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Abstracts from the panel

Emerging voices and pathways to inclusive disaster studies

Reconstruction of Heritage in Bhaktapur, Nepal: Examining Tensions and Negotiations Between the 'Local' and the 'Global'

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Cultural heritage, specifically built heritage – including monuments, urban ensembles, religious and palatial complexes – has emerged as a central focus of tensions and negotiations within the post-disaster recovery landscape in Nepal following the 2015 Gorkha Earthquake. This reflects a growing recognition of heritage within international disaster risk management frameworks but also responds to the critical role played by heritage at national, regional and local levels. This paper examines the entangled realities of 'local' and 'global' operating in ongoing reconstruction of built heritage in Bhaktapur, Nepal. This paper is an account of reconstruction practices observed in Bhaktapur between 2018 and 2020. It is based on data collected by layering ethnographic methods with textual and historical analysis. In seeking to analyse manifestations of global and local, I present my reflections from fieldwork carried over seven months in Bhaktapur and describe the micro-politics enacted out between researcher, heritage custodians, translators, intermediaries, and participants.

Reconstruction of built heritage in Bhaktapur negotiates between developmentalist paradigms of post-disaster recovery, heritage conservation discourses, as well as religious and quotidian practices of care. It is simultaneously informed by global institutions and policy and local politics and aspirations which operate in constant tension and negotiation.

This work responds to the call for reframing research agendas and practices set out in the Disaster Studies Manifesto by critically engaging with ideas of local and global. It builds on the growing body of research linking heritage with disaster risk management.

Towards Meaningful Participation: Co-researching with Persons with Disabilities in Central Sulawesi

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Despite the rise of participatory approach in research productions, the research practices that involve persons with disabilities remain decidedly limited. To date, evidence of co-researching with persons with disabilities is mostly concentrated in health studies (Stewart and Bhagwanjee, 1999), and in intellectual and learning disabilities literature (Nind and Vinha, 2012; Bigby, et al., 2013). Research conducted or led by persons with disabilities in humanitarian studies, however, is lacking (Robinson et al., 2020). Tanabe, et al. (2017) has explored participatory research in humanitarian settings, however with an emphasis on the health sector only.

We seek to fill the knowledge gap with evidence of co-researching with persons with disabilities. We will share the lessons learned from implementing methods that ensure the active participation of persons with disabilities as co-researchers. These methods include building the capacity of persons with disabilities on the research topic and instruments, pre-interview role-plays, field pilot testing, post-data collection debriefing and reflective learning through writing learning diaries. Our experiences show that persons with disabilities have the drive and the capacities to contribute to research. Methods such as continuous engagement, capacity building, and feedback mechanisms are essential to enable their participation and influence in the research production process. These methods have the potential to provide empowering experiences for persons with disabilities, however, they are often time-consuming and can be convoluted.

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Reviewing the place of Migrants in Disasters: A personal perspective

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The proposed presentation generally aims to explore the intersections between migrant studies and research on disaster risk reduction. In particular it examines how migrant vulnerabilities and strengths are regarded in selected literature on disaster risk reduction from the perspective of a particular migrant cohort.

The discussion draws from the early phases of my work as a Filipino-born PhD student in Victoria, Australia.   Inspired by global frameworks such as the Sendai Framework for Disaster Risk Reduction and the Global Compact for Migration, I eventually hope to generate data that examines perceptions of disasters among Filipino migrants in Australia, as a foundation for developing migrant risk reduction schemes.

This presentation shares reflections from my initial review of literature, through which I infer that inadequately accounting for migrant status in disaster reports overlooks critical aspects of strengths and vulnerabilities. However, when migrant identity is racialised, this also limits insights. While migrant problems and strengths can be self-evident to migrants themselves, these can be lost in national discourses that privilege dominant perspectives of what is significant in disaster studies.

This stage of my literature review has been helpful in analysing frameworks for reviewing the place of migrants in disasters. The evolution of disaster conceptions through sociological, anthropological, ecological and cultural perspectives matches the realisation of the need for broader frameworks with which to understand the complex challenges faced by migrants in developed countries like Australia today. Ultimately, disaster research approaches need to account for socio-economic and policy structures that overlook migrants or regard them as powerless in disaster scenarios. By sharing these views, I hope to help amplify this perspective on a conceptual level as well as in actual practice.

Importance of creating a pathway for Voices to merge with Scientific Knowledge in Ecosystem-based Disaster Risk Reduction

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Ecosystems are increasingly recognized as having the potential to play a key role in Disaster Risk reduction (DRR). Healthy ecosystems offer trustworthy and effective ways of reducing disaster risks, whilst, at the same time providing other ecosystem services, and having the potential to self-repair. Ecosystem based measures for DRR include the protection, conservation, restoration and management of ecosystems. The use of ecosystem based-DRR approaches vary, based on hazard. Not only most of the Ecosystem- based approaches are based on the hazard paradigm of disasters but also have been placed on understanding ecosystem-based DRR from the viewpoint of physical science. Very limited research has explored the role local people may play in ecosystem based DRR, such as their knowledge and viewpoints about ecosystems and their management in relation to DRR. Therefore, DRR mechanisms based on ecosystems and local community's participation has been rarely accepted, addressed, included and implemented in the country Besides, there is limited understanding on how local and scientific knowledge about ecosystems can be combined towards DRR. This is surprising since the disaster literature refers largely to an integration of social and physical scientific approaches to help build accountable trust relationships and power sharing in the decision making related to DRR. Hence it is timely and essential to explore how local community's knowledge, and 'more external' scientific knowledge, could be combined to contribute towards effective and sustainable management of eco system based-DRR to establish sustainable and promising ecosystem based DRR approaches.

Keywords: Ecosystem based disaster risk reduction, Local knowledge, Community participation, Scientific knowledge,

The C-word: potential contributions of Critical GIS to disaster studies

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Purpose – This paper discusses the potential contributions of Critical GIS to disaster studies. I argue that critical GIS, on the one hand, helps to destabilise 'scientific' knowledge about disasters and, on the other, can take advantage of science's persuasive power to advocate for positive socio-environmental change. My contribution aims to expand the range of critical cartographic practices in disaster studies, which have so far been dominated by participatory mapping.

Design/methodology/approach – To illustrate this argument, I draw on my research on social vulnerability to disasters on the Litoral Central, in Chile. I use as examples three maps, which combine standard geospatial datasets (Census data, SoVI, and other quantitative data from governmental agencies) with qualitative data produced for this project through resident interviews, focus groups and policy analysis.

Findings – This work shows the usefulness of Critical GIS for questioning and expanding the data sources, analytical categories and representational practices routinely used in disaster research. Furthermore, it underscores that 'doing Critical GIS' depends less on adopting specific cartographic techniques than it does on developing critical approaches to mapping, i.e. approaches that are reflexive, theoretically grounded and sensitive to power relations.

Research limitations/implications – Drawing out the research implications, I suggest that Critical GIS is especially promising for interdisciplinary research and for research that aims to influence public debates. I also address the eurocentric roots of Critical GIS research, suggesting that this methodology must be viewed as one of many valuable approaches to disaster mapping.

Originality/value – This paper highlights the value of Critical GIS, a set of methodologies that have proved productive in other areas of environmental research but have been largely overlooked in disaster studies.

Community Knowledge Adoption Through Social Media: Reconstructing Saint-Martin After Hurricane Irma

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Disaster recovery in developing countries can be an opportunity for sustainable and resilient transformation of conventional construction practices; helping vulnerable communities recover and rebuild efficiently while preparing and strengthening their resilience for possible future disasters. This study explores the drivers and barriers in the housing reconstruction of the island of Saint Martin after Hurricane Irma and proposes specific interventions to support building back safer housing. Such interventions aim to support the transition towards hazard-resistant construction techniques based on effective knowledge exchange with respect to local context and culture.

Strategies in this report address prevailing issues that the community of this island faces regarding living conditions, government disparities, and overall perception of the community's own vulnerabilities. This literature review presents three key barriers in the recovery process; (1) the languages barrier and communication issue between all the stakeholders of the island, (2) the heavy dependence on external aid and regulations, and (3) the building on existing community solidarity to further strengthen overall resilience to potential impending disasters. Findings indicate the importance of building on the existing strengths that bind the people of Saint Martin together and introduces insight into community resilience recovery practices. We propose several interventions: (1) training workshops through social media to enhance the adoption of safer construction practices, (2) community based participatory mapping for urban planning purposes, and (3) language and cultural exchange to foster social inclusion of marginalized groups, such as minorities and migrants. A deeper analysis into intervention (1) is made to further understand the benefits of introducing an interactive learning experience, whereby local affected communities could effectively learn from each other. Such an opportunity could potentially contribute to self-recovery and decrease the dependence on external conventional reconstruction practices. Trade-offs and action plans for successful application are also discussed in this report. An impact assessment program is introduced to measure effectiveness of the proposed intervention and to study the possible level of integration of this strategy into the community of this island.

Increasing Localisation of BBB Initiatives

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Purpose: The paper aims to explore prospects of Local Organisations' (LO) capacity at leading self-rehabilitation or construction of housing post disasters, aligned to the Build Back Better (BBB) priority 4 action stated in the Sendai Framework for Disaster Risk Reduction 2015-2030.

Methodology: Khartoum was undertaken as a case study to better understand communities' role at responding to the annual floods that hit the city. The research will begin as a literature review explaining the Sudanese context and nature of the present Disaster Risk Reduction (DRR) system, followed by the methodology where semi structured interviews were conducted to better understand the dynamics between the multilateral organisations concerning BBB initiatives.

Findings: Khartoum DRR document action plan 2019 -2023 revealed the hierarchical system that is hindering engagement of LOs in BBB initiatives. In addition, it was found that in a politically turbulent nation, great dependency falls on LOs at providing immediate support at times of crisis. The strong communal bond reflected in Khartoum at cooperating to 'save themselves' represent the opportunities existing within LOs at playing greater roles at cultivating the concept of self-led BBB projects. Moreover, LOs competency at emergency response proves the need to nurture and structure such efforts.

Research limitations: Lack of data and figures quantifying impacts of floods. No post-disaster construction projects were recorded before to assess strength, weaknesses, opportunities and threats.

Value: Promote DRR action plans structures interweaving LOs within a broader national institutional structure to leap poverty traps. Continuing to neglect their role can further implicate the situation of an already strained nation.

Keywords: DRR, local integration, BBB, flood impacts, Sudan, natural disasters

Cross-country use of participatory research methods in practice to enhance inclusive decision making.

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Introduction:

Rethinking participation in disaster research and practice could be facilitated when practitioners are provided with opportunities to pause and reflect deeply on their work outside of the context of their own individual projects and organizational networks. This article draws from an extended collaboration in the form of a solidarity network between researchers from multiple countries and disciplines in a working group, which aimed at exploring ethics, participation, and power in disaster management. Solidarity networks help actors to coordinate tasks to overcome dilemmas through collective action (Smith 2009).

Design: Under Responsible Engineering Science and Technology for Disaster Risk Management, the authors undertook weekly meetings over four months to discuss various facets of adopting participatory methods in their individual projects in Nepal, India, Philippines and USA. This article develops a critical reflection of practice using an auto-ethnographical and poly-vocal approach.

Findings: The voluntary, digital, sustained, unstructured, recurring, and interdisciplinary characteristics of our working group created an opportunity for researchers and practitioners from different fields and different national, cultural, and linguistic backgrounds to come together and collectively issues related to participation, ethics, and power.

Implications: In this paper we do not offer a systematic evaluation of what was a fairly unique process. It offers no evaluation of the working group, or others like it, that focus on questions of replicability, scale, and sustainability. Per our knowledge, this is a unique paper that focuses on situating multidisciplinary practice within disaster risk management and enhancing networks, capacities, and expertise for professional education for engineers, physical, and social scientists who are involved in research and practice. The polyvocal character of the presentation will help readers access the particular experiences of the participants, which reflect the deeply personal character of the subject matter.

Conclusions: The constant cycle of getting funding-needing more funding- applying for funding while juggling teaching, research and services does not leave a second for reflection (Mountz et al., 2015). In addition to systemic changes in disaster risk management practice, individual researchers and practitioners need to develop stronger solidarity networks.

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The importance of context-relevant feminist perspectives in disaster studies. A case of multi-actor research on forest fires involving the Atikamekw First Nation

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My research is an analysis of the relationships between Indigenous and non-indigenous people involved in wildfires that occurred near the Atikamekw community of Wemotaci (Quebec, Canada). This presentation focuses on gender dynamics among Atikamekw people, as I realized during fieldwork that men and women had different experiences and roles during the fires that did not seem to be valued the same. As a result, I decided to include a feminist perspective in my research and later mobilized Indigenous feminist theories to understand the entanglement of multiple oppressions especially colonialism and the patriarchy.

If I had followed my Euro-North-American feminist perspective I would have analyzed the differentiation of roles between men and women as a sign of inequalities. Listening to Atikamekw women taught me that men and women always had different roles, but with no hierarchy. However, Indigenous feminist literature demonstrates how gender roles have been disrupted by patriarchal-colonialism. In this presentation, I will share the iterative process that I followed to understand the situations I was studying going from the deconstruction of my own feminist framework, to the experiences and thoughts shared by the participants to the Indigenous feminist literature. In the end, this process reveals the importance of adapting the feminist perspective to the local realities to expose how disasters are part of a larger context in a way that is meaningful to people experiencing the event but often ignore by disaster/emergency management.

Giving voice to the voiceless: connecting graduate students with High School students by incubating DRR plans through participatory mapping.

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This research highlights the importance of involving young people in the disaster risk reduction (DRR) formulation and planning in order to build local capacities in younger generations. The objective of this work is to encourage graduate students to facilitate a participatory mapping activity with high school students, with the aim of having their voices heard in the DRR agenda. The participatory mapping, youth-led session, was conducted with 22 high school students, where they had to identify flood and landslide-prone areas, as well as groups of people exposed to them. Participants identified the risk-prone areas and had to propose and plan disaster risk reduction measures in partnership with local organizations in São Luiz do Paraitinga, Brazil. The participatory method engaged the graduate students and the high school students in the DRR debate, allowing them to map hazards and vulnerabilities, as well as discussing five incubation projects for enhancing DRR in the city. The outputs were shared with the local civil defense and a local NGO who suggested recommendations to improve the five incubation projects.

Considerations for creating equitable and inclusive communication campaigns associated with ShakeAlert, the Earthquake Early Warning System for the West Coast of the United States

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The 2019 Global Assessment Report on Disaster Risk Reduction (GAR) cites earthquakes as the most damaging natural hazards globally, causing billions of dollars of damage and killing thousands of people. Earthquakes have the potential to drastically impact physical, social, and economic landscapes; to reduce this risk, earthquake early warning (EEW) systems have been developed. However, these technical EEW systems do not operate in a vacuum; the inequities in social systems, along with the needs of diverse populations, must be considered when developing these systems and their associated communication campaigns. This article reviews aspects of social vulnerability as they relate to ShakeAlert, the EEW system for the United States. We have identified two theories (Relationship Management Theory and Mute Group Theory) to inform self-reflective questions for agencies managing campaigns for EEW systems which can assist in the development of more inclusive communication practices. Finally, we suggest this work represents a beginning for conversations about diversity, equity, and inclusion (DEI) issues within early warning systems and earthquake preparedness campaigns in general.

Everyday hazards in the experience of women who inhabit precarious settlements

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What does a disaster mean in the everyday life of people living in precarious settlements? One expression of precarious settlements in Chile is called "campamentos". "Campamentos" are settlements where people live in low-quality self-built houses, without formal access to water, sewage and electricity, conditions that make them more vulnerable to disaster because they live in inadequate and insecure conditions (Williams et al, 2019). In this regard, when people live in precarious conditions they are exposed to small-scale disasters on a daily basis (Walters & Gaillard, 2014). Drawing on the concept of 'everyday hazards' (Bull-Kamanga et al, 2003; Walters & Gaillard, 2014) this research aims to understand this type of events in the micro-social dimension of the household and its everyday life. And also, it seeks to understand the management of everyday hazards in this micro-social dimension. In this regard, there is evidence that women usually have to manage events that affect the livelihood of their household under the traditional distribution of gender roles (Valdés & Weinstein, 1987; Han, 2012; Tironi, 2018). For this reason and for the importance of understanding the dynamics of households and the spaces inhabited by them, according to disaster and gender literature (Fordham, 1998; Bradshaw, 2013), the everyday hazards in "campamentos" and their management will be understood through the life experience and perception of women who live in that situation. This paper will present preliminary results from the fieldwork of my doctoral thesis, which will be developed during 2021 in "campamentos" in the city of Copiapó (Chile). However, preliminary findings of the identification of everyday hazards and women's perception of those events in the experience of inhabiting "campamentos", will be presented.

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