value we place on cattle is almost religious. Your cattle, your life – we say. We almost look at our herds the same way we look at our fellow humans. No cattle, no Maasai. We do not have [commercial] banking systems. Our livestock is our bank and our economy. We may not have received a formal education, but we know how life works here in the semiarid lands. We research, learn, and acquire knowledge while working. You fail, you do it again, until you pass."

Mutual exchange is essential for bridging knowledge cultures. In the research's dissemination strategy, a summary of the report was printed and shared with the Maasai village leaders. The presentation was in Kiswahili. Whenever disagreement occurred, the village chairman (Maasai elder) would intervene to narrate the correct information that should be included in the report.

In Maasai traditional settings, knowledge is handed down over generations through storytelling and hands-on practice in which the younger generations learn from their elders. In the hub setting, knowledge is generated

through scientific research, validated by reviewers, and shared through print media, videos, pictures, policy briefs, dissemination meetings, etc. By working together, methods such as storytelling, elder-youth engagement, practical skill impartation, whole-village meetings, and communal leadership used by the Maasai community to generate, validate and transmit knowledge can be tapped by the hub members. Similarly, scientific technological methods such as observation, geo-mapping, photo-taking, and videography that are compatible with the Maasai culture may be transferred to the Maasai community in order to record and preserve their practices.

The full case study "Developing an Understanding of Traditional Maasai Water Practices and Technologies Experiences from the Nyerere K4C Hub, Tanzania", by Mwemezi Johaiven Rwiza, Haikael D. Martin and Ahmad Kipacha can be accessed at doi: 10.1163/9789004687769_009

Bridging Knowledge Cultures in Rural Health Education in South Africa

The South African (North) K4C hub chose the Interprofessional Health Education (IPE) project within the Faculty of Health Sciences at the University of the Free State to explore how different knowledge cultures can learn from each other.

The community-based IPE and rural health project is conducted in the Trompsburg community in Xhariep District of South Africa's Free State Province. The engagement initiative includes collaboration and knowledge sharing between groups of individual community members diagnosed with diabetes mellitus and IPE student groups (nursing, nutrition and dietetic, occupational therapy, physiotherapy, medicine and biokinetics). The aims are to improve health outcomes by establishing Lifestyle Groups (LG) to enable sharing of health information among participants, and thereby encourage sustainable, accountable lifestyle practices. The engagements with the LGs include home visits by students, accompanied by community healthcare workers, to conduct holistic screenings, as well as two-hour weekly LG meetings to discuss topics proposed by the LG members, facilitated by IPE student groups.

The nature of the engagement determined to a certain extent the kind and level of knowledge that was created and shared within the partnership. Since the instigator of the relationship was the university, to meet their need of providing practical experience for the students and services to the community, the knowledge shared with the community was initially pre-determined and based on biomedical science. Students shared knowledge with the community about how to live a healthier lifestyle and manage/reduce their level of lifestyle-related disease. However, the community also created and shared knowledge with the students within the LGs. The knowledge that the community provided was less medical, and more about context, e.g., how difficult it was to afford more healthy food options.

The community members themselves regard the medical knowledge shared by the IPE team as valid. However, community members also have the capacity to work out how best to treat specific illnesses, as one student was surprised to learn when a community member **"figured out what to do for her diabetic foot"** on her own before an appointment could be made with the physiotherapist.

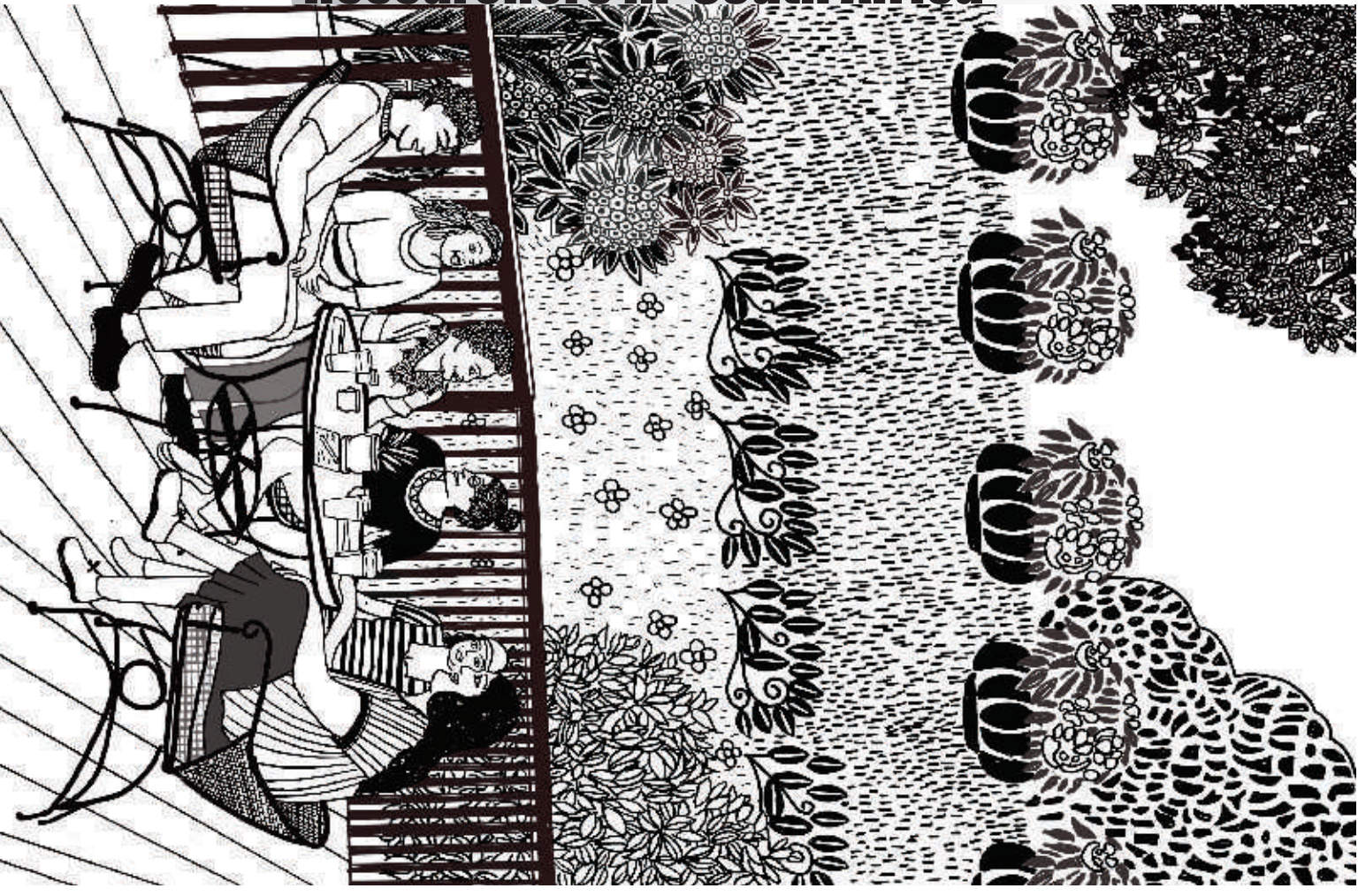
Community members enjoyed it **"when they listen when you tell them something"**. One community member was proud of the fact that she **"taught"** the student about how drinking water can help to improve vision. She said she knew this, because she had experienced this benefit herself. Community members also conveyed their knowledge through story telling, which is a form of knowledge sharing embedded in traditional African culture.

In terms of the reciprocity of knowledge sharing, the relationship with the students enables LG members to access information that they would not have got otherwise as they are reluctant to visit the clinic to seek treatment for what they perceive to be minor issues. They also perceive that the knowledge they gain enables them to control their own health, thus imbuing them with personal power. For the students, knowledge gained on home visits pertaining to specific patient's home circumstances is shared with the health care professionals at the clinic and hospital so that they have a better idea of how the lived experiences of the patient might impact their health or treatment. The perceptions of the academics were mixed, with some thinking that the students learnt a lot from the community about what life is really like in contexts of poverty and how resilient community members can be, which they would not otherwise learn from their lecturers.

The university has therefore benefitted from using Trompsburg as a research site, but the findings of the BKC study also indicate that the LG members think they have benefitted from the services rendered in terms of physical and mental health. Students feel better prepared for their future professions and so it appears that the knowledge generated has been of some benefit to all. However, it can be postulated that if knowledge sharing was conducted using a community-based research approach, it could have a larger and more sustainable impact in the wider community.

The full case study "Bridging Knowledge Cultures in Rural Health Education. The Trompsburg Project at the South African (North) K4C Hub", by Lesley Wood, René Walter Botha, Beatrix (Bibi) Bouwman, Hendri Coetzee, Alfi Moolman and Karen Venter can be accessed at doi: 10.1163/9789004687769_010

Bridging the Knowledge Culture Gap Between Early Childhood Development Practitioners and Academic Researchers in South Africa



This case study conducted by the DUT K4C Hub focuses on the differences in knowledge cultures between academic researchers and early childhood development (ECD) practitioners in Durban, and how to bridge this gap in the field of ECD education.

The three ECD practitioners who participated in this case study have an ongoing relationship with a doctoral student and academic researchers since 2018. They are rooted in the communities in which they work; each works in a different community-based pre-school established by NGOs in Umbumbulu district and surrounding areas. The practitioners have an entry level ECD qualification, which is meant to provide ECD practitioners with the necessary skills to facilitate the holistic development of young children and to offer quality ECD services in a variety of settings.

The relative familiarity among the researchers and the collective approach to CBPR, together with the mutual recognition of lived experiences, knowledge and wisdom made it easier to conduct the research. Interviews and focus group discussions were held in the home of the doctoral student, considered a neutral space. The researchers sat around a circular table. The table was located at the edge of a garden, near the kitchen door of the home and a garage formed a boundary to the space in which the table was set. The expanse of the garden was visible to most of the researchers.

As an icebreaker, each participant was asked to describe the surroundings. As participants described what they saw, the doctoral student began asking what appeared to be random questions about the surroundings. For example, in response to some descriptions, the colour of a flower was sought, or the exact number of birds that were visible, or who could see the clouds. The directed questions were intended to introduce the idea that our responses are different and influenced by our individual perspectives, enabled and/or limited by our positions at the table. The individual positions and concomitant views were then used as a metaphor for the differences in our perspectives on what constitutes knowledge; how knowledge is described and shaped by these perspectives; and how these perspectives may be different from others.

Right from the outset of the interaction between the ECD practitioners and the academic researchers, data gathering became a process. Pertinent questions asked by the ECD practitioners is a clear indication of their critical disposition and their questioning also influenced the research process. Consequently, the whole research process was more organic than structured, notwithstanding the pre-determined prepared questionnaire.

The ECD practitioners viewed knowledge (general) as existing in the environment, in people and practical experiences. In comparison, university knowledge was viewed as theoretical, with academics seen as the

experts. A clear distinction is made between general knowledge (practical) and university (theoretical) knowledge. Interestingly, the practitioners related their knowledge to love (an emotion) while that of the academics is seen as 'programmed'. Even the way in which knowledge is learnt and managed in a community is different from the university. Community members manage their knowledge, for example, in traditional ways, such as through the telling of stories and not through modern technology. Importantly, they believe that the knowledge of those without the 'necessary qualification' is not valued. Practical knowledge is valued less than theoretical knowledge.

It was agreed by all participants that there is a difference between knowledge and wisdom, especially the source. The source of knowledge is external, and the source of wisdom is from within, and it must include love. Is the transmission of knowledge an easier process than that of wisdom? Can wisdom be transmitted from one individual to another, or does it require a high degree of self-awareness, reflection and introspection?

The findings of this case study reveal that the co-creation of knowledge will mainly require changes to be made on the part of the university. For too long community knowledge has been appropriated, devalued and voices suppressed. A practitioner's response that ***"local indigenous knowledge is devalued because of western culture"*** highlights the power of one knowledge culture over another. It clearly raises the issue of epistemic injustice. This also applies to the dominance of the university knowledge culture over the knowledge of communities.

The appropriation of traditional/community knowledge by universities may be termed as a difference of 'knowledge cultures' – the one which is considered 'superior' is known to be usurping the knowledge of the other which is considered 'inferior'. And university knowledge is presented as right knowledge.

In such circumstances, what must happen for co-creation of knowledge to work?

An answer lies in the responses of the practitioners: **"the barriers, especially the mindset/thinking that one is superior, and the other is inferior, needs to be broken from both sides... When people are told often enough that they do not know anything, they eventually believe it. It is not enough to require of those who think they are superior to stop. Those who have started to believe in the inferiority need to undo the damage and not wait for the other side to act."**

The full case study "Bridging the Knowledge Culture Gap between Early Childhood Development Practitioners and Academic Researchers. Experiences from the DUT K4C Hub, Durban, South Africa", by Darren Lortan and Savathrie Margie Maistry can be accessed at doi: 10.1163/9789004687769_011

Towards Transdisciplinarity in the Co-Construction of Knowledge in Colombia

This case study, conducted by the IAPaz Colombia K4C Hub, presents the qualitative findings of a community-university partnership between the Peace and Region Semester (PRS), a service-learning curricular strategy of the University of Ibagué, and the Community Aqueduct Acuamiramar (CAA), a non-profit and community-driven, organised civil society group that provides water to households in rural and semi-urban areas.

The PRS program's goal is to develop critical thinking and citizen skills in the students. The students are placed after making arrangements with local actors, and are accompanied by a regional advisor to support the pedagogical process. As a training strategy, PRS favours collaborative work among different actors – students, technical professors, regional advisors, directors, local entities and members of the community. An action plan and different activities gives the students a schedule for the semester. As a requirement to start the PRS, students must take a course on human and sustainable development and methodologies for approaching the specific problems of communities, and interact with peers from other academic programs with other types of knowledge to help them solve contextual problems.

Interlocutors from the community are the main contact with other community members and municipalities. They also help in developing the projects undertaken by the students to tackle specific problems. The community recognises the interlocutor as a stakeholder who maintains a constant link with the students, the university, and the community-university engagement process. In their reports, the students recognise the interlocutor as the person in the community with whom they interact daily and with whom they define the actions to be taken within the project. The relevance of the interlocutor is undeniable since it is fundamental to operationalise the PRS project in all its phases. By shadowing the students closely throughout the whole process, the interlocutor generates the conditions through which the link between the students and the community is established.

In the construction, organisation and care of community aqueducts in the state of Tolima in Colombia, rural and marginalised urban communities have had to self-manage ways of supplying water to their communities. The public administration has not provided an effective response to the supply and organisation of water for them. In the case of the Acuamiramar aqueduct, communities, settled near water sources, needed to find a way to supply water to their fields and for their families. They organised themselves along with two other neighbouring communities and presented a proposal to the municipal government for the purchase of land where three aqueducts were supplying water. At that time, the Miramar community was a rural area located near a stream or micro-watershed. The villagers organised themselves to build wells and channel the water resource. Currently, despite being in a conurbation area with the city of Ibagué, the community continues to have activities associated with rurality, and water is a fundamental resource to maintain these rural activities.

Two distinct knowledge cultures can be seen in the relationship between CAA and PRS. The CAA Acuamiramar aqueduct is a culture of knowledge that arises from the community's relationship with water, ancestral knowledge, and common sense. It shows a culture of learning through collaboration between families and the community. Community members share ancestral knowledge for the construction of wells, using natural resources such as a plant from the bamboo family, called guada, as a tube to channelise water from the streams to supply the community.

Community participation in water management is through an organisation in which some members of the community are part of the Community Board of Directors which manages the aqueduct. Unfortunately, throughout the history of community aqueducts, there has been a lack of support from the national and local governments for their proper functioning, which has meant that they do not comply with sanitation and management standards, thus justifying their privatisation. As a result, a business culture has displaced the community knowledge culture, and it is the business culture that interacts with the academic culture.

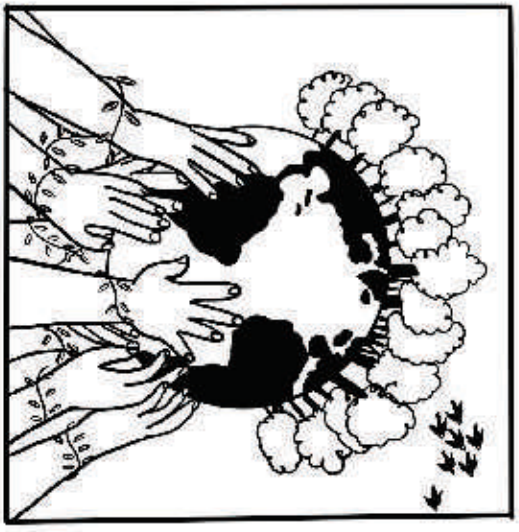
As for the academic culture, the case study finds that it relates to the community knowledge from a technical perspective. The type of consultancy offered through PRS projects is related to the maintenance of the network cadastre, the administration of the service, and the attention to users.

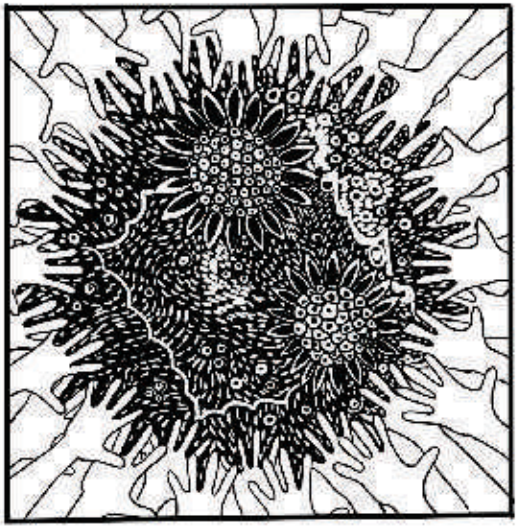
The PRS process is framed in a knowledge culture where the popular knowledge and academic knowledge come into contact. In practice, these two cultures do not enter a transcultural dialogue. The encounter between the two knowledge cultures – first, the community's knowledge and relationship with water; the second, the technical knowledge of the university – far from achieving convergence to mutually strengthen each other. On the contrary, it seems that the actions of the academic culture are strengthening positivist episteme dynamics.

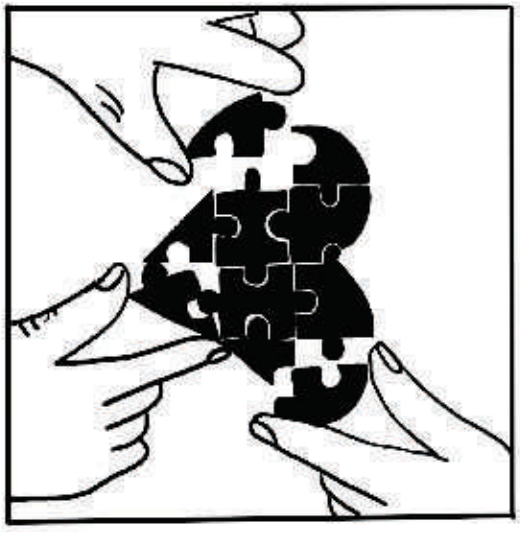
Knowledge products generated by the students end up confined to their disciplines of origin, because the interaction between PRS and Acuamiramar occurs in an institutional framework. Knowledge dissemination does not involve members of the community or those of the university. As a result, the principle of participation, as stated in the PRS guidelines, vanishes in practice since not all the actors involved in the project (regional advisors, interlocutors, students, and community) participate equally in the different phases of the process.

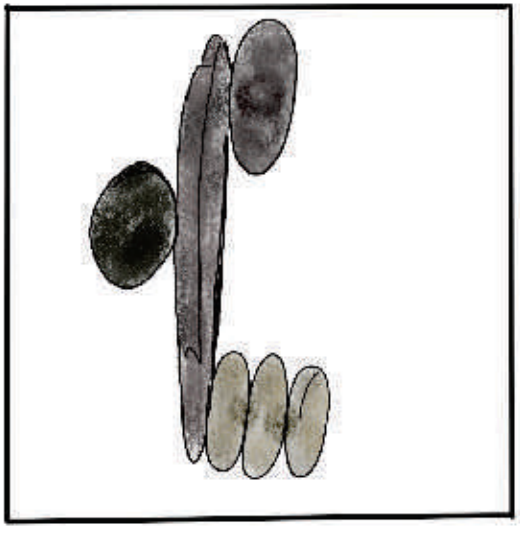
The full case study "Towards Transdisciplinarity in the Co-Construction of Knowledge. The Peace and Region Program at the University of Ibagué K4C Hub, Colombia", by Irma Flores, Luisa Fernanda González, Andrés Astaiza and Daniel Lopera can be accessed at doi: 10.1163/9789004687769_012

Decolonising Knowledge for Social Change in Canada









In Canada, there is an on-going history of racism, oppression and discrimination towards Indigenous peoples and their knowledge systems, which has led to the annihilation of Indigenous ways of being and knowing. This epistemicide has forced the disconnection and displacement of Indigenous peoples from their land, culture, language and community. In recent years, conscious efforts have been made in decolonising knowledge and institutions, including recognising Indigenous ways of knowing, to address the harmful impacts of colonialism and imperialism.

In working towards the goals of decolonising knowledge production and dissemination, the Salish Sea K4C Hub (SSH) co-developed an upper-level undergraduate course offered through the Department of Geography at the University of Victoria (UVic), which introduces students to the theory and practice of community-based participatory research (CBPR) and Indigenous ways of knowing, and exposes them to experiential learning opportunities with local community partners. This case study discusses some of the challenges and learnings in the hub as they tried to incorporate Western and local Indigenous knowledge systems into the design and delivery of the course, taking into consideration the colonial, hierarchical, patriarchal power structures that still influence the work of community-university partnerships in Canada.

Several groups were part for the research – former students who had completed the CBPR course, representatives from Victoria Native Friendship Centre (VNFC) and the Victoria Foundation (VF) as community partners of the hub, and representatives of UVic from the Office of the Vice President Research as the academic partner of the hub.

For those who created the course and the hub's partners, knowledge is not limited to just academic knowledge. The course acknowledges and accepts that knowledge expands beyond the restricted academic/scientific knowledge including but not limited to Indigenous, local and other types of knowledge systems that derive from the community. The students from the course also noted how the course impacted their new understanding of 'knowledge'.

To demonstrate this, the focus group participants, who were former students of the course, were asked to draw or share an image that expressed their understanding of 'knowledge' since completing the course. The visual representations ranged from drawings of knowledge as a garden with many different contributors, of knowledge as exchanges of thoughts and experiences, and an image of balancing stones which represents that information in society has to be in balance with the lived experiences. One participant shared a photograph of people holding hands around an image of the Earth, showing that CBPR encourages a respectful sharing of knowledge in hopes of creating a more inclusive world.

As one of the highlights of this CBPR course,the former students mentioned that the course provided them with the opportunity to build relationships with the community partners as well as with others in the course (e.g., other students, professors, mentors) more closely than they normally would have.

Both the hub's community partners and former students identified active listening as one of the important skills required to build relationships with local communities, and how reflection is an important component of CBPR. Being involved in the course offered the students the possibility to learn, unlearn and re-learn the nature of relationships between colonial institutions (e.g., universities) and Indigenous communities, making them aware of the impacts of historical and ongoing colonisation, privilege and power imbalance. Interestingly, there was no mention of active listening by the university as a key element in bringing together knowledge with communities.

The collaborative course design and delivery by the civil society organisations and higher education members of the hub, along with the support of local community partners, have proved effective in developing soft skills in community engagement that are useful not only for students' academic work, but also for their professional and daily lives. The hub's CBPR course has been able to provide the space to train students to be more attentive listeners and learners.

The hub has also faced critical challenges at the institutional and policy level to meet its objectives. Indigenous Elder Advisors play an active role in the course to provide guidance and training to students and hub mentors. Despite this important collaboration from the community partners, the UVic faculty member is the only one responsible for sourcing, finding and designing community-based projects, and the timing of the course, reflecting the continued power imbalance in favour of the university in terms of decision-making and governance of the course. Hub mentors who are not UVic professors are not formally recognised or funded by the university, and funds to support their participation needs to be obtained each term the course is offered, inhibiting the achievement of the hub's goals and keeping the course offering precarious.

Overall, it is important to recognise that while significant progress has been made in terms of inclusion of Indigenous content and epistemologies in curricula, engaged research and community engagement at many universities in Canada, UVic included, much remains to be done to deliver community-based pedagogy.

The full case study "Decolonising Knowledge for Social Change. Experiences of the Salish Sea K4C Hub, Canada", by Suriani Dzulkifli, Crystal Tremblay, Walter Lepore, Tanya Clarmont, Carol Hall and Sebastian Silva can be accessed at doi: 10.1163/9789004687769_013

4 Valuing community knowledge: Role of community practitioners and community organisations

This chapter highlights the ways in which community practitioners and community organisations bring value to the research process, with "Tips to Remember" for community practitioners when engaging with academics for research.

It is common for the process of co-creation of knowledge to start from academic researchers who have their own singular, academic understanding of knowledge production, its methods and tools of data collection and analysis, and standards of validity. The very reason for co-creation is to add value to what academic researchers can do on their own; if there is no added value, then why bother to co-create? Community practitioners have an important responsibility to facilitate authentic, respectful, trusting co-creation partnerships.

Knowledge available in community settings is different and legitimate

Co-creation starts with all partners recognising different knowledge systems do exist, knowledge is available in non-academic (community) settings, and needs to be valued. Effective co-creation entails recognition of different understandings of knowledge, its tools of production and methods of dissemination. Non-academic/community partners must accept and acknowledge that community knowledge is different, and legitimate. This must become a **foundational principle** of any efforts at co-creation and building bridges.

Build relationships of trust

Given past histories of apathy towards community actors, as well as a dismissive attitude of academic researchers towards knowledge and experience of community actors, co-creation requires establishing relations of mutual trust. Once experiential knowledge of people living in communities, ancient land-based knowledge of Indigenous peoples, and the epistemic privilege of those experiencing lives of poverty, different abilities, homelessness, and more, are recognised as legitimate, the challenge is to move beyond the walls – physical, intellectual and emotional – to establish mutually respectful connections. Building relationships of trust takes time and investment of resources (funds, human resources, organisational structures) and is essential for meaningful research partnerships that attempt to bridge different sets of knowledge and epistemologies.

Balancing feelings with thinking and learning to listen supports relationship building. This process happens gradually, needs time, requires patience. Empathic listening entails 'unlearning'. When partners 'unlearn', some

tension and anxiety is created in all persons. The capacity to cope with distress and anxiety caused by such 'unlearning' helps create the partnerships required to build bridges.

Rebalancing power

Communities hesitate to initiate the partnership for knowledge co-creation. There are multiple reasons for this – communities themselves fail to acknowledge that they are sites and producers of valid knowledge; they view the academy and the researcher as 'holders of knowledge'; the knowledge economy makes them believe knowledge can only be gained and learnt in the academy; and they see themselves through the lens of the academy as illiterate, uneducated, invisible. Above all, communities lack the power to begin building the bridge.

The cultural, linguistic and status differentials between academic researchers and community actors are so large in many contexts that making connections to initiate dialogues becomes difficult. Hence, an effective ***mediation process*** helps to kick-off bridging and rebalance the power.

Community practitioners play an important role as such mediators (as interlocutors, boundary spanners, intermediaries) in facilitating the rebalancing of power and starting the bridging process. In some cases, community based organisations, local citizen leaders, school teachers, local government officials can be included to act as the connector intermediary.

Building Bridges : Engaging with Academia

Co-creation of knowledge requires respectful and egalitarian knowledge partnerships between academia and communities. Within the world of knowledge co-construction, power imbalances persist.

Building bridges across different cultures, classes and status requires proactive efforts by community and academics. What can community practitioners do to support these efforts and create robust and multi-dimensional co-created knowledge?

- Emotionally appreciate and cognitively accept there is diversity of knowledge cultures.
- Acknowledge that community knowledge is different, and legitimate.
- Be patient. Unlearning by academics will take time. The eyes and ears of many academics have been made blind and deaf by being steeped in the assumptions of Western science. And even when scholars are well intentioned, the academic knowledge culture is constructed within short-term 'projects'.

- Establishment and maintenance of authentic, on-going relationships where people know each other as people and not as subjects, experts or helpers, will take time. It requires a much deeper shift than that being currently examined by even those in the field of engaged research.

- Learn facilitation and mediation skills. Building and maintaining trustworthy relationships within the community and between community and academics requires engagement in often long and delicate negotiation processes.

- Promote stories and anecdotes as 'data'. Stories of a community are not just words but also tell the emotions behind a community's experiences.

- Be open to oral storage transmission as records of community knowledge, and to non-written documentation (dance, poetry, music, theatre) as legitimate sources of knowledge production and dissemination.

- There are no 'normal' social connectors between academics and community members, or 'normal' social occasions to 'meet and greet'. Therefore, the connections between the two sides need to be facilitated.

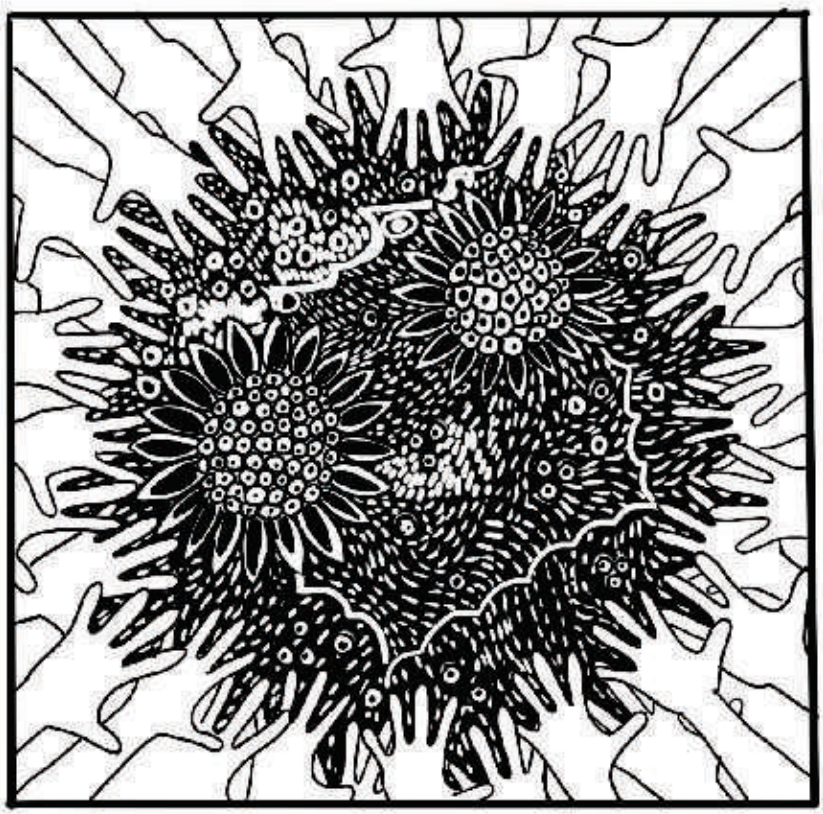
- Help communities move beyond their own self-doubt and reluctance to speak about their own knowledge. Fear is the major obstacle for communities: they hold back their knowledge because they are scared that they do not know much, they fear academics as experts. Facilitation to enable voicing of community experiences and their everyday actions can promote articulation of their knowledges.

- Familiar spaces enables community to speak from the heart. Use traditional forms of meetings (around the campfire, during religious festivals, etc) as safe spaces for speaking and listening.

- While most academic and research institutions do encourage their students and academics to 'go to community', very few have mechanisms, or even motivation, to 'invite' the community inside the academy. Even in the absence of formal structures within academia, joint decision-making structures in a research project can be created as very productive spaces for mutual engagement.

Note from the authors:

Redesigning cultures of historically rigid academic institutions to value community knowledge is a tall order; it will take enormous efforts and investments. Community practitioners and community organisations demonstrate the value of community knowledge through their everyday practice. We hope this guide is helpful for those who contribute as intermediaries in the community university research partnership, and that it will be used as a resource to build the next generation of community practitioner to become confident researchers and co-producers of knowledge with higher education institutions. For it is by doing so that we can overcome the competitive vision of education in favour of a culture of collaboration and cooperation, and co-create knowledge that can repair injustices, and contribute to just and sustainable futures.



BRIDGING KNOWLEDGE CULTURES

A GUIDE FOR COMMUNITY PRACTITIONERS AND COMMUNITY ORGANISATIONS

This guide is intended for community practitioners and community organisations who are engaged in, or hope to build, Community University Research Partnerhips (CURP). It is a reflection of the value and centrality of community knowledge in the engaged research process, providing practical recommendations to help remove barriers and address power dynamics, which prevent community groups from collaborating effectively with mainstream research institutions.

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