The Disaster Event and its Afterlives

HUSSAIN, ZAHRA

The Disaster Event and its Afterlives

Zahra Hussain

A thesis submitted in fulfillment of the requirements

for degree of Doctor of Philosophy

Department of Geography, Durham University

2019

Abstract

Disasters are typically known as disruptive events that occur in a specific period of time and result in considerable loss of human life and destruction of built environment and infrastructure (Wagner, 1978; Quaternelli, 1998; Wisner et al, 2004). Disasters are thus increasingly considered as perturbations in an otherwise stable world. This thesis, however, attempts to move away from the perturbation and return systems thinking and instead assess the disaster as 'on-going' event in order to attend to the different ways in which the disaster lives on. By conducting research on a landslide event in Northern Pakistan, this thesis attempts to analyse the varied and disparate ways in which the disaster event lives on beyond the formal, State-led or NGO-led frameworks of disaster management, response and recovery. Specifically, it engages with how 'life is held together' by the affected communities in the absence and exhaustion of aid programs, and how through their practices and processes of inhabiting the post-disaster landscape, they continue to shape its making.

This thesis is therefore interested in the afterlives of the event, by exploring its varying intensities, as it emerges and seeps into the practices and processes in the post-disaster landscape, through its remnants and traces, spatial configurations and practices of everyday life. In attending to the three different modalities of how the disaster lives on, this thesis ventures into the everyday lives of those affected by the event and treads a landscape replete with traces and remnants of the disaster. In so doing, it explores the improvisatory practices employed to hold things together in constrained and challenging environments. In analysing ways through which affected people claim space, this thesis explores how imposed spatial forms are re-purposed in particular ways and re-written with patterns familiar to the inhabitants. It also attends to stories, remnants and traces that multiply, order the landscape and keep the disaster event alive in different ways. This research therefore meets the afterlives of the disaster event at three specific sites; the everyday practices of making do and living on, the process of inhabiting spatial forms, and the traces of the disaster event that continue to erupt and haunt the post-disaster landscape of Hunza Valley and Gojal Valley.

Table of Contents

List of Figures

List of Table

Acronyms

NDMA: National Disaster Management Authority

USAR: Urban Search and Rescue

AKDN: Aga Khan Development Network

AKRSP: Aga Khan Rural Support Program

AKCSP: Aga Khan Cultural Services Program

AKPBS: Aga Khan Planning and Building Services

AKAH: Aga Khan Agency for Habitat

NRSP: National Rural Support Program

USAID: United States Agency for International Development

FWO: Frontier Works Organisation

CPEC: China Pakistan Economic Corridor

IDP: Internally Displaced Person

DRR: Disaster Risk Reduction

KKH: Karakoram Highway

This thesis is dedicated to Lady Fatima Zahra (as),

Al Hujjat Qaim Imam e Zamana (as)

and my parents Sabiha and Saulat Hussain.

Acknowledgements

This thesis would not have possible without the constant guidance from my spiritual leader, Lady Fatima Zahra (as), supplications as advised by Imam Musa Kazim (as) and constant thoughts of Al -Hujjat ul Qaim (as). I am also indebted to Amma and Baba for their encouragement, duas and support at each and every step of the way which lead to the completion of this PhD.

In terms of the doing of this thesis, first of all, I would like to thank the people of Hunza Valley and Gojal Valley who welcomed me into their homes and shared invaluable stories and insights. In particular I would like to thank Jaffer Ali who introduced me to Mukhi Sahab, who arranged my stay in Hunza with the extremely hospitable Amanullah and his family. I am indebted to Noor Jehan who accompanied me during my fieldwork, the women in shelter sites who hosted me numerous times, the women in Sarat, Shishket and Gulmit who hosted me for tea sessions and shared their stories. I am thankful for the information shared by Haleema Baig from the local council in Hunza, Didar Ali, Waheed and Nazir Bulbul in Gulmit, Divako Media, and the office of the Assistant Commissioner of Hunza 2016. I am also thankful to the organizations, Focus Humanitarian, Aga Khan Planning and Building Services, Aga Khan Development Network, Aga Khan Agency for Habitat and the National Disaster Management Authority in particular who shared valuable information. In particular I would like to thank Hidayat from FOCUS, Aqeela from AKCSP, Salmanuddin Shah and Rahat ullah Beg from AKAH, and Col. Qasim from NDMA and Zulfiqar Ali from Pamir Times.

I would like to thank my supervisors Ben Anderson and Mike Crang for the constant encouragement and support they provided throughout the course of the PhD, especially for believing in my project, helping me as I explored an unfamiliar academic terrain and allowing me to steer it in the ways that I wanted to – without them, this wouldn't have been possible. I am especially thankful to Raksha Pande, Louise Bracken, Rachel Pain, Neelam Raina and Ariell Ahearn for the encouragement and support they offered during the process. I am especially grateful to Connina (Connie Kwong) who has been a special friend and confidant throughout the PhD process, our conversations, adventures, trips, talks and food kept us sane in the process – and that is why this PhD wasn't a lonely business, rather an exciting one. I am also thankful to the friends with whom I have

had sustained conversations throughout the process, the PhD cohort and the post-graduate community; our Manley room sessions and food outings were the highlight of my time spent in Durham. In particular I would like to thank my friends Amna, Marcin, Vanessa, Raihana, Cynthia, Hung-Yeng, Olivia, Christoph, Anum and Aditya. I am especially grateful to Kathy Woods for always being there and taking care of PhD students.

I am also grateful for the awards and grants I received in this process; the Durham Doctoral Award which made this PhD possible, the RGS-IBG Dudley Stamp Award and the Norman Richardson Grant that made the field work possible, and the Postgraduate Trust Fund from Geography Department in Durham to disseminate my research and share my findings with AKAH on Disaster Resettlement policy and design. I am also grateful for the conferences which allowed me to share my work and get feedback, especially the RGS-IBG conference in September 2017, Modalities of Displacement Conference in Leiden University in June 2018, the Pakistan Workshop 2016 in the UK, and the New Directions in Pakistan Workshop in Oxford University in May 2018.

Lastly, I would like to thank my family and friends who have supported me and prayed for me during this process. A special thanks to my husband Abdullah Aslam for his constant encouragement, especially for listening to my ideas, accompanying me for the fieldwork and support throughout the PhD.

'The disaster is the improperness of its name and the disappearance of the proper name (Derrida); it is neither noun nor verb, but a remainder which would bar with invisibility and illegibility all that shows and is said – a remainder which is neither a result (as in subtraction), nor a quantity left over (as in division).'

Maurice Blanchot (2015, p.40).

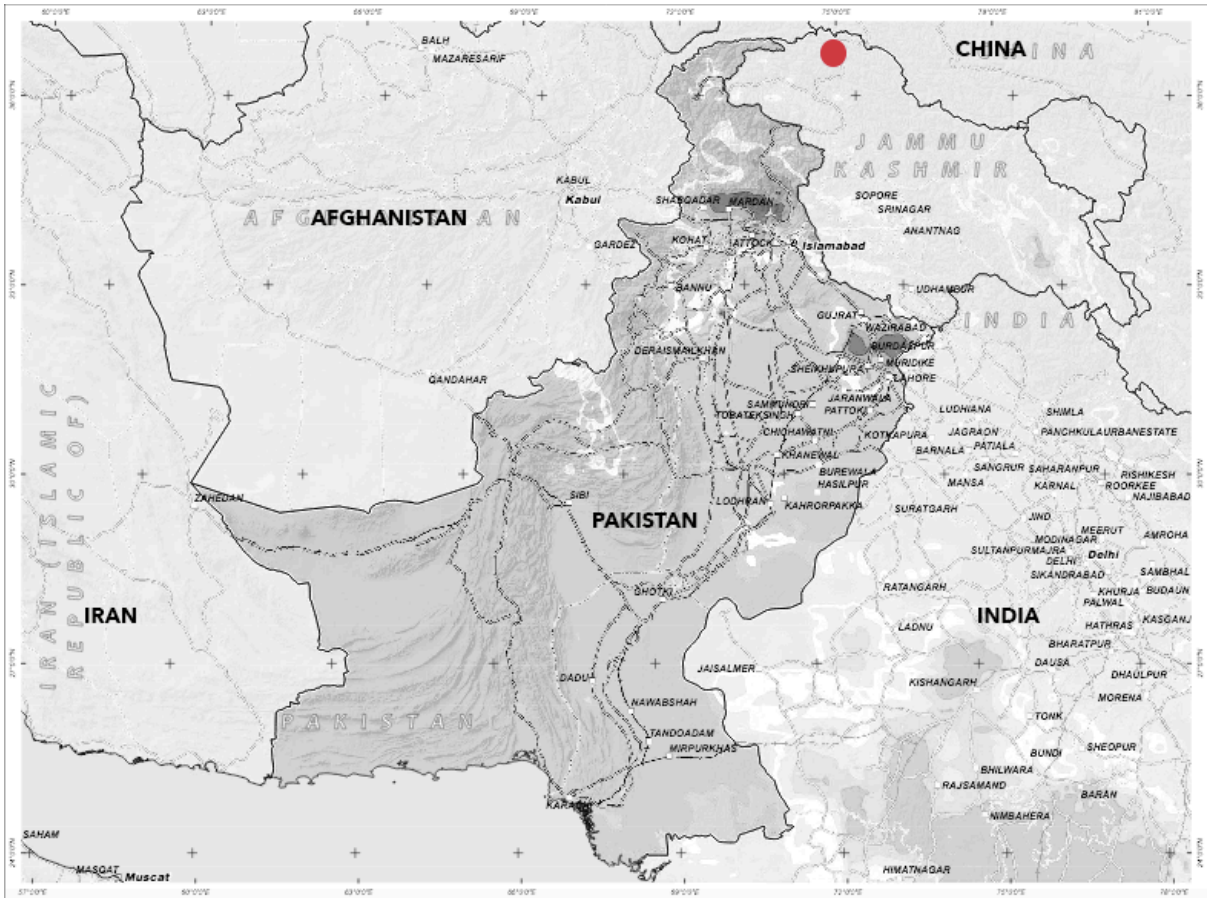

Figure 1. UNITAR – UNOSAT Map of Pakistan showing the case study site located in Northern Pakistan in Gilgit Baltistan.

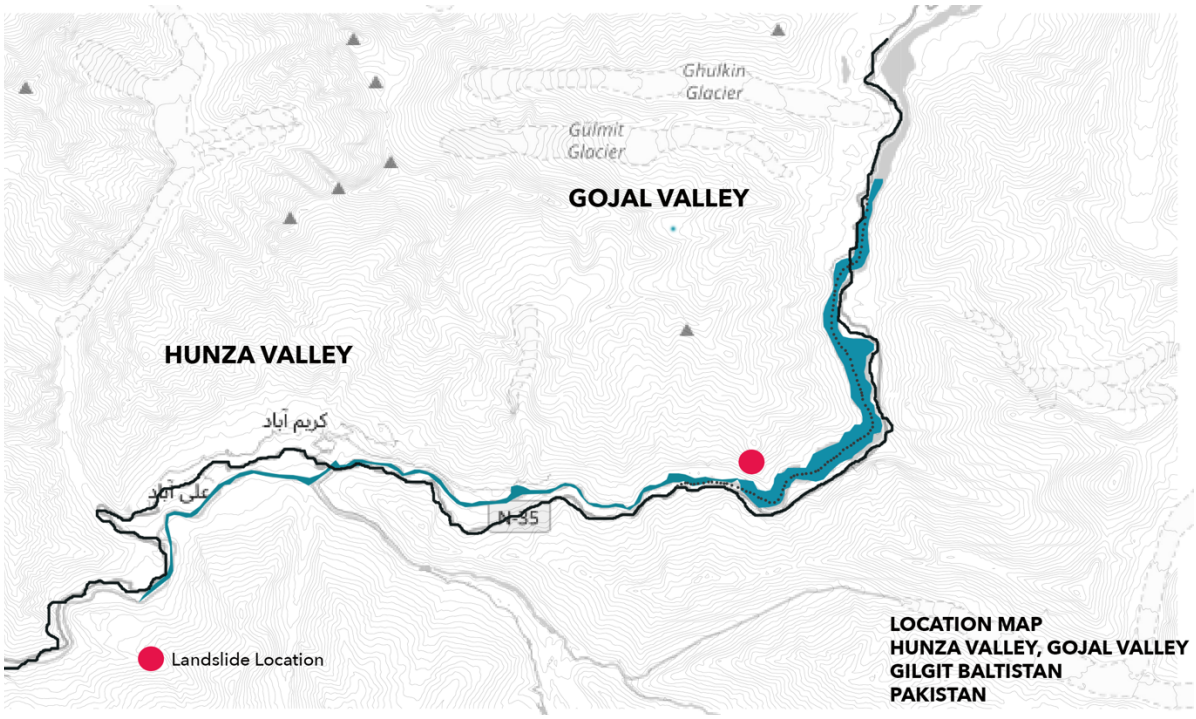

Figure 2. The Attabad landslide occurred between the Hunza Valley and Gojal Valley are located in Gilgit Baltistan.

1. The Event

Around 600 km up the road north from Islamabad, as one turns another corner on the winding Karakoram Highway, the scenery undergoes a subtle shift. The surrounding mountains seem to have risen out of the ocean very recently. This is true, in a sense, as the Karakoram mountains are, geologically speaking, younger than comparable mountain ranges in other parts of the world. This is also where the region known as Gojal or Upper Hunza begins, beyond Attabad, a village across the Hunza River opposite the Karakoram Highway (KKH). This territorial delineation, a factor of both geography and ethnicity, used to be less pronounced.

Figure 3. Attabad landslide captured by Inayat Ali (Pamir Times).

Around midday on the 4th January 2010, an approximately 2 sq. km piece of Attabad Bala (Lower Attabad) slid into the Hunza River. As the rocks and mud debris met the river and ground with force, it was pushed back on the opposite side and came down with tremendous force on the village of Attabad Payeen. When the plume of dust (captured in a memorable photograph by a traveller coming from the Gojal side) subsided, the true extent of the disaster became clear. 23 lives were lost, mainly in Attabad Payeen, along with the majority of the land of Attabad Bala. The debris also blocked the Karakoram Highway (KKH), and with it, the Hunza River. It had, in effect, become a wall between Lower and Upper Hunza, and the implications were immediate and massive, yet further mounting.

A population of 25,000 people was now confined within Gojal valley during wintertime (the other main access, Khunjerab pass on the border with China, becomes impassable at this time of the year due to snow). The direct trade route between the rest of Pakistan and China had been severed. Most alarmingly, water had started to pool north of the landslide – slowly at first, due to the restraining effect of winter on the meltwaters. By spring, as the flows increased, a proper lake had formed, ever-expanding northwards, and swallowing the entire village of Ayeenabad, and low-lying areas of Shisket, Ghulkin and Gulmit. Over 250 households were now inundated, along with precious arable land and orchards. Around 12,000 people were displaced. 20km of the KKH was underwater, replaced by an emerald green lake. In the immediate aftermath, the local administration and council set about housing evacuees from what remained of Attabad and Sarat, another village on the river next to Attabad. Makeshift pedestrian routes were established across the debris. The National Disaster Management Authority (NDMA) deployed the Urban Search and Rescue (USAR) team on 5th until 8th January, while the Army's aviation squadron was deployed on 10th January until 15th March for airlifting relief and passengers. As the lake level rose, volunteers from other villages helped locals cut clippings from fruit trees, and local surveyors went about quickly demarcating and recording landholdings before they were submerged. Communities on both sides of the landslide gave land to house IDP shelters, tents at first, and then small rooms made of GI sheet.

Modelling based on satellite data, ground observations and historical records indicated that the lake would overflow its natural barrier by June 2010. The Frontier Works Organization (FWO), a branch of the Pakistan Army dedicated to mobility and construction works, became involved around a month after the landslide (the FWO was also, as it proudly states, the "builder of the KKH"). Surveys were performed by the FWO and NESPAK (a government civil and design bureau), as well as individual experts brought in specially for the task. By May, there was a common fear shared by all involved experts that there was a very high probability that the dam could burst. At least twice, downstream areas were put on red alert for a possible dam break. The FWO started removing as much debris as possible from the dam in order to control the spread of the lake. They were 15m deep into their initial target of 25m when on 29th May 2010 the lake finally spilled over. Despite fears that the restored river flow would erode the spillway massively and provoke a sudden outburst, the spillway held, the flow stabilising in a few days. The NDMA (National Disaster Management Authority) operationalised a few motorboats on 15th February as the rising waters and expanding lake cut off ground access even if one could pass the landslide.

The FWO established a rudimentary route from the existing road to the lakeshore. Even when supplemented by helicopter deliveries, however, essential supplies in Gojal ran low. As soon as the Khujerab Pass, the border post between Gojal and the Xinjiang province of China, became passable, the Chinese government sent in supplies of food, fuel and other necessary provisions. However, cross-border trade took a massive hit: the dry port at Sost, 90km from Attabad, operated at only a fraction of its capacity as goods had to be unloaded from trucks onto ferries, and reloaded again at both sides of Attabad Lake. In July 2010, fifty ferry boats were introduced in what was now known as the Attabad Lake, because despite the spillway, the lake had expanded further due to the increasing meltwater flows in summer. Compensation packages (see Appendix i) were announced by the government in May 2010, however, these were only paid out in 2011. Almost all the affectees were Ismaili Muslims, and hence under the purview of the Aga Khan Development Network, of which FOCUS Humanitarian was also a part. Much of the non-governmental efforts were therefore channelled through

AKDN. This involved constructing the aforementioned shelters, which were initially intended to be used until next winter at most. However, rehabilitation efforts took much longer than anticipated and these shelters became permanent in some sense for many of the IDP[1].

As resettlement efforts dragged on, conflicts arose over distribution of aid and compensation. At the same time, Gojal was crippled economically due to the limited bandwidth and high costs of transport across the lake. These pressures bubbled over in protests by the affectees against what was perceived to be the government dragging its feet. Police reaction to the protests resulted in the death of one affected person and the arrest of others, a highly unusual occurrence for Hunza. Meanwhile, the FWO kept working on increasing the depth of the spillway. Blasting in March and May 2012 resulted in the lowering of the lake by another 10m. In 2013, a Chinese consortium was awarded the contract to realign the KKH. Work was completed in September 2015, with 5 tunnels spanning 9km and a total of 25km of new road. Since the reopening of the KKH, the "dock" on the north side of the river (which travelled south as the lake receded, from Hussaini to Gulmit) has been abandoned.

Many locals who now find their landholdings remerged from the lake are starting to use them as tourist accommodations. Less fortunate are those whose landholdings remain underwater. Many of them find it difficult to establish a stable economic routine for themselves. Only towards the end of 2016 were some IDPs given possession of their new accommodation in Danyore near Gilgit. The Attabad landslide is considered an important event in Northern Pakistan in geo-strategic circles primarily due to its effect on mobility and transportation in the region, blocking China's access to warm waters, Iran and beyond.

(compiled from multiple news sources)

[1] "Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized border" (UNHCR, 2004).

Figure 4. View of the lake from the Terraces of Attabad Bala

The previous paragraphs sum up the narrative of the landslide event which came to be known as the Attabad disaster. The first few days of the landslide were broadcasted and circulated in national media, while the follow-on effects were mostly covered by local media and journalists. For many, the disaster began at 11am on 4th January 2010, however a closer insight shows that a landslide of some sort was predicted years before the disaster occurred. In 2003, Focus Humanitarian was alerted by the local people of Attabad who noticed unusual fissures in the ground after the Astore earthquake of 2002. A survey was carried out by the geological team of Focus Humanitarian and the locals in Attabad Bala were advised to stay on alert, indicating that the area was a probable landslide risk. By 2006, the cracks had widened, and the locals were advised to stop watering their fields in the area as it might exacerbate the situation. Further surveys were carried out and village of Attabad Payeen, located on the west-facing slope in the valley bed, was also put on alert. On 16th September 2009, the NDMA declared the Attabad a 'High Hazard Area' and village inhabitants in Attabad Bala were asked to evacuate their houses located near the expected landslide zone. In December 2009, Focus Humanitarian issued a warning to local residents of the Attabad to shift to the older settlement area, a few meters away from the predicted landslide zone. The previous day, the landslide residents of Attabad heard substantial underground rumblings. The landslide was indeed impending, but the time was unknown. While it was expected to affect only Attabad Bala, it also buried part of Attabad Payeen, blocked the Hunza river and the KKH, submerged an entire village and partially inundated the land and orchards of two others.

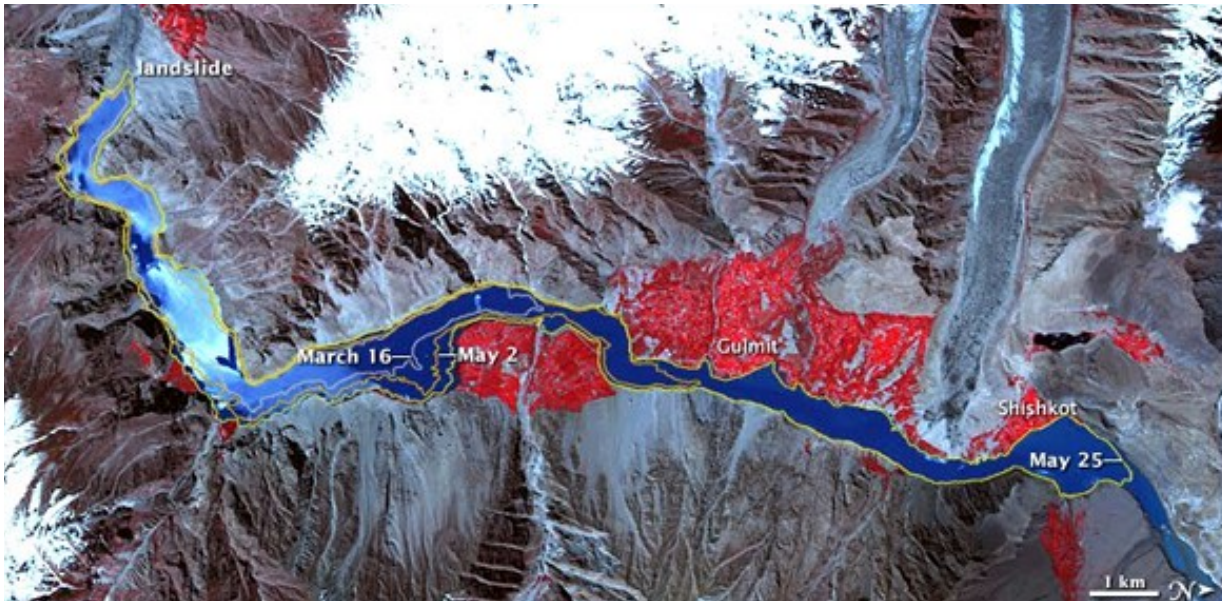

Figure 5. NASA Terra[2] Satellite image of Attabad Lake

1.1 My interest in this disaster

I heard about the Attabad Landslide on 7th January 2010, three days after the event occurred. Generally, the northernmost areas are inaccessible in winter and, due to constrained transport linkages and the absence of mobile signals, little news was received from these areas. I had visited Hunza Valley and Gojal Valley in September 2007 and the area, scale of the mountains and the village of Attabad were still vivid in my memories. The disaster intrigued me, and I was mesmerized by the scale of a landslide that blocked a valley from one side to another, and with it an entire river. I began to follow this event online where the Pamir Times (a local media agency) started issuing frequent reports on the rising water levels in the river. There was a pervasive and realistic fear that if the water kept increasing, the pressure would burst the debris dam and flood downstream populations in Hunza. One disaster was leading to another.

Until July 2010, the lake had not burst, but the blocked river inundated the entire village of Ayeenabad, and submerged orchards, farmland and property in Shishket and Gulmit. Within a few months, 35 kilometres long and 90 meters deep clear emerald green water lake appeared in the newspaper. It seemed like a miracle, it was beautiful yet frightening. I travelled to Hunza in 2011 to visit the landslide site and lake, but amid the constraints of the relief and supply activity the lake was difficult to access. In 2014, I made another visit to set

[2] *Photo courtesy of NASA Earth Observatory: The Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) on NASA's Terra satellite captured this false-colour image of the landslide lake on the Hunza River on May 25, 2010. Blue indicates water, red indicates vegetation, and shades of beige and grey indicate bare rock. The extent of the lake on March 16 and May 2, 2010, also appears as a white outline.*

up a research school[3] with Attabad Lake as the research focus. At this time, the conditions appeared to be much more stable; all the IDPs (Internally Displaced Person) had settled in their shelters, while the transportation of people and goods between the valleys had settled into a multi-stage journey involving boats. Seven years on from the disaster in 2016 when I visited the valley for my PhD field research, it was interesting to note how lives of the people, mostly IDPs, were re-organised by the disaster event and how people continued to live on in what were supposed to be temporary shelters. My three trips – in 2011, 2014 and 2016 – presented an interesting timeline for how the disaster was managed and responded to, and how the post disaster landscape was reconstructed and re-organised by different organisations and entities. What was most evident was how the disaster event had exceeded the capacities and governance frameworks of the State and non-state organisations that responded to the disaster. Seven years on from the disaster event, the affected people were still living in temporary shelters and IDPs still struggling for survival and livelihood. While the road access had been re-established; lands and trees were still submerged by the lake and people gathered (even if only in tea sessions) to address these issues. The disaster was very much present.

It is the complex temporality and continued *presence* of the disaster event in Hunza Valley and Gojal Valley that stirred my interest in analysing the ways in which life is held together in conditions of crisis and displacement, and the different ways in which the disaster lives on. It poses the following question: how is the post-disaster landscape reconstructed and re-organised outside the formal processes of rehabilitation and resettlement? While management of the disaster event was carried out by NDMA, FWO, FOCUS, AKDN and other organisations (as the news channels reported), the situation on the ground in Hunza Valley and Gojal Valley demonstrated otherwise. In 2011, 2014 and 2016, the role of affected people in the management of the disaster and its effects were visible, yet hardly explored or spoken about. This encouraged me to explore the other entities, practices and processes involved in the making of the post-disaster landscape. When state and NGOs project timelines run out, which practices, and processes are employed by affected entities to make do and live on? And when formal resources and compensatory packages are exhausted, who takes over the task of rebuilding lives in fragile and ruptured environments? How is the post-disaster landscape actually governed, re-organised and reconfigured? Following on from these questions, the broader objectives of this research are:

1) To explore how, in the aftermath of an event, space is transformed and how governance happens as part of this transformation.

2) To explore how events 'live on' (remain or reverberate) in the everyday lives of affected communities and the landscape of Hunza Valley and Gojal Valley.

[3] Laajverd Visiting School is a two-week interdisciplinary research project set up in post-disaster and post-conflict zones. In 2014, the project was set up in Hunza Valley to address the Attabad disaster and engage with challenges and concerns of the landscape and the affected people.

The focus of this thesis is due to my own interest in and longstanding relationship with the Attabad disaster as it unfolded. It also offers an interesting context to work in due to its geographic position (the mountain landscape), the nature of the event itself and its ripple effects. What began as a landslide resulted in a lake-formation which in turn restricted mobility; a combination of a quick onset and a slow onset disaster. Located in the mountain valleys of the Karakoram range, the event of the landslide and the event of the lake are two very different yet connected events that caused a variety of issues and constraints for different communities. It is an interesting case in terms of the varying terrain of the villages affected by the disaster and how the disaster was experienced in each site differently. It highlights the conflicts and modes of negotiations that emerge during economic, cultural and social immobility. This includes how entities negotiate and navigate a different terrain in more fragile and restrictive economic, social, cultural and material conditions. The sheer materiality of the disaster in terms of the transformed landscape also offers interesting insights into how material and non-human entities are involved in the making of the post-disaster landscape.

The event is also captivating due to its strategic geographical positioning in the high mountains of Karakoram and on the Karakoram Highway. The landslide blocked China's access to warm water at Gwadar, Iran and beyond, as well as paralysed activities at the Sost Dry Port located between Gojal Valley and Khunjerab Pass (Pakistan-China Border). The landslide posed a threat to the CPEC (China Pakistan Economic Corridor) project that was being initiated at the time, thus exerting pressure on the national government to mobilise an effective response. Due to this, it became an event of local, national and regional importance simultaneously. In terms of national response, government institutions and organisations faced various challenges in terms of the operational capacity of NDMA to provide relief and rehabilitation, the FWO for clearing massive debris and preventing the dam break and the overall responsibility of state and non-state institutions to meet the local expectations in terms of compensation and resettlement. At the local level, communities on either side of the debris were dealing with a range of different issues of survival and displacement requiring altogether different modes of response. This event brings together a range of different organisations, strategies, frameworks and technologies that were mobilised in response to the disaster event. Alongside this, there is a range of affected people, landscapes and practices employed in response to the disaster event. In this sense, the disaster becomes a multiple and unique problem.

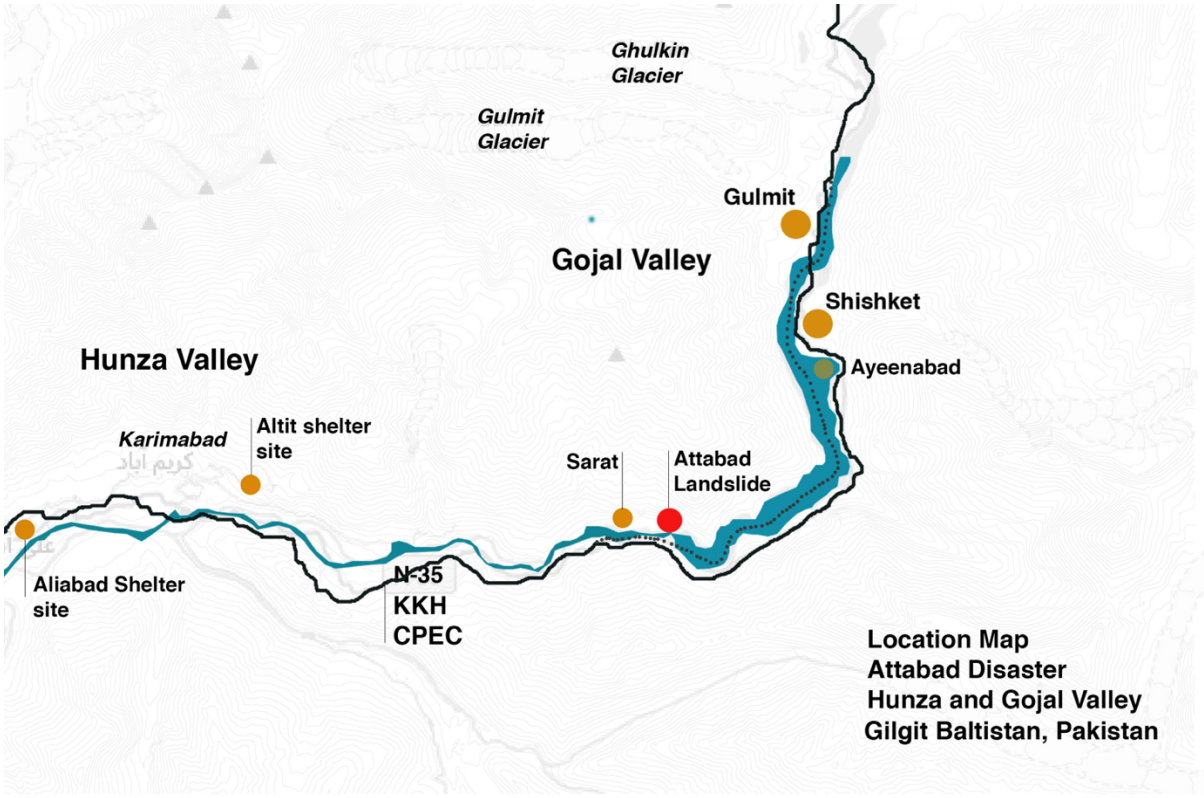

Figure 6. Location map of landslide, lake, villages and IDP shelter sites in Hunza Valley and Gojal Valley.

1.2 The Disaster Multiple:

An interesting aspect of the disaster is how the event differed for different actors, such as the State, non-State, NGOs, humanitarian workers, local people, the affected people[4], engineers, researchers and anthropologists. While the Attabad is termed a landslide disaster, there are multiple layers and realities to this event which are produced and experienced by different actors, practices and contexts. They feature people who have lost homes, people who have not, children born in shelters, children moved to shelters, middle-aged people living in shelters, older people who refuse to do so, women who work in fields and women who do not or cannot. Simultaneously, different actors in the disaster express different narratives and employ different technologies and knowledge practices to reconstruct the post-disaster [5]landscape. In terms of the narrative of the disaster event, for the humanitarian workers relief must instantly be provided to those affected; for the farmers, the Attabad Lake must recede for them to use the land again; for the locals affected, disaster must pass so that normal life can resume; and for the anthropologists, constricted mobility between valleys arrests progress and development in Gojal (Sökefeld, 2014; Cook and Butz, 2016). Likewise, for the FWO engineers the spillway

[4] This thesis will use the term affected people for the communities who were affected by the disaster event, in which some were displaced, while others lost their homes, lands and livelihoods.

[5] The term post-disaster landscape is used to refer to the spatial, socio-economic and political landscape of Hunza Valley and Gojal Valley in the aftermath of the Attabad landslide and lake event. It is the shared space of affected people, individuals, communities, NGOs, materials, technologies, networks, practices and processes.

must release specific cusecs of water to stabilise the Attabad Lake and, for the Chinese work force, the tunnels must be constructed in order to reinstate the transportation link between Gojal and the south. Simultaneously, for the landslide experts, the effects of the disaster must be measured in order to mitigate further damage while, for the boat operators, it offers temporarily thriving economy. Each of these actors brings multiple narratives to the fore.

Moreover, these actors, material and human, bring together different knowledge practices, processes and technologies that affect the construction of the post-disaster landscape in different ways. A single landslide event presents a multitude of other events. A landslide disaster is also an infrastructural disaster, lake disaster, a problem of IDP, a problem for IDP, a tragic loss of life, submerged land and property, restricted mobility and extreme weather conditions**.** There are multiple contexts to consider, since the disaster affects both upstream and downstream settlements in different ways. Some are labelled red-zones because they might be affected by further landslides or a dam burst, while upstream villages are affected by the lake. Each entity enacts a different set of practices and modes of engagement to come to terms with the event. The Attabad Disaster is thus not one, but many – or less than many, as Ann Marie Mol (2002, p.55) would argue – since it is articulated and experienced differently by different entities. It does not have a unitary existence, but the different articulations of the disaster hang together in specific ways. Approaching the Attabad disaster as multiple events allows me to attend not only to the apparent and regulatory frameworks through which the disaster is captured, described and governed, but also the subtle practices and processes through which the post-disaster landscape is enacted, experienced and constructed.

The duration of the disaster is also unclear because it is difficult to capture the landslide in precise temporal boundaries. The landslide event resides originally in the glacial period when the continents of Africa and Asia collided and formed the Karakoram range, which is relatively young, thus resulting in frequent landslides. In another sense it began when Attabad's inhabitants continued to water the land, increasing the probability of the landslide, or when cracks began to appear in 2001 indicating a clear disaster risk. One might say the event spanned 45 minutes, or four months, the time during which the lake filled up from melting glaciers upstream and submerged land and houses. Thus, the landslide exists not only in the moment of its occurrence, but also in glacial time and time period over which land was submerged. Duration becomes important to this discussion because the assumed temporality of the disaster, that is 'start and finish' (as propagated by governance frameworks), is dismantled by the different temporalities in which the landslide event is present. It opens up the disaster as a processual becoming; the emergence of the landslide and its actualization in different sites, practices and processes in the post-disaster landscape.

This ongoing event and resultant ongoing creation of the post-disaster landscape enables exploration of the ways in which the disaster event continues to remain present. As mentioned earlier, there are different timelines

issued for the disaster event by different actors. The mainstream media announced the Attabad landslide disaster as having occurred on 4th January 2010, mid-morning. The responding organisations, state organisations and NGOs, operationalised their interventions lasting from several months to several years depending on the magnitude of the disaster and responsive capacities of the organisations. The timeframe of disaster is organised by and limited to several operational tasks, such as IDP relief or resettlement, aid package distribution and infrastructural repairs (the spillway, tunnels, roads, etc.), which vary in terms of who is involved, on what terms and for how long. The Attabad disaster event seems to have begun a long time ago, only crossing the critical threshold on 4th January 2010, after which it continues to affect the post-disaster landscape in terms of slow-onset lake formation, inundating villages and lands, the arrival of boats, the construction of tunnels and so on.

The disaster event is composed of and gives rise to other events of varying intensities and durations that shape the post-disaster space. For example, lake formation, displaced people, the lifespan of the spillway, the timeframe of displacement and resettlement of IDPs and anticipation of the next earthquake which could destabilise the debris and cause the dam to burst. This is a rather complex temporal order that surfaces as one explores the anxieties and anticipations around the disaster event. Attabad Bala village residents were living with the anticipation of the disaster event for several years. This was followed by the conflicting rhythms and speeds of witnessing, comprehending and experiencing the disaster event as it unfolded, generating the response of the local people who described the disaster as the 'end of the world', 'collapse of the world', 'end of time', 'fast', or 'finished life' (Fieldnotes, October 2016). Representatives of different organisations described it as a 'difficult time' (Assistant Commissioner Office Secretary, Hunza), 'too much happening in too little time' (a land surveyor), and a time that 'united the local community' (a local council officer). Great personal and political significance aligns with the temporal framing of a disaster event. One can therefore analyse it as a dynamic event that lives on through narratives, practices and processes.

This 'becoming' nature of the disaster is undermined when contained within a certain timeframe as it is informed by a range of different material and immaterial processes that are involved in the event and its afterlives. Assessing the disaster as an ongoing event allows us to attend to the different ways in which the disaster lives on, subtly affecting and shaping the post-disaster landscape. The multiple entities and complex temporality through which the post-disaster landscape is shaped and organised thus become important aspects to be explored in this thesis. Working with different entities opens up space to discuss how the disaster becomes multiple events. This allows us to investigate how the disaster is experienced and managed by the marginalised entities whose narratives and stories are undermined in the process of rendering the disaster a single event. Likewise, the complex temporality of the event as a perpetual 'ongoing' field with varying intensities shaping the post-disaster landscape allows us to attend to the varied ways in which the event lives on beyond the formal frameworks of disaster response. The multiple temporalities and the different kinds of entities brought to the fore in the unfolding of the landslide, the unfolding of the lake, the response mechanisms and practices

highlight the instability of the post-disaster landscape. Such instability requires a dynamic framework for research and engagement.

1.3 Opening up the world of disasters

Dominant literature on disasters in policy and social science shows how disasters are governed by regulatory processes and by attending to the disaster event in its physical, technical, social and environmental forms (Pelling, 2003; Cutter et al, 2003). Literature on disaster management in policy studies, environmental science and social sciences focuses on the four-stage process of managing disasters: the mitigation, rehabilitation, resettlement and recovery phases. In principle, the disaster management process is assembled around the perturbation and return systems thinking for managing and governing disasters. It is important to understand how disasters are assessed by different disciplines in order to understand how they are managed and governed. Here, a useful distinction is put forward by Gaillard and Mercer (2013) who explain that disasters are either seen through the Hazard Paradigm (popular with policy and government) or Vulnerability Paradigm (popular with social sciences and human geography). The Hazard Paradigm views disasters as rare natural events that leave affected populations unable to adapt to the transformed landscape, while the Vulnerability Paradigm proposes that the conditions of vulnerability are produced due to the inequalities that exist in the society due to poor governance. Terminology used to assess the disaster landscape, such as resilience and vulnerability, are generally approached as objective, quantifiable and measurable entities (Gaillard and Mercer, 2013; Wisner, 2016) that fail to connect with the subjective realities of the disaster event, leading to futile interventions.

Another aspect of the literature on disaster management highlights how response frameworks are seen in binaries of top-down and bottom-up approaches and global and local agendas. There is an irreconcilable gap between global agendas around disaster management and community-based actions (Gaillard and Mercer, 2013; Wisner et al, 2012). What gets lost in these binaries of regulated action (be they top-down or community-based) is the subtly entangled processes and nuanced practices that are operational in the making of the post disaster landscape. This discussion opens up the multiple operational processes, local or global, bottom-up or top-down, and offers a space to observe how these processes affect the *making* of post-disaster landscape. The processes of managing and governing disasters are nonetheless assembled and organised around the perturbation in terms of how this can be mitigated and managed (Pelling and Dill, 2010). This concentration on managing the critical threshold reduces the disaster to a single event and instigates a linear (stable normality → rupture → return to normal/new stable state) approach to governing and managing the post-disaster landscape. This thesis therefore attempts to distance itself from perturbation and return systems thinking and instead concentrates on the varying intensities of the disaster event, as it emerges and seeps into practices and processes in the post-disaster landscape. One way of attending to these intensities is attending to the afterlives of the disaster event; the practices, processes, technologies and actors comprising the assembly of the disaster event, as

well as the spatial configurations, temporal orders, practices of everyday life and processes responding to the disaster in different ways.

Recent geographical scholarship seeks to revisit disasters as political problems (e.g. Pelling and Dill, 2010; Kelman et al, 2015; Grove and Pugh, 2015; Guggenheim, 2014). Alongside this, assessing disasters through assemblage theory shows the multiple interrelations between social, environmental and natural components, extending nuanced approaches to understanding human-environmental relations which are often non-linear and qualitative (Donovan, 2017). This allows for different ways of engaging with the disaster, the interrelations between multiple entities in the post-disaster landscape, multiple narratives that circulate and construct the disaster, and the complex and non-linear temporalities of memories and experiences through which the disaster lives on. Within these approaches, Michael Guggenheim takes a more dynamic stance and proposes to observe disasters as a politics of composing the world (2014). He sets forth an important question in terms of who is involved in the re-composition of this world in post-disaster scenarios. Guggenheim brings Isabelle Stengers' concept of 'Cosmopolitics' to the fore, where the agency of each actor is recognised for the construction of the common world (Stengers, 2005b). This stance attends to the afterlives of the disaster event in terms of the actors, processes, temporalities and spatialities that are affected by the disaster event and coexist in the post-disaster landscape. In this, we must recognise the agency of human actors, materials (Clark, 2011; Whatmore, 2003), technologies of governance (Guggenheim, 2014; Easthope and Mort, 2014), formal and informal practices and the underlying processes that weave the landscape in post-disaster scenarios. This approach tends to move away from understanding disasters as merely social or environmental problems that must be governed through particular frameworks. It instead figures the disaster as a dynamic process involving multiple and disparate actors and their processes and practices which affect the construction of the post-disaster landscape. This approach allows us to analyse how life is held together in post-disaster scenarios by human, non-human and more-than-human entities alike, and how they work together to make the post-disaster landscape.

1.4 Actors, entities and afterlives

Following the stance on the 'emergent' nature of disaster events as a matter of composing the world (Tironi, Rodríguez-Giralt and Guggenheim2014; Stengers, 2010), this thesis seeks to contribute to the ongoing debate in Human Geography for understanding disasters as a 'dynamic' political problem. Within this context, a disaster is not reducible to a single event but rather moves beyond spatialities and temporalities that attempt to arrest it as a stable and containable object (Donovan, 2017). Moreover, following Stengers (2005b) we consider disasters a shared problem and engage with the potentials and possibilities that the post-disaster landscape offers in the process of its making. This approach requires two commitments: one, assessing the post-disaster space in its 'emergent' form, rather than a static scene waiting to be decoded by the researcher (Massey, 2003; Whatmore, 2003) and second, engaging with the complex interplay between humans, non-humans and

material tendencies and actors to break down the longstanding debate that proposes to see disasters in binaries of society and nature.

The post-disaster world features a range of actors and objects that are assembled by the event, and their interrelations operationalise a series of actions and processes that actively construct the post-disaster landscape. Therefore, engaging with a dynamic process such as this requires innovative approaches and creative combination of strategies to engage with and explore the making of the post-disaster landscape. This thesis is thus also interested in drawing out an appropriate methodological framework to inquire into the disaster in order to capture how different actors approach and assemble the post-disaster landscape through their narratives, practices and processes. These overlapping narratives open up a space to analyse how multiple types of knowledge and practice co-exist and are operative in the re-construction of the post disaster landscape, offering the potential to produce the same post-disaster space in more than one way. Exploring these different configurations of the same post-disaster landscape can potentially lead to the composition of the Common World or the 'cosmos' (Stengers, 2005b) which is far from the 'particular cosmos, or world, as a particular tradition may conceive it' (p.995). This allows us to recognise and attend to the marginalised actors, their narratives and practices, and material and immaterial entities and processes that construct the post-disaster landscape. This thesis is interested in exploring the different ways in which we can begin to address the common world and, to this end, each empirical chapter will attempt to produce a particular configuration of the post-disaster landscape.

This thesis is interested in the 'making of the post-disaster landscape' as carried out by multiple entities and practices, some of which may have been silenced and ignored by the State and NGOs in the process of managing the disaster and re-habilitating and resettling communities. This extends important questions in terms of who becomes part of re-constructing whose lives. What is captured by the institutional organisation and what gets excluded and ignored in the process? How is the post-disaster landscape constructed through formal and informal practices and processes? How is the process of recovery and rehabilitation carried out? In this thesis, we move forward with the conception that the actors and entities that assemble around the disaster are varied, and comprise of human, non-human, and the material entities. Moreover, this assembly is not neutral; some entities do not feature in the grand narrative of disaster recovery and rehabilitation, and neither are they made visible or consulted in the process of re-constructing the post-disaster landscape. For example, in the aftermath of the Attabad disaster, the local state institutions may celebrate a stable lake body and resume vehicular access through Karakoram highway, however the local community's stance suggests that the recovery narrative prioritises certain aspects of restoration such as mobility and road links while ignoring others, such as inundated lands and livelihoods. Lastly, the popular narrative operates within certain temporal confines lasting from 2010 to 2015, between the event of the landslide and when most NGO projects' timeline ended, the Karakoram Highway was restored and the IDP resettlement plan had been drafted and announced by the AKPBS, while

those affected continue to live in and tackle the fragile conditions instigated by the disaster. The disaster has clearly spilled over the spatial bounds of the landslide occurrence, and the temporal frames of aid and support interventions. Therefore, the thesis explores how post-disaster life is managed in terrains that go beyond the dominant priorities, exceed the formal project timelines and reside in the gaps of dominant narratives. To sum up, it asks how the disaster lives on and in what forms is life held together in conditions of fragility, crisis and displacement?

1.5 Revisiting the Attabad disaster

In response to the aforementioned issues and questions, this thesis sets out to explore how disaster events are understood and governed by different entities. In particular, this includes reviewing literature on disasters, their management and governance in policy studies, social science and human geography to understand how disasters have been assessed as problems to be managed. The next chapter explores literature on disaster management in order to draw out a suitable approach that allows us to attend to the perpetual *becoming* of the disaster event and its various afterlives. Having identified the gaps in dominant approaches to disaster management, this thesis follows Stengers' call for a common world (2005b) and uses the conceptualization of cosmopolitics to attend to the multiple and varied actors and their worlds; the disenfranchised and silent entities that work behind the scenes to construct and shape the post-disaster landscape. For this, chapter three will unpack the concept of Cosmopolitics and why it is useful for researching a disaster event. Chapter three will also derive a methodological framework inspired by Stengers' propositions of achieving a common world (2005b) and the ecology of practices (2005a) for conducting inquiry in a post-disaster landscape. Following on from this, the fourth chapter will demonstrate how this framework was employed in the geographic sites where the research was carried out, i.e. five villages in Gojal Valley and two IDP shelter sites in Hunza Valley and narrate stories of how in the quest of conducting an open inquiry, methods were adopted, adapted and transformed during encounters in the field. An important segment of the framework features the 're-composition of the post disaster landscape' based on the research inquiry carried out in the field. To this end, each chapter features the empirical findings as an exercise in re-composing the post-disaster landscape, in telling stories that haven't been told before, heard or heard enough. In this sense, the thesis toils with how we might tell other stories that may challenge and dismantle the grand narrative surrounding the post-disaster scenario of Attabad.

In chapter five, I discuss how the post-disaster landscape is organised and reconstructed through processes and practices carried out by the inhabitants and local actors in Hunza Valley and Gojal Valley. I explore this through the practices of correspondence through which life is held together in conditions of crisis and displacement. Exploring these practices in different sites is an attempt to dismantle the conventional ways in which the terminologies of displacement, resilience, recovery and rehabilitation are understood in disaster governance. In chapter six, I move on from the practices of displaced people to the spatial forms they inhabit. Chapter six

discusses how forms play a crucial role in the process of resettlement and recovery in the aftermath of a disaster. Engaging with spatial and temporal forms cautions against a simplistic and linear understanding of the recovery phase of the disaster event, from displacement to resettlement, and instead opens up the complex and the entangled space-times of the post-disaster landscape. It thus shows how spatial forms host particular kinds of socio-cultural and political arrangements, that can assist or impede the process of rehabilitation and resettlement. In the last empirical chapter, I analyse the 'remainder' of the disaster event and how it is encountered, negotiated and appropriated by those affected in their everyday lives and how the Attabad disaster continues to haunt the post-disaster landscape. This has important consequences for how we might understand the phase of 'recovery' in this context, which implies 'return to normal' conditions for the people who have suffered due to the disaster event. It thus explores how the event that has *passed* accompanies the present, rendering the disaster an unresolved and unfinished business.

The overarching question that this thesis addresses is how complex problems such as disasters are managed, responded to and governed by different entities and actors. I try to explore the everyday making of the post-disaster landscape beyond the grand narrative of disaster recovery by focusing on *how* lives are made and lived in the presence of a disaster that is reported and believed to have passed. Taking the formal processes of governance informed by DRR (Disaster Risk Reduction) and Disaster Management Frameworks as a reference point to begin assessing the post-disaster landscape, this thesis wanders into the everyday lives, strategies and spaces of affected people who continue to manage and live with the disaster in different ways. A major objective of this thesis is to design a methodological framework that allows engagement with the disaster event and its afterlives; the interrelations, entanglement and intersections that together create the post-disaster landscape and recompose the disaster space.

2. Disaster governance & the making of post-disaster landscapes

The Attabad landslide event was termed a disaster, enabling a particular form of response to be derived from the disaster management framework operationalised by the NDMA. This affected how the disaster was managed and governed in terms of providing aid, relief and rehabilitation to the communities and peoples affected by the disaster event, as well as restoring critical infrastructures such as through spillway construction and re-establishing the road link. The post-disaster landscape in Hunza Valley and Gojal Valley is understood to be largely defined and shaped by top-down interventions and governance practices of the Sate and NGOs. However, as stated in the previous chapter, these were not the only practices that shaped the post-disaster landscape of Hunza Valley and Gojal Valley. Since this thesis seeks to understand how disasters are governed and managed by different and multiple entities that are relational as well as interlinked, we would have to move away from the dominant conceptualisation of disasters as a single event. It is therefore important to begin the discussion of how disasters have been understood and consequently made an object of governance.

In particular, this chapter will discuss how disasters in the dominant literature in social science and policy studies are understood as large-scale complex events that tend to disrupt socio-economic processes, destroy the physical environment and impact communities and societies at large. The chapter will begin by unpacking the notion of disasters by reviewing select scholarly debates on disasters that have informed the dominant conceptualisation of the topic in theoretical (discourse) as well as practical (policy) realms. While a substantial amount of literature exists on the subject, this chapter will trace the roots of disaster management framework including a discussion on two major paradigms, the Hazard Paradigm and Vulnerability Paradigm, through which disasters have been understood and approached. This discussion intends to establish that assessing disasters through these paradigms arrests us in the long-standing debates between nature versus culture and

top-down versus bottom-up approaches, which this thesis seeks to move away from. Following on from this, the chapter unpacks the temporality of the disaster event as a potential site for assessing its afterlives, which are crucial in the making of the post-disaster landscape.

The review of the dominant literature on disasters in social sciences and critical approaches by human geographers will provide the grounds to contextualise the approach that this thesis aims to align itself with and explore further. This chapter is arranged in three parts. The first examines how disasters have been theorised as problem for governance in social and environmental sciences and policy studies. It lays out the disaster management framework through which disasters are globally managed and governed, as well as provides a detailed review of the concept of resilience which underpins this framework. In the next section, I layout my critique against these approaches and build a case to approach disasters differently (moving away from the perturbation and instead focusing on how the event lives on and shapes the post-disaster landscape), particularly with regards to its 'becoming' temporality. This discussion feeds into the third section where I use recent literature on disasters (Guggenhiem, 2014) to scaffold my approach in terms of why we need to attend to the 'making' of the post-disaster landscape. The section concludes by providing a road map for the key concerns this thesis will explore in subsequent chapters.

2.1 Disaster: A complex problem

Statistics show that in the years between 2000 and 2010, approximately 70,000 people were killed and around 200 million others were affected on an annual basis by disaster events caused by natural hazards in the region of the Global South (UNESCAP, 2012). Usually, disasters are those events that catch societies unaware, with significant destructive impacts leaving societies in a state of devastation. A classic definition of disaster was presented by Fritz (1961):

> 'an event, concentrated in space and time, in which society or a relatively self-sufficient subdivision of a society, undergoes severe danger and incurs losses to its members and physical appurtenances that the social structure is disrupted and the fulfilment of all or some of the essential functions of the society is prevented' (p.655).

In Fritz's definition, the disaster is seen as a catastrophic event that causes destruction and loss to a particular society. It is witnessed in a relatively short time period and disrupts the social structure. It also suggests that the disaster occurs in a confined temporal frame in which routines and normal functioning of everyday life is impeded. The disaster is seen as a single event that affects multiple processes and is hence complex due to its unexpected occurrence and unpredicted scale of effects and terms of governance; it affects not only people, but also physical and economic infrastructures that are necessary for the successful functioning of a society (Quarantelli, 1998).

The phenomenon of the disaster has been under scrutiny for several decades by various disciplines and their sub-disciplines, ranging from physical science, to environmental science, social sciences, psychology, geography, earth sciences, policy studies and governance. It is an important subject given the growing frequency of large-scale destructions that have occurred in last few decades in different parts of the world, causing considerable loss of human life and destruction of built environments and infrastructure. Wisner et al. (2004) suggest that initially in physical sciences disasters were seen primarily as a physical agent in the context of natural hazard events such as earthquakes, landslides, cyclones, and floods; an outside force of nature acting upon human societies. Disasters were conceptualised as external destructive agents, however it was suggested that disasters should be seen within the realms of 'collective stress situations' (Barton 1969, p.336-347) and were therefore social problems (Fritz, 1961; Quarantelli, 1970). Following this approach, scholarly interventions by social scientists in 1970s began to take deeper interest in the relations between disasters and human societies. A particular stance was taken by Quarantelli who suggested that disasters are not 'naturally' occurring phenomena but socially produced events (1970, 1998, 2001). This debate explored how wider social systems contribute to the making of a disaster: human groups and their social, economic and political activities (Wenger, 1978). Disasters thus began to be seen as socially constructed events, rather than naturally occurring ones, challenging the binary between natural and man-made disasters (Dombrowsky, 1998). This debate is discussed within two major conceptions where one places disaster in the category of natural hazard, while the other one places it in society-environment relations (Wisner et al, 2004; Gaillard and Mercer, 2013).

Within the society-environment relations, the detrimental effects of a naturally occurring event, which are intensified by human actions that fail to respect the environment and create conditions of poverty and social exclusion, have been discussed (Dominelli, 2009). Alongside this, the ecological perspective approaches society and environment as an intertwined and mutually constituted entity, rather than as separate domains. According to this view, Oliver-Smith suggests that 'disasters do not inhere in societies; they inhere in societal-environmental relations' (1998, p.186). Avoiding agent determinism and emphasising the role of human actions in shaping environments that become conducive for disasters, Oliver-Smith (1998) describes disaster as,

> 'a process/event involving the combination of a potentially destructive agent(s) from the natural, modified and/or constructed environment and a population in a socially and economically produced condition of vulnerability, resulting in a perceived disruption of customary relative satisfactions of individual and social needs for physical survival, social order and meaning' (p.186)

These two (naturally occurring/ Socially produced) allegedly different ways of approaching the disaster end up operating in the same logic that will be discussed in the following sections. I will introduce how disasters have been presented as a social problem by social scientists in the 1970s and 1980s, thereby distinguishing their

approach from the physical sciences. By highlighting the key conceptualisation of disasters by social scientists, I will argue that both approaches principally agree on the conceptualisation of the disaster event, which this thesis seeks to move away from.

2.1.1 Disaster: A multi-faceted problem

An event is usually categorised as a disaster due to its significant geographical scale, intensity of destruction and its duration and timing (Oppenheimer, 2008). It is therefore a multifaceted problem that requires immediate response in order to save lives, properties, assets and societal infrastructures. These characteristics of an event distinguish a disaster from everyday routine processes and occurrences. The first and foremost are physical and visible effects seen as loss of life, destruction of the built environment and infrastructure and damage of assets, conceptualised as the impact of a disaster event (Kreps, 1998). In order to analyse how disasters are governed, it is important to trace how disasters have been conceptualised in scholarly literature that also informs policy studies on a global level. In the 1970s and 1980s, there was a significant rise in addressing disaster events, particularly by social scientists. In summary, the key debates and diverse perspectives on disasters by social scientists were compiled in the IJMED (1995) issue, which were developed further in a book called 'What is a Disaster?' by Quarantelli (1998). This book compiles key debates on the environmental, physical and social perspectives of disaster events. In one of the chapters, Kroll-Smith and Gunter (1998) compile some of the key definitions of disasters from the IJMED issue (1995), given below:

> 1. 'nonroutine events in societies[...]that involve social disruption and physical harm. Among [sic], key defining properties of such events are (1) length of forewarning, (2) magnitude of impact, (3) scope of impact, and (4) duration of impact' (Kreps 1995, p.258)
>
> 2. 'a state/condition destabilizing the social system that manifests itself in a malfunctioning or disruption of connections and communications between its elements or social units [..]; partial or total destruction/demolition[..]making it necessary to take extraordinary or emergency counter measures to re-establish stability/ (Profiriev 1995, p.291).
>
> 3.'The loss of key standpoints in common sense, and difficulty of understanding reality through ordinary mental frameworks.' (Gilbert 1995, p.238).

These three definitions prepared a case for how and why disaster events require a special response in terms of their governance and management. The characteristics of disasters have been highlighted in terms of their uncertainty (Gilbert, 1995), destabilising effects (Porfiriev, 1995) and non-routine occurrences (Kreps, 1998). Gilbert (1995) explains disasters as those instances when the ordinary sensibilities of people are challenged and destabilised, deeming the disaster an extraordinary event. For some social theorists, the element of uncertainty and instability is central to the concept of disaster when modern societies are at a loss for defining a situation through conventional parameters. The definition by Profiriev (1995) conceptualises disasters as disruptions that require extraordinary and exceptional measures and intervention in order to manage and control the

disruption. In addition to this, the social factor is highlighted by Dynes (1998) who, in his chapter 'Coming to terms with community disaster' presents a consensus drawn from these three definitions that 'Disasters are social in origin […]and […..] that social disruption should be the focus'(p.110), thereby establishing the disaster as a problem of social disruption. Kenneth Hewitt (1998), in his response to the arguments put forward by Gilbert, Kreps and Profiriev, calls our attention to the relationship between government, communities and social action in order to question how notions of public safety and practices of civil security are shaped by governmentality (p.89). Conceptualisations of disaster events are not limited to the above, a later is definition provided by Kreps (2001) who summarises disasters as,

> 'non-routine events in societies or their larger subsystems (e.g. regions and communities) that involve conjunctions of physical conditions with social definitions of human harm and social disruption' (p.3718).

These 'singular large scale, high impact events' (Cutter, 2003, p.439) are categorized as uncertain and complex events that are not anticipated, either in terms of their occurrence or the magnitude of effects they can have (Eiser et al, 2012). In each definition described, disaster is seen as a single destructive event of a particular scale and impact that occurs in a certain duration. While these definitions highlight different aspects of understanding disaster events, in principle they agree on the definitional fundamentals of the how disasters are conceptualised as a disruptive event. These definitions approach the disaster as perturbations which destabilise an otherwise stable condition and thus calls for extreme measures to bring the situation back to normal. This extraordinary, destabilising and non-routine event operationalises specific kinds of response and governance strategies. State institutions are primarily responsible for managing a large-scale crisis in order to bring back stability in the society and its infrastructures. Within these definitions, the disaster is a multi-faceted and complex condition to be managed and governed, however it operates in the linear temporality of a single, punctual event. This conceptualisation of the disaster as a single event is deeply embedded in and aligned with disaster management frameworks. In particular, this includes the disaster management cycle, which is organised around the perturbation in order to manage it through effective strategies and interventions. In the next section, I will focus on how disaster management policies and frameworks are also based on this particular conceptualisation of the disaster as a single event.

2.1.2 Disaster Management Framework

Disasters are complex, multifaceted problems that require immediate response and governance to bring stability back in the lives of people and societies who are affected by it. Disaster management framework has been instrumental in the management of disasters for several decades (Kelman, 2007; Lewis, 2007). The disaster management cycle has been developed and influenced by various disciplines, such as political ecology, sociology, psychology, civil defence, development studies and public policy studies (Quarantelli, 1987; Tierney, 1998). It

is worth discussing here how disasters have been approached as a problem for analysis and governance. A detailed study by Coetzee and Niekerk (2012) explains how disaster management frameworks developed in the last several decades and trace their roots back to the 1930s when it was originally analysed in general systems theory (Neal, 1997). General systems theory helps us understand a complex system by focusing on individual components as well as the relationship between the components operating within the same system. Under this approach, a complex phenomenon is analysed by dividing it into several parts and reading each part separately.

Coetzee and Niekerk (2012) describe how the phase-based (pre-disaster, disaster event and post-disaster phase) delineation of a disaster event emerged from general systems theory, which allowed scientists to observe dynamic and multifaceted phenomena such as a disaster by separating it into smaller components. The phase-based model also offered order and logic to the policy and governance mechanisms, for an otherwise complex event (Richardson, 2005). Coetzee and Niekerk (2014) explain that the linear phase-based model was developed as early as 1932 by Carr who 'found that all social changes follow a definite sequence pattern, beginning with a precipitating or initiating event or condition and moving through a phase of dislocated adjustment into a phase of readjustment and eventually renewed equilibrium' (Carr, 1932, as cited in Coetzee and Niekerk, 2012, p.4). The phase-based model followed this patterning and was initially developed in linear form and later improvised into the disaster management cycle. Initially, the focus of disaster management was limited to relief efforts (Twigg, 2004; UNISDR 2005) where short-term actions that were initiated were usually grounded in religious or moral responsibility to provide relief to the affected populations (Konoorayar, 2006; Hollis, 2014). However, later in the 1970s, with the development of the sociological perspective on disasters, came the critique of this narrow response window which opened up the debate on analysing disasters as embedded in and arising from the societal structures. It indicated the need to address conditions that lead to disasters. Alongside this, the massive loss to human capital, physical assets and infrastructures also became a concern which called for efficient pre-disaster planning in order to reduce losses (Lewis et al, 1976; Coetzee and Niekerk; 2012). It is suggested that over the last several decades, multi-disciplinary research on disaster has proved useful for understanding disasters as events that can be governed by introducing mechanisms for disaster risk management and hazard mitigation (Drabek, 2005; Stallings, 1997). The disaster management framework thus began to encompass factors of disaster risk reduction when a dramatic increase in disasters and resultant loss was observed on a global level (Wisner et al, 2004).

The disaster management framework, from linear to cyclic, underwent several changes and developments in order to incorporate multiple and interlinked factors. Different disciplines (environmental sciences, social sciences, geography, physical sciences) define the different stages of disaster management framework in different ways, but in principle there is agreement on three phases of disaster management comprising of the pre-disaster phase, the disaster event and immediate response and the post-disaster phase (Holloway, 2003; Khan and Khan, 2008). While the cyclic model of the disaster management cycle is derived from the linear (stable normality →

rupture → return to normal/new stable state) phase-based model, it is underpinned by the concept of 'return systems thinking, meaning when societies undergo disasters, the cyclic framework should ensure that conditions return to a stable state. It is important to note that both the linear phase-based model and the disaster management cycle are embedded in and derived from systems theory. Systems theory attempts to study systems by separating them into parts and by observing the relations between different parts, adding linearity and objectivity to the understanding of disasters and consequently to the management of disasters. As a result, disaster management frameworks attempted to separate the disaster into task-based delineated phases in order to operationalise actions that followed a particular logic. A three-phase model is typically used in administrative decisions and policy frameworks of formal institutions (Government and INGOs): pre-crisis, crisis and post-crisis. The life cycle of disaster management is a phase-based model covering pre-crisis activities, the disaster event and its immediate impacts requiring emergency planning and response and, lastly, the period in which the crisis fades, and the situation returns to normal (Hensgen et al, 2003; Bertrand and Lajtha, 2002; Mansor et al, 2004; McEntire et al, 2002;). Disaster management life cycle is designed to help emergency managers prepare for and respond to a disaster, while it defines the chain of command and the tasks to be performed (Gebbie and Qureshi, 2002). Activities in disaster management that are universally agreed upon and followed are (1) mitigation and preparedness, (2) response and (3) recovery, which I have summarised as follows,

- Mitigation and Preparedness are popular terms used for the pre-crisis phase. Mitigation involves actions for disaster prevention and minimising social, physical and environmental risk and vulnerabilities in a given area (Bakir, 2004; Dai et al, 2002; Mansor et al, 2004). Preparedness means preparing people and disaster responders for post-disaster activities through drills and installing early warning systems (Simpson, 2002; Wisner, 2003).
- Response consists of a framework (Kreps, 1983; Perry and Lindell, 2003) employed in the aftermath of disruption and destruction caused by the disaster. It tries to minimise physical destruction and provides relief to affected communities. It includes actions of evacuation, shelter, medical care, food and basic supplies.
- The recovery phase involves Rehabilitation, Reconstruction and Resettlement when a greater degree of certainty and stability has been acquired after the disruption. 'Disaster recovery includes activities related to the re-establishment of pre-disaster social and economic routines (education, cultural activities, production, distribution, and consumption); the provision of financial assistance and other services (e.g. mental health care) to victim populations; and replacement and repair of damaged and destroyed housing and business properties (sometimes a long-term process). The concept of recovery encompasses both objective measures, such as reconstruction and assistance efforts, and the subjective experiences of disaster victims and processes of psychological and social recovery' (NRC Report, 2006).

In this sense, the disaster management framework is developed upon the conceptualisation of disaster as a single complex event which is divided up into linear phases in order to streamline governance strategies and actions. Within this linear temporality, a start and end point of the disaster event is also assumed based on conditions of stability (stable normality → rupture → return to normal/new stable state). Likewise, the conceptualisation

of disasters by social scientists also deems a disaster a single event that is contained in a particular temporality of 'extreme' and 'destabilising' conditions. To sum up the multiple perspectives and approaches to understanding and managing disasters, the next section will highlight two major paradigms through which disasters are conceptualised and governed.

2.1.3 The Hazard and Vulnerability Paradigms

The aforementioned critiques take us back to the divide between the naturally occurring disaster and the disaster as produced by the society. Therefore, it is important to discuss the two major approaches that underpin the science of disaster management i.e. the Hazard Paradigm and the Vulnerability Paradigm as discussed by Blöschl et al, (2013) and Gaillard and Mercer (2013). I will lay out the prominent debates associated with these paradigms and the issues they seek to address and resolve regarding disasters. In so doing, I will highlight how these approaches fail to address the questions that this thesis has set out to ask, how the disaster remains present and lives on in different ways and how, in its aftermath, life is held together in conditions of fragility, crisis and displacement.

The Hazard Paradigm is based on the approach that disasters are a naturally-occurring phenomenon and it puts forth solutions to mitigate the disaster and reduce its effects on people and infrastructures (Blöschl et al, 2013; Gaillard and Mercer, 2013). Under this paradigm, disaster is viewed as an objective problem which requires structural measures to bring the affected site and its peoples back to normality. Disaster management or, more recently, Disaster Risk Reduction (DRR), frameworks increasingly rely on the Hazard Paradigm. The strategies and interventions designed through this paradigm are aligned with the physical and environmental sciences and include quantifiable data, command and control measures and monitoring and warning systems based on measurable indicators. Relying on top-down scientific knowledge and measurable phenomena, the field of policy and political strategies put its trust in the Hazard Paradigm (Gaillard, 2010). Under the hazard paradigm, specific interventions were initiated in order to increase the preparedness of societies at large and anticipate the impact of giving rise to the global agenda on DRR (Gaillard, 2010; Gaillard and Mercer, 2013). The global agenda on disaster management is thus informed by scientific rationality and technical solutions, rendering the disaster an objective and neutral problem. This neutrality trickles down into processes such as resilience, adaptation and resettlement undermining the subjective and contextual realities of the disaster event (Pizzo, 2015).

On the other hand, the Vulnerability Paradigm emerged from discussions in social sciences that deemed disasters a product of poor societal governance and societal structures that create vulnerable populations and communities (Wisner, 2016). It relates to how communities are marginalised due to power-imbalances and injustices in society, thus making them exceedingly vulnerable to disaster events (Wisner et al, 2004). This paradigm is aligned with the long tradition of conceptualising disasters as those events when 'hazards meet

vulnerability' (Barton, 1969), pointing to the social factors involved in the making of a disaster. This notion gets rid of the 'outside agent' and brings into question how societies are structured in ways that lead to production of disaster events. Here, vulnerability is central to the production of a disaster event, embedded in the vulnerability of location, infrastructure and socio-political structure that characterise a society. Hoffman and Oliver-Smith describe a disaster as processes that 'unmask the nature of society's social structure' (Oliver-Smith and Hoffman 2002, p.9). Vulnerability Paradigm is increasingly aligned with the subjective and contextual realities of the disaster event and focusses on the inherent social and political problems that communities face in everyday life. For example, location of settlements, infrastructure, access to basic resources and conditions like poverty are factors that contribute to vulnerability, though dynamics that come into play during reconstruction are also part of the Vulnerability Paradigm (Wisner et al, 2004). The Vulnerability paradigm focusses on conditions such as poverty that make communities more vulnerable to disasters. For example, Richard Keller discusses the difficulty of measuring mortality during the heat wave in Paris in 2013 as it overlaps with other processes and conditions of everyday life (2015, p.174). He further explains that analysis of the vulnerable in a disaster tends to ignore other societal structures that contribute to vulnerability, such as urban infrastructure. Vulnerabilities are discussed as complex and dynamic patterns (Frerks and Bender, 2004; Hilhorst and Bankoff, 2004) that often overlap and are interrelated (Philips and Morrow, 2007).

While the phases involved in disaster management are agreed upon by both paradigms, the conceptualisation and implementation of action within it has been critiqued, especially by social scientists (Wisner et al, 2004). For instance, several (Oliver-Smith and Hoffman 1999; Enarson and Morrow 2001; Wisner et al, 2004) have argued that technical terms such as relief, rehabilitation and recovery are imposed on varied realities of gender, culture and politics. Here, characteristics such as age, gender and resources are measured to assess vulnerabilities of communities. However, Wisner (2016) argues that that generalised statements and understandings of vulnerability are not helpful, as they are shaped by complex dynamics of place, culture, knowledge and the local context. It is also suggested that these terminologies and their attendant characteristics are usually measured in mechanistic and technical terms, assessing disasters in economic and physical damage, as quantifiable capital (Collier, 1999; Cavalo and Noy, 2009) and as livelihood consequences for vulnerable groups (Akresh et al, 2010; Bundervoet et al, 2009, Adelman et al, 2010). Wisner et al. (2004) suggest that when 'people's science and indigenous knowledge is not considered in favour of official relief and recovery, the result is wasted resources, squandered opportunities and a further erosion of vernacular coping skills' (p.120). An inclusive framework not only requires testimonies from disaster-affected communities but seeks to engage their local knowledge and practices, which are unique to a given culture or society. This view is also sceptical of intervention of International Humanitarian Organisations in terms of short-term relief activities, which increase the affected community's dependability (Jigyasu, 2002). Hence, a focus on building resilience within

local communities has become an important agenda in the recent past (Hyogo Framework 2005), not only for social scientists but also for policy managers in order to deal better with disasters and their effects.

Following this stance, technical and top-down solutions are increasingly contested in favour of community-based and bottom-up approaches, calling for acknowledgement of local knowledge and the capacities of the communities who are not inept in dealing with disasters (Wisner et al, 2004; Marsh and Buckle, 2001). This opened up debates on global agendas versus local knowledge, as well as top-down versus bottom-up solutions, leading researchers and practitioners to negotiate a common ground and integrative approaches for efficient planning (Gaillard and Mercer, 2013; Baldassarre et al, 2018). In terms of strategies for governance, it is argued that vulnerability cannot be measured in numbers but rather in the interrelated factors present in the society which, if not addressed, tend to increase vulnerability over time (McEntire, 2001). With regards to the vulnerability paradigm, localised factors such as built infrastructures, local properties and access to amenities are given precedence over a generalised understanding of vulnerability factors operating on a larger scale. Here, strategies for governance would include localised solutions such as awareness campaigns and community-based strategies for solving issues rather than large structural social change (Berg and Majo, 2017).

The above sections demonstrate how disasters have been approached in two fundamentally different ways and the clear distinctions can be traced through the Hazard Paradigm and the Vulnerability Paradigm. However, it has also been shown that the disaster management framework, which is largely agreed upon by both sides, is derived from systems theory and thus operates in particular conceptualisations and temporality. And while there may be disagreement on the terminologies and strategies for action, these debates remain within the broader frameworks of the phase-based model where the former employs top-down actions and the latter aspires towards an inclusive and more just model of intervention. What gets undermined in these debates is how the disaster event is actualised in everyday lives, practices and processes and how it affects the making of the post-disaster landscape. This thesis therefore aims to understand the disaster differently, by moving away from the phase-based linear approach which streamlines and homogenises the post-disaster landscape through terminologies and quantifiable models and frameworks. It instead opens up the world of disasters in order to observe the entangled relations between different entities, practices and processes through which the post-disaster landscape is constructed. These entities are not only the human communities, but also the material and immaterial entities at play, therefore neither the Hazard nor the Vulnerability Paradigm is entirely useful. This thesis aims to understand in what ways the disaster lives on and is actualized in the post-disaster landscape. Only attending to the human entities is not helpful; the human, material and non-human entities and their entangled relations must be considered.

Moreover, this research is interested in analysing through which practices and processes life is 'held together' in the post-disaster landscape. This requires attending to how lives are made and kept going in the post-disaster

landscape. It means attending to the ongoing relational practices of the affected people, which are neither entirely measurable through resource capital, nor operate in a linear temporality. This research therefore calls for an engagement with the disaster event that moves away from the rupture and perturbation and instead focuses on how the disaster continues to affect and shape the post-disaster landscape. In order to do this, it has to move beyond the linear phase-based temporality that underpins disaster management framework, its strategies, projects and interventions. When analysing the post-disaster landscape, one must attend to the actualizations and afterlives of the disaster event which are far from linear. However, before proceeding to the discussion of the temporality of the disaster event, I will discuss the concept of resilience which has gained traction in disaster policy and governance. The concept of resilience underpins the science of disaster governance and is strongly advocated in recent policies for governing disasters (Hyogo Framework 2005, Sendai Framework 2015). In particular, the discussion on resilience is relevant both in terms of how it is assessed as a top-down project and a bottom-up approach, as well as its relevance for one of the overarching questions of this thesis: how is life held together in conditions of fragility, crisis and displacement?

2.1.4 The rise of resilience

I would like to unpack the concept of resilience for several reasons. First, to show how resilience surfaces in the two paradigms and second, because the disaster management cycle is based on the concept of 'resilience' which has been strongly advocated in recent policy frameworks for governing disasters (Hyogo Framework, Sendai Framework, UNISDR). Third, a particular trajectory (as resourcefulness, alternative strategies and the ingenuity of affected communities) developed in response to mainstream resilience theory is further developed by this thesis to analyse how life is held together in conditions of fragility, crisis and displacement. Therefore, in what follows, I will navigate the concept of 'resilience' by highlighting its origins and showing how it has developed over time by stating the prominent stances taken by different disciplines (ecology and social and human geography) on the subject. In so doing, I will show how the discussion on resilience that now dominates global agendas on disaster management remains confined to the binaries of debates on top-down versus bottom-up strategies and global versus local actions. Moreover, I will illustrate how the differing conceptualisations of resilience end up operating in a particular temporality of the phase-based model (return to stable state), which this thesis seeks to move away from, and show which approaches maybe taken to address the problems in question.

The concept of resilience is strongly tied to disaster management framework in terms of preparing at-risk communities to deal more effectively with the destabilising and destructive effects of disasters. In the past several years, resilience has become a popular term, used by different groups and disciplines in different ways to the extent that it has become a buzzword (Béné et al, 2014; Davoudi, 2012; Olsson et al, 2015; Walker et al, 2004). In the past two decades, it has been deployed and adapted by various disciplines, ranging from socio-ecology

to psychology, economics, engineering and geography, in diverse and complex ways (Brown, 2011; Slater, 2014; Cretney, 2014). In disaster management science, understanding of resilience is derived from the discipline of socio-ecology relating to ecology and social systems. The word resilience is derived from the Latin word '*resilare*' meaning 'leap backwards' to a point of equilibrium (Gunderson, 2000). However, this conceptualisation has evolved since Holling (1973) offered his analysis of resilience as a 'zone of stability' in eco-systems, challenging the dominant meaning derived in physics and engineering as bouncing back to a point of equilibrium (Gunderson, 2000). Holling's 'zone of stability' offered a flexible field that allows the re-organisation, adaptation and continuous existence of the system in response to external stresses and disturbances (Holling, 1973; Gunderson and Holling, 2002; Walker *et al,* 2004). This understanding of resilience became a referent for subsequent work developed on the topic, and while it moved away from a single desirable state, the concept remains committed to the condition of 'stability' (Gunderson, 2000; Cretney, 2014). An important element in understanding resilience is discussed by Gunderson and Holling (2003) through the concept of 'panarchy' where the interactions between different scales in socio-ecological systems are observed through persistence and changes that allow adaptive evolution. The idea is that no system can maintain a stable state forever, and that systems undergo evolution and adaptive change in longer durations. However, the conceptualisation of resilience within technocratic realms as a governmental technique is predominantly based on maintaining stability in systems to prevent collapse in the face of exogenous forces. The concept of resilience is thus derived from the discipline of socio-ecological systems theory.

Resilience is not only a theoretical conceptualisation but is also employed in practice. For example, governments and NGOs are increasingly using resilience as a strategy to prepare for destructive events. It includes processes of disaster mitigation, adaptation, recovery and reconstruction, which have become the highlight of policy frameworks dealing with disaster management across the globe. The concept of resilience underpins global disaster policy, which has extended two major frameworks for managing disasters and crisis on a global level. These are the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA) and the Sendai Framework for Disaster Risk Reduction (SFDRR). In Disaster Risk Reduction frameworks, this definition of resilience is given by UNISDR:

> 'The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions'(UNISDR 2009, p.24).

Within these frameworks, a top-down and objective approach is taken towards the strategies and tools employed to promote resilience thinking and planning. It is propagated by humanitarian agencies under the wider global agenda on building resilient communities. Berg and Majo (2017) argue that while these frameworks mention

the importance of 'resilient communities' by assessing the vulnerabilities of local communities and supporting ground-up and proactive measures, they allow limited space for action on a ground level i.e. community-based approaches and bottom-up strategies for assessing future risks (Berg and Majo, 2017). In this sense, the resilience project in policy frameworks operates on a global level with an objective view to measure and inculcate resilience in communities. Central to the notion of assessing resilience is 'adaptive capacity', which is seen as the competency of a system to cope with and moderate effects of a disturbance and adjust to change (Burton et al, 2002; Brooks et al, 2005). For example, resilience is measured in groups and individuals through their social capital which can potentially increase their ability to adapt in post-disaster scenarios (Chaskin 2008; Cutter et al, 2008; Norris et al, 2007). Social capital relies on the cultural ties and social relations between groups in communities which are seen to increase resilience, however it has been argued that social relations within social capital promote a romanticised idea of community (Levi, 1996; Mohan and Mohan, 2002) that is devoid of contextual culture and politics.

Scholarly work in social sciences and human geography critiques the idea of resilience in terms of 'bouncing back' (Manyena et al, 2011) to the 'same state' (Cutter et al, 2008; Folke, 2006; Paton and Johnston, 2006), 'normal' or 'previous' conditions, claiming that the previous conditions may not be the most suitable or desirable (Gaillard and Mercer, 2013). Instead, a focus on 'adaptation' has developed, primarily understood as the ability of groups and communities to cope with minimum impact and damage to external stress and disturbance (Cutter et al, 2008; Berke & Campanella, 2006; National Research Council, 2006; Adger, 2006). Community adaptation means the ability of communities to adopt survival strategies in critical and challenging conditions (Bradley and Grainger, 2004). This extends the localised condition of resilience as opposed to the top-down and objective view of the global agenda for resilience. Here, resilience practice involves 'taking responsibility' for adapting to challenging conditions, which involves learning and building capacity to manage crises such as hazards (Cutter et al, 2008). This aspect of placing the 'responsibility' on communities (or citizens) has led to recent critiques by Human Geographers who deem resilience a neoliberal project propagated by governments (Cote and Nightingale, 2012; Reid, 2012). Within this critique, resilience as a technocratic project is being used to transfer responsibility (for protection and ensuring safety) from the state to citizens and communities through strategies of promoting self-sufficiency, personal strength and individualism. Here, resilience is seen as a term co-opted by neoliberal ideologies, reinforcing hegemonic discourses of politics and economics within the realms of disaster capitalism (Klein, 2007). It is also argued that resilience is increasingly employed as a technocratic governmental technique to push for particular forms of governance and control (Grove and Chandler, 2017).

An alternate view considers this critique a totalising concept that tends to undermine the narratives of hope and initiatives operationalised at grass-roots level to create change (Braun, 2005). This further links to how the disaster is seen as a 'window of opportunity' to challenge existing power structures and re-organise ways of

doing things (Ride and Betherton, 2011; Rozario, 2005). Within this approach, resilience as a localised approach opens up possibilities, creates hope and provides ground for exercising resistance (Cretney and Bond, 2014; Dello Buono, 2012; Greenberg 2014; Luft, 2009). Resilience as such takes form of grassroots resilience where community-driven approaches exercise resistance and forms of experimentation (Cretney and Bond, 2014; Nelson, 2014) in order to operationalise autonomous action, management and self-organisation (DeVerteuil and Golubchikov, 2016). Some nevertheless argue that the agency of individuals and groups the adaptive capacities of disaster victims have received limited appreciation in resilience policy (Brown and Westway, 2011; Murphy, 2007; Brown, 2011; Davidson, 2010; Pendall et al, 2009).

Alongside this, some propose that resilience must not be approached as a capacity that is induced through top-down interventions but should rather be seen as a dynamic process where communities actively cultivate resilience (DeVerteuil, 2015) as a continuous process (Raco and Street, 2012). Following this trajectory, Mackinnon and Derickson (2012) put forth the idea of resourcefulness which they explain as 'forms of learning and mobilisation based upon local priorities and needs as identified by community activists and residents' (p.263). Resourcefulness is understood as a localised process rather than an identifiable condition that can be measured. In a similar vein, work on grassroots resilience and hopeful geographies explores the experimental practices of communities and individuals 'keep on going' in constrained environments (Anderson & Fenton, 2008; Gibson-Graham, 2006). The latter approach has been discussed in terms of alternative localised action (Gibson-Graham, 2006) and ingenuity of local actors (Simone, 2013) to employ experimental and alternative strategies and tools to negotiate lives in challenging conditions.

With reference to these approaches, DeVerteuil and Golunchikov (2016) offer a useful conceptualisation of resilience, proposing it as a 'political (actively produced), relational (relies on a web of social relations) and spatial (real-world engagement)' process that operates on the logic of pro-action rather than reaction (p.148). Focus on resilience as *relational* offers ground for this thesis to explore how relations (cultural, political, material, immaterial) across multiple entities allow affected people to keep life going in face of adversity. This approach allows us to move away from the top-down resilience strategies that propose to measure resilience through a particular set of capitals (social, economic, physical) and instead understand resilience as a relational process. Simon and Randalls (2015) provide a useful framework to understand resilience as a process, using health scholars Aranda et al (2012) discuss resilience in three categories: 'resilience found, resilience made and resilience unfinished'. Resilience found is understood as an inert or inherent capacity of individuals or systems. Resilience made involves practices of engaging with the environment and society, which has also been discussed in context of indigenous people's survival and subsistence knowledge that evolves through active engagement with environment, culture and context specificities (Shaw et al, 2009). Resilience unfinished corresponds with the idea of a constant struggle to become resilient in the face of an uncertain future. Resilience made and resilience unfinished are useful concepts to explore further in this thesis, which aims to understand how

communities hold life together in fragile conditions and how resilience as an unfinished process offers the possibility of exploring 'ongoing' alternative actions that shape the post-disaster landscape. Since this thesis aims to explore the entangled and emergent space of the disaster event and the practices and processes that shape the post-disaster landscape, the approach to resilience discussed by Simon and Randalls (2015) and DeVerteuil and Golunchikov (2016) becomes relevant. I propose to respond to the vocabulary of 'resourcefulness' and 'ingenuity' by observing the multiple practices enacted by affected people in the post-disaster landscapes of Hunza Valley and Gojal Valley. In particular, this is to observe how the post-disaster landscape is shaped and held together by the ongoing actions and practices of communities and affected people in the midst of fragility, crisis and displacement. Therefore, later in the thesis, I will enhance the discussion on these relational processes while exploring the making of the post-disaster landscape.

2.2 Actualization and afterlives: A different temporality

The above sections illustrate how disasters have been perceived in different literatures, leading to two major paradigms: the hazard paradigm and the vulnerability paradigm. It also shows how the science of disaster management emerges from general systems theory. These approaches to disaster, while different in their terminologies (e.g. resilience, adaptation) and strategies (e.g. top-down vs bottom-up), continue to operate in the linear temporality of the phase-based model of disaster management. This thesis however aims to approach disasters in a manner that complicates these binaries and linear temporalities. It aims to engage with the entangled space of the disaster event, comprised of the multiple practices and processes through which the post-disaster landscape is made. This space is formed through interrelations of human, non-human and material entities, and their linkages and underlying structures across different scales. Linearity, delineation and disentanglement are not an option, because we are opening up the world of disaster: the multiple entities involved, the relational processes and the emerging post-disaster landscape. This requires attending to the complex temporality of the disaster event, which is also embedded in the experience of it and is difficult to measure. Clark (2011) offers a description of a disasters: as an 'event so severe that in its tearing away of the foundations, structures and relations that make the world legible, it also deprives those it afflicts of their capacity to absorb and process the event, to render it intelligible' (p.73). Here, the world of affected people is dismantled on multiple levels, giving rise to another set of questions regarding the temporality of a disaster: how does the disaster event comes to or cease to pass? What is the temporality of a disaster? How does an event that occurs in a split second continue to haunt our lives? Where can a disaster event be located in time? In the glacial time of tectonic activities? Or the measurement and evaluation frameworks of the disaster management cycles, projects or interventions?

Recent scholarship in Human Geography has attempted to engage with the temporality of a disaster event which moves beyond the normative cyclic and linear temporal frames (Cloke and Conradson, 2018; Cloke et

al, 2017; Grove and Pugh, 2015). One way of complicating the assumed temporality is by bringing in the notion of experience of the disaster event. In an article on the Christchurch earthquake of 2011, Cloke and Conradson (2018) explore the return to the 'normality' phase after disasters as a highly emotional experience for those who inhabit the post-disaster landscapes. In this, they explore how the disaster event ruptures not only the physical, material and quantifiable space and resources, but also the emotions, feelings and imaginaries associated with place and landscape. Since this disruption has profound effects on how place is imagined, associated and lived in, it plays a crucial role in the practices people adopt in the post-disaster landscape (p. 361). In this sense, a deeper engagement with temporality in a post-disaster scenario opens up possibilities for revisiting the normative understandings of displacement, rehabilitation and recovery.

The temporality of the disaster event is further investigated by Cloke et al. (2017) in the aftermath of Christchurch earthquake of 2011 in which they explore how the landscape continues to bear traces of the disaster event. Here, they elaborate upon the emergence of a post-disaster subject by highlighting how the disaster event continues to exist in different forms; through discourse, embodied performance and various encounters in relation to the event (p.72). A deeper analysis shows, for example, how the subjectivity of older people in a post-disaster scenario was more complex than the top-down governmental tagging of older affectees as vulnerable subjects (p.73). It further shows how post-disaster place and memory-making practices are acts of negotiation with the event (p.74). The temporality of the disaster event allows us to think of the post-disaster scenario beyond the vocabulary and phase-based temporal bounds propagated by the disaster management framework. What this also does is open up the possibility of examining the emergence of the post-disaster landscape through the different ways in which the disaster event continues to live on. This living on can be observed in how the disaster event is remembered by those affected, or how they continue to live in conditions propagated by the disaster event. It also relates to how certain policies and strategies of governance are initiated due to the disaster event, or how the post-disaster landscape is shaped through different practices and processes in response to the disaster event. Moreover, it includes the ways in which the disaster event remains present in the post-disaster landscape, through the material and immaterial entities and processes. Grove and Pugh (2015) explain the complex dynamics of attending to the disaster event by explaining Deleuze's concept of the event:

> 'The event does not consist of pre-existing bodies brought into relation to each other; it consists of different force relations intersecting with each other. The point of impact is a point of immeasurable capacity: the potential for force relations to affect each other in any number of ways. Deleuze terms this ideal set of affective relations the virtual. As these force relations – affects – move through material substance, they congeal into extensive bodies. This is a process of actualization: the production, out of pre-individual, intensive

> affective relations, of individuated entities with (always partial) identity, meaning and value' (p.2-3).

This highlights the immeasurable capacity of the disaster event and the ways in which it continues to live on through the process of actualisation. Deleuze's virtual event is a set of relational intensities that are actualised or realised in 'states of affairs' (1990). The virtual cannot be contained in any particular form or object, yet it is always present in the actualized state. However, this actualization may assume different forms. In this way, the virtual event has a productive potential to be actualized in multiple and different forms. The underlying idea here is that the event is not a rupture that begins and ends but is continuous and can be understood through the 'varying intensities' in an ongoing process. The process of actualization denotes the ways in which intensity is manifested in states of affairs (practices and processes). The aspect of 'actualization' has profound consequences for how we might understand the disaster event; moving from a fixed state to a state of perpetual 'becoming' where the event continues to shape the post-disaster landscape in different ways. Moreover, the productive potential of the virtual event threatens the stability of a state that can be re-configured in different ways. This potential of the virtual event challenges the way in which disasters have been addressed in dominant literature as a single event. Moreover, it questions linear temporality and phase-based delineations since the virtual event can give rise to various afterlives of the disaster event. Therefore, in order to attend to how the post-disaster landscape is made and shaped, it is important to engage with the actualization and afterlives of the disaster event. Here, linearity, delineation and disentanglement are not an option, because we are opening up the world of disaster, of multiple entities, of relational processes and the emerging post-disaster landscape.

To engage with the 'making' of the post-disaster landscape and to attend to the various ways in which 'life is held together' in conditions of crisis and displacement, this thesis aligns with the temporality imbued in the event and its actualisation. Investigating disasters in these terms (processual and becoming) will bring to the surface multiple forms in which the event is experienced, lives on, seeps into practices of everyday life, is embodied in a policy framework or interventions, or continues to exist through memories and hauntings. This takes the disaster as a dynamic problem with a range of actors, relations and processes that can be tainted in the process of actualisation. The research framework should therefore ideally account for the multiple temporalities and the various actualizations of the event. Approaching the disaster event as dynamic and processual foregrounds the question of the 'making' of the post-disaster landscape and the multiple relations, temporalities, practices and processes within it. This opens up space to reconsider and revisit the disaster event, its complexities, relations and multiplicity. Which entities are involved and how does the disaster event unfold in space and time?

2.3 Disasters and the assembly of worlds

One approach that attends to this 'making' is explored by Micheal Guggenheim (2014) who introduces the disaster as a politics of 'recomposing' the world (Guggenheim, 2014, p.8). In the introduction to *Disasters and Politics; Materials, Experiments and Preparedness*, he explores how disasters are complex entanglements that become instances during which we can observe the composition of the world. He further iterates that this approach allows us to explore how these worlds might be recomposed in the aftermath of disaster events. Guggenheim (2014) proposes that 'disasters radically question the composition of the world, in all its technical, natural and social forms' (p.2). Obvious matters of power, inclusion, exclusion and recognition surface during disaster events, which are captured through separate paradigms. He highlights how post-disaster landscapes are laden with politics in terms of how top-down interventions and governance strategies are operationalised within the aftermath of a disaster event where other entities, their practices and processes are also initiated in recomposing the same post-disaster landscape. Guggenheim (2014, p.9) proposes to use the concept of 'Cosmopolitics', introduced by Isabelle Stengers (2005b), to understand how worlds are assembled and to further explore how they are re-assembled in the aftermath of a disaster.

Following Guggenheim's (2014) proposition that disasters produce new compositions of the world, we can probe what other worlds are produced by it, and how they are woven through the fragile networks between humans and non-humans (Adey et al, 2011). Disaster as a 'rupture' configures actions and policies on a formal level, but it also allows us to observe other configurations and afterlives of the disaster event (how affected people make do and live on, how environmental patterns change, etc.) and can help us analyse how the post-disaster landscape is recomposed, restructured and reconfigured. It becomes a political problem in terms of the re-organisation that takes place in a disaster; who is made part of the process and how? It makes us question what type of power relations are entangled in the event, who is made part of recomposition and who is excluded from the process, which actors are considered legitimate and how relations between different entities, obvious and subtle, humans, non-human, material and emotional are factored into post-disaster reconstruction. Whose stories and narratives surface and whose modes of being and knowing are acknowledged or undermined? One can contemplate the multiple and disparate practices and processes through which the post-disaster landscape reconstructed.

Guggenheim (2014) argues that although disasters are significantly material and physical forces acting in the world, social science monopolises the issue and places it in the social (as discussed earlier in the chapter), leaving little or no room for the recognition of other agents (the complex entanglement of animals and materials within the landscape) involved in the making of the post-disaster landscape. Cosmopolitics is an invitation to consider the material and non-human entities entangled in the processes and partake in the recomposition of post-disaster landscapes. This does not mean that material entities are more important than humans, but this

approach enables us to attend to the relations between the multiple entities and forces that shape disaster landscapes. For example, Rodriguez-Giralt et al. (2014) in their chapter in the same book explore the role of migratory birds in enacting the toxic spill in Spain's Donana National Park. They consider disasters as 'dynamic realities, difficult to localise and always distributed along disparate scales and actors' (p.38). Hence, in the case of this thesis, we not only recognise the people affected by the disaster but also the materiality and affective capacities of the Attabad lake that has altered rain patterns in the valley and continues to remind people of the disaster that submerged their homes and lands.

Recognising the assembly of the disaster event requires attending to the event and its afterlives to understand how different entities partake in the recomposition of the post-disaster landscape in terms of management and governance strategies, mundane and subtle everyday life practices and the material and affective processes that shape the post-disaster landscape. Since disasters are complex combinations of various forces, we must take into account materials, forces and actors and their interlinkages and interrelations. This includes investigating the multiple forces, diverse topologies and unexpected relationships (Rodriguez-Giralt, Tirado, and Tironi, 2014) that form and deform in a post-disaster landscape. Pragmatic approaches to understanding and governing disasters flatten this dynamism and multiplicity, aiming to manage the disaster as a single event rather than being mindful of its actualizations and afterlives as they unfold. This can be observed in the technocratic and top-down governmental 'one-size-fits-all' solutions that tend to undermine and ignore differences (disregarding certain groups, actors or scenarios) in order to simplify tasks and exercise control. This leads to important questions such as whose interests will be kept at the forefront and how will tasks be prioritised? And while different entities may describe, approach or understand the disaster differently (Hoffman and Oliver Smith, 2002), this thesis is interested in analysing what emerges through relations between different entities as they co-exist, negotiate, correspond with and shape the post-disaster landscape.

Since disaster is a complex problem, acknowledgement of multiple realities, forces, actors, materials and their entangled relations are important to investigate to see how these are assembled and organised at different levels. Following this trajectory, Donovan (2017) builds a case that 'disasters may be best conceptualized as assemblages: gatherings of relationships and topologies that are characterized by an event but are defined by their content and the distribution of power' (p. 48). She further proposes that disasters should be investigated in terms of multiple temporalities and relations of different components where things may appear and disappear, and a stable articulation cannot be drawn for a particular constellation (p.51). A disaster, then, cannot be captured in its entirety but through its traces that can be mobile, partially coherent and made present through relations of different constituents, where intended and unintended practices and processes occur simultaneously. Employing this approach can aid us in revisiting disasters in different ways. Exploring relational worlds and multiple temporalities provides space to rethink terminologies such as resilience, displacement and recovery that assume fixed states. Relational worlds and multiple temporalities can potentially dismantle the

fixed and stable states and instead offer ways of assessing the vocabulary of resilience, displacement and recovery. This requires attending to the 'doing' and 'making' of the post-disaster landscape by engaging in an open inquiry and engagement with the world (Stengers, 2005b). This means opening up to the multiple and disparate ways in which different actors and entities compose the world.

Isabelle Stengers proposes to bring in the 'cosmos' during investigative endeavours rather than observing the world from the outside (2005b). This allows us to explore the 'making' of the post-disaster landscape by recognising multiple entities and their entangled relations which are presented and enacted in different ways. These include the practices, processes and technologies of governance and negotiations that are employed by different actors and entities. This thesis will engage with Isabelle Stengers' theory of Cosmopolitics (2005b) to observe and engage with the assembly of the Attabad disaster and attend to the making of the post-disaster landscape. The next chapter discusses the concept of Cosmopolitics in detail, however it is important to reiterate here that Cosmopolitics offers two things to this thesis: first, the conceptual framework to engage with the multiple entities, processes and practices that occur in and make the post-disaster landscape, and second, a methodological approach for carrying out inquiry in the field with varied entities, materialities and temporalities. Cosmopolitics thus offers a conceptual as well as a methodological frame for this thesis to explore the composition of the post-disaster landscape. Following the approach of an 'open inquiry', this thesis will observe and engage 'openly' with whatever the field has to offer. However, the research is loosely assembled around certain gaps identified in how post-disaster landscapes are conventionally assessed and understood.

Whilst in the field, this thesis seeks to observe and engage with the subtle practices and processes in the everyday lives of affected people, which are crucial in the *making* of the post-disaster landscape. Alongside this, it aims to observe how processes are shaped in the intersections of top-down interventions and the desires and will of the actors on the ground. Exploring this helps us analyse how different forms of making do, living on and inhabiting space are operationalised in the aftermath of the disaster event and displacement of affected people. In so doing, it will demonstrate the complex entanglement of material and nonmaterial entities that together weave the post-disaster landscape as well as offer an alternative lens for assessing the vocabulary of resilience, displacement and rehabilitation in the context of post-disaster recovery. A cosmopolitical inquiry potentially allows revisiting these concepts in the presence of multiplicity and dynamism that post-disaster landscape has to offer. To summarise, the following ideas will be further explored in the thesis.

2.4 Gaps, shortfalls and next steps

a) Practices:

One of the concerns of the thesis is assembled around the idea of how people make do, live on and hold life together in fragile and disturbed environments. On the one hand, this has profound consequences for how aid

and rehabilitation interventions are designed and introduced in the post-disaster landscape. On the other, it demonstrates how the various afterlives of the disaster event are negotiated on an everyday basis. For example, in an NGO intervention project in the post-disaster scenario of Attabad, business men in Gojal are compensated in cash and loans for their loss. However, the compensation packages fail to account for women who have lost their pastoral activities and are thus confined to shelters. In this condition of exclusion, it becomes crucial to analyse how they achieve a semblance of stability as well as negotiate the absence of a particular way of being and doing in the world. 'Holding life together' is a complex process of making do and living on, embroiled in material, social and emotional processes. Similarly, considering what affected people do rather than what they say enables an understanding of how post-disaster landscapes are composed by the activities and practices of these people.

Attending to the practices involved in the making of the post-disaster landscapes, through the Cosmopolitical approach, poses several questions. Whose interests are represented and accounted for in the formal post-disaster recovery interventions and whose labour is erased? Another question relates to the processual 'becoming' of the post-disaster landscape: which new relations and possibilities emerge in the post-disaster landscape in the absence of aid programs, familiar landscapes and prior routines? Therefore, to stay with the 'emergent' nature of the post-disaster landscape, this thesis will analyse the practices of making do and living on through the labour of bricolage (Levi-Strauss, 1966) and correspondence (Ingold, 2017) that attempts to holds things together in a shifting environment. It brings together humans, non-humans, materials, environments, memories, practices and processes to configure and compose the landscape. Primarily, the idea is to understand how post-disaster landscapes are continually shaped and held together by the multiple and disparate practices of affected people. This is not only to highlight their agency, but to demonstrate the precarious conditions in the post-disaster landscape and how a significant part of this labour of holding things together is carried out by the affected people.

The focus on the practices of affected people is primarily due to the temporal frame in which the field work is carried out, i.e. seven years on from the disaster event when most intervention projects, aid packages and compensatory schemes have concluded. And yet, the IDPs of the Attabad disaster continue to hold life together while living in shelters without a seemingly steady source of livelihood. Therefore, this research is interested especially in '[the making] do with "whatever is at hand" . . . [to address oneself] to a collection of oddments left over from human endeavours' (Lévi-Strauss, 2004, p.17-19) in order to make conditions favourable for living. This includes practices and processes operationalised by affected communities for continuing everyday life processes, maintaining aspirations and a sense of identity alive in a seemingly tenuous environment. It requires paying attention to how the torn fabric of everyday routines and socio-economic relations are mended and what kind of socio-economic fabric emerges from this. What kind of practices do people in Hunza Valley and Gojal Valley adopt, abandon or adapt in order to hold life together? And what is lost, gained or maintained

in the process? Specifically, the vocabulary of 'bricolage' and 'correspondence' allows us to observe how actors and entities establish relations with the material, social, economic and cultural environment in order to make conditions fit for living and moving on. Therefore, it pays attention to the practices of correspondence that are employed in the post-disaster scenario. This will lead to an understanding of how post-disaster landscapes emerge from and are organised by the subtle practices of everyday life across shelter sites, resettlement housing projects and submerged lands.

b) Forms:

The second concern attends to the entangled space of the post-disaster landscape by investigating the intersections of formal and informal procedures that overlap and are contested and negotiated. By focussing on the resettlement housing project designed and introduced by the AKPBS (Aga Khan Planning and Building Services) for the IDPs of the Attabad Disaster, this chapter aims to highlight how displacement can be created through spatial forms. By exploring the negotiations between top-down and bottom-up processes through spatial forms, this chapter will show not only how material forms are shaped through immaterial flows (desires, movements), but also how we might understand displacement, belonging and resettlement in different ways. Therefore, with particular focus on spatial arrangements, this chapter aims to investigate the spaces of rehabilitation offered to the IDPs: the shelter site and the IDP resettlement housing project. Resettlement is a massive undertaking given the range of social, economic, cultural, safety and security issues involved. Critiques of disaster resettlement focus on issues, such as

a) that they act as a 'break from the past' in order to provide robust and safer solutions for the future (Salazar, 2002; Davis and Aysan, 1981)

b) that the resettlement projects tend to increase the vulnerability of the affected communities when initiated as a top-down project without consulting with the concerned community (Christoplos et al, 2001; Arnall et al, 2013)

c) and that they endanger community societal and cultural networks, impeding the process of resettlement (Oliver Smith, 2007).

Identification of these gaps, particularly b and c, has highlighted the importance of participatory planning projects in the aftermath of disasters (Aysan and Oliver, 1987; Bolin and Stanford, 1991; Davidson et al. 2007; Olshansky, 2006; Rubin, Saperstein and Barbee, 1985). Predominantly, displacement in the post-disaster scenario is seen as a condition that is established when people are physically displaced from one location to another and this displacement is 'resolved' by providing the physical infrastructure required for resettlement. However, my interest in displacement goes beyond the condition of physical displacement. I approach this by

paying attention to the persistent behavior of displaced persons to return to home and resettle in familiar landscapes, though it is often not possible nor desirable due to the destruction and risks involved (Campanella, 2010; Potangaroa and Kipa, 2011; Smith and Wenger, 2005). And while this urge to 'return' has only been investigated in terms of physical relocation of displaced persons to their homes, lands and familiar environment, I am interested in exploring how this 'return' is enacted and experienced in different ways by the affected people, particularly while inhabiting spatial and temporal forms in the post-disaster landscape – not only in terms of returning to physical homes or location, but also in terms of practices of everyday life. This requires a deeper engagement with how displacement is resisted in post-disaster scenarios by enacting return while occupying and inhabiting spatial forms, e.g. the shelter site or the resettlement housing projects. Thus, investigating how affected people negotiate their everyday spaces and routines in post-disaster scenarios leads me to question when any form of 'return' is denied, what kinds of displacement do the affected people experience and endure?

Chapter Six is dedicated to exploring spatial and temporal forms. This includes exploring the modes of negotiation, reconciliation and return that IDPs enact with respect to the forms they inhabit: the shelters, houses in the Red Zone[6] area and the resettlement housing project. This allows us to observe the spatial configurations that arise in the midst of this negotiation, reconciliation and return. It means observing how people negotiate their spatial arrangements in a shelter unit, or how they reconcile with the resettlement housing project design, or how they 'enact' a return to their traditional spatial patterns. This shows the complex and deep relations (human, non-human, material) between spatial environments and the practices of everyday life entwined in the tasks, routines and cultural beliefs and norms of the actors in the post-disaster landscape. Attending to the spatial forms from this angle shows their profound effects on 'displacement' and 'rehabilitation', challenging the normative imaginary of such terminology in disaster management policies. Here, cosmopolitics (Stengers, 2005b) as a methodological 'openness' encourages one to observe the material, physical, climatic, social, cultural and emotional networks and flows that together give rise to particular forms of belonging and displacement. While the chapter presents a critique of the spatial design and arrangements introduced as a top-down project from NGOs, it mainly analyses how spatial forms (Levine, 2015), patterns and arrangements (Alexander, 1977; Salingaros, 2006) are inhabited, negotiated and associated within a post-disaster landscape.

[6] More details on the Red Zone can be accessed in this news report https://tribune.com.pk/story/17087/people-asked-to-avoid-red-zone/

c) Remainders:

The third concern is an overarching one, an attempt to engage with the 'living on' of the disaster event. It aims to engage with entities that trouble the assumed stability of the post-disaster landscape, where the event is no longer present. To inquire into this, I explore the 'remainders' of the disaster event in its physical, material and emotional forms, to question the temporality of the disaster event as that which has *passed*. The aim is to explore the different ways in which the 'presence' of the disaster event is felt and negotiated by different actors. Exploring the traces and remainders of the disaster event brings to life the different ways in which the event lives on and troubles the 'post'-disaster landscape, particularly in terms of the phase known as recovery. Moreover, in line with constructing Stengers' cosmos (2005b), this chapter specifically analyses what stories the remainders of the disaster tell, and what other lives, aspirations and possibilities come to light by engaging with the traces of the disaster. This means thinking about how remainders of the disaster are negotiated and lived with in the everyday landscape of Hunza Valley and Gojal Valley, as well as how they affect post-disaster recovery. This chapter experiments with different forms of analysis and representation in order to engage with traces and remainders, to in turn highlight how the disaster event continues to live on in varied and disparate ways, tangible and material, intangible and emotional. Assessing the post-disaster scenario through spectral geography gives us insight into the traces, remainders and actualisations of the disaster event and the perpetual becoming of the post-disaster landscape.

3. Cosmopolitics: Guidance notes on an open inquiry

How is the post-disaster landscape composed and how does one research a post-disaster landscape? This chapter attends to these questions by introducing the 'cosmopolitical proposal' (2005b) presented by the philosopher of science, Isabelle Stengers. As mentioned in the previous chapter, the cosmopolitical proposal offers both, a conceptual as well as a methodological framework to investigate the making of a post-disaster landscape. This chapter will discuss why the cosmopolitical proposal might be useful for researching a disaster event and introduce a methodological framework inspired of Stengers' proposal for conducting inquiry in a post-disaster landscape. While cosmopolitics is a rich concept and there is much to learn from and engage with, this chapter seeks to focus on how certain propositions discussed by Stengers are particularly enlightening for researchers who are to go into the 'field' to carry out their inquiry. The chapter begins with a discussion on the cosmopolitical proposal as a conceptual framework for conducting an inquiry in the post-disaster landscape and presents two key points; the concept of slow science and the aspect of working in the presence of entities. This discussion is followed by a methodological framework derived from Stengers' proposal in order to conduct an open inquiry in the post-disaster landscape. The latter part of the chapter introduces the methodological framework developed specifically for the purpose of this thesis. The framework includes the processes of recognising the assembly, engaging with the post-disaster landscape and composing the cosmopolitical scape of the disaster event.

3.1 The Cosmopolitical Proposal

When Isabelle Stengers called for a 'cosmopolitics' (2005b), she was giving up the claim to absolute pre-eminence and foundational status of science as the only rational and objectively true discourse. In her proposal, she argues that the practice of science has mainly concerned itself with calculations and measurable phenomena often tested in laboratories that lead to the production of rational and verifiable forms of knowledge. Moreover, access to these forms of knowledge are also only granted to those who have the capacity, resource and intelligence to engage with its production. Due to this process, 'common knowledge' based on experiences and intuition, oral traditions and folkloric beliefs have been largely ignored or excluded from the mainstream verifiable forms of knowledge. Therefore, Stengers in her cosmopolitical proposal (2005b) encourages engagement with other modes of knowledge production if one is to construct a common world. In her books *Cosmopolitics I* (2010) and *Cosmopolitics II* (2011), through a range of rich discussions and fascinating vignettes on the practice of science, she denounces the hegemonic claims of truth, reality and finality asserted by the discipline of science. Stengers' (2005b) cosmopolitical proposal draws our attention to the politics involved in composing and representing the world through a particular knowledge-making practice and thus explains the word 'cosmos',

> 'cosmos refers to the unknown constituted by these multiple, divergent worlds,
> and to the articulations of which they could eventually be capable of' (p.995).

Stengers' cosmos offers a large canvas to engage with; the 'becoming' of the world occurs through diverse interrelations and entanglements that include humans and non-humans, and their way of being, knowing and constructing the world. Hence, the first step towards the construction the cosmos is to take an account of actors, entities, knowledge and discourses that are part of the world we are going to research and investigate without disregarding them on grounds of superstition, belief or irrationality. Stengers' explains, 'the so-called modern sciences appeared to be a way of answering the political question par excellence: who can talk of what, be the spokesperson of what, represent what?' (2005b, p.995).

Another ground rule that Stengers (2005b) pronounces in the cosmopolitical proposal is her plea to 'slow down' in order to attend to the 'idiot', who 'demands that we slow down, that we don't consider ourselves authorized to believe we possess the meaning of what we know' (p.995). This is because the 'idiot' will not explain or discuss the problem, but he will disrupt our consensual way of thinking or approaching a problem. This slowing down refers to the process of our epistemic endeavors; to not presume and jump to conclusions based on the frameworks offered by our particular practices, rather attend to the problem posed by the idiot. For a researcher, this is a strong message to take from the cosmopolitical proposal. We require an approach where it is a 'matter of imbuing political voices with the feeling that they don't master the situation they discuss, that the political arena is peopled with shadows of that which does not have, cannot have or does not want to have a political

voice' (Stengers, 2005b, p.996). Hence, the researcher will have to shed certainties and equip themselves with practices of engagement in the field that can allow us to notice the shadows, hear the unspoken and listen to those who do not wish to speak.

Who might be the ignored entities when it comes to dealing with the matters of the world? For one, we can consider the marginalized and dis-enfranchised voices and actors that have been produced through the legacy of colonialism, imperialism and enslavement. Not only the population, but also their knowledge and cultures that have been ignored and disregarded in the past as well as the present through discourses around the Third World, and the under-developed South. Literature highlighting the politics of representation and the limits of western/euro-centric canon of knowledge production that excludes other modes of knowledge has been widely discussed by post-colonial scholars (Mbembe, 2015; Spivak, 1988; Said, 1995; Bhabha, 1994). It is about who speaks for whom, what is captured and represented through particular frames in order to produce a fact or truth claim. And this framing can be a violent disqualification of other modes of knowing and being in the world. If one is to construct a common world, the political question arises; who becomes part of constructing the common world? Whose knowledge and practices will be taken into account? Who qualifies as a legitimate actor? Who has the power to decide who the legitimate actors are? Who has the right to construct whose world? Stengers (2005b) has discussed some ground rules for conducting a mode of inquiry that attends to other practices and knowledge in her celebrated essay 'ecology of practices' (2005a) where she explains that one cannot enter a 'practical territory, to judge, deconstruct or disqualify what appears to them as illusions or folkloric beliefs and claims' (p.191).

With these questions, we can proceed to consider who the legitimate actors are and through which practices and processes is the post-disaster landscape of Attabad landslide constructed. Since the Attabad disaster concerns a range of different entities and actors, it is an important question to ask – who has been considered, acknowledged and consulted in the process of reconstructing the post-disaster landscape (Guggenheim, 2014)? An obvious task here would be to adopt an inclusive mode of inquiry that attends to the multiple narratives and perspectives of marginalized and ignored segments of society. But, we will confront two problems; first, that Stengers' cosmos is not limited to human beings, but also includes 'the Gaia', the non-human, material and nature that compose the cosmos. And second, according to Latour (2004), 'the presence of *politics* in *cosmopolitics* resist the tendency of *cosmos* to mean a finite list of entities that must be taken into account. *Cosmos* protects against the premature closure of *politics*, and *politics* against the premature closure of *cosmos*' (p.454). Therefore, the construction of the cosmos cannot be carried out by merely adopting an inclusive mode of inquiry as we will end up calculating who or how many are included or is not. The problem Stengers addresses, is a slightly different one, which will be further explored in the following section.

3.1.1 Citizen Science, Participatory Research & Cosmopolitics

While the issues posed by the proposal are conceptually appealing for investigating post-disaster landscapes, methodologically, it is rather difficult or almost impossible to achieve a cosmopolitical state. It is this precise political modeling of the proposal which sets it apart from other modes of inquiry that promote inclusivity and participation of actors in the production and representation of knowledge. For example, citizen science and participatory research are popular modes of creating knowledge and action with people and communities who may not have access to mainstream forms of governance. These initiatives are based on inclusive models; designing ways to collect large amounts of data and use techniques to incorporate participation on all levels of a project (design, conducting research, analyzing data and presenting findings). Citizen science can be defined as 'the general public engagement in scientific research activities when citizens actively contribute to science either with their intellectual effort or surrounding knowledge or with their tools and resources' (Socientize Consortium 2013). It opens up science and makes it accessible to the citizens in order to create inclusive data, it considers local needs, practices and culture and produces a space for marginalized or illiterate people to take charge of managing and monitoring their environment. It also works with digital participatory tools in order to map large-scale patterns and processes affecting populations proving especially useful for environmental research (Dickinson et al, 2010). For example, ExCiteS (Extreme Citizen Science Research Group at UCL) is based on the 'extreme' participation at local level where research is conducted and co-produced by citizens rather than experts (Stevens et al, 2014).

Likewise, participatory research aims to make disenfranchised communities' participants in the research in order to frame the research with respect to their context. The participatory nature of the exercise involves carrying out research with people rather than on them in order to explore and encompass their knowledge and experience (Kindon et al, 2007). It uses a range of methods and can be carried out in different settings. It involves an active engagement of local community to lead the research in ways that allows them to contribute to knowledge creation process on their terms, leading to questions, priorities and problems being framed and defined differently (Smith, 1999, p.193). And while participatory action is geared towards 'action' in order to bring change at grass roots level (Minkler, 2000), it has been criticized for lacking engagement with deeper power relations within participants or the context; underlying hierarchies and dynamics of a community and has also been termed as an 'extractive' approach (Kindon et al, 2007, p.2). Moreover, participatory research heavily relies on participation thereby presenting a problem when dealing with non-participation, silence, or engaging with those 'who cannot or do not want to have a voice'. To such inclusive and participatory approaches, Stengers (2011) herself takes a position and begs the question,

> 'how can we avoid celebrating a new hierarchization that is now simply more accommodating, no longer contrasting the ideal of perfect knowledge with the

> ignorance that qualifies all other kinds of knowledge, but still defining the principles of what exists?' (p.195).

Cosmopolitics proposes an inquiry that attends to the marginalized discourses, but the 'politics' makes it problematic to decide on the finality of the cosmos – that these all have been included hence the job is done. It is not about the body count, or the inclusion of different perspectives, or even equality, but as Stengers (2005b) argues, 'they all have to be "present" in the mode that makes the decision as difficult as possible, that precludes any shortcut or simplification, any differentiation a priori between that which counts and that which doesn't' (p.1002-3). It is to think, discuss, research and analyse in the presence of those who may not or cannot voice their concerns, but their mere presence produces a problem for proceeding with any decision concerning the collective. Inspired from this approach, Sarah Whatmore explains how different entities in a research 'affect its conduct, exceed their mobilization as compliant data and complicate taken-for-granted distinctions between social subjects and material objects reproduced though scientific division of labour' (Whatmore, 2003, p.91). In this sense, the political modeling of cosmopolitics is one that opens up the world as a problem. This problem is not solved by hastily including entities and their perspectives so that an inclusive judgement may be issued. Rather, it calls for an open inquiry to engage with the world, without foreclosing it or reducing it towards a particular solution. Cosmopolitics is therefore important as a conceptual as well as a methodological framework for this thesis which seeks to engage with the post-disaster landscape of Hunza Valley and Gojal Valley.

3.1.2 Cosmopolitics and the Disaster Event

The post-disaster landscape is instable, in flux and brings together multiple entities, defying a single reading of any state. Rather, the disaster event surfaces multiple enactments, interrelations and co-existences of disparate states. What could be the entry and exit points for researching a scenario that is mutating, disappearing and emerging? Cosmopolitics offers such an entry point; cosmos is the becoming of the world and 'refers to the unknown constituted by these multiple, divergent worlds, and to the articulations of which they could eventually be capable'(Stengers 2005b, p.995). Differentiating her position from reductionists, Stengers discusses 'emergence' and the importance of exploring potentials and possibilities of what things may become. Emergence implies a perpetual becoming, an appearance – fluctuating from one state to another. Discussing the question of 'emergence', Stengers (2011) asks 'to what extent is the question of finality relevant to an understanding of living thing?' (p.211). In emergent environments 'state' becomes a contested notion as it implies a 'deterministic' condition achieved through reductions and claims most often employed by scientific modes of knowledge production but of course it is equally true for other practices as well. Stengers proposes that in order to engage in a practice that is in alliance with 'emergence', the researcher must refrain from descriptions and should instead indulge in 'interrelations' (2011, p.229). This means that instead of naming or describing what seems to have appeared, it is important to trace and discern, with linkages, structures and networks through which the emergence is made possible, and what it might become as it thrives a specific

context. For Stengers, the process of description is an act of reducing an entity to particular characteristics and stabilized meanings foreclosing the possibility for it to become something else (2011, p.211). Therefore, a researcher must learn to interrelate, and analyse relations that allows things to sustain, develop, disintegrate or thrive in specific situations rather than described as a particular stable entity.

For a research that is focused on the disaster event and its afterlives, aligning this with the concept of 'emergence' allows the researcher to observe how the disaster lives on and is actualized in different ways. Cosmopolitics invites one to attend to multiple possibilities and relational processes as they become; emerge, assemble, mutate and disperse or achieve actualization. Stengers (2011) explains that,

> 'Actualization is covered by the "and…or" of distinct possibilities of emergence, rather than the "either…or" of mutually exclusive possibilities of determination through measurement. The "and…or" does not impose abandoning a possibility' (p.228).

This is particularly crucial for inquiring a disaster event that gets manifested in various forms; as practices, policies, stories, memories, traces etc. The 'and...or' allows us to analyse how the disaster event seeps into practices of everyday life, gets embodied in a policy framework, is found in objects or described in ways that instigate particular actions. Moreover, it also enables us to observe the actualizations in relation to the three-phased model of post-disaster management (relief, rehabilitation and reconstruction) introduced in the previous chapter. Attending to actualizations of the disaster event allows us to see how these actualizations fit, exceed, move away from and trouble the phase-based model.

For a researcher, it is about engaging with the multiples that transpire in our field of inquiry and the possibilities of what things may become or the space-times they may come to inhabit. In this sense, an open inquiry must remain open to experimentation, multiple possibilities, disparate forms and divergent realities that are exposed while engaging with the field (the objects and environments of our inquiry). Cosmopolitical inquiry requires an open engagement with the objects and environments (field) of our inquiry without aspiring for resolutions and final 'states' because Stengers prefers not to "appeal to the strong drug of Truth, or to the power to denounce and judge, to deconstruct and criticize (2005a, p.188), For the purpose of this thesis, the world of the post-disaster landscape of the Attabad Landslide comprises of different communities and their landscapes, NGOs and their agendas, government organizations and their regulations, engineers and their equipment, geologists and their reports, volunteers and their stories, old and young men, old and young women, children and many more. An open engagement requires openness to all these objects, actors, environment, dead trees, silt land etc. The researcher must learn to access and observe these diverse forms of knowledge that will be shared with us, without denouncing any knowledge, narrative, stories or claims as delusory, irrational or fictitious. And to learn not to brush aside any comment, expression or silence which may put her at unease.

And to not ignore any story or view point which may dismantle the research narrative, because it is these multiple stories and practices that will compose the post-disaster landscape.

For the purpose of this chapter, the cosmopolitical proposal is being used primarily as guidance notes to begin thinking about how a researcher conducts an open inquiry. Having mentioned key arguments from cosmopolitical proposal that can aid us in conducting in open inquiry for a disaster event, the next section will discuss what is meant by an open inquiry and if it is entirely possible. What kinds of risks and challenges are involved and how does the researcher employ a methodological framework suited to an open inquiry? It will also discuss how the researcher opens up to the field, what techniques can she employ and what should she refrain from.

3.2 Guidance Notes on an Open Inquiry

Cosmopolitics calls for an open inquiry and engagement with the world, at the same time, we also understand that it is practically impossible to take account of all entities that are in the post-disaster landscape. An open inquiry demands a particular kind of openness; to allow the situation you confront to 'move' you and open up to the possibilities that situation may hold (Clark, 2003, p.34). Openness means to be moved or affected by the field, and to open up to the possibilities of how things emerge, without aligning or reducing it to our disciplinary frameworks. An open inquiry calls for a practice of engagement that is susceptible to asking questions which may not fall under its domain but seem relevant. Thus, an open inquiry is about opening up the territories of our research investigations rather than closing them off by particular disciplinary framework. Mitchell (2010) eloquently describes being open as,

> 'not to be open at a point and closed off at another, it is to be open through and through, so much so that everything about oneself is destabilized, translated, emergent (…). Openness means existence in the midst of things' (p.51).

An open inquiry is about allowing ourselves to be able to shed off certainties as we enter an unknown terrain, where things may appear in a particular way but require deeper engagement to understand how they become. In an open inquiry, the researcher must also be prepared to work with doubts that accompany the most sensible and reasonable explanations and appearances. Openness in research requires different modes of conduct; for one, it is to remain open to the tools and practices of engagement with the entities and the field in order to begin constructing the cosmos. Alongside this, it requires attending to the environment, context and situation one confronts which means the researcher might have to tread divergent paths in an unknown terrain in search of possible forms that things may assume. Here, the researcher must be reminded that the field is active and dynamic where things must be seen in their entangled relations with surroundings as opposed to controlled and

bounded environment of the laboratories (Stengers, 2011, p.229). Stengers explains that it is 'through the middle' and 'with the surroundings' that we must learn to work with when conducting an open inquiry, as 'no theory gives you the power to disentangle something from its particular surroundings' (2005a, p.187). In this sense, Stengers is warning us of an 'extractive' approach and instead asking for an embedded and lively approach by observing entities with their entangled objects and environments. Stengers (2008) suggests that upon entering the field, the researcher must question and deliberate, 'which kind of attention, concern and care are required?' (p.44).

Cosmopolitics has more to do with 'passing fright that scares self-assurance' (Stengers, 2005b, p.996) which can be instances of realisation in the field that our epistemic framework is not adequate to deal with what we confront. Hence the engagement requires attention, concern and care in order to trace out the different relations through which the situation has been presented to the researcher and employ the relevant methodology to engage and represent it. Moreover, doing fieldwork is not about looking for descriptions for the case and questions under analysis, since one cannot 'assume stable relationships and roles' between our theoretical models, questions and methods because that is 'precisely what the "field" challenges' (Stengers, 2011, p.230). In this sense, an open inquiry is aligned with the practice of pharmacology ('*Pharmakon*') (Stengers, 2015, p.100) not knowing what results it will entail but taking the leap of faith nonetheless. And this comes with its own risks; of being open to the world and not knowing which facts and structures to hold on to and suspended from the frameworks of your practice and the attendant 'judgments', thus incurring a temporary displacement or loss of a standpoint. Of course, the researcher will take some position when she observes and constructs the cosmos, but being open would entail, opening up to other practices and positions which allows us to understand things slightly differently.

For Stengers (2011) one does not enter the field with a set of questions, rather the field 'induces and nurtures questions' (p.230) that may require different methodologies and practices of engagement. In her seminal writing on the 'ecology of practices' (2005a), Stengers explains how one might proceed to borrow strengths from different practices to compose a common world. She envisions creating a space for different epistemic practices to work together, co-exist and co-relate as they seek to construct the world through their inquiries. Ecology of practices is an invitation for different practices to work together without accommodating any determinist reduction or generalizability a practice may propose. This is a useful approach for conducting an inquiry which is open to multiple possibilities and diverse cases that transpire in the field. Moreover, multiple practices can also allow us to adopt the 'and...or' principle instead of 'either...or' in order to retain possibilities and work with multiples. Of importance is the need to resist the general scheme of experiments that aims to find unity in processes in order to correspond to its hypothesis. While descriptions would reduce the possibilities to a single entity, 'interrelations' between different practices and ways of seeing and engaging with the world can help us look for the emergent and the possible.

The idea is to consider multiple practices that are in their own way engaged in understanding a reality of the world. Considering multiple practices is about thinking through problems that are intertwined – interdependent and relational in different ways while rejecting procedures of *fact* making employed by a particular disciplinary practice. Rather than settling on specific conclusions, an open inquiry must be accompanied by indeterminacy because 'questions addressed to the field and the relationships it articulates must welcome the possibility of mutation of their supposed meaning' (Stengers, 2011, p.230). An open inquiry does not impose pre-determined typologies in the field, rather as Stengers explains in her chapter on 'The Art of Models', we must attend to 'problematic tension between what the model requires and what the field discloses' (2011, p.273). In other words, there is no guarantee that models specified by our disciplinary practice will satisfy the questions we set out answer. In this sense, whilst conducting an open inquiry, the required tools, methods and techniques are thus unknown, and a 'relevant typology must be drawn' (2011, p.227) once the researcher steps into the field.

Another important aspect to consider while conducting an open inquiry is that it must attempt to gather diversity of cases in the field in order to capture the various modes of existence and actualizations. Within diversity and difference lies the potentiality for things to become and processes to be seen in their unique ways. Difference evokes hesitation and fuels our imagination for considering other possibilities and potentialities while 'either …or…' alternatives' slice it up (Stengers, 2005, p.1002). An orientation to 'difference' also holds the potential to challenge the research inquiry, as well as reframe the research questions or hypothesis, allowing the researcher to ask those questions which may not fully lie in the territory of her practice. For Stengers (2011) these moments are crucial, and she encourages the researcher to open up boundaries of practice and indulge in related questions requiring an approach that is not predefined and fits no prerequisite framework or conditions. Stengers (2011) explains this through her discussion of deploying models in the field, 'the relevance of the model changes – it is no longer tied to coordinating its predictions with empirical data but to identifying specific behaviors that falsify those predictions' (p.273). Whatever manages to escape the prescribed models indicates a difference, a potential other, a new form. Difference becomes constructive as it encourages asking new questions and opening up new identities – especially the becoming of a practice as it shifts its predefined trajectory. It is this becoming as well as divergence of a practice that is suited for a open inquiry approach engaged in analyzing and composing the post-disaster landscape. Instead of reducing the post-disaster landscape to a particular configuration, an open inquiry holds the potential to produce multiple configurations of the supposedly single post-disaster landscape by engaging with difference and multiplicity.

In this sense, an open inquiry is not so much about which methods to use in the field, but more about the code of conduct for the researcher follows; to allow her imagination to wander, and to learn to perform research endeavors differently (other than what she has been trained in) and to be prepared to lose something in the process of research as she proceeds without guarantees. Therefore, a pre-requisite for opening up to the field

and conducting an open inquiry is to shed ourselves of our certainties, arrogance, and presumptions and refrain from projecting 'myself or my world onto the other' (Kapoor, 2004, p.642). This meant opening up to the field of inquiry not only in terms of what methodologies must be deployed but being open to the situations and conditions that I encountered as I navigated the field and also as I worked with the material generated from the field. With the belief that we do not master the situation we inquire, we proceed in this journey and design our inquiry that enables openness to the multiple worlds transpiring out there. With this as an entry point, I will now turn to discuss in detail what we learn from Stengers' assertions about practicing slow research and conducting inquiry 'in the presence' of those entities which will be affected by it. While these points are interrelated, they will be discussed as separate markers in order to develop methodological process upon which my inquiry will be based in the field i.e. the post-disaster landscape. The discussion will include the conceptual concerns and practical tools that can be employed in the field whilst conducting an open inquiry.

3.2.1 Slow Research

An important commitment that Stengers requires for any research inquiry is of slowing down the practice, reasoning, thinking, and declarations involved in the process of research. She calls for a 'slow science' in order to 'create an opportunity to arouse a slightly different awareness of the problems and situations mobilizing us' (Stengers 2005b, p.994). While one would be intrigued to ascertain what slowing down means while conducting our research inquiries, we would also want to know how that is useful in a post-disaster landscape, particularly due to the temporal tensions between what the field (post disaster landscape) requires and what slow science obligates. Generally, post-disaster landscapes are associated with accelerated tempos since multiple problems are to be dealt with in a seemingly charged environment where the injured and affected are being rescued, provided shelters, food and care, where the infrastructure is being set up to manage the disruption and destruction. This is the phase of disaster relief when immediate concerns of the affected peoples and communities are attended to through rapid response strategies. Most literature on disaster management (Quarantelli and Dynes, 1977; Kreps, 1984; Cutter, 1996; Zakour and Gillespie, 2013) mimics this temporality by stressing upon the 'nonroutine' (Kreps, 2001, p.3718) nature of event and the need for employing efficient tactics and rapid response mechanisms to bring stability back into the lives of affected communities. This is where the organizations and institutions managing the post-disaster scenario set procedures for the how the landscapes and lives of affected communities will be managed and rehabilitated. This involves working with the apparent and accountable loss and attending to the material necessities of life such as the 'basic' requirements of food, shelter and protection. On the other hand, Stengers (2005b) points towards issues and problems that may not be so apparent or easily accountable, asking,

> 'how, by which artefacts, which procedures, can we slow down political ecology, bestow efficacy on the murmurings of the idiot, that "there is something more

> important" which is so easy to forget because it cannot be "taken into account", because the idiot neither objects nor proposes anything that "counts"' (p.1001).

This 'murmuring' is what becomes crucial to attend to, when conducting inquiry in a post-disaster landscape that has been occupied by formal processes of disaster management including interventions for disaster relief, rehabilitation and resettlement. A researcher practicing slow science aims to attend to the 'murmurings' in order to probe deeper into what might be more important, crucial and critical in a post disaster landscape. But these murmurings cannot be heard, considered or recognised if we approach the disaster packaged as an emergency situation requiring urgent and efficient solutions. To inquire a post-disaster landscape, the researcher could begin with performing delays between what appears and how it should be described. This could also be understood through Stengers' (2011) detailed discussion on the practice of 'envisaging' (p.226). She explains that, 'to envisage a problem does not imply its resolution…the approach of someone who envisages is oriented, but not unilaterally' (p.226). That one must enter the field with an orientation to seek answers, but the pathways and routes employed in arriving at certain revelations could be multiple, deviant and even conflicting. Here the researcher must be prepared to take more than one position on the matter she confronts. Therefore, entering the field with loosely formed questions and remaining open can help the researcher suspend her frames of reference derived from the stable typologies of her disciplinary practice.

Stable typologies are based on structures of theory and knowledge we are trained in and serve as guiding markers in our research journeys, so we do not lose our way or tread in an unknown territory. But the cosmopolitical proposal is precisely an invitation for entering these unknown territories and engage with matters we might have looked past or ignored because it does not mean anything for our research questions. Here, openness to the field becomes crucial; to be able to attend to the environment and surroundings of our objects of inquiry which may require a momentary suspension of our disciplinary frames of inquiry. Suspension can be understood as a state, which performs a conditional delay, offering a void that is temporarily un-held by any constraints. When Stengers urges us to 'slow down', we can think of our position and our epistemic privilege to enter a mode of suspension, thus distancing ourselves from the theories, methods and questions that shape our disciplinary practice. In this mode of suspension, the researcher refrains to proceed with the comforts of her disciplinary knowledge that are attached to the belief that knowledge produced through particular methodologies are untainted by the partialities of those who produce them and is thus verifiable, objective and rational. But Stengers asks, 'what would the researcher decide on his own if that himself were actively shed of the kinds of protection current decisions seem to need?' (2004, p.997). Thus, how might one navigate an unknown terrain without the disciplinary protections, verifiable forms of knowledge and tried and tested methodologies? How to perceive things differently? This 'shedding-off' does not imply forgetting or completely abandoning 'requirements' of the discipline – but revisiting a position and stance and re-working the mode of engagement in response to the field. For the purpose of this research, where I am entering into a world of the

disaster event, its after lives, traces and actualizations which appear momentarily, or as multiples or different, it becomes crucial to open up to the various modes of presences and allow them to occur and become in their particular environments. This requires denouncing our powers of judgment and shy away from streamlining, defining and issuing final words. How does one actively suspend or diverge from the frames of references that give us assurance and certainty? On similar trajectory, for example, in the context of carrying out research in the Global South, Ilan Kapoor (2004) proposes to,

> 'retrace the itinerary of our prejudices and learning habits (from racism, sexism and classism to academic elitism and ethnocentrism), stop thinking of ourselves as better or fitter and unlearn dominant systems of knowledge and representation' (p.641).

Retracing itineraries of the project involves diverging and stretching the boundaries of disciplinary practice, 'feeling its borders, experimenting with the questions which practitioners may accept as relevant, even if they are not their own questions' (Stengers 2005a, p.184). Stengers calls for resisting the habits cultivated by different disciplines and open up to the situations we confront. Habit tends to hamper creative thought and imagination undermining our ability to attend to things differently. If we do not slow down to resist habit, it will become a barrier in lending the situation 'the power to make us think' and not recognize what we confront in the field. And this resistance to habit requires slowing down for a 'slightly different awareness of the problems and situations mobilizing us' (Stengers, 2005b, p.994). Being attentive to the present also allows one to slow down; it is a commitment to the present that in this point in time, as Stengers (2005a) suggests,

> 'what you are responsible for is paying attention as best you can, to be as discerning, as discriminating as you can about the particular situation. That is, you need to decide in this particular case and not to obey the power of some more general reason' (p.188).

This attentiveness allows one to attend to the field, its objects, situations and conditions in terms of how they appear and what they may tend to become. In this process of inquiry, feelings, emotions, pre-conceptions and perceptions will accompany us in the field and these experiences may range from being captive to a moment, or a presence, to a realisation of loss, to 'a passing fright. Here, it is important to emphasize once again, that the situation will present itself to us in different and conflicting ways, but the task is to think through these problems with care and attention to see how a cosmos might be conceived. To summarise, slowing down our inquiry in the post-disaster landscape entails the practice of envisaging and orienting our inquiries in multiple ways in order to understand in what ways the disaster is present and how it continues to live on. Slowing down will also allow us to recognise the subtle practices and processes through which the post-disaster landscape is constructed.

3.2.2 Amidst the Presences

Stengers' cosmopolitical proposal attaches great importance to thinking 'in the presence of' (2005b, p.997) all those entities that compose the world; humans, non-human, objects, environments and their relations and processes through which they become. But is it literally each and every entity that constitutes the common world? As mentioned earlier, it is not about numbers, but about being open to attend to the entities and genuinely engage with them whilst taking the responsibility of preventing 'any shortcut or simplification, any differentiation *a priori* between that which counts and that, which doesn't' (Stengers, 2005b, p.1003). This is an invitation to begin to recognise entities that exist in environments we are to conduct research in, whether or not they have anything to do or say to our research questions, as well as recognising the presence of those that have a stake in the construction of these environments. Since the entities are varied, they will have different modes of being 'present' and it is a task for the researcher to recognise and learn to think with these modes. Stengers urges the researcher to 'think "in the presence of" the victims of his or her decisions' (2005b, p.997). Victims can be produced through our engagements or non-engagements with entities, the way we frame and disseminate our research and the way we may represent a situation or condition. I understand this as a matter of recognition, in terms of who do we chose to recognise in the field and who do we leave unattended. Victims can also be produced through our mode of engagement, in terms of what position we assume in their presence and how we chose to attend to them. Lastly, victims are also produced as we begin to form any perspectives or claims about our findings and represent them in particular ways. In this process, Stengers (2005b) urges 'not losing sight of' the victims of our research inquiries and that the researchers must 'know that nothing can erase the debt binding their decision to its victim' (p.1003). This means that once we step into the field for inquiry, we have entered into a bond, and it is upon us as researchers how we chose to abide by this bond, as we cannot know what it means to fulfill it. In practice, this means using appropriate tools, techniques and methods of engaging with the multiple entities to understand what their presence does to our research inquiry. How does any entity's 'way of being' in the world poses a challenge or problem to how we might conceive the world? This is important for understanding the post-disaster landscape, which involves multiple entities and their stakes which are often conflicting. For example, taking the instance of Attabad lake formation, to which the State responds with the construction of a spill-way as opposed to the demands of the locals, who want the lake to 'go away' completely. This shows that there are different intentions that mobilise these narratives and the field is full of them. To work in the 'presence' of an entity requires engaging with their way of being in, knowing and constructing the world. Stengers' concept of working in the presence of entities is applied by Blaser (2016) in an 'environmental conservation' conflict. Blaser uses the cosmopolitical approach to read into the conflict between the Government of Newfoundland and Labrador and Inuit people over the ban on hunting 'caribou' an endangered species. On the other hand, hunting the caribou is essential to feed the spirit of the caribou for the indigenous peoples. Working together with both actors and their way of approaching and understanding the world of caribou, enabled a set of actions to achieve a common ground for all which helped resolve the

conflict (Blaser, 2016). Working with entities is thus a matter of deep engagement and understanding of entities and their approach to understanding, being in and constructing the world to be able to envision multiple stakes in the same space.

Stengers (2005b) suggests 'that collective thinking has to proceed "in the presence" of those who would otherwise be likely to be disqualified as having idiotically nothing to propose – hindering the emergent "common account"? (p.1002). It is most certainly not about presence having representation or voice that speaks to us, as Stengers (2004) mentions that, 'the political arena is peopled with shadows of that which does not *have a voice*, cannot *have* or does not want to *have* one' (p.996). 'Presence' can be observed in practices and processes, in the particular ways that things matter and has the power to reconfigure situations. For Stengers, this 'presence' makes decisions as difficult as possible; when multiple stakes and relations gather up in the same space, they problematise consistency and streamlining research agendas becomes a challenging task. A short cut or simplification in this task of recognition can silence or turn away entities that have a faint relationship with, or do not belong to our research inquiry. As researchers, often, our frames for inquiring the field are designed and structured to include specific numbers, target groups or kinds of entities in our research, while excluding others. But if our frame is filled with strange things we know nothing about, it not only slows the process down but also makes it difficult to reach a single conclusion. It is crucial to mention here that nothing gives us the right to disqualify an entity from our realm of inquiry nor should we think of them as complicating the process of our research inquiry, rather it about recognising that complication. On the one hand, it makes us question our frames and structure of inquiry, and on the other, offers an invitation to enter other worlds. An open inquiry accepts this invitation and steps into the worlds of strangers in hope that it will learn to engage and attend to these worlds. Certain questions arise for the researcher which she must consider, how do you produce an account 'in the presence' of all that constitutes the world of your inquiry? Who can make claims on these accounts? And how to proceed with those who are not willing to take part or speak?

For the purpose of this inquiry, *presence* must be understood as not only humans but also more-than human, material and non-human entities. Presence is not only that which is easily captured, documented or recognizable but also the hidden tones, networks and practices that emerge momentarily. The fluctuating nature of 'presence' is aligned with the idea of the emerging post-disaster landscape and the afterlives of the disaster event. Hence, what position do we assume in the process of our research and how do we attend to the practices, material and natural landscapes? To inquire a disaster event, I have derived a methodological approach from Stengers' cosmopolitical proposal to attend to the entities we encounter in the field and observe how these entities choose to appear and emerge in our data. To follow the process of conducting an open inquiry and engagement with the field, it is crucial not only for recognising the assembly of the disaster, but also engaging with the disaster post-disaster landscape and its eventual representation and narration. discussed as follows,

- Recognising the Assembly
- Engaging with the post-landscape
- Composing a Cosmopolitical scape

3.3 Process of conducting an open inquiry

This section develops the process of conducting an open inquiry specifically for the post-disaster landscape of Hunza Valley and Gojal Valley. Each field inquiry is burdened with specific time constraints and so is this one, but in the given time frame of the field research, this thesis will adopt an open inquiry approach inspired from Stengers cosmopolitical proposal. Stengers suggests that the cosmopolitical approach is about the 'becoming' of the researcher (Stengers, 2005b), hence it is more to do with what attitude and aspirations does the researcher go into the field with. The process of conducting an open inquiry requires staying open to the conditions in the field in terms of what they might require from the researcher. Moreover, it also involves attending to situations and entities which may not be ready to offer anything to my research. To this end, the open inquiry process that I have developed offers the flexibility of employing multiple methods of engagement as a particular situation may demand. Upon entering the field of research, the first task will be to recognise the actors and entities involved in the post-disaster landscape, in other words, the assembly of a disaster. Simultaneously, I will engage with the post-disaster landscape of the disaster event in order to understand what the current landscape presents; in terms of the practices and processes that construct the landscape as well as identify the afterlives of the disaster event. An open inquiry is not limited to the field work, but also accompanies the process of working with the material generated in the field. This means that open inquiry is also about working and re-working with the research findings and putting them together to compose a cosmopolitical scape. The open inquiry framework is a three-step process which involves recognising the assembly, engaging with the post-disaster landscape and composing a cosmopolitical scape, however these processes will be performed simultaneously whilst in the field and the writing phase that follows. Moreover, in terms of the methods that will be employed in the field, this framework will suggest certain methods, but an appropriate typology will be devised as the researcher enters and wanders in the field navigating through the various terrains, encounters and situations.

3.3.1 Recognising the Assembly

Figure 7.The silt laden scapes in Gulmit after the lake water receded in 2014.

In terms of the assembly of the Attabad landslide disaster, different entities can be recognised; huge rocks, sand-sediment, lake, submerged lands, rotten trees, IDP shelters, etc. the first respondents, local people, and follow up respondents from nearby villages such as local councils, media, landslide experts and spill way engineers, surveyors, and other institutions and organizations affiliated with the disaster management, government, aid, etc. However, it is not only about the entities but also the kinds of relationships that are produced or dimantled in a disaster event, hence an analysis of the relationships between social, cultural, political and material entities is also required (Clark, 2014). This vitality of materials and things in and their complex entanglement requires recognition as they give rise to new relationships, practices and processes (Braun and Whatmore, 2010). Sarah Whatmore (2003) discusses Stengers' stance about researching in field as a matter of 'working together' with the actors and entities in a manner that can 'complicate taken-for-granted distinctions between social subjects and material objects' (p.91). Therefore, recognising the assembly entails working with the entities, their relations, environments and structures which hold them together, or keep them apart. It is to carefully discern how each entity is involved and how does it contribute to the assembly.

While we may begin to recognise the assembly as that which becomes visible at the site and moment of the landslide, I understand it to have started congregating as soon as the ground began sinking on the Attabad mountain slope due to being constantly watered and cultivated by the inhabitants. Once the cracks began to

appear and became a cause for alarm, it soon began hosting surveyors, experts and observers. The disaster had not happened yet, but it was already assembling entities around it. Livestock were refrained from grazing near the cracks and later on farming was forbidden on the patch of land that was clearly going to slide down. In this sense, the congregation of entities has its own temporality and staying committed to an open inquiry is about working out a mode of engagement that allow actors to be made present in the assembly. At the same time, the ongoing event implies an ongoing assembly, for example, the assembly also consists of all those actors that arrived after the landslide event took place. This involves contractors, aid workers, and also the water, which began congregating in the post-disaster landscape. Therefore, in order to recognise the presence of actors and entities that have been involved in (directly or indirectly), or affected by the disaster, one must stay with the ongoing temporality of the event.

Recognising the actors and entities is not be easy task and requires careful attention whilst in the field. Obvious actors such as local communities, local organizations, NGOs, government institutions, media, engineers, landslide experts, surveyors appear as the assembly of the Attabad disaster. But let us not lose sight of the debris that blocked the river, and the river water that filled up and became the Attabad lake, or those who worked on constructing the spillway to channel lake water down stream, or the silt brought by the river water that still rests on the land making it impossible to cultivate. Alongside this, how could we ignore the shelters, their materials and typologies that are assembled in different villages emanating different kinds of physical, social and political dynamics. The assembly is also visible as you travel to sites, the geographical terrains, the different villages and the landslide, the tunnels built across the mountains to resume vehicular traffic. The assembly involves those too, who built the road and tunnels and left their warehouses empty and desolate, and those who operated the boats on Attabad lake. The assembly of the disaster involves these sites, objects and traces and relationships between different actors and entities that are involved in shaping the post-disaster landscape.

Whilst working with multiple entities, the field emerges through the entanglement of these entities, actors and their relations. Field is constructed through relations and traces of what has been, is and will possibly be – entities are embedded and entangled in relations that make up their field, and one must refrain from any attempt to extract, disentangle objects or situations from their environments based on our theoretical frames or inquiry designs. In practice this means staying open to the field and employ appropriate methods and tools to recognise the assembly and engage with it. This may entail shifting the boundaries of research inquiry and stepping into an unknown terrain (a specific discipline), it might mean asking a different question, or engaging with entities in different ways. It may mean starting a conversation with someone or taking a stroll with a farmer through his fields or observing how communities live in shelters or listening to the silence in response to my questions. It is important to remember that while one might adopt a multi-methods approach, the actors and entities might not lend themselves easily to engagement. While an open inquiry is flexible about the methodologies employed, importance must be granted to how we attend to and listen to stories told in the field

and staying wary of what our mode of listening conditioned to; is it programmed only for the spoken word or also for the silences.

Recognition of the assembly requires attending to the becoming of the event, as it unfolds in space and times and continues to live on. It includes formal and informal data that will be collected from Government organizations, NGOs, local and regional councils, media, local people, and affected people. Recognising the assembly requires immersing ourselves in the field so we can begin to observe the networks and process through which the assembly is formed. This requires typical ethnography of spending time with research subjects as 'participant observation' (Cook and Crang, 1995) but one that focuses on human subjects and materials alike. This involves mapping the processes through which the post-disaster landscape is woven by the practices of the human subjects as well as materials highlighting a network of things; people, materials and environments. Typically, methods are adopted according to the kind of data and mode of findings required by the research inquiry, for example, questionnaires are prepared beforehand, or themes are decided for participatory focus groups – each designed to fulfill a particular requirement of the research. When conducting an open inquiry, this relation is inversed, situation demands methods to fulfill its needs – it can also be understood as, 'giving the situation the power' to demand its own mode of engagement. John Law also questions the extent to which standard social science methods and languages can effectively deal with a world where much 'is vague, diffuse or unspecific, slippery, emotional, ephemeral, elusive or indistinct, changes like a kaleidoscope, or doesn't really have a pattern at all' (Law, 2004, p.2). These instances will make us wonder and we will hesitate to proceed but following our commitment, we will experiment, but there is no guarantee that we would have adopted the correct method, nor a surety that we will find an answer – after all, we are taking a risk, but one with sincere and humble intentions for constructing the cosmos of post disaster landscape.

3.3.2 Engaging with the post-disaster landscape

Figure 8. FWO preparing the debris surface for construction of spillway

The task at hand is to engage and inquire the *becoming* of the disaster event and its actualization in the post-disaster landscape. Such a site does not lend itself easily to engagement. It involves moving away from the apparent landscape and tracing ways in which the disaster event may or may not be actualized. This actualization may be made present through various kinds of typologies; subjective, emotional and practical hence different modes of research are required. Moreover, in order to attend to the multiple processes operating in the post-disaster landscape, an *active* and open engagement is required to attend to the subtleties of these processes and the forms they come to assume. It means attending to the processes of how the disaster event appears in different ways; how the landslide event become trace-able beyond its immediate domain, and the subtle networks and linkages that allow particular kinds of situations to emerge. This also includes investigating the different ways in which the presence of the disaster is dealt with in the everyday life. As discussed in the previous chapter, literature on disaster research either approaches the disaster through a single lens (governance techniques to manage the disaster and official discourse of recovery) or lacks in fully engaging (how the event lives on in practices and processes of everyday life) with the post disaster landscape. During empirical work, this engagement requires an explorative commitment that attempts to move away from the dominants ways of assessing and researching disasters.

An experimental approach is required to engage with the afterlives and actualizations of the disaster event because the researcher cannot know for certain what exactly she is looking for. In this sense, the research must engage with the site of research and 'experiment with their contours, landscapes and horizons' (Savransky et al,

2017, p.7). This means we must not foreclose a possibility in a situation we confront without having engaged or explored it. When engaging with entities, we must not only see them as they appear but find links as to how they have come to be, and what they may tend to become through the relations and processes that constitute them. And also, how they exist collectively; composed, constructed, made and re-made in the post-disaster landscape. It is to observe how things come to be in relation to others and the various formations these intersections give rise to. These include the practices that affected people adopt in relation to the constrained and challenging environments, or the different ways in which they come to inhabit the condition of displacement. The task is then to trace the links and unveil the arrangements (relational) of the afterlives of the event in terms of how the landscape is transformed, or how communities are continuing to respond to the disaster event, or how governance policies and interventions have shaped the post-disaster landscape. This requires loosening up the established norms around methods and staying with the instability a situation might offer in order to trace relations beyond their immediate setting and observe what forms of post-disaster life these relations give rise to.

In order to analyse and observe possibilities in the field, Savarnsky et al, (2017) suggest, 'to come to terms with the constructive nature of a process that resists pre-defined research questions and actively formulates and risks asking alternative questions and devising research techniques anew' (p.13). This approach is useful for engaging with multiple entities and their particular and divergent conditions which may require a different set of questions to be asked and explored. We must therefore open ourselves to asking different questions that attend to various forms of being, knowing and action enacted by different entities in a post-disaster landscape. This means attending to processes that oscillate between the obvious, subtle and almost invisible realms, for example, this involves the tacit knowledge, experimentations and improvisations that affected people perform in pursuit of conducting everyday life in conditions of displacement. Attending to these processes involves learning from Simone and Pieterse (2017) as they engage with the variant and textured landscape of the urban world. The task, they explain is to try and 're-describe' a particular situation by assessing its 'variations and textures', and to unpack the peculiar linkages between actors, things, realms and formations (p.63). This approach can help us reveal the entangled space of the post disaster landscape which is constructed through the apparent, subtle or almost hidden structures and practices of multiple entities.

Hence, engaging with the post disaster landscape requires openness to experimentation, cultivating sensibility and enhanced capacity towards employing multiple tools of observation, documentation and reflection in an ambiguous, subtle and messy environment. One must observe the enactment of multiple realities as well as the incessant becoming of objects, entities and processes as they endure the post-disaster life. We must observe how certain space-times are inhabited, resisted or circumvented by the affected people, as well as attend to the materials that have been introduced, used, abandoned or removed from the landscape. Alongside this, the formations, transformation and deformation of the landscape with regards to movements of people, goods,

materials and ideas must also be analysed. This might include how shelters that are installed on private land and farms give rise to new relations between affected people and landowners. Or how patterns of food consumption are transformed or sustained in the post-disaster scenario. Or in what ways are areas marked as Red Zone (by the government) used by local communities. In this setting, the event's temporal order will be read through the processes that it initiates which includes practices and process of response as well as fear and anxieties that accompany the affected people. It means attending to what actually goes on in the post-disaster landscape and how is post-disaster life formed and sustained in conditions of fragility and displacement and how does the disaster continue to remain present and alive in the post-disaster landscape.

3.3.3 Composing a cosmopolitical scape

> 'From now on politics is something entirely different […] it is the building of the cosmos in which everyone lives, the progressive composition of the common world.. hence the excellent name Isabelle Stengers has proposed to give to the whole enterprise, that of Cosmopolitics' (Latour, 2007, p.3).

Figure 9. Multiple entities assembled by the Attabad Lake, 2011.

Knowledge derived from the empirical work must lay the foundation for a cosmopolitical-scape of the disaster event, where each actor has the right to influence the construction of the post-disaster landscape.

Cosmopolitical scape is a process of working together with those whom we are researching to surface the accounts, narrations, ideas, concepts, practices and traces that emerged and are being formed in response to the disaster event. This has implications for how we might re-describe (Simone and Pieterse, 2017, p.62-63) the Attabad disaster event. Composition of cosmopolitical scape engages with the question – under what conditions and guidance has material been put together? Material derived from engagements with multiple entities in the field has to be carefully put to work in order to trace relations, processes and typologies operating in the post-disaster landscape. Here, we must also remember that with an open inquiry comes plethora of material which will be present in its diverse forms; narratives, stories, observations, sketches, photographs, transcripts, field notes, maps etc. Some material from the field may look complete, others hanging lose as half-finished stories, while some might be nothing more than a single line, image, word or a lingering feeling. Important questions to consider in this process is how the material is made part of and positioned in the cosmopolitical scape and which materials allow us to tell which stories.

Composing the material generated from the field will affect the process of interpretation (Crang, 2003, p.127), hence, putting the material together is an important task especially in a manner which retains the diversity that has emerged from the field. Following the commitment of thinking 'in the presence' of the material generated in the field, an exercise in 're-composition' is required. This means that material will contain multiple accounts, which must be re-assembled and re-arranged carefully so that they may be able to tell the same story in different ways. And it is upon the researcher to analyse which story disrupts the dominant narrative and allows us to tell other stories. Refraining from reduction or explanation of the material, the process of re-composition allows us to 'build from utterly heterogeneous parts that will never make a whole, but at best a fragile, revisable, and diverse composite material' (Latour, 2010, p.474). This allows us to narrate accounts differently by working with the fragile material, traces and difference that emerge from the field. It will also entail what Savransky (2016) highlights as a matter of 'what tales we tell other tales with' (p.206) therefore, which stories must be told together to create a slightly different awareness of the situations. The task of composing the cosmopolitical scape of a disaster is to understand how certain modes of existence emerge, transform, resist, fade away or bifurcate in the on-going composition of the post disaster landscape. This exercise will further enable us to trace the emergence, attachments and networks of situations and conditions in the post-disaster scenario. The cosmopolitical scape will make us wonder and wonder a lot; of how to arrange things so they bring to life other things, and how to tell multiple stories together, and how to give the situations we encountered the power 'to matter in their particular way' (Stengers, 2005a, p.192).

Composing the cosmopolitical scape will entail hard labor of constant engagement with the research material and devising multiple configurations of the themes that emerge in the field. These include spatial, temporal, material and experiential accounts and observations around which the material will be gathered. Experimentation will entail producing various configurations to make different entities present in particular

ways and in this process, we may succeed in telling a story or fail in making sense. Some configurations may not allow certain materials to enter; while others might challenge their position and most likely, different configurations will have to be worked upon together. But the important point to remember is that there is never a finished composition, rather the actual work is composing and re-composing the cosmopolitical scape until one becomes like Latour's field-worker who is like, as Watson (2014) explains, 'an ant poking around, refusing to shift scale and indulge explanations, generalizations, or critical frameworks…to produce a good description, a good account, a good map to reterritorialize on the topos of the real' (p. 85). The eventual task of this exercise is to provide a good description of how the post-disaster landscape of Attabad is composed and organised.

The fieldwork for this thesis is informed by this framework where a set of research interventions and methods were employed in the field with the different entities and sites in order to generate the research material. The next chapter opens up the discussion on how this framework was employed in the field in order to conduct an open inquiry and compose the post-disaster landscape of Hunza Valley and Gojal Valley. To sum up, an open inquiry does not rely on pre-supposed meanings and pre-defined questions and concerns, rather, it is about opening up to the requirements of the field and situations we confront. This involves maintaining a distance from the assumed position of rationality and objectivity and opening up to diverse forms of actors and knowledge that are involved in shaping the post-disaster landscape. It is also important to understand that conducting an open inquiry is a challenging task because the researcher always has to take a position and it all comes down to what the stakes are in each position that is taken; who is represented and how are they represented in order to produce a common account. What the open inquiry approach offers to this thesis is the ground to observe and analyse the 'emergence' of the post-disaster landscape and recognise the entities and processes which are involved in the making of it.

3.4 Concluding Notes

By unpacking Stengers' concept of cosmopolitics (2005b) and the ecology of practices (2005a), this chapter developed a process for conducting an open inquiry and engagement with the world of post-disaster landscape. What follows on from this discussion is how the framework is employed in the fieldwork for research and analysis. And here, we can turn to Doreen Massey (2003) who echoes Stengers' approach when she explains two modes of knowledge production prevalent in social sciences; being nowhere and objective and somewhere and subjective. She argues that 'being there' in the field is about 'doing one's [....] science in the field itself' in order to capture the continual movements of the world. And this claim to knowledge production is radically different from the 'objectivity (supposedly) lent by distance' claim (p.75). There is always some position that is taken by a researcher, and an open inquiry is an invitation to take up more than one position if required by the field. Stengers' cosmopolitical proposal (2005b) calls for composing the cosmos, allowing different actors to

shape the construction of the common world. By revisiting the social, material and political networks through which actors, temporalities and spatialities are entangled, we can analyse how the post-disaster landscape is (being) organised. A closer analysis of these processes can help us dismantle the assumed temporality of a disaster event; perturbation and return systems thinking. It will also help us dismantle an assumed spatiality, that disasters are contained in specific sites and allow us to analyse hidden networks and flows which allow the actualizations of disasters to emerge in different space-times through memories, movements and practices.

It is important to understand the methodological framework in this chapter has been introduced as a three-phased framework, but it does not imply that it is a step-by-step process. It will be simultaneous process where actors will be recognised and engaged with and the cosmopolitical scape will be formed and transformed alongside as the research is conducted. The next chapter will discuss how the methodological framework was employed in the field site, followed by a focused account on engagements in different sites; the methods employed, and the challenges posed during the fieldwork. These accounts will also discuss the challenges of conducting an open inquiry as well as the kind of themes that emerged from the material generated in the field. Excerpts from the field notes accompanied by the researcher's experience in the field will be discussed in detail, especially in relation to the challenges of an open inquiry from stepping into the field to how different configurations were developed for the composition of the cosmopolitical scape.

4. Inquiring the Disaster: Field, Sites and Stories

> '"*the field" is not out there waiting to be discovered; rather, it is already linguistically constructed and the researcher's aim must be imaginatively to reformulate this construction in a way that new avenues can be opened up, new ideas and practices can flow*' (Massey, 2003, p.77).

I was reminded of Doreen Massey's challenge when I was about to enter the 'fieldwork' phase of the research process. What is the field and how should I approach the fieldwork? Having discussed Stengers' Cosmopolitics, strategies of conducting an open inquiry and the methodological framework in the previous chapter, I will now turn to how this methodological framework was employed in the field. The task of the fieldwork for this thesis was to construct the cosmopolitical scape of the disaster event. Therefore, investigating a disaster event requires an engagement with the disaster event and its actualization in everyday landscape in order to understand how the post-disaster landscape is organised. This chapter is loosely organised in four parts, it begins with a discussion on how I understood the field and approached research methods. It will then introduce the geographic sites where the research was carried out, i.e. five villages in Gojal Valley and two IDP shelter sites in Hunza Valley. I will narrate stories of how methods were adopted, adapted and transformed during encounters in field in the quest of conducting an open inquiry. Towards the end of the chapter, I will reflect upon the process of fieldwork highlighting the challenges of conducting an open inquiry and the composition of a cosmopolitical scape.

4.1 The Field

It is important to understand what the field is and what it consists of; is it the practical material location that we visit or also the spatial imaginary in which we place it? Massey (2003) discusses these concerns and explains that establishing a relation to the field has consequences for how we frame the material generated from the field, what kind of power relations are involved or what position is taken by the researcher (p.84). She explains that often in the process of research, field is thought to be a 'bounded space separated from the academy', on the other hand she quotes Katz who writes about the difficulty of separating the field from the other ongoings of life, arguing that she "is always, everywhere, in the field"' (Katz, 1994, as cited in Massey, 2003, p.84). Therefore, for the purpose of this research, field must not only be understood as sites visited during fieldwork or locations on the map but also the overall experience of being in the field and carrying out the fieldwork. An important idea to stay with is using the open inquiry framework to guide the process and to understand the field as a dynamic entity rather than a static background against which activities and encounters take place. Hence, the field is not a passive entity that is waiting to be read and discerned by the researcher, rather it has the power to effect what materials we are able to generate from the field (Whatmore, 2003). The dynamic aspect and the 'everywhere-ness' of the field can also be approached from Ingold's (2001) concept of 'wayfaring' as knowledge production through movement along paths and trails, which he explains as a 'way of knowing is a path of movement through the world' (Ingold, 2000, p.229-30). Thus, it is the researcher's path and encounters within the field which generate certain kinds of materials and inform the eventual process of knowledge production. This approach to fieldwork has consequences for how the cosmopolitical scape is constructed. The field is 'constructed' through the modes of engagement and strategies of representation that we adopt (Massey, 2003), an approach that has been extensively explored by Mol (2003) and Latour (1999). Extensive work on this has been carried out by John Law (2004) who argues that methods must not be seen as a set of procedures that report or represent a given reality, but that they are performative and produce realities (p.143). Therefore, the approach to fieldwork and the methods adopted is crucial concern for a cosmopolitical inquiry, what sort of a world we are constructing through our engagements in the field.

Therefore, in the spirit of carrying out fieldwork as a process of working 'in the presence of' entities and actors (Stengers, 2005b), various methods were employed when conducting research for this thesis in Hunza Valley and Gojal Valley. Several methods of engagement were adapted, transformed and even discarded during field research to create favourable conditions for conducting an open inquiry. This was done not only to allow research participants to lead the process of sharing their accounts of disaster event, but to respond to the material presence of the field in terms of the terrain of the land and the material specificities of the site. A quest for staying open and allowing the field to emerge through encounters involved a range of methods such as photographs, conversations, observations, spatial and sequential mapping and stories. In particular, research carried out with the affected people can be broadly categorised in the spatial, temporal and experiential mapping

of the entities, their practices and everyday landscapes. I will briefly introduce the prominent methods used in the field and then move on to explain how the methodology played out in the different sites, as well as the kind of engagement it entailed, the challenges and outcomes.

a) Conversations: bits and bobs that stitched the story

b) Drawings of a physical location: to see how shelter and home is imagined.

c) Circuit mapping: how movement is carried out in space on daily, weekly and monthly basis.

d) Sequential mapping: a timeline of events anchored in specific places.

e) Memory drawings: drawing of houses and land lost to the disaster event.

f) Tours: led by affected people to narrate the disaster event.

g) Visual frames: spots in landscape framed by affected people to narrate the disaster event.

h) Tea sessions: hosted by community to narrate disaster event as a collective exercise.

i) Observation: encounters, being present and moving about in the field.

In some sense, I have tried to arrange the methods I have been able to pin-point and trace in the field, but there may be more. I have tried to delineate them, give titles and sort them in categories, however it is important to note that there are multiple variations in each of these methods. The duration of engagements and the number of people involved in these encounters also fluctuates. As I moved about in the field, from one site to another, one encounter to another, one day to the next, the methods too were being fused, adapted, and transformed according to the situation.

This engagement during field work took different forms, such as map, drawings, storytelling and tours, all involved in a process of remembering, revisiting and constructing the event. In this sense, the methods became a tool to probe an entry into the world of actualization, how the event was remembered, what kinds of practices were carried out, how it was spoken or not spoken about, and what kinds of expressions and gestures were triggered by this topic. Methods will have to be seen as an intervention in the world, where it is used as a tool to construct and narrate a certain version, because as Stengers (2005a) mentions, 'tools are never neutral'(p. 185). Therefore, most methods during the fieldwork tried to capture different versions of the event by engaging with different entities and assemblies of the disaster event. Moreover, methods were adapted to allow multiple entities to construct their reality and narrative of the event. The whole exercise of engaging in the field can be seen as an attempt to capture the underlying structures and practices that hold the post-disaster landscape together.

To contextualise, since the Attabad disaster in 2010, local councils, NGOs and government organisations carried out surveys to determine the economic conditions of the IDP communities in order to design the

appropriate resettlement plan. The surveys were designed with questions such as, "how many eggs does your family eat in a week?" and locals expressed their displeasure as one of them told me, "how could we have known what the question was for – and how can we remember how much eggs we ate. My old ma gave random answers and the council used it to put us in a category" (Conversations, Aliabad shelters, 2016). This resulted in collective displeasure and mistrust of communities towards any surveys, questionnaires and interviews as expressed by locals on several occasions during the fieldwork. Moreover, since the locals repeatedly went through the same questions and inquiries, it established a particular narrative about the disaster. For example, when I introduced my interest in the landslide disaster, the first response would often entail a story of how the landslide occurred and the difficulties faced by people. And when asked how they managed to get by, 'bas guzara kertay hein' ('we just make do') would be the response. The challenge was to bypass this narrative and get a deeper insight into how the post-disaster landscape was managed and organised, and how the disaster had seeped into the everyday lives of people. To do this, I employed Kesby's (2000) diagramming exercises with communities which he introduced as a method that helps 'marginal groups to voice their previously muted 'stand-point' in ways that can disrupt the smooth reproduction of dominant discourses and practices' (p. 425). These included mapping and drawing exercises using visual methods with the community. I opted this method to distinguish from the usual methods of engagement NGOs use like questionnaires, survey or interview that the community had complained about. Moreover, I wanted to get a fresh insight to their experience of disaster by approaching their accounts through different methods and to avoid this field exercise being categorised as an NGO task that locals disapprove of.

Another important factor to consider here is the (seemingly problematic) variety of methods used in the field without any particular consistency. I would suggest that this is a direct consequence of conducting an open inquiry, when one is bound to use the modes of engagement that are available, accepted or required by the situation one confronts. And reflecting upon Stengers' cosmos which calls for working with different practices and lending strengths and learning from other practices (2005a) whilst in the field, the afore-mentioned situation compliments it. In these methods, the practice of ethnography could be located in the conversations, talks and walks and through participant observation where the lives and practices of communities were observed. The practice of participatory research was put to use when conducting mapping exercises with communities or allowing locals to lead conversations and tell stories during tea sessions. The practice of documenting architectural pattern language (Alexander, 1977) was adopted when observing spatial forms and its relation to the social and cultural landscape. Visual methods were also used in certain situations where fieldnotes could not capture a particular scenario or the visual could present something more than words. Indeterminacy also accompanied the process of my field research, where certain instances or encounters in the field triggered hesitation, estrangement and confusion that required a different method of engagement or disengagement altogether. In such situations, methods were adapted and transformed to capture whatever

emerged during the encounter, for example, how a person wanted to talk about, or not, describe or demonstrate, attach importance to the event. This process of adopting, transforming, changing or fusing methods during field research created what Law (2004) describes as a 'method assemblage […] a continuous process of crafting and enacting necessary boundaries between presence, manifest absence and Otherness' (p.144). Lastly, these methods are not only the modes of engagement but also the sites of knowledge production (Law, 2004). Therefore, the cosmopolitical scape was populated with multiple realities crafted through different sites of knowledge production (Conversations, maps, landslide blog, NDMA report, landslide reports, community maps).

4.1.1 Introduction of field sites

Fieldwork was carried out in multiple geographic locations in Hunza Valley and Gojal Valley in Gilgit Baltistan. This was the region where the Attabad landslide occurred in January 2010, blocking the Gojal River and the Karakoram Highway (Now CPEC) forming the Attabad Lake. Fieldwork was carried out in these locations using different methods of engagements depending on how affected people wanted to engage (see Figure 10 and Table 1). The Attabad Lake submerged lands in Ayeenabad, Shishket and Gulmit displacing approximately 350 households. Villages near the landslide Attabad Bala, Attabad Paeen and Sarat were declared as Red Zone area by the NDMA displacing approximately 50-70 households. IDPs from Attabad and Sarat were relocated to Shelter sites in Altit, while IDPs from Shishket and Ayeenabad were relocated to Aliabad Shelter site. Apart from these sites, I also engaged with personnel from state-led institutions and NGOs. Figure 10 shows where these sites are located in terms of the landslide area and the lake.

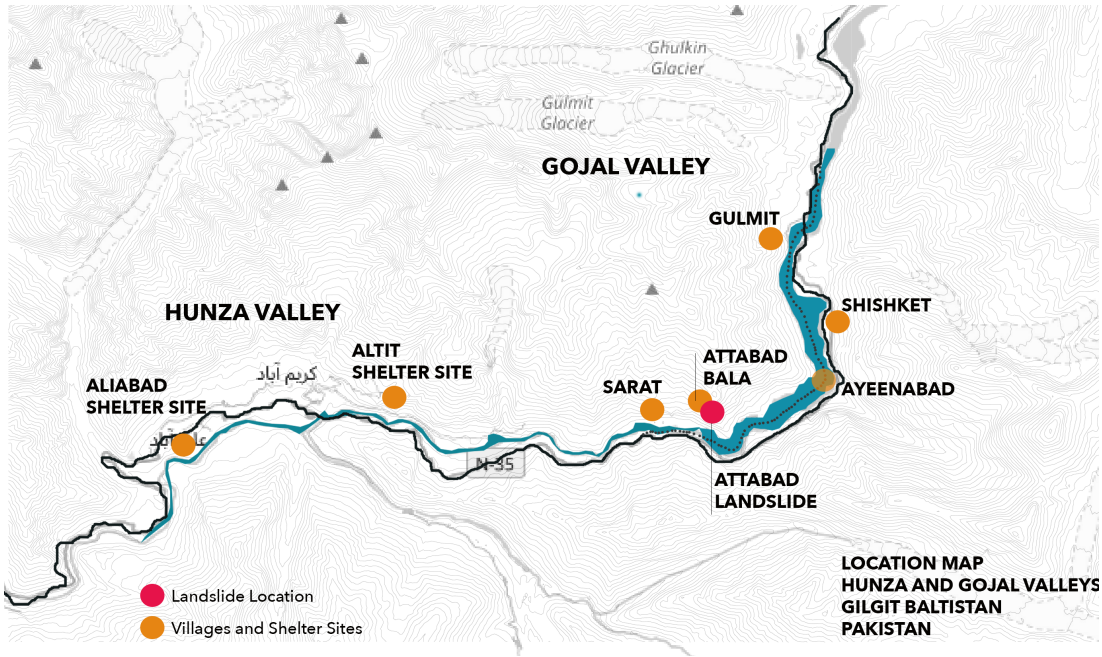

Figure 10. Location Map of Villages and Shelter Sites in Hunza Valley and Gojal Valley

Table 1. Fieldwork location, site descriptions and research methods used

Locations	Qualities, what is the site like?	Engagements
Altit Shelter site	Altit is a moderate to steep slope terrain located in Hunza Valley. It is a historical settlement comprising of clustered houses and limited farmlands. Shelters are scattered on private land owned by the relatives and kin of IDP (from Sarat and Attabad).	Local Altit community IDP community Shelter units * Maps / Conversations
Aliabad Shelter Site	Aliabad is the central town of Hunza valley located on the main KKH. It is a moderate slope terrain densely populated with very few farmlands. IDP from Shishket chose to relocate to Aliabad due to their association with Burushiski tribe that resides in Hunza Valley. Aliabad Shelter is located on Ismaili Local Council Land and is a confined area. Dynamics of this Shelter site are very different from Altit Shelter site which is scattered on farmlands owned by relatives.	IDP Community AC office Local Media Rep Focus Humanitarian Rep Shelter units * Maps/Conversations/ Forms
Sarat	Sarat is a small village located between Hunza Valley and Gojal Valley and one of the 4 close-knit settlements on the opposite side of KKH near Attabad Village. It is a moderate slope terrain comprising of farmlands and orchards. In 2010, it was declared a Red Zone area and the inhabitants were declared IDP and moved to shelters in Altit village where the affected people chose to stay on their relatives' farm lands.	Local community * Maps / Conversations / Tea session
Attabad Bala	Attabad Bala is located on high altitude comprising of steep slope terrain. It is one of the 4 close-knit settlements on the opposite side of KKH. This village is where the cracks of the landslide first began to appear in 2001 and the locals alerted the FOCUS Humanitarian. The area was declared Red Zone area in December 2009. A considerable chunk of land fell during the landslide which severely affected the Attabad Payeen village.	Landslide area Local community * Tea session / Conversation
Attabad Payeen	Attabad Payeen is located a few kilometres ahead of Sarat Village and one of the 4 close-knit settlements. It is a moderate slope terrain located a few hundred meters above the Gojal River. When the Attabad Landslide occurred, the debris fell into the river reaching the opposite side and falling back into the river impacting Attabad Payeen as well. Around 12 households and farmlands were buried under the Attabad Landslide Debris killing 16 inhabitants.	Landslide Debris Local community * Tour / Conversations
Attabad Debris	Silt-Clay-stone mix – Barren – not suitable for plantation. Attabad Debris blocked the Gojal River and the Karakoram Highway.	* Listening / Observing / Photographs
Ayeenabad	Ayeenabad is the first settlement located north of the Attabad Landslide. The landslide blocked the river and formed a lake in which the entire village of Ayeenabad was submerged. Displaced inhabitants of Ayeenabad were shifted to the shelter site in Aliabad.	
Shishket	Shishket is located in the broad valley bottom of Gojal Valley. Inhabitants own large patches of land that are used for farming and orchards. Shishket is located North of the Landslide therefore affected by the Attabad Lake. 30% of the total land in Shishket was submerged by the lake and the displaced people were shifted to Aliabad Shelter Site. A few of them chose to stay in Shishket and their shelters installed on relatives' land or their own patches of land.	Local community living on their own land. Trees Silt scapes Local community living in shelters. * Maps / Tea session / Conversations / Tour
Attabad Lake	Cerulean water body between Attabad and Gulmit – spanning apex 30 km and 250 feet deep.	* Walking by the lake / Photography
Gulmit	Gulmit is the central town of Gojal Valley comprising of Scattered land division, medium slope terrain. Residential areas are located near the Karakoram Highway and farmlands are located towards the upper areas.	Local community / Local Council Government employed Surveyor * Conversations / Map / Tea session / Photography

In terms of recognising the assembly of a disaster, many entities were observed; the huge rocks, silt scapes, the lake, submerged lands, IDP shelters, the first respondents, local people, and representatives from the local councils, media, landslide experts and spill way engineers, surveyors, and other institutions and organizations affiliated with the disaster management, government, aid etc. Alongside this, it is important to note the material entities such as the landslide debris, lake, silt-laden fields and dead trees become a defining factor in how the disaster remains present across the different sites. In the process of my fieldwork, the geographic location and its proximity to the location of the landslide was an important element which affected the encounters in the field and the methods used (elaborated in the next section on Sites and Stories). This includes the physical features of the landscape, as well as the condition of lives of the people researched with. For example, communities located close to the landslide did not engage in mapping exercises as there was too much to be shown in the physical landscape itself; the landslide debris, the destruction of fields and houses. On the other hand, mapping exercises were suitable for affected people living in shelters sites as the exercise became a mode of revisiting their memories of homes, landscapes and the way they used to live life before the disaster event.

Some of the questions that informed the encounters during fieldwork were how people reacted to the disaster, what decisions they took, how it affected them, if/how their lives were disrupted due to the event. In terms of the local councils and institutions, how was the disaster responded to locally and what sorts of practices were put in place to manage it? The task at hand was to understand how the affected people experienced the disaster, how the event was perceived, responded to and managed by them, and how it disrupted their lives and continued to do so. In what follows, I will lay out how the research was carried out with the organisations and institutions, followed by a section on sites and stories from the different location affected by the disaster in Hunza Valley and Gojal Valley.

4.1.2 Conversations with State Institutions, NGOs and Individuals

Before traveling to the disaster site in Hunza Valley and Gojal Valley in Gilgit Baltistan, my first task was to get an overview of the disaster event from the NDMA headquarters in Islamabad where a meeting was held with Retd. Colonel who was on duty during Attabad Landslide event. This meeting added facts and a time-line to the disaster event such as when did NDMA get involved, which other organization(s) they partnered with or worked with, and how communication and responsibilities were handled between the local people, local council, government agencies and the army. Some documents were also shared with me giving exact dates and figures regarding the management of the landslide disaster.

When in Hunza and Gojal, conversations with Local Council members, community elders, NGO officers, local media personnel and land surveyors took place over the course of two months that I spent in the valleys. Most of these conversations took place in the institutional offices. These meetings were pre-scheduled keeping in view the availability of each person and working hours. Given the limited time slot I was given for the meeting

and the kind of information sought, conversational mode was the most appropriate form of engagement here. While talking to the Local Council representative in Hunza Valley, I came across considerable information regarding disaster response, rehabilitation and reconstruction as administered by the Aga Khan organizations and the Local and Regional Councils. The information was shared and presented in a clear timeline with specific details. This included the organization's role and responsibilities in the post-disaster scenario, how local communities responded, and food and shelter management. A local council member sharing details of how the first few days were managed, explained that the "food was managed by the local communities in Altit, local clusters took turns to cook for the IDP. People even took out their extra beddings and blankets to share" (Conversations, Baltit, 2016). Most of the information shared seemed rehearsed since the response to disaster had been spoken about and presented numerous times. However, the conversation would also move into more personal domains, especially when I asked how they felt when so many families were displaced in a single day, to which one respondent hesitantly explained, "I was scared, I couldn't believe this had actually happened – I mean we knew it could happen, but it was still unbelievable". Similar pattern of conversation was observed when I met with a land surveyor who used to work for Focus Humanitarian and had been monitoring the landslide area since 2003. Free-floating conversation allowed the respondent to take certain trajectories in his narration and tell stories, which were a combination of his observations and reflections. Specifically, noticeable when he mentioned, "it was only cracks before you know, but when it was closer to time [landslide event], people heard noises – of animals and insects leaving the land, you see science also believes in it. And it is also an indication by God for the living beings to leave an endangered area" and he began mentioning some verses from the Quran (Conversations, Baltit, 2016).

In another instance, on my way back from Gulmit, I visited at the Government Surveyor's office where we were invited in and offered a cup of tea. The meeting was unplanned, so I apologised and introduced my research. As I had said about four lines about my research, the Surveyor started to look through some paper in his filing cabinet. I was not sure if he was listening to me, but I kept speaking until he took out sheets of paper with hand drawn maps. He looked excited and said, "I was there and measuring the land, day and night", he pointed to maps comprising of plots of land and explained, "I was drawing this as the disaster was happening in Shishket, you see there was no data of the land demarcation before, so I had to work all day to measure land and the next morning, water would have reached that area and I would move further up. It was a hard task – I measured in the day and drew in the night". As I listened to him and as we looked through the maps, I kept wondering if I should switch to a video recording or take photographs as well. But I urged myself to just listen carefully and attend to his narrative of the event as he explained his engagements with the local people, mentioning "they were in a state of anxiety, it was difficult to ask them about their land boundaries as they saw their land submerge in water", and then pointing to his notebook he said, "look here, I was labelling the land

and I asked the man for his name, he was so disturbed, he kept saying 'it's mine it's mine' and so I had to label this plot of land 'it's mine', you should take a picture of this"(Conversations, Gulmit, 2016).

Figure 11. Land ownership map of Shishket drawn by cartographer as the disaster unfolder. The Blue colored areas show lands that have been submerged in the Lake.

These conversations lasted for 1-2 hours; multiple narratives of the disaster were shared and the particular role that each organisation/person played in its response in terms of the practices and protocols that were introduced, modified or transformed due to the event. Visual and textual evidence such as photographs and official documents were also shown and shared in some instances. When I visited the government District Management Group (DMG) Office in Hunza, I had gone in for a conversation, but was instead taken to the Archive room and shown six thick files on Attabad Disaster. It was a surprise and I was overwhelmed by the amount of data I had in front of me - it was going to be a challenge working through those six files when I was allowed only two hours in that office. I started turning pages and made a mental note of getting a general sense of the kinds of issues that were raised in the Attabad files. These ranged from individual applications regarding food ration and compensation, to aid distribution documents, spillway construction, to contracts of Chinese transport companies. As I went through the files, a clerk came in to show a document to the Secretary, which he read and smirked, 'this too should go into the Attabad file'. Upon my questioning look, he explained, "this is a public notice allowing locals who have a shot gun to kill the dogs that Chinese left" (Conversations, DMG office Hunza, 2016). I was reminded of the dogs mentioned in the conversation in Gulmit where local people explained how the dogs that were left by the Chinese workers are a nuisance for the community. I nodded and

went back to looking through files, thinking this was a very messy cosmos a range of different actors, things and processes enter this world of District Management Group (DMG Offices) and demand something be done about them. As I was not allowed to copy any document, I took notes on the range of issues mentioned in the files in order to get a sense of the variety of issues grappled with in post-disaster situation.

Moreover, while the organizations own role might be pre-defined and structured or shown to be so, lapses seemed to emerge when the organizations coordinated with other organizations, groups and individuals. It could be observed in how NDMA partnered with local, national and international organizations in different ways with regards to managing the disaster. These slips can be assessed in terms of the 'exceptional' governance practices; how priorities, allegiances and power is performed in post-disaster scenario, for e.g. how certain contractors are given priority over others, or how IDP resettlement land was acquired, or how land was measured as the water is rising. Moreover, the interviewees (organization personnel) tended to reflect their own views as well (especially for a disaster event of this magnitude where matters are transferred to God); hence lengthy and loose-knit conversations were fruitful, as they tend to produce material that fluctuates between the formal (organizational) and the not so formal (personal narratives). The conversations with organizations and NGOs were useful in acquiring a sequential narrative of the disaster as well as the interventions that were initiated. It also allowed me to understand which aspects of post-disaster recovery were prioritized and which actors and entities were engaged (or not) and considered in the process of managing the post-disaster landscape of Hunza Valley and Gojal Valley.

4.1.3 Mapping exercises; daily and seasonal circuits

In terms of recognising and engaging with different entities in Hunza Valley and Gojal Valley, since the first respondents of the landslide were local inhabitants who were affected by it, field research was designed to engage with their narratives. In this process, many accounts and narratives were shared by those voices which had either not been heard before or silenced and not made part of managing the post-disaster landscape. Alongside this, the material and immaterial presence of entities was also considered and recognised during the process of the research because an open inquiry is not only about the presence of voices that speak, but also the other forms of presence such as actions, expressions, gestures, deliberate absence or silence. In terms of engaging with the inhabitants of the valleys and the affected people, the crucial point was to allow the people to lead the conversation in whichever manner they deemed fit. For example, participatory mapping tools were used to kickstart the engagement with community women, but often midway, the exercise was diverged into conversations or walks in the field depending on how the participants led the process. In this sense, it was not entirely participatory methodology that involves the participation of community in evolving questions and discussing concerns that lead to a certain solution or an outcome. The participatory research (PR) methodologies are usually pre-planned focus group discussions and mapping exercises with specific procedures

that lend certain stability to the method (Reason and Bradbury, 2008). On the other hand, in the process of this research, while the methods shared the participatory approach in spirit, they were impromptu in action, indeterminate and retrofitted according to the situation as will be shown in the next section. In these ways, open inquiry is different from PR methodology in the sense that methods were not geared towards achieving a specific output (list of priorities, actionable concerns) from active participation of respondents, but to digress between themes, practices and formations while being with and spending time with the inhabitants and the affected people. This helps not only unveil the excluded, ignored or suppressed narratives but open us up to a world that is in the making by observing the practices and processes of everyday life.

For example, mapping exercises allow participants to visually represent ideas, information and emotions they hold with regards to space (Downs and Stea, 1974; Kitchin, 1994; Brown, 2001). Community mapping is a form of mental mapping (Kitchin, 1994) and a favourable method to investigate local inhabitants' ideas of sense of place and notions of dwelling (Grasseni, 2007). It relates to how inhabitants interpret a landscape as they conduct their everyday lives and how they relate to space and acquire a sense of place and belonging. Therefore, mapping exercises helped surface some aspects of the research that were concerned with the affected peoples' sense of resettlement and rehabilitation, as experienced, negotiated and narrated by the locals themselves in response to the disaster event. And because multiple practices constitute our sense of space - symbolic (meanings attached to place), physical (cultivation, land-use etc.), social (family, tribe and community) - the mapping exercise cannot be restricted to 'representation' only but be seen as a process that makes these practices visible. Community maps convey the lived experience of landscape through qualitative, artistic and creative modes of representation (Clifford and King, 1993) ranging from drawings and maps to embroideries and mosaics representing a distinct local collective perception (Grasseni, 2012, p,100). For example, initially this mapping exercise was to engage affected people living in the shelters in Altit to understand how they tended to develop their spatial knowledge (Ingold, 2000) while navigating in and around shelters and how their time was divided between different tasks in different seasons. However, this mapping exercise further developed into understanding their ideas of lost home and landscape and how they tended to experience certain kind of belonging and displacement in the spaces they inhabited or failed to inhabit. For a region where people depend on their landscapes for social, economic and cultural lives, mapping exercise revealed intricacies of how life was held together throughout the day and in different seasons and conditions.

Hence, a mapping exercise was designed and conducted with communities as the entry-point to their world. This exercise was a form of speculating with actors most affected by the landslide disaster in terms of their displacement from their house and village and the loss of home, land and livelihood. In line with the cosmopolitical research framework; an open inquiry not only entails that all agents are recognised in the research, but also that you create a space which allows different 'presences' to be recognised and a 'slightly different awareness' (Stengers, 2005b) to be generated through the narratives that are surfaced. In order to

achieve this, I designed a 'make your daily circuit' exercise with shelter dwellers which was used as a trigger to begin conversations around how they spent their day, how different spaces were used, such as the internal shelter area, pathways in and around the shelter site, etc. This began to give an insight to practices, living patterns of the everyday life in shelters and the spatial arrangement and materials used in construction or maintenance of the shelters. It also gave an insight to the forms of mobility exercised by shelter dwellers. Interactions in the field began with this exercise however the method was adapted, transformed or discarded during encounters in the field.

The next section highlights the different sites in Hunza Valley and Gojal Valley where the research was carried out. The encounters in these sites attempted to engage with the assembly of the disaster; the human, non-human, material entities. While interactions with local communities remain prominent in the writings, I would suggest the reader to attend to the non-human and material aspects such as the elaboration of shelter sites, the terrain of the land, the lake, debris, animals and trees, because without these, the reflections and narratives would be incomplete. Moreover, these entities are deeply entangled in creating a range of actualizations of the event. The following section comprises of stories from the sites, the intentions, interactions and reflections on how the methods were employed and adapted in the field in the quest to conduct an open inquiry.

4.2 Sites, stories and reflections

In the first week of October 2016, I arrived in Hunza and planned to stay with a local family in Altit village for the duration of the fieldwork, which is in considerable proximity of Attabad IDP Shelter site. Peak tourist season had come to an end and local people were busy in preparing for winter season; collecting grass, wood, and digging pits to store vegetables. The first few days were filled with informal conversations as I introduced the research to community members, not particularly IDP. I often walked around the Shelters and visit IDP with my hosts, other times I was sent to borrow vegetables from a neighbour that ended up in an hour-long session conversing over tea. The idea was to observe the environment, have conversations over tea, and make some acquaintances before setting out to do any kind of mapping exercise. Conversations could happen anywhere; they were impromptu which meant they could not be recorded every time. However, at times I would ask people to pause – check if they were comfortable with me writing some important points in my note-book. While this was not an intentional method of data collection, it became a prominent method as I would often encounter locals while walking or buying grocery who thought it their duty to inquire about the reasons for my presence in their village. My answer would automatically trigger a response, memory and reflections about the disaster event. During my first few days in Hunza, I came across a local person while buying stationery at a shop in Aliabad. He inquired about my presence and upon my answer that I was here to research with IDP shelter sites and affected people, he said, "if you want to talk to the elders, then you should come to our land in Sarat, that is where we all gather in this season. If you go to shelter sites, you will only find

children" (Conversations, Aliabad, 2016). This was an important insight that informed my research plan in terms of what sites were to be visited. Conversations over the eight weeks of my stay, whether actively involved in a research exercise or not, contributed important themes for my research, ranging from the importance of land and geographic setting, local autonomy, gender relations and local politics, to the traditional knowledge about hazard management systems and folklores about landslides, floods and super natural presence. In terms of the mapping exercise, I actively resisted the idea of having pre-planned conversations or focus group sessions. This meant that I was not going to set any time or place for the mapping exercise; instead, I would capture their narratives by entering their environments which entailed going into homes and fields, walking by the lake, or encountering local people at the market or van station. In the spirit of ethnographic practice and staying committed to the idea of 'presences' and that nothing comes without its environment, I tried to avoid any extractive behaviour and let the field guide me through the process. I would often travel on the road which connected the affected villages and walk around the lake and observe and photograph the landscape and how the locals engaged with it. Other times, I would travel to the landslide debris and watch the desolate structures that were installed to establish boat traffic between upstream villages and the Karakoram Highway. Here, the sheer presence of the landslide would make photography an insufficient tool – the presence was all encompassing, it could not be captured. On the other hand, my walks through the shelter sites at different times of the day proved more useful for developing a photographic series giving an insight to the typologies, materials and pattern languages of these sites. Alongside this, I conducted mapping exercises with the communities and engaged with different groups of people, some of which will be elaborated below. While there were many occasions of engaging with the landscape and the local people, the following few have particularly been selected to give an insight to how an open inquiry was deployed in the field, the methods used, the kind of challenges encountered, and the range of material produced.

The next section is designed as a collection of short narrations from different sites where the field research was conducted. The objective of these stories is twofold; first, is to take the reader into the different sites and their unique conditions to highlight the disaster multiple. And second, is to show the method adaption in each of the sites. These two threads run across each story, however, it is also important to attend to the material (land terrain, land division, rocks, debris and lake) and non-material presence within these stories. Each story is accompanied by a map, photos and description.

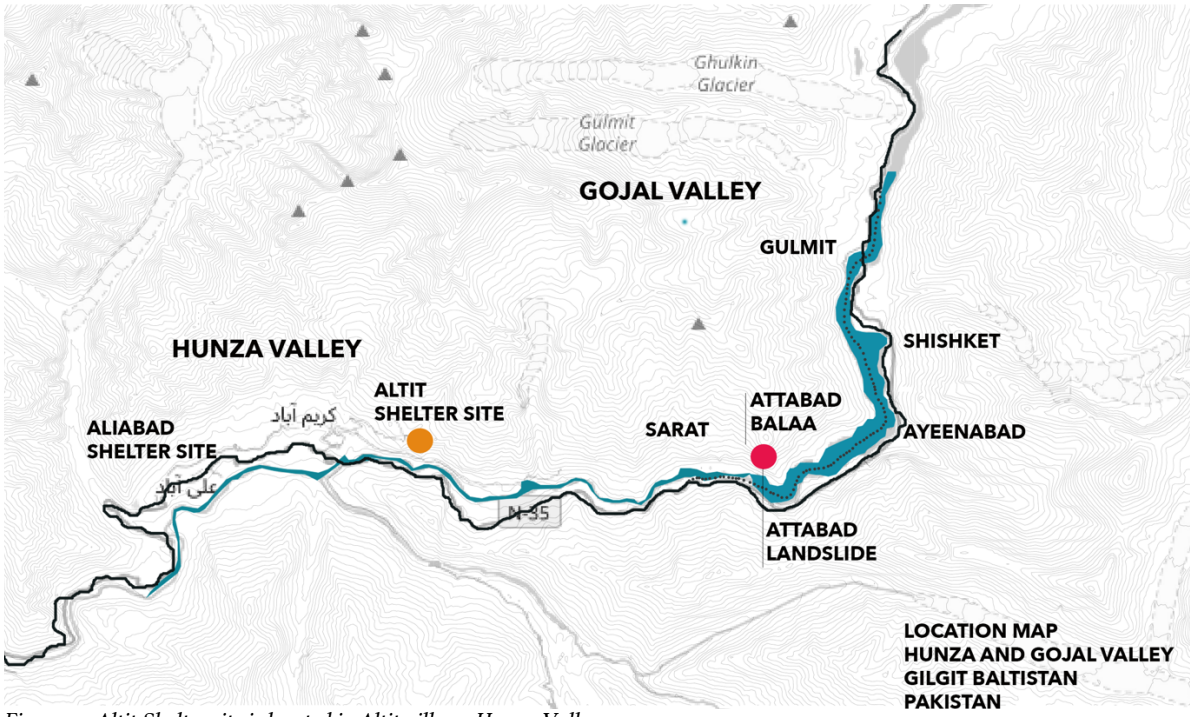

Figure 12. Altit Shelter site is located in Altit village, Hunza Valley.

Figure 13.a (left) Shelters in Altit surrounded by vegetable patch. Figure 13.b (right) Make-shift storage space beside Shelter.

Altit is an age-old settlement developed around the Altit fort in 17th Century. This steep terrain has been cultivated by inhabitants who divide their lands between orchards for apricots and crops mainly potato, wheat and house vegetables. The main road leading to the Fort and gardens, a tourist attraction, is lined with a few shops and traditional restaurants. Upon entering the village, you can see low height rubble-stone boundaries decorated with pumpkin vines, and thickets of trees, crops and mudstone houses. Further up on the road, a few silver corrugated sheet shelters begin to appear along the road and some more scattered in the fields. When the landslide disaster occurred, people displaced from Sarat and Attabad were provided space/shelter on their relatives' land in Altit.

Story 1. Altit Shelter Site: We live in two places now; shelter and home

Community mapping at Altit Shelter site began with a group of women and children at 11am in the morning when they gathered in a shelter for tea. I introduced the 'draw your circuit' exercise and at first the women were hesitant to draw, they waited and then asked their daughters to draw for them. The daughters immediately indulged in the exercise actively drawing their circuits of everyday routine. Soon enough, the daughters had gotten their mothers involved and the exercise became a consultative and collective process; some would help others remember tasks to add to their daily circuit. During this exercise, some women would compare their daily circuits with that when they used to live on their own lands before the disaster event. This generated discussions between the mothers and daughters; they narrated stories and incidents of life before the disaster and how the daily circuit had changed in the shelters. Gradually the map began to be layered with stories from the past and the situation at present, making it look less like a map I had imagined. I was thinking about how to keep it neat and categorised and would ask the participants to code their circuits, so I could attach stories to the codes, but the map still became messier. Hence, I let go (of the coding process) in the spirit for an open inquiry and the map was scattered with lines, stories and keywords. Alongside this, I asked women to draw their houses and land if they remembered it and map their circuit on it. Some women took part in the exercise and made their daughters draw the house plan and mark animal shelters, fields and orchards and marked their daily circuit on it. One IDP woman refused to take part in the exercise. Upon my inquiry, a woman sitting next to her said, "she doesn't want to make it", I turned to and asked her why, to which she responded, "it's not there, the heart feels sad". I nodded and turned my attention to the women doing the exercise who later informed me that Zahra is a widow with no children and she is alone is her grief.

To understand the temporality of shelter life, I drew a round wall clock for local women to fill their activities against the time-figure, which soon was transformed into a circular shape divided into five parts; morning, noon, afternoon, evening and night. Time was not seen in hourly figures; it was arranged around meal-tea times which used to be seven about 20 years ago and now reduced to five (Fieldnotes, Altit, 2016). Upon moving to a seasonal circuit that presented four seasons and cultivation timeline, it began to highlight the micro-migrations that eventuate between shelter sites and village lands. The participants named each season in Burushiski language and started filling the different activities that take place; from beginning of March to May, the elders shift to their lands from shelter; from June until September, they spend alternate weeks in shelter site; while from October until first snowfall, they stay on land; after the first snowfall, they shift to shelters and live there until March. Mostly, younger women are made in-charge of looking after children in shelter sites while the parents and elders are away working on the land. Upon inquiring, it was surfaced that their sustenance depends on this micro-migration; fruits are acquired from the orchards on land, dairy products are prepared on land due to limited space to keep livestock in shelters. Since there is no LPG (Liquefied petroleum gas), firewood is required, and that is also collected from land and brought to shelter for cooking, burning and keeping warm (Fieldnotes, Altit, 2016). Some middle-aged women expressed their relief of living in shelters as it meant that they did not have to look after the cow, otherwise their life revolved around the cow (tending, feeding, milking and walking the cow).

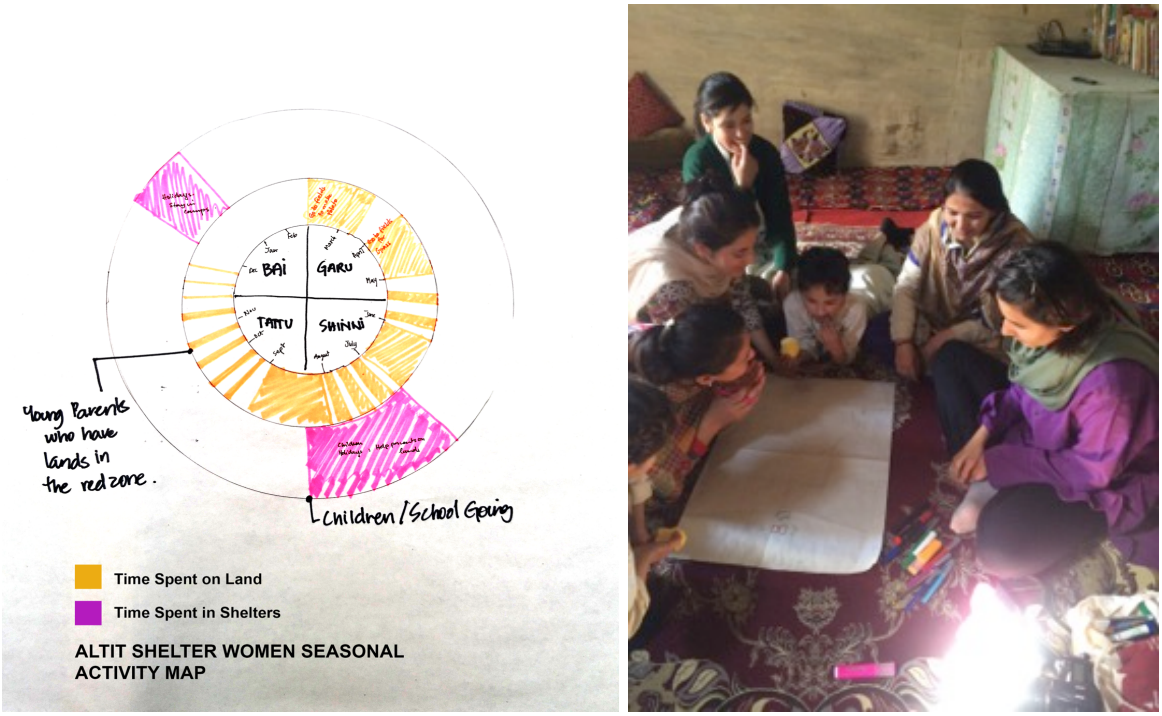

Figure 14.a (left)Map highlighting time spent in Shelters and on land. Figure 14.b (right) Mapping with women in Altit shelters.

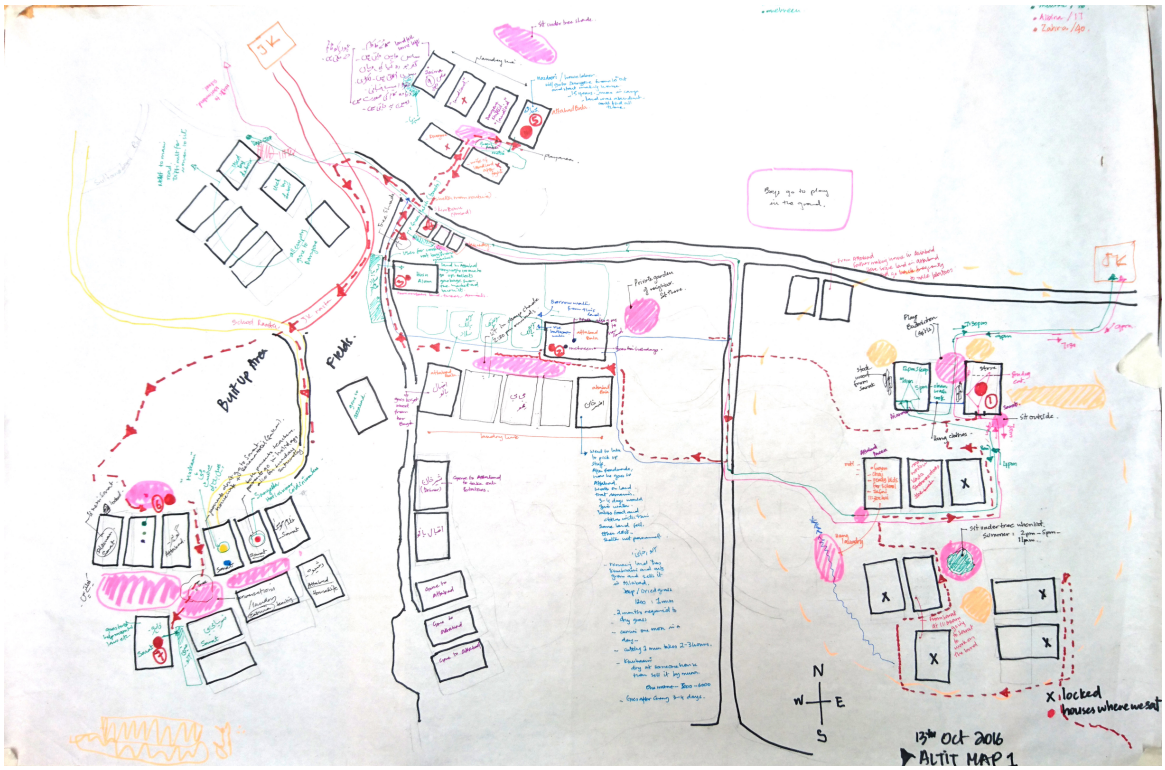

Figure 15. Map showing everyday life circuits in Altit Shelter site. The black rectangular boxes show shelters while areas marked pink are used as outdoor gathering spaces. The red dotted lines show the paths IDP take to access the main road – it also shows alternative paths that are taken when land owners water their field or put up a temporary fence. Black cross is marked on shelters which are empty as IDPs are on visiting their own lands. The map indicates how the shelters are being used in many different ways by the inhabitants, and how most shelters remain empty due to the micro-migrations between shelters and lands in the Red Zone area. (Appendix ii)

For Altit, I had drawn the IDP shelters on the map beforehand and asked locals to fill in their daily circuits. I realised quickly realised this exercise was restrictive. As Chambers (2006) emphasized, 'the medium and means of mapping, whether ground, paper or GIS, and the mode of facilitation influence who takes part, the nature of outcomes and power relationships. Much depends on the behaviour and attitudes of facilitators and who controls the process' (p.1). This exercise was restrictive because it took me a while to explain and orient participants onto the map. Once they understood that, they began filling in the circuit, which too became a mechanical task going from point A to point B to point C supressing the in-betweens and go-alongs, what featured between and happened alongside point A and B and so on. This was perhaps due to locations being marked on the map prior to participants' intervention on the map, and all they had to do was to connect the dots. Only after verbal prompts from me to highlight play areas, resting spaces, storage, and laundry and meeting places, these places began to appear on the map, which led to more stories and insight to how space is used in shelter site.

The messy map generated from this exercise was going to be a challenge for analysing or drawing out themes. I was not exactly sure how the different stories could relate to the circuits and how I would categorise the material to say something about my research. Overwhelmed by the mess, I tried to streamline my approach for the next site. I decided to introduce a form with the mapping exercise in order to categorise information properly; the circuits would be drawn on the map and the stories and ideas should be written on the form. When I reflected upon this decision to streamline the research process, organise and categorise information, I realised how difficult it is to let go of the research process because one keeps wanting to stay on top of things. The messy map was dis-orienting, and I was afraid to lose my way in trying to read it, therefore I adopted an approach where I could stay focussed and somewhat in-charge. The mess clearly became a challenge for the commitment to an open-inquiry approach, and I fell prey to the temptation of an organised and regulated methodological process.

The mess that emanated from the map was not only because of the different modes of responses from the women, but also that there seemed to be no stability of life and routines in the shelter site itself; the micro-migrations and the various ways in which the shelters were being used reflected upon the map.

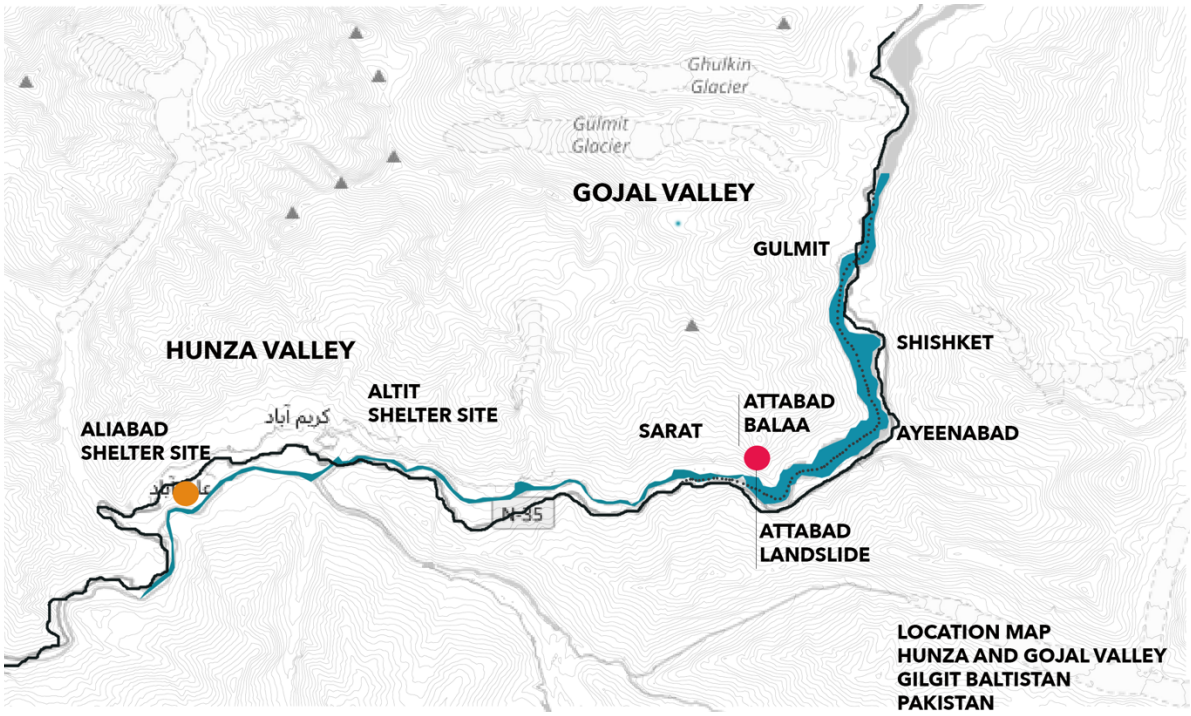

Figure 16. Aliabad shelter site is located in Aliabad village in Hunza Valley.

Figure 17. Shelters in Aliabad require more storage space as their lands and homes submerged in the Attabad lake. Shelters were lined with steel boxes and IDP used spaces between shelters for storage.

Aliabad is the central settlement for Hunza Valley, situated on both sides of Karakoram Highway (now CPEC), and home to (population), Hunza District Government offices, central hospital, schools and colleges which are accessible through tertiary roads, while the main road is lined with shops, petrol pumps and banks. One of these tertiary roads leads down towards an area owned by the Ismaili Local Council of Hunza and is surrounded by private residential area and cropping lands. After the Attabad disaster Local people in Ainabad and Shishket were given an option to relocate to safe areas in Gulmit, an Ismaili and Wakhi tribe located a few kilometres up the Gojal river. However, the IDP from Ainabad and Shishket who are Ismaili and Burushiski tribe wanted to relocate to an area that is central and pre-dominantly Brushiski. Hence, Jamat khana area was allotted for a shelter site, where 70 households were shifted.

Story 2. Aliabad Shelter Site: Land was abundant for us, and much more.

Aliabad shelter site is set within a residential area comprising of private houses and lands and starkly different from Altit, which was nestled within fields and orchards. This site is clearly visible as a cluster in a confined area, located at a considerable distance from the main road (which is also the KKH). Here, shelters are arranged in a line with vegetable patch and a water storage drum in front of each, appearing almost identical to each other.

The mapping exercise with women gathered in another shelter led to the demarcation of gathering areas within the shelter site for laundry or embroideries, water collection points and vegetable patches collectively used by the IDP community. Grievances of displacement, exploitation and exclusion from decision-making process in response to the disaster were shared which also reflected in their resistance to engage in research exercises, showing their lack of trust in anyone inquiring or working on the disaster event.

Alongside this, some women also filled out the forms I had prepared which highlighted their condition of displacement, routines and importance of house and land, giving an insight to how women's role and routines had transformed due to the disaster. However, the form-filling instance immediately became a formal exchange between the participant and the paper or me and was only welcomed by a few women. Although the exercise was restrictive in terms of its mode of engagement, it was surprising enough for the participants when they encountered the questions about their idea of home, nature and survival. These questions were different from surveys carried out by local council that focused on material and economic assets or even quantities of eggs or meat they have each week. Therefore, questions about their conceptions of home, land, nature and survival made them hesitate but also deliberate upon how they could answer these questions and how to position the landslide in this narrative. For example, one woman expressed her surprise on a question 'What do you think about land, mountains, water streams?' (Q 6 in Appendix iii) and exclaimed, "how can I answer this?!" followed by a slow and subtle response, "the land was abundant for us and much more", (Conversations, Aliabad, 2016) however, she left the answer box blank. While the form posed the risk of formalising relations between me and the respondents, the questions enabled the women to think through and state their point of view, even if that meant not answering the question.

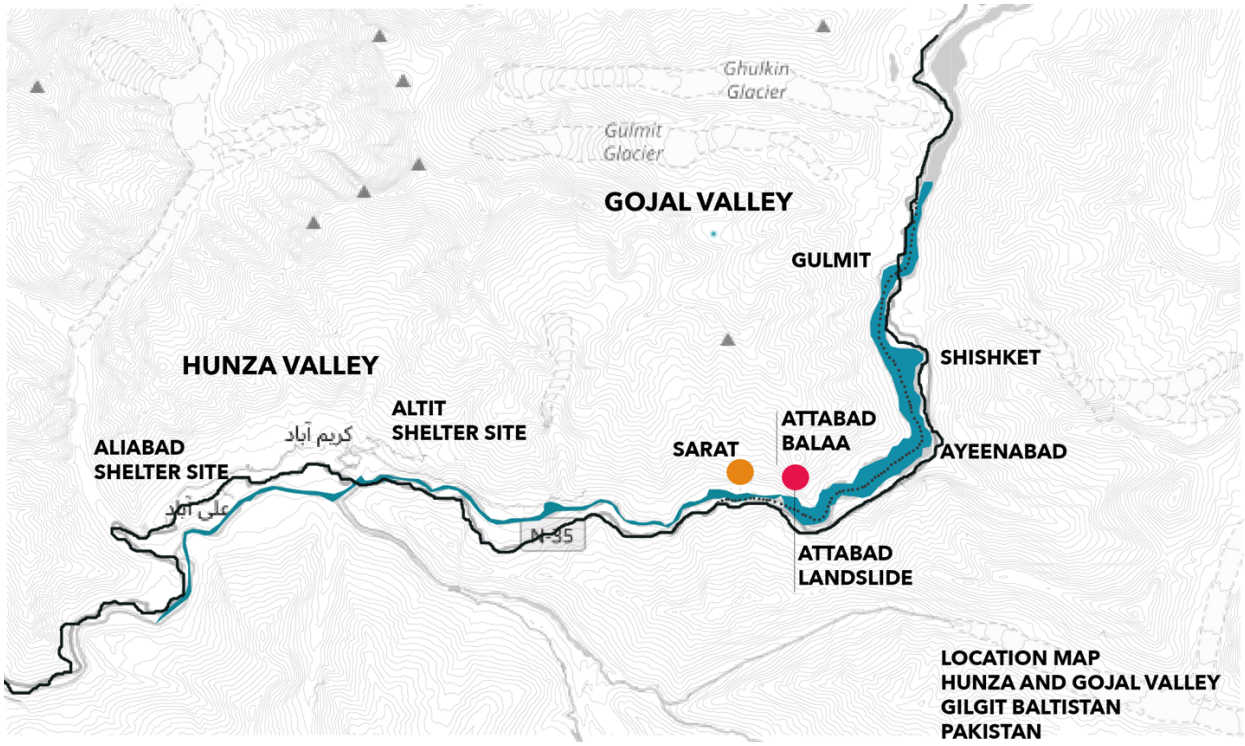

Figure 18. Sarat is located in close proximity to Attabad villages and the landslide area.

Figure 19.a (left) Discoloured area on the mountain shows the patch of Land that slid down causing the Attabad disaster. This image was captured from Sarat Village. Figure 19.b (right) Mapping exercise with women in Sarat accompanied by tea.

Located a few kilometres east of the Attabad Landslide disaster, this village is inhabited by fifteen families who own land, orchards and livestock. The village is accessible through a suspension bridge and is set on a slight contour two hundred feet above the Gojal River. Relatively flat land is divided between families and is used for houses, growing vegetables and fruit trees, while the steep contour areas are used for growing grass to be fed to livestock in winters. In summers, livestock is taken up the mountain to the pastures which are owned collectively by Sarat and Attabad villages. After the Attabad Landslide in January 2010, Sarat was declared a Red Zone area in February 2010 by the NDMA due to which, the health center and Jamaat Khana was shut down and shelters were provided for each family in Altit. People were not allowed to go to Sarat and would have to pay a fine if they are caught in the Red Zone area, and if an incident (landslide) were to occur, they would not be compensated by the Government or the Local Council.

Story 3. Sarat: This is where they gathered the dead

Sarat is a village in close proximity to the landslide area where a few elders still inhabit their homes and work on the lands. I wondered why people still lived here when it has been declared a Red Zone area. Although I had come unannounced but my host from Altit who accompanied me, assured me that her sister was out cutting grass and would return. We decided to wait in the orchard until noon tea-time and when women returned, they invited us into a house to have tea with them. We settled ourselves in a traditional house as my host introduced the research. A teapot was put to boil and I took out paper sheets to introduce the mapping exercise. Some women looked at the material and laughed, another one was shy while the host got busy in making tea. Due to little or no familiarity with pens and paper, they hesitated in picking up a pen to draw anything. Then began our negotiations on the blank sheet of paper. I asked one of them to mark any spot of her village on the paper and I will help her draw rest of the map. After about ten minutes of reluctance and consultation, she marked her house. I was not entirely sure what I was going to get out of this map, but I stuck to the process none-the-less. Gradually the other women began suggesting her to mark the adjacent fields, road that led into village, community prayer hall and other houses. It became a consultative exercise as other women helped her remember important spots such as a boulder that had fallen during rainfall, and water streams that irrigated fields. Significant features were livestock shelters and fruit trees orchards which women spoke of with pride and due to which they had decided to stay in their village although it had been declared Red Zone area by the NDMA. Here, the map was primarily controlled and arranged by the women, however, I was asked to facilitate in making proper squares indicating their houses, as they did not want them to look crooked. A recurring hesitation to engage with the map was its orientation; bird-eye view/ top-down perspective of framing the village. It took the women a while to get used to this viewpoint and often, during the mapping exercise, they would physically point at areas to help me understand the spaces they were talking about. They pointed at a vacant spot in front of Jamaat Khana and said, "this is where they gathered the dead from Attabad until they were transferred to Aliabad for burial…children are afraid to walk here at night".

Perhaps, this was not the best method as I was not too sure what would surface, nor were the women clear about what they should be talking about. However, while marking places on the map, memories and stories began to appear which were attached to different places. Soon enough, congregation areas, women's' outdoor resting spots and community festival stories began to get appear on the map leading to discussions on how displacement had resulted in little or no festivities that reaffirm their identity and culture (Conversations, Sarat, 2016). Reasons for living in the Red Zone area were also highlighted; vegetables, dairy products and fruit is acquired from the land and sent to their families (children and grandchildren) living in shelters. However, during harvest seasons, the families from shelters join elders to work together on land during harvest seasons. This mapping exercise indicated how the daily and weekly circuits after the landslide disaster went beyond the village area therefore that had to be added in some way. I started taking notes on the map. Some stories were attached to places while other stories went on a different tangent and nothing to do with the map. The map became messy, however, this time I was not concerned and had somewhat reconciled with the messiness. There were multiple layers to this map; through stories and transformed circuits, it showed how a sense of belonging and loss was articulated by the women living there. Through the transformed daily and seasonal circuits, it showed how they negotiate lives in the Red Zone area with limited family members and continue land practices and looking after the cow. This gave a deeper insight into the kinds of practices they continued to hang on to.

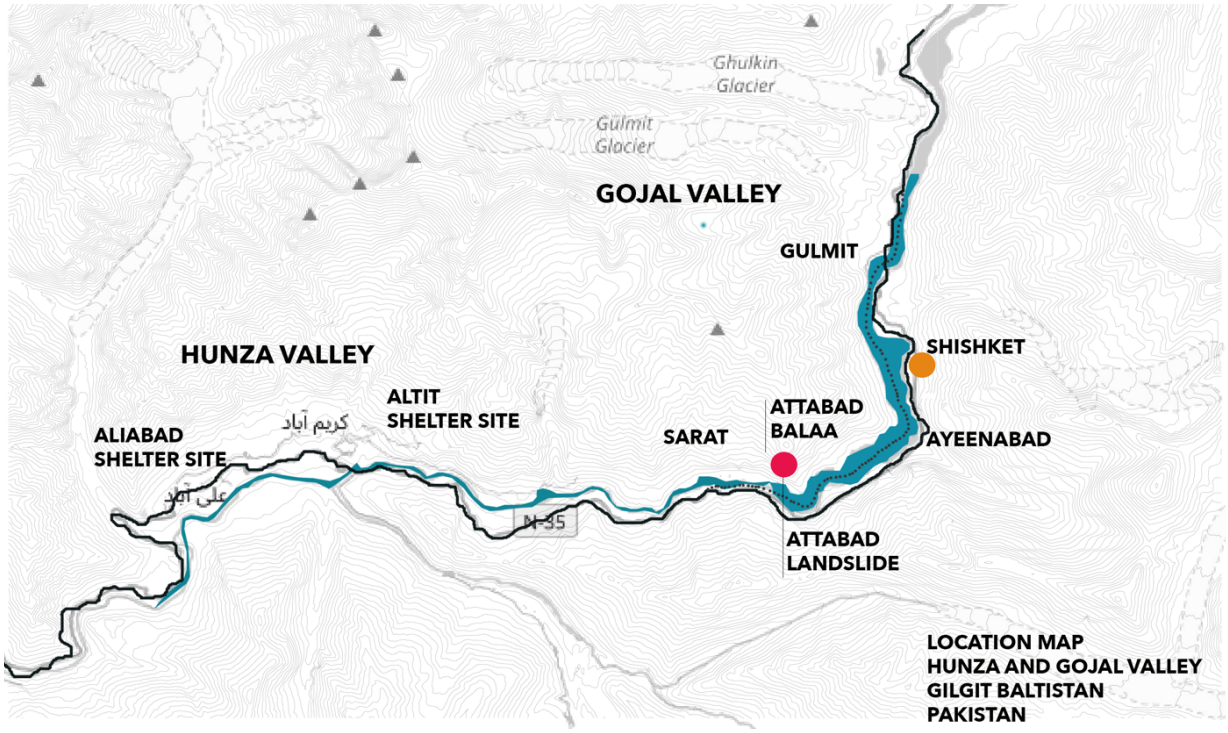

Figure 20. Shishket is located in Gojal Valley, a few kilometers ahead of Attabad landslide area.

Figure 21.a (left)Mapping with women living in shelters in Shishket village. Figure 21.b (right) View of Shishket village upon entering the valley from the China-Pakistan Friendship Tunnel.

Shishket is a considerably flat land a few kilometres ahead of Ayeenabad where local people own large chunks of land and livestock. People are known to be well-off/ business community; with big houses and large areas used for growing potatoes, household vegetables and orchards. Attabad Lake submerged 30 percent of Shishket land and some families moved to Aliabad Shelter site while others settled and decided to live with their relatives and set up shelters on their land. Some land has surfaced after the lake level lowered, exposing the barren land laden with silt and dead trees. As one moves down towards this area, there is an increase in wind speed as the valley opens up. Sand particles blow with the wind and one can hear the song of hollow dead trees as the move with the wind.

Story 4. Shishket: We have lots of land; it won't fit your paper

The landscape changed significantly as we exited the Attabad tunnels and entered Shishket village. The massive lake on one side and gradual slopes with large patches of land were visible from the road. This landscape is quite different from small villages in Hunza Valley nestled in steep mountains in Sarat and Altit with limited flat land. Here, shelters were mostly located on private land and relatively far apart from other clusters. A few shelters dwellers invited me inside as I introduced my research. After introduction, I took out my sheets of paper and asked them to engage in the mapping exercise. They started highlighting their houses, land and daily circuits prior to displacement. This map appeared different with large open spaces and houses and farms set wide apart. The next step was to mark the sequence of events when they relocated from their house due to the rise in water levels. The mapping exercise highlighted the complexity of moving out of the house and into a shelter, surfacing the anxieties, apprehensions and eventual decisions that were taken as relocation took place. While mapping the sequence, many participants voiced the decisions they took during relocation, "we did not cut trees, it was blossom time, trees have a life of their own, we couldn't cut them". To which another woman added, 'they (trees) had to face their own fate, like we faced ours", adding that "children cried for the trees" (Conversations, Shishket, 2016) giving an insight to a range of conscious decisions that were being taken by the locals as the event unfolded. The decision of some affected families to move to Aliabad was also discussed as a misfortune, "they thought they will be warmly embraced and taken care of, but look how they have been treated, so poorly", said a woman, adding, "whoever stayed on the land is better off, you still have land to live on". Sequential mapping and narratives also highlighted the practices of expert agencies on the site; locals highlighted the incorrect predictions made by Focus Humanitarian about water-level rise, which led to considerable loss of property for some landowners.

Moving to another cluster in Shishket, closer to the Attabad Lake, I started the mapping exercise with a group of eight middle-aged women. As we gathered around the blank A0 paper, one of them commented, "we own a lot of land, it won't fit this paper". I had not expected this response and felt that the exercise was challenged. She continued, "we need four times more paper than this even if we make a tiny house". My immediate response was to save the method and add more sheets. With 4 sheets neatly pasted together, I invited then to draw their houses and mark their daily circuits. They made a few circuits and proposed to have tea instead. There was more to be done on the map - I would rather have had tea later. But I took a moment to remind myself about control over the research process and of staying open, hence accepted their proposition. During the tea session, the women spoke freely and led the discussion giving an in-depth insight to how the disaster was responded to, who were mentioned as outsiders and how 'help' and 'aid' was perceived. Tea session became a very interesting method to analyse in terms of how territories were produced and negotiated in methods of engagement. During the tea session, I became a guest in their territory and they set out the conversation for me to feel welcomed; however, on the map sheet, I was the host inviting them to tread in an un-known territory which was made familiar as they gradually moved through their memories to map their place in the landscape. Whilst the sequential mapping activity was helpful in highlighting the priorities and decisions locals took in response to the disaster event, the tea session allowed them to frame conversations, define problems and narrate their experience of the disaster event.

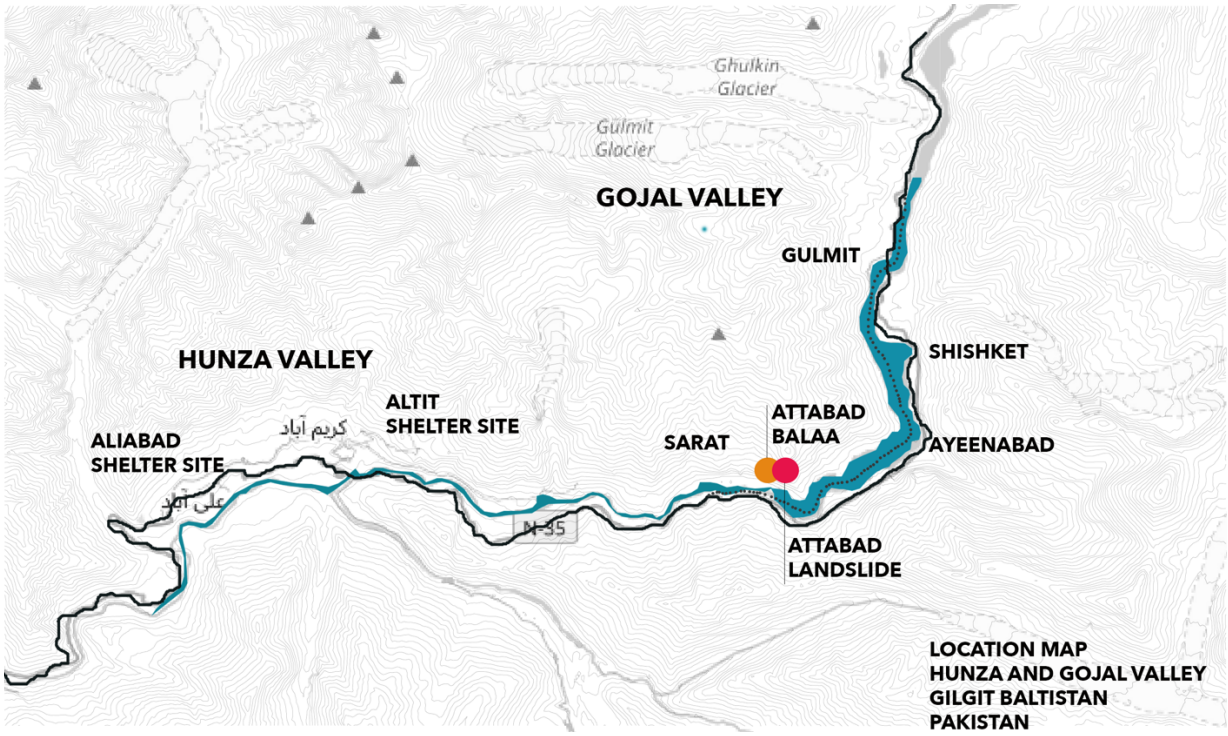

Figure 22. A chunk of land from Attabad Bala village fell which came to be known as the Attabad landslide.

Figure 23.a (left) Terraces of Attabad Village from where the lake is visible. Figure 23.b (right) enjoying a warn cup of hospitality.

Located a few kilometres ahead and some three hundred feet above Sarat, Attabad Bala is known to be a unique village which is located at a considerable height from all the other villages in the vicinity. A dirt road has been carved through the steep slopes by the villagers to access their village, and to transport potato sacks each harvest season. Attabad Lake begins to appear on some bends as we move higher towards the village. Upon reaching the village, one can sense a significant stillness, silence and a considerable drop in the temperature. You look up towards the village nestled in the mountain slopes; steep terrains with terraced farms, houses built of rubble stone and mud mortar, and trees grown on slope areas alongside pathways. The village has an old settlement of inter-connected houses and newer arrangement of dispersed houses on land, between terraced crops areas, vegetable patch and trees. The Attabad Landslide hazard was alerted in 2009 and villagers were moved to the old settlement, away from the fault area. This village has since been declared as Red Zone area.

Story 5. Attabad Bala: The walls were falling, and trees were tilting

It is a long uphill walk to reach Attabad Bala, if you're from down areas, it can take you four hours they say. Luckily a jeep gave us a ride mid-way. As we reached Attabad Bala, a couple of men were collecting potato sacks and loading them onto jeeps to be taken down to the market. I had met one of these men before at Altit shelter, he smiled at me and offered me to go up to a house and have tea. We walked up to this house and were invited in by a girl. As we entered, some women started gathering in the central sitting space. After introducing myself and the research, I asked about the disaster incident and there was no response. I assumed there was a language barrier until a woman told me in Urdu to drink tea. I took a cup of tea and thanked her. Assuming that my question was not heard the first time, I asked them again to share their story of the disaster event. They murmured something to each other and told me to drink tea. It was absolutely quiet; there was a strange silence in the air, perhaps due to the height of this village. In my head, I was telling myself to be patient, and slow down and try to match my temporal rhythm to theirs; perhaps people who lived on top of mountains were very patient, and I abandoned the thought – telling myself I should not be presuming. So, I sipped more tea, looked around the relatively dark room, saw the women looking at me, and then giving them a smile, I asked again, "so what happened that day?". Pause.

While no one was rude, there was just no way were they ready to say anything. After about forty-five minutes of awkward silence, three cups of tea and my occasional insistence, an older man began to narrate the event. For them, the disaster began in 2001 when they noticed cracks in their land, eventually reaching the climax in January 2010, "the walls were falling, and trees were tilting; it wasn't a small indication", they were fully prepared for this landslide to occur and had shifted in safe zones on the other side of their village. The landslide took a chunk of land but nothing more, and although they were advised not to live in the village, they continue to stay here for farming (Conversations, Attabad Bala, 2016). I noticed that the disaster was constantly referred to as the 'landslide' and there was no mention of the lake. The story was short, and my cup of tea was finished. There was silence again. The silence was filled with an undertone of displeasure or even resentment. I could strongly sense it was time for me to leave, and the departure was not as quick as I would have wanted. I bid them farewell, picked up my shoes and went outside and found a spot to wear them. I felt relieved to be out of there, but at the same time I was confused because either my presence made them uncomfortable or their obvious silence made me uncomfortable. I could not exactly guess what had gone wrong and how a tea session, which is meant to be warm and welcoming, could become so awkward. Although tea sessions are traditionally honored way of transmitting and sharing knowledge (Thompson, 2008; Kovach, 2009) in many cultures including Hunza Valley and Gojal Valley, it was not entirely the dynamic I was experiencing in that moment.

A young girl followed me out; she seemed keen to engage, so I asked her to take me towards the landslide, she happily nodded and walked in a direction. I followed the girl to the edge of the landslide; there were cultivation patches until the very edge. In the few conversations I had in Attabad Bala, the disaster was a past event and only referred to as the landslide event with no mention of the lake. Most conversations highlighted the knowledge of local people, their apprehensions and preparations for the disaster. For them, the disaster was bound to happen, as one man mentioned, "we lived for years knowing it would happen any day", and once it occurred, the landslide event probably brought closure and took the uncertainty away with it.

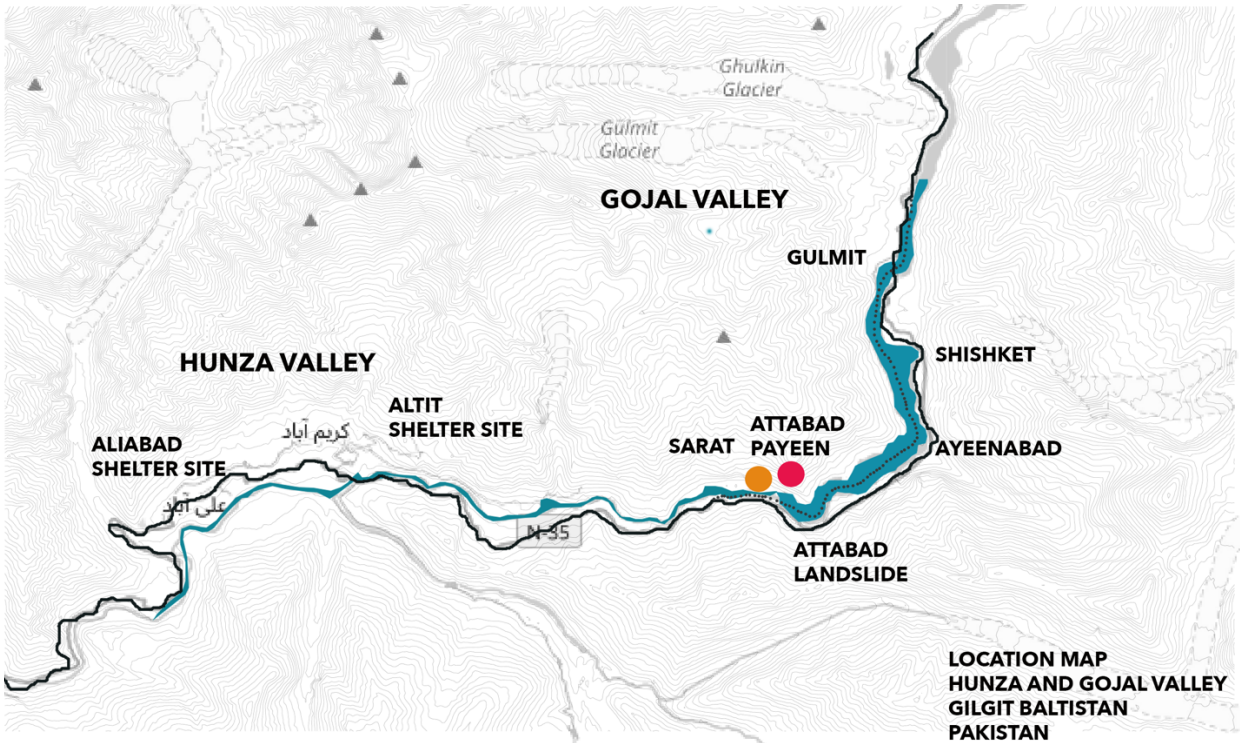

Figure 24. Attabad Payeen wad adversely affected during the landslide and some houses and fields were buried under the debris.

Figure 25. A view of the Attabad Payeen from the jeep road. Photo by Pamir Times.

Located a few kilometres ahead of Sarat village, Attabad Payeen is situated on a gradient slope around two hundred feet above the Gojal River and can be approached after crossing a stream (naala) that often brings big rocks and stones from upstream during rainfall. The village comprises of around twenty households that grow potatoes. There are fewer orchards and 2-5 livestock per family. A considerable area of this village was buried under the debris when the landslide occurred, due to which 17 inhabitants died.

Story 6. Attabad Payeen: It was worse than apocalypse..if anyone would believe me

We walked down the main road from Attabad Bala and reached a pathway going towards Attabad Payeen. After taking a quick rest at the cross roads, we walked down the path and saw two women at the end of the road who inquired about our presence. I briefly introduced my research about the landslide disaster and tried to establish a comfort zone – "we can sit and talk about this over tea if you like", I offered. But there was no mention of tea, they started talking to each other in *Burushiski* language and I could sense some urgency, and we started walking towards the village where we met more women who were asked to join us. By now, I was expecting to sit down and rest a while after the two-hour long hike; I was looking forward to a tea session. But as I followed them, crossing a stream, entering a vicinity of houses and moving beyond that, my thoughts of a tea session diminished as we passed the houses and entered the fields, and walked for a good seven minutes until we approached a barren area, "this is it", the woman said pointing to the ground beneath us. A man who accompanied us, started narrating the event. I was looking at the landslide debris, which was visible due to the land formation, silt and clay hues and the absence of any cultivation or trees. I was overwhelmed, being present and standing on the site. With the increasing sound of river flowing beneath, it was hard to focus on what the man was saying,

> "it was 11am, I was walking down from Attabad Bala and I heard a big sound followed by dust… it became dark… and [he looks towards the sky] there were trees and stones brought by the wind(air), it was worse than apocalypse, I couldn't hear anything, I could only see my land and house go missing… it was like that… it was like apocalypse… if anyone believes me".

His wife added on to this, "there was dust and a very bad smell… smell of gas… I was thrown to another side of the village, but I am alive… it became dark, we were all covered with dust". I struggled to listen to these stories; there was this man telling his story and there were my thoughts about the debris, the location where the wrath unfolded and blocked an entire river. I was immersed in the sheer presence of the debris and its surrounds. And then it struck me that what the man was narrating was material for my research. I struggled to stay alert as the man and woman told the story with gestures, pointing to different places to help me imagine the event. The method, a story-tour became the site through which their reality of the disaster event was constructed for me.

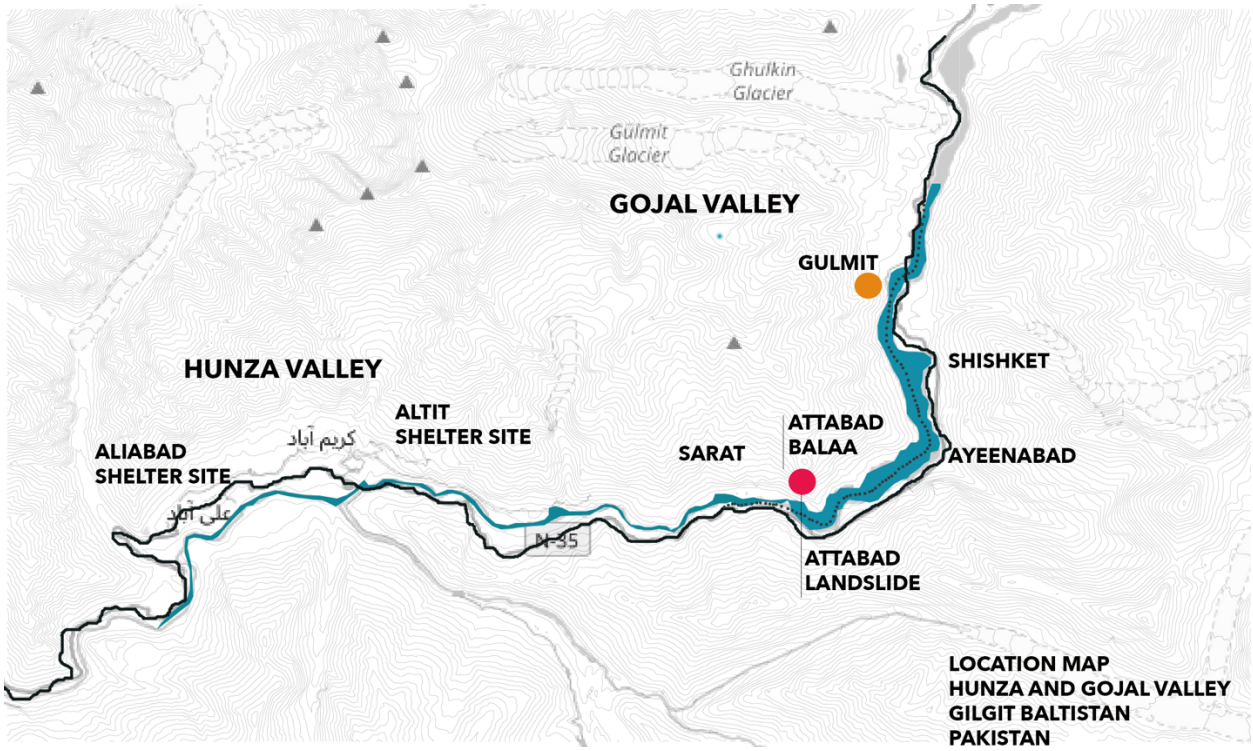

Figure 26.Gulmit is located a few kilometers ahead of Sarat and the central town of Gojal Valley.

Figure 27.The Karakoram Highway (now CPEC), Gulmit town a few meters ahead.

Gulmit is a central settlement of Upper Gojal Valley (population) situated on both sides of Karakoram Highway (now CPEC), and home to Wakhi tribes (population), Gojal District Government offices, health centre and schools which are accessible through tertiary roads, while the main road is lined with a few shops, banks and restaurants. During the Attabad Lake crisis, this area was used as docking station for boats. Trucks of goods coming from China were off-loaded here and shifted to boats that took them to the other side of the Lake. Gulmit's road link was re-established with the rest of the Gilgit Baltistan province on 1st September 2015 when the Chinese tunnels were completed, and the Karakoram Highway was resumed.

Story 7. Gulmit: traditional land divisions save the game

As we entered the village, we saw a few shelters enclosed by a boundary wall next to a newly constructed house. I was invited into a house where a few women had gathered for tea. Since women were already having tea, I decided to join them in the conversations. By now, I had learnt that it was okay to let go of the mapping exercise, so I introduced my research and gradually they started recollecting their memories and sharing stories. Prominent details included how the rising waters made them shift to higher land and they lost significant number of trees to the lake. Some women said, they could see the water rising but did not think it would reach their land, until it did, and they had to shift out quickly. I was tempted once again to capture this onto a map, I asked the women if they would be interested in making a map, to which they agreed, and we moved inside to begin the mapping exercise. The map began with sequential mapping and a unique mode of displacement became visible through this map owing to the pattern of land division in Gulmit. Families own patches of land that are spread across the sectional/profile of the mountain foothill allowing them to use the lower part of the land for their house, which is also closer to the road, and the upper part of the land for cultivation, where most families have built small temporary houses. When the water started rising, the families shifted to their temporary house located on the upper part of the land. In this sense, the disaster affected this village in a different way. I also noticed how the disaster was referred to as a past event, and that was probably because, at the time of my fieldwork, there were no IDPs in Gulmit; displaced families had built a house from the Disaster relief fund and settled in since 2013. Moreover, the road link was established in 2015.

Since Gulmit is a central town in Gojal Valley, it gave me a chance to participate in a group conversation session with a few men to get an insight about the disaster. Here, the discussions mainly focussed on the role of local tribes, community, Government, Military, local religious councils and NGOs in response to the disaster; rescue mission, aid distribution, shelter allotment, lake dynamics, spillway construction, role of media, effect on livelihoods, challenges and opportunities, etc. were all discussed in great length. Being disconnected from the rest of the country down south was mentioned as significant challenge. Moreover, they also discussed their deep knowledge about the geographic placement and uniqueness of this region in terms of hazards and the nature of streams and rivers which they fully understood; knowledge that was new and not fully acceptable to the engineers and scientists that came to assess Attabad landslide and lake condition (Fieldnotes, October 2016). Alongside this, certain peculiar details were also mentioned, "the dogs are such a nuisance, we never had any dogs here until the Chinese arrived to make the tunnel, they brought dogs – now the Chinese are gone but they have left the dogs", a notable issue only for the locals in Gulmit and Shishket. This session gave a comprehensive overview of how the locals perceived and analysed the disaster event in terms of lessons learnt, challenges and opportunities, in addition to how they managed and dealt with it locally. The depth of knowledge and analysis also highlighted who had access to information and how knowledge was produced and appropriated amongst the local men. While women narrated the every-day-ness of their situation and condition of how they tended to make to and live on, men demonstrated their grasp on the larger picture positioning the disaster as an event that ruptured their lives in a specific time frame.

The stories and descriptions from the seven sites, set out to demonstrate the different entities that were recognised in the field and the different ways in which the disaster was present and lived on. Through these encounters, it can be discerned how the disaster multiple was produced, experienced, responded to and governed by different entities giving rise to a range of different practices and processes that were unique to each site and its conditions. It also shows the diversity of impact in each site where material entities such as land terrain and land division played an important part in how the disaster was experienced by different entities. For example, Shishket residents lost their entire land to the Attabad Lake, however, Gulmit residents were in a position to shift up to their temporary houses. Likewise, the shelters in Aliabad had very different dynamics to the shelters in Altit, therefore a closer insight elaborates how different kinds of practices were employed in order to make do and live on, as well as how space in shelters was managed and negotiated. The disaster multiple present in these descriptions allows us to attend to the difference across these sites giving a deeper insight to how we might understand displacement, rehabilitation and recovery. For example, the term IDP is used for people affected by the disaster; however, these different sites suggest that the IDP is a homogenous term that fails to capture the dynamics and complexities of how affected people are negotiating and managing the post-disaster landscape. Lastly, the thread which moves across these stories and descriptions elaborates the method adaption in each site and how the mode of engagement has to be carefully negotiated in order to stay committed to an open-inquiry.

4.3 Postscripts on an open-inquiry

The above section aimed to describe particular engagements in the field to elaborate not only the methods used in field and the accompanied challenges, but also to highlight the kinds of materials produced and themes that emerged in different sites (geographic location). Each story is embedded in its field and entailed a particular mode of engagement. An open-inquiry approach not only enabled an engagement with the field but also allowed the non-human and material entities to partake the research. These entities emerged through observations, conversations and drawings and while walking in the barren silt scape and hearing the creaking dead trees, and when the landslide debris would not let me listen to the old man's story, or when tea would stage conversations around it. These entities also became evident in the drawings that highlighted farmlands and animal shelters, or boulders, rocks and trees that occupied a certain position in the physical landscape and its associated imaginaries. The material entities also became present in the observation of spatial/architecture patterns, for example, how relations were managed through the arrangement of the stove and chimney in a shelter at Aliabad site; between culture (hosting guests), material (CGI sheet) and environment (cold winds). Some of these material and non-human entities were vibrant and demanded attention, while others lingered on the margins, such as the dogs left by Chinese builders. Research was carried out by observing and engaging with the shelters, abandoned boats, submerged houses, dead trees, silt, rocks and debris experienced by listening, smelling and feeling, by being present in field.

In line with the open-inquiry approach, engagement entailed embracing things and actors with their environment yet not pinning them in a frame or context but observing their practices, stories and aspirations. This posed a challenge to the fieldwork schedule such as considerable delays to the daily research schedule and detours from the planned research inquiry, but it made critical contribution to the inquiry. For example, the mapping activities in Altit shelters took more than a week because each activity was followed by hour-long tea sessions; however, it gave an insight to the subtle relations between women in terms of sharing food and chores. During fieldwork, open inquiry demanded several kinds of engagements, such as walking with the actors physically in their spaces as they go about their daily practices, or producing circuit and seasonal maps, or merely following them through their stories. Through my methods, I tried to follow practices, spatially and temporally; how communities carry out their social, economic, cultural and religious obligations and aspirations within the given or imagined environment. Producing circuit and season maps gave an insight to their sense of place, identity and belonging and enabled me to follow actors through their daily and seasonal routines. In certain instances, listening became a form of following actors through tone, pitch and plot of their stories and conversations (usually evident in tea sessions or tours). Other times, the voice in my head deafened me to their stories (recall Story 5). In most of these instances, open inquiry required constant negotiation, between what is being given to me in the field and what I set out to take from it. Two challenges that I faced in conducting an open inquiry are mentioned below.

4.3.1 Difficult to 'let go'

The first challenge which can be read across the stories is the difficulty of 'letting go'. Although I tried to stay open in terms of the modes of engagement, I struggled with 'letting go' during the process, for example, my constant efforts to make a neat or somewhat complete map with community. An open inquiry operates within conditions of control and power relations (how it is distributed within research engagements), silences and lapses (of not getting access). One is always in a certain position or a location, which comes to bear upon the methods and modes of engagement. There were different kinds of issues that I had to tackle as a researcher while attempting to conduct an open inquiry. In certain instances, I held on to my questions and tried to keep conversations focussed so that my questions were answered; this typically happened during conversations with government or local council officials due to the time constraints and what they expected of me. In this sense, mapping allowed more freedom to digress between the issues highlighted. However, I had not realised that the methods I used could be adapted and transformed in such different ways, or even discarded. For example, circuit and sequential mapping exercise was adapted and transformed at each site, highlighting different issues and stories, but at one site, it was discarded for a tea session. Points of transition in the method were exciting and I felt as if I was treading on the peripheries of my method and staying open, but when the mapping exercise was discarded (recall Story 3), I felt I had lost an important ground since mapping was anchoring the research in different sites. This sense of anxiety and loss of certainty accompanied me while I adapted the method until

I began to get comfortable with the idea that 'tea sessions' worked, and they usually came to rescue during engagements in the field. Yet again, I was taken out of my comfort zone when a tea session could not have been more awkward (recall Story 4). One has to be cautious that while you may set out to do an open-inquiry, there are instances when one begins to construct frameworks that protect and streamline the research. Throughout my field research, I realised how I kept building some kind of protections (recall Story 1) around my questions, methods and techniques to achieve a sense of stability and certainty, but to conduct an open inquiry, constant negotiation was required to genuinely attend to situations I confronted.

4.3.2 Taking more than one position

Another important aspect in conducting an open inquiry is the kind of positions one has to assume in a particular situation. For example, whilst engaging with the institutions and organizations' staff, where I was bound to get rehearsed information, I tried to slow them down and became Stengers' idiot who gave unruly prompts; disrupting the flow of conversation and putting them in positions where they had to wonder and speculate. At other times, for example during tea sessions, my role became that of a moderator; to elicit varying conversations, release triggers where required and create a space for expression. The role of the idiot was different from that of a moderator. The idiot posed a challenge to a dominant narrative, while the moderator would lend support and encourage respondents to continue sharing their narratives. However, these positions overlapped in some instances as well. For example, at Aliabad shelter site, while the respondents in the Shelter felt challenged by the questions I had prepared in the form, they were encouraged to respond and say something different about the disaster event. And during mapping exercises in Sarat or tea session at Shishket, I moderated the engagement to probe deeper into the themes of the conversation.

Alongside these, I also inhabited the position of a guest since there is a rich culture of hospitality in the Hunza Valley and Gojal Valley. Host-guest relations played an important role in my research. This hospitality allowed me to go into houses and communicate with the local people. But a deeper insight elaborates how these engagements were laden with emotions, power and cultural and social norms that subtly dictated the methods. This is evident in my encounter in Shishket when I was burdened with the hosting women's hospitality and had to discard my mapping exercise to embrace a tea session. I was treated with great respect in terms of my identity as a 'guest' in their house; however, my identity as a 'researcher' was completely undermined as the locals silently refused to engage in any conversation related to my research inquiry. This entailed a difficult negotiation; being a guest and a researcher, between the three cups of tea and failed conversations. In Attabad Bala for example, I recognised my responsibility as a guest; it was not the 50 odd minutes of silence but rather the three cups of tea burdened with their hospitality, which signaled me to disengage and move on to the next site without having gathered any material for my research inquiry. In this sense, an open inquiry in a host-guest context offers unique challenges; ethics of hospitality in Northern Pakistan allowed me to go into houses and

communicate with the local people but the open inquiry depended on following cues of the hosts. So, while you may get access, there is no guarantee you will acquire the material from the field site. An open-inquiry requires the researcher to assume different positions that can be multiple, even conflicting, therefore careful negotiation is required in keeping in view the demands of the situation we confront.

As Stengers has already warned that cosmopolitics requires experimental research that is always indeterminate and accompanied by uncertainties (Stengers, 2011), my fieldwork shows that this uncertainty is not only tied to our research questions as was implied in the third chapter but also relies on the ethics of encounter. The ethical relation was activated when one chose to welcome or not and to what degree into one's home. Encounters moderated by hospitality can be uncertain as they operate within certain constraints and 'remains forever torn between complete openness and degree of closure' (Bulley, 2015, p.188-189) for the host as well as the guest. Within a research environment, the notion of hospitality lends power to both parties in a particular way and a constant negotiation occurs between being a guest/researcher and the host; to deal with what Is sought, offered, accepted and followed. Therefore, an open-inquiry operates within certain constraints where we embrace strangers in our encounters through particular methods, and there is no guarantee that they will bring what we seek.

Open-inquiry can be useful in a messy and ambiguous environment that does not seemingly operate in systematic or structured manner, where we feel we do not really get what is happening, or where things do not exactly fit as they should. It allows an attention to the diverse set of mediations and chains of association through which things emerge in a dis-organised landscape. We began with a focus (a daily circuit) and spread out to capture the relations that entangled practices to spatial arrangements and objects in a shelter site. For example, in the daily and weekly circuits some IDP divided their time between the shelter and lands in ways that might not always fit the harvest calendar (growing and harvest times spent at land and winters in shelters), so what else was happening (migrations for jobs/study/exploring other livelihood options) and how might that relate to processes of rehabilitation and resettlement? The task was to surface these practices and processes that were made present and absent (Law, 2004) as each method brought a certain reality to the fore. But more than the method, it was my position in each situation that enabled the production of research material. On several occasions, open-inquiry challenged my position as a researcher and I had to negotiate between different positions to generate material for research. Another position that I was to take in the process of fieldwork was reading the material and putting it together in terms of how the materials from the field could be composed to produce the cosmopolitical scape.

4.4 Composing the cosmopolitical scape of disaster

In this section, I will discuss how the materials from the field were composed to produce a cosmopolitical scape. As discussed in the previous chapter, a cosmopolitical scape is where each actor has the right to influence the

construction or 're-description' of the post-disaster landscape. Therefore, materials generated from the accounts, narrations, conversations and engagements in the field must compose the cosmopolitical scape. Since the materials existed in various formats, this composition is a difficult task. Conversations, drawings, photographs, Fieldnotes, and narratives are materials that assemble the cosmopolitical scape, but they also tell a story of the disaster event. The variety of accounts, narratives, processes and practices encountered and observed in the field elaborate the different forms of actualizations of disaster event. Narrations express a rich account as they were layered with interviewee perception, emotions and memory of the disaster event – and observations in the different field sites offered a deeper description of sites. Information collected through documents and interviews with experts and officials revealed more accounts of the disaster event, but through a different register, that of the protocols followed by the State and NGOs. Multiple overlapping realities produced through these registers might not necessarily cohere and is a difficult process to reconcile with (Law, 2004).

The materials consisted of transcripts from the conversations and my observations and reflections. Alongside these, there were photographs, videos, maps, forms, documents and embroideries. I struggled to find ways for assembling the material together to 'think with' and 'think through' it. The first task was to see the range and variety of the material hence I decided to put it together on one surface (Appendix iv). This was a big sheet of paper and I started by drawing a map of the valley to show locations where the research was carried out. Narratives, stories, observations and materials were attached to the sites and assembled on the map highlighting villages, lake and the landslide. I listened to the recorded conversations and read through my Fieldnotes, and wrote it down on the map. Some conversations were not tied to a geographic location – hence those were written down on one side of the sheet. I could not add all the transcripts but bits and pieces from each conversation to this composition so that it seemed to say 'something' about the construction of the disaster landscape. I was already sorting and omitting the materials – but in a way that responded to the questions: 'how communities build their lives in post-disaster scenarios', 'how is life held together' and 'in what ways is the disaster present in each site'. The challenge was to come to terms with the fact that the materials would be omitted and organised to illicit something and the task was to see how I can best narrate what occurs in a post-disaster landscape. Macro, meso and micro-level analysis of spatial arrangements were useful in determining the entanglement of landscape, practices and living patterns and how they respond to concepts of resilience and rehabilitation. Moreover, circuit and seasonal mapping embedded with local narratives and observation highlighted the different practices that communities perform in order to make do and live on.

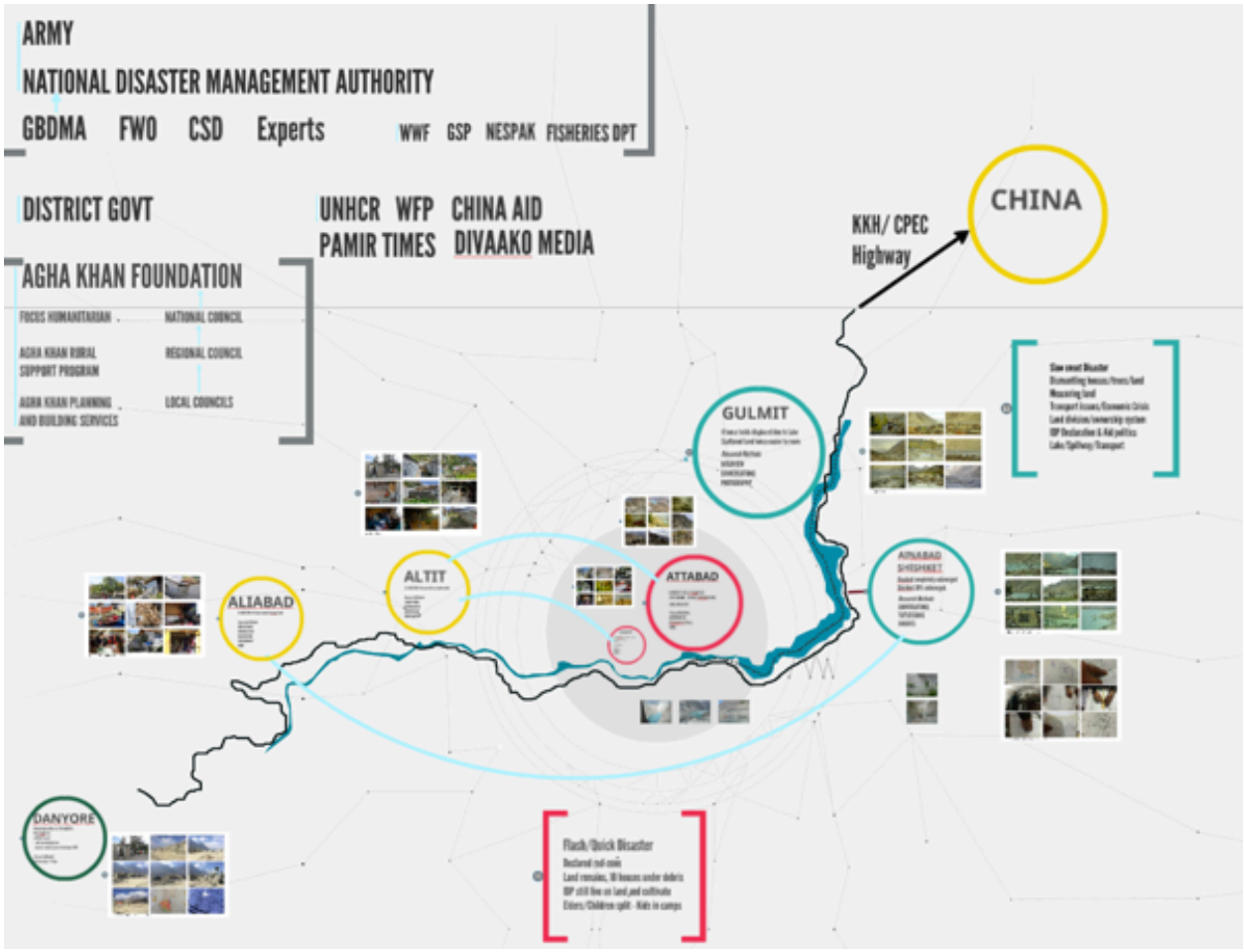

Figure 28. Configuration 1 showing geographic sites and methods adopted in each site. See Appendix iv.

While research material was assembled together in different ways to understand how certain processes and practices emerged, two notable configurations derived from these are spatial and temporal. At the first glance, the significance of the geographic locations for the kind of themes that emerged from each site became evident. Each site illustrated that there were different priorities and concerns for communities based on their geographic locations. This included the terrain and land use, proximity to the landslide and lake, the ethnic and tribal identity as well as connection to the main highway. Each site seemed to be dealing with a different set of problems; the disaster was not one, it was multiple. Attabad Bala where the land had slid down experienced one kind of disaster, while Attabad Payeen where the debris fell experienced a completely different one. The disaster in Shishket came slowly, as the water started rising and engulfing fields and houses. Each site experienced a different kind of disaster and this had effects on how the response was generated. The task became even more tricky – to see how one dealt with not one disaster, but many, and each with its own temporality. This led me to compose another configuration of the research materials to highlight the different temporalities of the post-disaster landscape.

The temporal configuration was developed to illicit the different temporalities of the disaster experienced in different geographic sites across the years, months and minutes (Appendix v). This configuration shows a

timeline of the event derived from stories told by the affected people and documents obtained from the NGOs and DMG office, showing how the disaster unfolded in different sites. Temporal configuration is layered with snippets from circuit and seasonal mapping eliciting multiple temporalities transpiring in post-disaster landscape. Sequential mapping is also embedded in this configuration describing the different ways in which response to the disaster was generated in different geographic sites. Interesting to note is that the event has a different timeline for the actors involved and affected within communities and organisations depending on their professional capacity and role in the disaster event. For example, the timeline of disaster varied across the different communities undermining dominant timeframes that were presented by one particular organization.

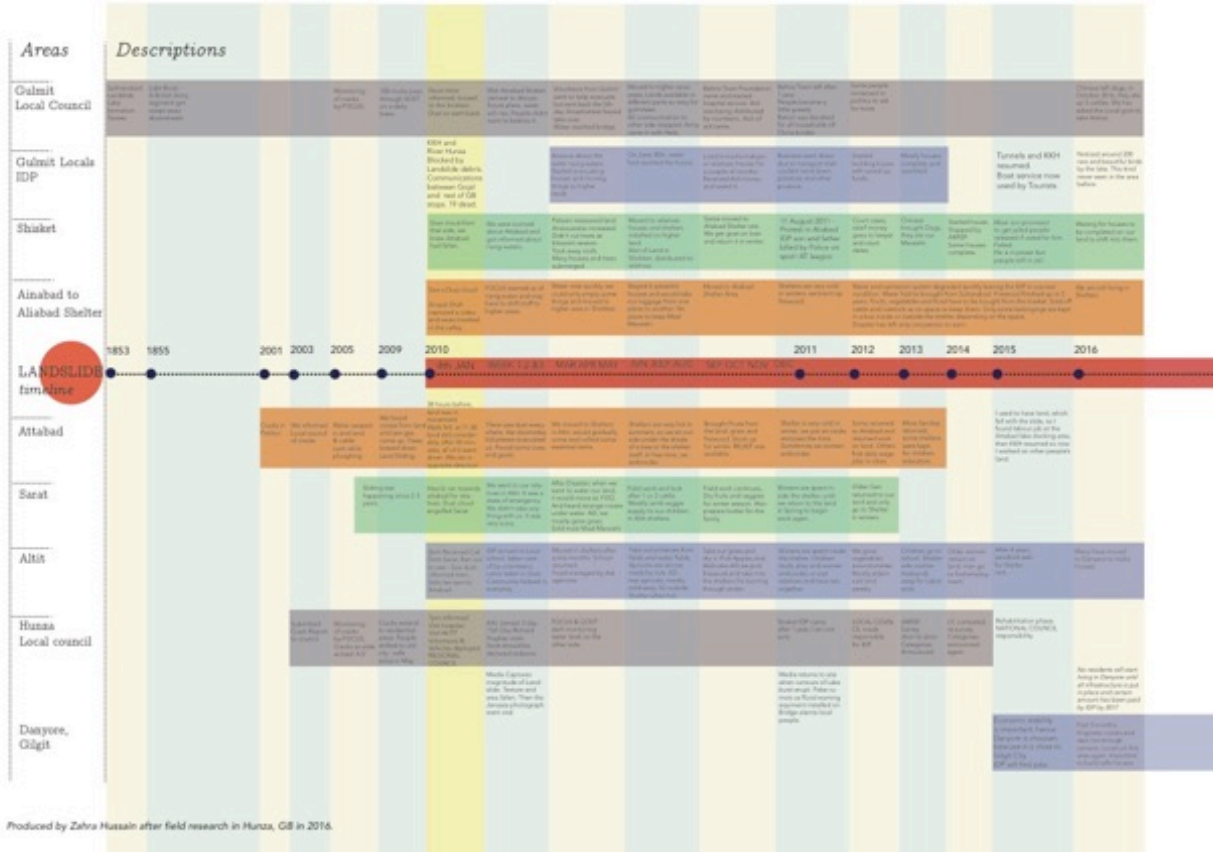

Figure 29. Configuration 2 showing sequence of events and daily and seasonal activities. See Appendix v.

Another configuration that I composed alongside temporal and spatial was a collection of photographs taken at different sites. Through this I wanted to highlight the different forms in which the 'materials' composed the cosmopolitical scape of the disaster. This included the sheer presence of the debris and silt-laden landscapes as well as the temporary shelters installed on different sites and the configurations of spatial arrangements in the resettlement site. Moreover, these photographs show the entangled relations between the materials, spatial and social environments allowing us to probe deeper into these relations to understand how life is organised in a post-disaster landscape. Alongside these configurations, the writing of this chapter also became an exercise in composition that went through several rounds of editing in order to best describe what occurred at the sites

and what emerged from fieldwork. The overall fieldwork and configurations composed from the research materials explore the diverse ways in which lives, and landscape are mediated and organised through various interrelations in the post-disaster landscape.

4.5 Concluding Notes

The nature of my fieldwork can be described as series of pinhole cameras installed in different situations to slowly capture and expose scenes from the post-disaster landscape, illuminating the obvious and evident as well as the subtle and discreet. Slow exposure is able to capture movement, dislocation and disturbance in a scene lending 'depth of field' to the image produced. In this, a camera's lens focusses on a single point, there are areas that stretch in front and behind it – this zone is the depth of field. An open inquiry too, may focus on specific points but it ventures forth to capture the depth of field in order to understand the relations that constitute a particular condition. However, an open-inquiry comes with its challenges, as described in this chapter. One cannot be entirely open to the situations they confront; there is always some positions that one has to assume as well as highlight particular themes which may not include each and every entity that says something to the collective. Alongside this, an open-inquiry also depends on the openness of the actors and entities being researched with as they might not want to talk, share or have anything to say to the research. The difficulty of 'letting go' always accompanies one in the field, hence the encounters in an open inquiry are defined by these negotiations. Therefore, an open-inquiry can most certainly be done in many different ways, and this chapter aimed to describe my journey in an attempt to conduct an open-inquiry in the post-disaster landscape of Hunza Valley and Gojal Valley.

An open-inquiry can be best understood as a sincere attempt to engage with multiple entities and their environments in order to attend to the subtle practices, processes and linkages that constitute a particular condition. During the composition of the post-disaster landscape, the depth of field can be identified in the themes that address this thesis; how affected people hold things together in midst of fragility, crisis and displacement and how the disaster remains present and continues to live on. This depth of field is loosely organised in the chapters that discuss the empirical materials generated from the fieldwork. These chapters intend to probe this depth and tease out the linkages between different accounts, narratives and materials to understand how the event is actualized in a post-disaster landscape. These chapters may be seen as other compositions of the cosmopolitical scape that highlight a different description of the disaster event. In the next chapter, materials from the registers and multiple sites of knowledge production will be analysed in terms of the practices of everyday life that hold the post-disaster landscape together.

5. Practices of Correspondence

This chapter seeks to understand how the post-disaster landscape is 'held together' and reconstructed through processes and practices carried out by the affected people of Hunza Valley and Gojal Valley. This includes practices and processes initiated by affected communities for continuing everyday life process, keeping aspirations and a sense of identity alive in a seemingly tenuous environment. It requires paying attention to how the torn fabric of everyday routines and socio-economic relations are mended and patched up and what kind of socio-economic fabric emerges from this. In this sense, the chapter asks, what kind of practices do the affected people in Hunza Valley and Gojal Valley adopt, abandon or morph in order to hold life together – and what is lost, gained or maintained in the process? Specifically, it is to observe how actors and entities establish relations with the material, social, economic and cultural environment in order to make conditions fit for living and moving on. Therefore, it pays attention to the kinds of practices such as improvisation and experimentation that are employed in the post-disaster scenario. This will lead to an understanding of how post-disaster landscapes emerge from and are organised by the subtle practices of everyday life across shelter sites, Red Zone areas, reclaimed lands, and resettlement housing project sites.

In order to attend to these practices, I will use the concept of 'correspondence' as put forward by Anthropologist Tim Ingold (2017) to illustrate how this fragile landscape is being managed and how life is held-together in conditions of displacement through the practices of 'correspondence'. The concept of 'correspondence' is discussed as the act of holding things together in a *sympathetic union* in movement and time amongst the entities and constituents that exist and *move along* in a force field (Ingold, 2017, p.68). This chapter will begin with presenting an encounter from the Aliabad Shelter site and move on to discuss Ingold's idea of 'correspondence' and how it enables us to observe the 'making' of post-disaster landscape. I will unpack the concept of correspondence particularly in relation to the fragile environment of Hunza Valley and Gojal Valley. Following on from this, the chapter will illustrate how practices of correspondence are adopted by the affected people and

can be traced in different sites: IDP shelter compound, the shelter itself, tea sessions of community women and land use practices, food insurance, livelihoods, etc. Towards the end, the chapter will discuss how viewing the post-disaster landscape through the practices of correspondence can potentially dismantle the conventional imaginaries about resilience and its deployment as a governance framework.

*****

> It wasn't easy finding the way to Aliabad Shelter site; it is not visible from the main road, neither can you locate the distinct hut-shaped silver corrugated units from the tertiary roads leading to it. Only when you're a few steps away, you see shelters lined up and clustered together. The shelter site exists in a compound defined by the surrounding residential area comprising of land and houses with boundaries marked with one and a half meters high rubble river-stone masonry walls. As I walked towards the shelters, a strong spatial pattern became visible on the outlook; shelters lined one after the other on two broad terraces separated by three meters ground level difference. Looking almost identical, the shelters are constructed on a one-meter high stone masonry base, followed by walls of corrugated steel sheets. A rustic silver storage box and a blue PVC water container can be found beside each shelter's door. A patch of flowers and vegetables lined with water cans are visible in the small front yards. Water storage seems to be an important issue here. Spatial arrangement and the stone masonry base of the shelters emanate a sense of organised permanence in the shelter site.
>
> A woman sat in her shelter doorway doing embroidery in the sun, while an elderly man is tending to the vegetable patch in front of the shelter, it was 11am and the sun was bright. Upon their invitation, I enter the shelter and there is an instant variation of light from the outside – the shelter is dark. I am asked to sit on a cushion in the middle of the room, while the host seats herself in behind the stove, facing me. I settle on the cushion and look around - the cooking area is nestled in one corner and bedding and quilts are folded and stacked on the other side. A wooden cupboard stands in the corner decorated with crockery… most probably brought from their Shishket house. Walls of corrugated sheets are decorated with pictures and embroidery frames, paper cut flowers and some school bags and hooded jackets hung from hooks. This family has moved from Shishket after their land was submerged in the lake in June

2010. It is 2016 now, seven years since the disaster. When I asked about her experience of the disaster, she remarked sourly,

"the unfortunate incident has left just one person to earn in the family".

She described how each member of her family was involved in land and pastoral activities such as keeping livestock and farming, before the disaster event and displacement. However, now the man has to go look for a job and the women stay in the shelters and tend to children and housework. I asked about the embroidery work she was doing, to which she replied,

"This is just to pass the time, idara wala (Ismaili local council) taught us to make this, I try to beautify this place.. every year, but the shelter still doesn't look beautiful."

The efforts to the make the shelter beautiful is also evident from how she has used decorated the crockery shelf. I ask about this heavy shelf and how she transported it, to while she responded,

"We had nowhere left to keep our belongings, so I brought the necessary ones here, I lost a lot of things too, like carpets and rugs which we kept in other houses in Shishket when we were displaced, but we cannot do anything, whatever is left we brought here eventually – but I try to make space and save things because it difficult to store everything in a small shelter."

During this time, she is making tea and another woman enters with a bunch of spinach leaves, she quietly places them near the stove and sits down beside me. I am introduced to her by the host as someone carrying out research on Attabad Disaster. She looks at me and says,

"its all gone, what's the research for? We are in a poor condition", she pauses and sips her tea, and continues, "we had so much land, orchards and livestock - now even the sun and rain have become a nuisance, .. she sips more tea and continues. .. in the shelters it becomes very hot in sunny days and very noisy during rain, no place to sit or relax, if it rains at night then forget your sleep".

I asked about the grass drying on the roof and they explain –

"it was to cover the roof – for some insulation but that doesn't really help much".

To this the host woman said,

> "it doesn't end here, wait for winters and this place is freezing – it's expensive, we need to burn more fire wood which isn't freely available as it used to be on our land".
>
> She further explained that they cut and brought some of their trees with them as the water started rising and that stock was used up in about four years, now they ask relatives to collect firewood from their land or borrow some from the neighbours or buy it from the market.
>
> (Conversations and Fieldnotes, Aliabad Shelter site, 2016).

Seven years on from the disaster event, this encounter allows us to explore the experience of living in a shelter and the fragile environment that affected people negotiate and live with on a daily basis. This fragility arises from their conditions of living in the shelter itself, as well as, their access to resources such as firewood. Alongside this, a range of different relations are exemplified in this encounter; between the affected people and the shelter, the shelter and seasonal conditions, socio-economic conditions and most importantly the continual efforts to appropriate space for survival. The CGI (Corrugated Galvanised Iron) sheet shelter acts as a basic living unit that is constantly worked upon and appropriated for use; some efforts to work, like storing some of the important belongings, whilst others don't, such as using grass to create thermal comfort. Some efforts remain, such as the desire to make the shelter look beautiful, that adds embroidered frames to the walls and crockery to the display cupboard. Alongside these are the continual efforts to work out storage space for wood and grass collected in summer to warm up shelters in winters. As you move through the shelter sites, you can notice how the void between shelter units is being used as storage space, wooden logs or dried grass can be found in some, while others are replete with pots and pans and weathered furniture stacked and fixed in place. Depending on what is being stored and for how long, it is interesting to note how each void is made fit for a particular use by the affected people.

While shelters may look naturally organised in the first instance, there is a range of different practices that take place in and around the shelters to keep it in order. Continual efforts are carried out by IDPs to appropriate space, conduct everyday lives, and maintain social relations and improvise economic opportunities. These efforts and practices are crucial in the making of the post-disaster landscape of Hunza Valley and Gojal Valley and demonstrate how resilience can be located in the 'practice' of 'making do' and 'living on' the everyday life. These multiple and interlinked practices that attempt to hold life together can be analysed through the concept of correspondence**.** Ingold (2017, p.69) explains correspondence as the act of holding things together in a *sympathetic union* in movement and time. Analysing the post-disaster landscape through practices of correspondence allows us to observe the kinds of relations that affected people establish with the material and immaterial entities in the fragile environments in order to make do and live on. For example, practices of correspondence can be located in the shelter site in terms of how the affected people make the shelter fit for

living in the scorching heat in summer and the freezing temperatures in winter or adapt the space in shelter for keeping and storing belongings. Shelter sites are an exemplar of correspondence; established through different acts of adapting, coping and managing life in a spatially and economically constrained environment.

Hence, this chapter attempts to surface the different kinds of relations that affected people establish within the post disaster scenario particularly because the act of 'holding things together' and 'keeping life going' is a relational process. Moreover, this chapter is also interested in un-packing how within this process of establishing correspondence, certain cultural and socio-economic practices breakdown or diminish in order to make do and live on, and how efforts are chanelled by the affected people to retain certain things or relations, while others are left to disappear. In a post-disaster landscape where social, economic and cultural process of life and living have been dismantled in different ways, people establish a series of correspondence to achieve a measure of stability, 'fixing things and attempting to arrest the processes of consumption and decay' (Barber 2007, p.27). By identifying the practices of correspondence, we can also analyse how in the process of making do and living on, certain modes of existence and way of being in the world are persisted and negotiated under the regulatory pressures introduced by different organisations in the post-disaster landscape. Here, correspondence is enacted by different actors through negotiating or employing improvisatory techniques to overcome a constrained environment, by resisting top-down regulations issued by NGOs, or adapting to the transformed landscape in varied ways. Practices of correspondence thus allow us to engage with the multiple ways in which the fragile environment is navigated by different entities binding material and immaterial entities in an interminable weave composing the post disaster landscape.

5.1 The Practice of Correspondence

The concept of correspondence has been discussed in considerable detail by the Anthropologist Tim Ingold, who opens up it up as the 'coupling of movements that, as they proceed, continually answer to one another' (Ingold, 2014, p.383-395). Correspondence is like a conversation, but one that occurs in a field of relations. These relations can be social, cultural, material and emotional that are woven together in movement across time. Correspondence occurs in continual movement and unfolding of space and time, rather than static entities relating to one another from fixed positions, (Ingold, 2014, p.390) therefore requires a 'coordination of perception and action, between the movement of the practitioner, and the movements in the world' (Ingold, 2013, p.312). To explain this, Ingold (2017, p. 120) introduces his 'attentive walker *who* tunes his movement to the terrain as it unfolds around him beneath his feet'. In other words, it is about 'aligning one's own on-going movements with those of one's surroundings' (Ingold, 2013, p.312). Varying degrees of attentiveness and care are required in different situations where you are able to attune your movements to the dynamics of the other and vice versa which requires living 'attentionally with the other' (Ingold, 2014, p.384). A correspondent's gestures and dispositions are 'attuned to the multiple rhythms of the environment as soon as

he is 'launched into its current' (Ingold, 2013, p.308) therefore, correspondence is relational as it transpires in a field of relations depending on the responsive capacities of the entities involved in order to develop a sympathetic union (Ingold, 2017, p.68).

Ingold (2016) explains that correspondence operates as a 'harmonic concordance' between the constituents as they move along together through a force field (p.12). This harmony and consistency are built up over time requiring continual effort to work though the frictions, resistance and possibilities offered by the corresponding constituents. He gives the example of a crafts person who follows the material in order to produce a product out of it. This means working with the frictions, resistance and compliance of materials and in response, the material too, bends, moulds and morphs. In this sense, the material speaks back to the maker. Ingold takes the example of a carpenter sawing wood – while the tool has a specific configuration of blade and the strokes of saw look identical, but each wooden piece cut from this saw will look slightly different, depending on the grains and knots that make up the wood and the skill of the carpenter lies in his ability to constantly improvise (Ingold, 2011, p.216-217). Here, the carpenter is an itinerant, who improvises his movements to follow the material, and his skill is found in the 'ability to find the grain of the world's becoming, and to follow it, while bending it to their evolving purpose (Ingold, 2010, p.92). This is achieved through careful practice of being able to correspond with the contextual, social-cultural and experiential environment. As they move together in time, the actions and dispositions of response are not entirely new or invented; rather they attune 'to the conditions of the present and speculatively open to the possibilities of the future' (Ingold, 2014, p.390). In this sense, correspondence is a continual reciprocal movement that does not radically break with a past or create a precise future; it attends to the present with a desire to proceed within the given conditions, textures and typologies to weave possible futures.

In this continuous movement and resonance with material, social and textural conditions, the field too is always in the process of continuous generation; resonating, blending, binding, exposing, degenerating, composing and decomposing as constituents correspond. Approaching the post-disaster landscape through the practices of correspondence thus surfaces how the landscape is affected and shaped through the relational processes morphing each other as they move together in time. In this sense, practices of correspondence are aligned with the 'processual' and 'becoming' temporality of the post-disaster landscape, as argued in Chapter one and Chapter two. The concept of correspondence allows us to move away from the perturbation and dampens the disruptive intensity of the event (landslide and its aftermath, displacement) and instead surfaces how actors establish relations for continual movement against the disruptions, ruptures, frictions posed by the post-disaster scenario. Correspondence aligns with the on-going and 'emergent' nature of post-disaster landscape and any notion of 'change' and 'transformation' is not attached to a rupture but understood as a process of 'becoming', blurring causal relations between before and after.

The process of correspondence helps us to depart from associating change and transformation with rupture, and, instead allows us to attend to the subtle processes of actualization. Practices of correspondence are show how past (skills, strategies, relations, typologies) seep into the processes of everyday life, allowing it to find its way into the future. It allows us to observe how past lives, practices and processes are carried forward, made present and kept alive. This relates to how things continue to exist or are made to exist. Moreover, practices of correspondence allow us to attend to the different entities (human, material and immaterial) that are brought together in order to compose the post-disaster landscape. The concept of correspondence lends the vocabulary required for attending to the labour of making do and living on carried out by affected people who employ particular kinds of practices and establish certain kinds of relations with their environment and situations in the post-disaster landscape. Ingold's correspondence is closely aligned with the notion of 'harmonic concordance' between the different entities and environments as they move along in the force field (2016, p.12). However, the fragile conditions of the post-disaster landscape are far from harmonic, therefore, it is interesting to explore how correspondence occurs in challenging conditions? It also brings forth another set of questions such as: through what mechanisms do affected people survive in fragile conditions; What modes of relations do they establish with the challenging environment; And is the result of establishing correspondence always harmonic? Attending to practices of correspondence in fragile conditions will not only show how affected people keep life going, but also highlight what is significant for the affected people, their priorities and aspirations for composing the post-disaster landscape.

5.1.1 Correspondence in Fragile zones

In a post disaster landscape, the concept of correspondence can show how the actors and entities move together; along and across the site of disaster. This involves re-weaving relations between disparate actors, entities, materials, typologies that are disrupted and dismantled in the post disaster landscape. Some of these challenging conditions and efforts to establish a sense of control is exemplified in how people in Gojal Valley navigated the lake and landslide debris to re-connect with Southern part of the region. I had visited the landslide and lake site in June 2011 when the FWO was preparing dirt roads on the landslide debris for jeeps and trucks from Hunza to access the lake. From there on, passengers and luggage were transferred onto the boat in order to cross the lake and reach settlements of Shishket and Gulmit in Gojal Valley. A similar pattern was followed in Gojal region; loaded trucks from China would off-load material at the Lake site, which was then loaded onto boats and taken to the other side where empty trucks were loaded once again to transport good to the South. Movement through the lake was also affected by climatic and seasonal conditions either prompting Seiches or temperature variations in the water causing it to freeze. Journey time between Hunza and Gojal that initially took about forty minutes was prolonged to around two and half hours due to the landslide and has now been reduced to around half hour due to the tunnel roadway built by the Chinese Government. Presence of landslide debris and lake disrupted contact between Hunza Valley and Gojal Valley, but through constant efforts of

working with the constraints, the locals, effected people and stake holders established transportation link across the lake connecting Gojal Valley to the Southern regions in order to continue vital life processes in the valley. This process of establishing correspondence involved a range of different activities; introducing boats in the lake, cutting out a road on the landslide debris and shifting crops from perishable potatoes to wheat. In this sense multiple practices that were adopted in order to manoeuvre the landslide debris and Lake and re-establish physical and economic linkages can be termed as the 'practices of correspondence'.

The challenges are not only limited to mobility in the valleys, but also displacement of communities from their homes and land who live in temporary shelters. Practices of correspondence seek to establish a semblance of control in a fragile environment that is susceptible to socio-economic and cultural fissures, fractures and breakdown. My interest in analysing the everyday life in shelter sites through the concept of correspondence is specifically to analyse in what forms 'life is held together' in a seemingly fragile and un-sympathetic environment and how correspondence occurs in conditions of crisis and displacements. I am interested in observing the practices of correspondence that affected people employ in adverse conditions and hostile environments, for example, when the winds and rains are against them, how do they pacify and lull the extreme intensities to produce conditions favourable for living. While ingenuity of affected people in adverse conditions in not a new site of study, I am particularly interested in the kinds of correspondence affected people establish with their environment and what kind of a landscape is constructed through these. The next section builds on this by unpacking the concept of correspondence in fragile environments and presents theoretical frames through which we can address the practices of correspondence in the post-disaster landscape of Hunza Valley and Gojal Valley.

5.1.2 Correspondence as acts of improvisation and experimentation

The idea is to understand how post-disaster landscapes are continually shaped and held together by the multiple and disparate practices of affected people. Correspondence is an act of establishing relations with the environment and it is important to highlight that these relations can be of different kinds depending on the contextual environment and the situation at hand. The focus on the practices of affected people is primarily due to the temporal frame in which the field work is carried out, i.e. seven years on from the disaster event when most intervention projects, aid packages and compensatory schemes have wrapped up and run out. And yet, the IDP of the Attabad disaster continue to live in shelters without a seemingly steady source of livelihood. Therefore, practices of correspondence have a close relation to the concept of 'bricolage' as the '[the making] do with "whatever is at hand" . . . [to address oneself] to a collection of oddments left over from human endeavours' (Lévi-Strauss, 2004, p.17-19) in order to make conditions favourable for living. The concept of bricolage has been further discussed in the *Routledge Encyclopedia of Social and Cultural Anthropology,* as 'the way in which societies combine and recombine different symbols and cultural elements in order to come up

with recurring structures (Barnard and Spencer, 2002, p.757). Bricolage is an improvisational technique that relates to 'making do by applying combinations of the resources at hand to new problems and opportunities' (Baker and Nelson, 2005, p.333). Anna Dezeuze (2008) discusses how Bricolage is also used by Michel de Certeau in his book 'The Practice of Everyday Life' in order 'to describe the ways in which we engage in the most common activities, including shopping, walking, or cooking. Through these activities, de Certeau explains, 'people 'tinker' (bricolent) 'with and within the dominant cultural economy to obtain innumerable and infinitesimal metamorphoses of its law into their interests and their own rules' (Dezeuze, 2008, p.33). In this sense, agency of actors is inherent in bricolage, where it is exercised by improvising the given scenario to fit one's requirement, experimenting with a range of different techniques to see what works, or resisting the regulatory structures while navigating a challenging terrain.

Acts of improvisation have been discussed in the context of creativity and crafting objects, situations and lives as we respond to the environments (Ingold and Hallam, 2007). Improvisation requires an openness to the situation or conditions one confronts and the capacity to generate and sustain lively correspondence in order to proceed in the environment (Barber, 2007, p.29). Hallam and Ingold (2007) explain improvisation as generative, relational and temporal process as one 'cajoles' materials and conditions in order to establish a semblance of control in an on-going process (p.3). Improvisational techniques are operationalised in response to the given context, where it is not merely a process of establishing a relation but establishing it in a particular way that allows one to exercise their agency as they make their way through the multiple forces. In this sense improvisation is an active task, performed through attention and care of actors who employ various skills, techniques and tactics in a challenging environment. Improvisation requires skill and 'sensibility that enables practitioners to respond to environmental perturbations that would throw the performance off course, where it is confined to the execution of a fixed motor program' (Ingold, 2013, p.309). In this sense, improvisation executes two tasks; it puts skill into action in response to the environment and in the process, takes detours as required. In significantly challenging conditions and fragile environments (shelter site as opposed to home), improvisation allows one to familiarize, and achieve some semblance of control. By discussing the practices of correspondence in post disaster landscape, I seek to highlight the various improvisatory techniques performed by the actors to adapt to and improvise the challenging conditions and keep life going.

To survive in fragile and contested environments, correspondence entails the use of particular kinds of practices to make conditions favourable for living. One form is achieved through what AbdouMaliq Simone describes as 'experimentation'; 'the constant re-arranging of levers, conduits and mechanisms for affecting how resources and wealth are accessed, circulated and leveraged, and how value is produced' (Simone, 2016, p.9). Simone explains that in urban environments of Global South, marginalised urban actors continually experiment with conditions to navigate their way through challenges and constraints posed by the city. This involves using varied tactics to negotiate regulatory processes or challenging conditions by appropriating, dis-engaging or restraining

their activities. Exploring the improvisatory techniques employed by people living at the margins of African cities, Simone (2004) explains how they use their capacities and skills to gain maximum benefit from the minimal resources. They do this through social transactional processes as they weave connections to the larger world (2004, p.411). These 'transactional processes' can be seen as a form of correspondence, where improvisation allows one to actively weave the present from a diverse set of linkages, as Ingold explains with reference to correspondence, a 'pattern from ever unspooling threads that twist and loop around one another' (Ingold, 2017, p.61). The marginalised dweller in the African city improvises his actions to circumvent the regulatory processes that define the city. On another occasion, Simone (2013) discusses how urban actors improvise their skills, social networks and material environments and adopt 'plurality of interim solutions' to survive the city (p.2), showing how improvisation allows marginalised urban residents to aspire for better opportunities and futures. Simone's work also shows how actors bring different kinds of materials, energies, skills and resources into relation with one another in order to produce conditions favourable for moving on in constrained environments. Analysing the improvisational economies of Simone's urban actors in the shelter sites of post-disaster landscape of Attabad can aid us in attending to the relational processes that affected people engage in to make do and live on and help us understand in what ways in life is held together by the affected people in the challenging conditions they live in.

The post-disaster landscape of Hunza Valley and Gojal Valley presents different kinds of challenges and fragilities in different geographic sites, seasons and conditions as explored in the previous chapter. In some sites, the displaced people are grappling with issues of living in shelters, while other people are dealing with silted land and dead trees. Alongside this, there are various socio-economic challenges that these people face due to loss of lands and livelihoods. Moreover, this landscape is also regulated through the top-down strategies and projects (e.g. declaring villages as Red Zone area, and resettlement project schemes) initiated by the state institutions and NGOs. Within these challenges and constraints, the affected people make do and live on. It is therefore interesting to analyse the practices of correspondence in a post disaster landscape where actors and entities actively position themselves in relation to the contextual constraints; confinement to shelters which are based on other people's land, living with the absence of homes and lands, dealing with the loss of livelihoods, etc.

In what follows, I will discuss a few sites of correspondence where certain practices enable locals/IDP to govern their everyday lives. These sites can be located in social, cultural and economic processes that locals deal with in their everyday lives. While working with communities affected by the Attabad Disaster, improvisation can be observed not only in their social and economic practices but also in their relation to material environments. The next section will discuss the kinds of correspondence observed in the post-disaster landscape of Hunza Valley and Gojal Valley with a particular focus on these: improvisation of space in the shelter unit, establishing land-use practices in the Red Zone area, ensuring food supplies and keeping socio-cultural practices alive. The

discussion of the empirical material will move between the shelter sites and village lands, in a similar fashion that the affected people move between these two in the quest for establishing correspondence.

5.2 Sites of correspondence in post-disaster landscape

An important aspect visible from the empirics is the different sets of fragilities, challenges and displacement for different actors and contexts. There are various kinds of constraints and aspirations that people are grappling with in the post disaster landscape. For example, IDP living in Aliabad Shelters adopt different modes of negotiation (in the absence of land and trees) while the IDP in Altit (use the land in Red Zone area) have different ways of going about their challenges. Therefore, the practices of correspondence also vary for different actors in terms of how they are establishing relations with their contexts in order to make do and live on.

Let us once again visit the Aliabad Shelter site and see how the spatial arrangement and typologies have been improvised for use in everyday lives of the IDP community. This clustered shelter compound is owned by the Local Council and is significantly different in spatial form compared to the scattered shelters set up on private land in Altit shelter site. While the shelter units provided by the AKRSP are almost identical (minor change in Aliabad site due to stone base) in both sites, the conditions of affected people and the spatial typologies of both sites are radically different, resulting in different kinds of appropriations to fit the shelters for use. I will first discuss the conditions of affected people in both sites in order to highlight socio-cultural and economic dynamics that inform their everyday lives in these shelter sites. There are several ways in which affected people developed correspondence within shelter sites and surrounding environments in order to make do and live on in the given constraints.

Aliabad Shelter site is populated by the affected people from Shishket village whose land and homes were submerged due to Attabad Lake. As water began to rise in Attabad lake, the locals were asked to empty their homes and relocate with their belongings to the relatives' houses on higher lands within Shishket. As the water kept rising for some months, it became evident that locals will not be able to move back into their houses for a considerable duration. In view of this, the displaced were offered the option by Regional Ismaili Council to either re-locate to Gulmit or Hunza; the locals from Ayeenabad and Shishket voted in favour of Hunza because they too, are Burushiski tribe, as opposed to Gulmit in Gojal which is mainly Wakhi tribe (Conversations, Gulmit, 2016). However, the region from Hunza to Gojal is predominantly inhabited by followers of the Aga Khan and administered by the Regional Council and Local councils of Aga Khan Foundation. Another reason mentioned for relocation to Hunza was that locals of Ayeenabad and Shishket felt trapped due to the landslide, loss of communication and uncertainty, and Hunza was located further away towards the South of the landslide. Once the decision of relocation to Aliabad was finalised, the local council of Hunza was responsible for setting up a shelter site for the displaced people. Assessments at the time calculated the displacement to be for a

considerable duration hence the stone-based shelter units were constructed in Aliabad Shelter site. Moreover, the stone base could only be built on land owned by the local council itself.

As opposed to this, Altit shelters were set up in a shorter duration after the landslide occurred, since it was to house the IDP from Attabad Bala Village and the endangered villages of Attabad Paeen and Sarat. The Local Council moved families from these villages mainly to Altit village with a few exceptions to Baltit village. Here, shelters were set up through negotiations with private landowners who agreed to house a number of shelters on their land – some of the shelters were to be occupied by their relatives (also affected from the disaster) while others were hosted as members of the community. The lease agreement between the landowners and shelter dwellers comprised of details such as duration – rental – and that the shelter will be left for the landowners at the time of permanent resettlement elsewhere. Since these people were relocated from the Red Zone area, and their houses and belongings were intact, therefore they only carried some personal items of use as opposed to Shishket and Ainabad villagers who relocated with most of their belongings. As opposed to this, Aliabad Shelter dwellers required more space for of their personal belongings which included clothing, beddings, furniture, cooking ware, wood stacks, etc. because they had lost their entire houses to the lake and hence had more belongings to keep and store. Moreover, the usage of shelter sites itself is interesting to observe in terms of which shelters were inhabited or abandoned, or how a few shelters were improvised to be used as craft or café shops by the affected people.

From the encounter that I presented in the beginning of the chapter, it is evident that there is a range of relations transpiring in a shelter in order to make do and move along together - a sense of correspondence can be observed in the acts of sharing spinach leaves while making social calls as well as in covering the roof of shelters in order to control the temperature. At times, the conditions exceed thresholds of 'harmonic concordance'; the rain splatters on the steel roofs produces horrendous noise, or the amount of food produced in the vegetables patch of the shelter is much less than consumed, and wood stacks that are burnt one after the other without any more to replace them. Rains tend to affect the steel roof sheets and they begin to leak. Over the years, shelters have been appropriated and made habitable through constant efforts of fixing the shelter and maintaining the interior and exterior space within the challenging climatic conditions, seasonal shifts, material deterioration and economic constraints. These conditions demonstrate that correspondence entails 'hanging on' while enduring the difficulties and challenges when things present a dis-harmonic concordance. For example, when the CGI sheet of the shelter's roof heats up in summer afternoons, and the shelter becomes unbearably hot, it expels the affected people to find shade under the neighbour's tree. At such times, the shelter is no more fit for living, until the sun sets, and the internal temperature cools down that it can once again be inhabited.

5.2.1 Keeping, storing, saving belongings

Sites of correspondence can be located in how the challenges around 'storing' items were and are being dealt with particularly by the affected people from Ayeenabad and Shishket who were re-located to Aliabad shelters. This is not only limited to shelter sites, but also how stuff (belongings, carpets, furniture, kitchen ware, beddings) was protected, and stored in the process of displacement. When the water level of Gojal river started rising up after the Attabad landslide, residents of Ayeenabad and Shishket village were asked to vacate their houses. Mapping exercises with locals show that in the first instance, furniture and kitchen items were taken out and kept on a higher ground. Following this, the roof of the house was dismantled. In mountain communities, houses are built in locally available material where walls are constructed of rubble stone and mud masonry. The roof is composed of wooden beams and rafters layered with plastic sheet and mud layer on top. The flexible structure of the wooden beams and rafters allow houses to be dismantled and constructed. In such scenarios, locals construct walls from available material and re-use the wooden beams and rafters for the roof, which also ensures consistent sizing (depending on the length of beams) resulting in houses maintaining a particular pattern. Hence, in the aftermath of the Attabad Disaster, as the locals relocated from their houses in Shishket, they also dismantled the roof in order to save the supporting wooden beams and rafters to be used later. In some instances, the IDP also cut trees in their orchards to save wood for the uncertain times ahead. These beams, rafters and timber too became part of the belongings that each family carried with them. In the first instance, these belongings were carried to a higher ground in Shishket in order to save it from the rising water. Ultimately, depending on the needs and usage of these items, these belongings was sorted and kept in other peoples' storage areas for safe keeping. Locals explain that a number of shelters were set up in Shishket to cater the displaced families. The light-weight household material and items were kept in shelters for everyday use, whereas heavier items such as furniture, extra crockery and carpets were stored in relatives' houses. Alongside these belongings, their livestock also moved with them, however, it became difficult to tend for animals in these conditions hence a space was temporarily negotiated for the animals in friends and relatives' mavaishi khana (animal house). In some cases, due to limited space, animals had to be sold. These negotiations happened over the course of about 6-9 months until the shelters in Aliabad were prepared.

Figure 30. Steel boxes lined in front of shelters in Aliabad.

When the affected people moved to shelters, they brought limited belongings with them, mostly of items for everyday use including basic kitchenware, clothes and beddings. Over the course of the next few months, as the boat link was established, and vehicular pathways were prepared, they shifted the heavier items such as wooden beams and rafters, carpets and furniture which were initially stored in relatives' houses. Sequential time-line of relocation from land to shelters exemplifies the careful decisions taken by the affected people in terms of which belongings were to be moved to shelter sites and when. Shifting belongings from Shishket to Aliabad was improvised keeping in view the distribution of aid packages. Moreover, due to continual surveys by local councils and other organisation for assessment and eligibility for resettlement programs, the IDP carefully aggregated what must be visible and hidden in the shelters. For example, one person narrated, '*if my many bundles of wood are seen by them, how would they know that I require aid. Of course, I do, this wood is all I have*' (Aliabad Shelter site, field conversation, 2016). As the belongings were brought to the shelter site, each family appropriated areas in and around the shelter unit to store these items. Most of the families own a big storage box made of thin steel sheets (see Figure 5.1), which is a significant visual element in the Aliabad shelter facade and shelters are laden with all kinds of stuff being tucked away, held, fixed, hung or rested around the shelter units.

Grass is held with wooden support fixed between two shellter units.

Wooden planks installed vertically to secure items stored between shelters

Horizontal wooden planks nailed to vertical posts to secure items stored between shelters

Make shift storage shack constructed from available wood, cloth and steel sheet to store items beside shelter

Perforated steel sheet used in front for ventilation, with items placed in shelves behind it.

Misc items of everyday use is kept between shelters in Altit.

Coarse stone masonry wall constructed between shelters to protect items in Aliabad.

Space between shelters in Altit are usually empty and used as sitting spaces.

Grass being dried on shelter roof in Altit.

Figure 31. Different iterations of using space around shelters for storage.

Space between shelters is used for keeping wood, dried grass at the front and furniture stowed away at the rear. In these truly make-shift spaces, a clear logic of stacking can be observed; usually wooden beams and rafters are laid on the ground, with smaller wood pieces stacked on top, while grass is always kept at a considerable distance above the ground to keep it dried up. Where there is only grass to be stored, it is stacked upon wooden support. In certain spaces, rubble stone masonry wall has been introduced for keeping the belongings safe, while in others; wooden planks are used for ventilation and protection. The buffer space is covered from the top in order to keep the items safe from rain; either with canvas, or plastic sheets, in some cases steel sheets that are secured with stones. Grass is spread on the roof of shelter units which helps it to dry up quickly. Within shelter units, particular spaces have been crafted for storing clothes, shoes, bedding, kitchenware, food ration and items of everyday use. For example, the entrance space is used for storing shoes and cookware; due to this, wooden shelves are installed, and the front steel sheet has been replaced with perforated steel sheet for ventilation. Through the use of available resources and personal skills, things, relations and life has been made to last. Moreover, it is not only the things or belongings, but also social relations that are made to last in this challenging environment. Recall how the woman brought spinach leaves for the host when she came for a cup of tea. Alongside this, the space outside of the shelters have been delineated as gathering spaces; as shared laundry areas, to carry out chores or just sit and relax outside. Women living in shelters are the primary architects of these spaces who take care of belongings, improvise space to store items and make space for hosting guests and maintaining social relations.

In this sense, correspondence is established in shelter sites by appropriating space for a particular use and improvising storage spaces in and around the shelter units. What is interesting to note is that the process of correspondence occurred over the duration of getting displaced through to living in shelters. For example, the process of shifting belongings from one place to another was carried out through a carefully aggregated logic, and the storage spaces were and still are carved out in the limited areas in the shelter sites in order to keep belongings safe. And while improvisational techniques are employed to save belongings and make space fit for living, some conditions go beyond the manageable threshold. For example, many affected people lost their furniture within the process of shifting, while some others watch their furniture decay in the make-shift storage area between the shelters. In the act inhabiting and using the shelters, the practices of correspondence are visible in the shelter itself that requires continual maintenance and upkeep as the seasons and situations change; with rain comes dampness, with sun the insufferable heat creating fragile conditions on an everyday basis. And in these chaotic and unstable conditions, people find ways to save and share their belongings, appropriate their response and maintain social and cultural ties. Some things and practices are held on to (beautifying the shelter), while others are given up on (laying grass on rood top for thermal comfort). It can be observed that over time, things run out, decompose, break down and get lost or simply give up, but alongside this, efforts to remain,

rehabilitate restore and repair also occur in order to not reach a dead end, to make do and live on (Barber, 2007).

Alongside this, the shelters in Altit are being used in many ways other than being inhabited by affected families. In one instance, the affected family who had permanently returned to their land in the Red Zone area, their shelter was being used to keep a cow. Every morning, the cow's milk was sold to nearby shelters and houses by another affected family. Here, milking skills were put to use here in order to meet the financial constraints and the shelter was improvised to be used as a 'cow house'. In another one, the shelters by the roadside in Altit were being used as a storage area for the wood workshop. The shelters began to be used for different sorts of activities over the course of three to four years when the affect people found alternative ways to make do and live on. The practices of correspondence in shelters and its surrounding area not only shows the multiple ways in which IDP retrofit and appropriate space for use, but also how these are seemingly incoherent practices that do not necessarily repeat in other shelter units. Therefore, on the one hand, a stable sense of inhabiting shelter sites cannot be derived from these arrangements; shelters can be lived in – in different ways, seldom used, used by cow, or converted into a storage area. There is no one way of doing 'living' in shelters – in terms of inhabiting or arranging belongings. Shelters become a gathering of multiple skills, energies, materials and temporality where a coherent whole cannot be drawn. Practices of correspondence in Altit shelters show that inhabiting the shelter is not the goal, rather it is about creating conditions to make the shelter work (cow house, store, temporary base) that goes beyond its purpose as a temporary living unit. Many shelters in Altit are either abandoned, locked up or empty – and this is because another set of correspondence is being established elsewhere in order to hold life together and keep it going, which will be discussed in more detail in the next section.

5.2.2 Micro-migrations

Sarat village was declared a Red Zone area by the by the NDMA, thus unsafe for habitation, prohibiting the locals to live in their houses and land. Inhabitants of the village were immediately shifted to Altit where they eventually settled down in the shelters. In 2014, when I visited the Attabad Landslide, Lake and the Sarat village, the houses and land were empty and abandoned, however, I saw one man making his way in the fields. I approached him and inquired about his presence on the land declared Red Zone area,

> "But this is a Red Zone declared by the authorities, it's not safe – why do you come here", I asked anxiously. "You see this is my home", replied the old man while picking up a bucket to fill water from a tap in his back yard, "and these trees are my children", proudly pointing to row of mid-sized apricot trees in the orchard. "I have nurtured them, and they have grown this tall under my care. And see that tall one? It was planted by my great grand-father, it has seen me

> grow this old, and it still stands.. I can't leave them". To this, I inquired hesitantly and gravely, "but aren't you afraid, (pause – because I don't really want to say it) that the land may slide?" To which he responded, "It will (slide) when its time has come (pause) like our time comes and we die, so do these mountains," (Sarat Conversations, 2014)

In 2016, when I visited Sarat and Attabad again, more locals mostly elderly women could be seen carrying out work in the fields. Upon inquiry I found out that elderly people have returned to the land and continue to live in settlements declared in the Red Zone area. During mapping exercises and conversations with affected people in the field, land and home were described as 'abundant', 'enough', 'more than enough', 'a lot', 'plentiful' by the locals. And it is because of this deep relation and association with the land that some IDP mentioned that when the water in the lake was rising, they were asked to cut trees and keep the wood as a resource, however they believed that 'trees have their own fate, and since it was spring time and they were blossoming, we couldn't cut them' (Conversations, Aliabad Shelter, 2016). The daily and seasonal circuits are attuned to the pastoral activities of the land and seasons illustrating stable relations that compose life in these mountain landscapes. Their daily and seasonal lives are organised by the land-use practices as can be discerned from the circuit maps.

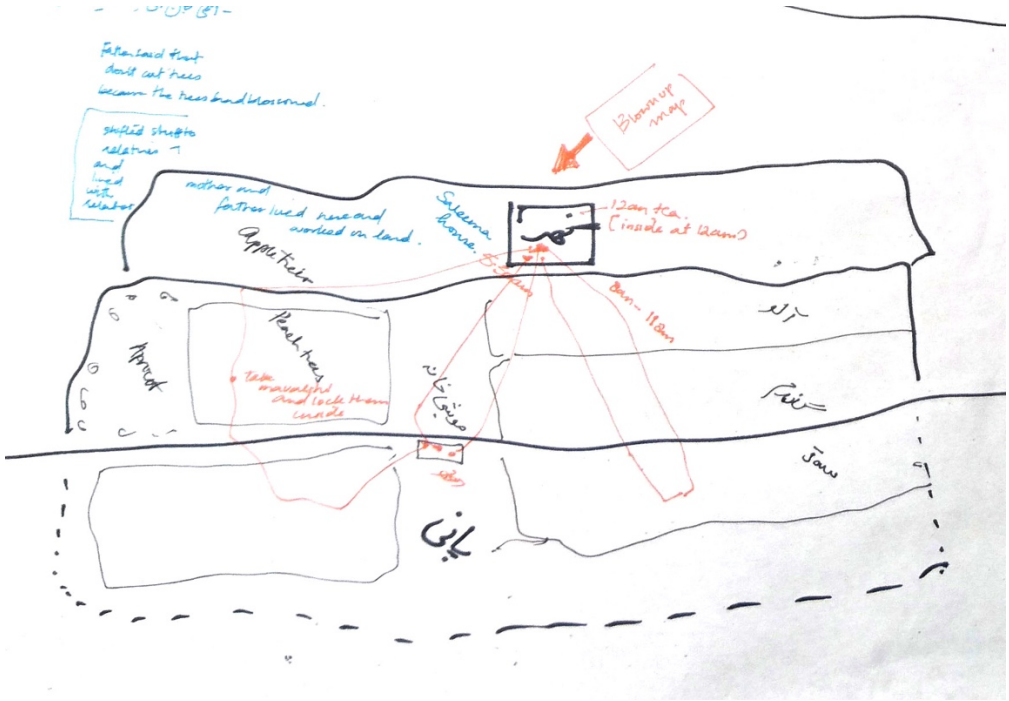

Figure 32. Horizontally stretched land in Shishket shows the division of farms and daily movements between home, orchards and farms. The orange lines show daily circuit in a summer day.

Everyday practices and movement in Hunza Valley and Gojal Valley are informed by the geographic landscape, seasonal routines and climatic conditions, exemplifying deep correspondence. It includes the movements and lives of animals (livestock) that are taken up to pastures each summer and brought down in autumn, the land

is used for different crops and vegetables and orchards are looked after on a daily basis. Land is assessed and prepared for cultivation processes of tilling, ploughing, and watering through the different seasons and climate conditions; and entail continual movement and relations with the land. Alongside this, livestock informs an important part of the everyday life of mountain communities; women are primarily in-charge of looking after the cow, a practice that dictates her daily circuit. This correspondence constitutes the landscape where 'individual agents calling the landscape into being as they make it relevant for their own lives, strategies and project' (Rose, 2002, p.457). Continual and repetitive movements between the house – cow house - fields – orchards layered with communal tea sessions, cooking and tending to the house make up the everyday life. And through this, people come to belong in the emergent landscape, by re-inscribing their practices of everyday life; doing things and constantly re-establishing relations to the surroundings weaving an intricate web of relations between places, practices, memories and identities that not only performed but also embodied (Bennett, 2012). This correspondence developed over a long time; as practices and processes were attuned to the environment, and the environment was morphed and created in response. However, due the landslide disaster, these relations were destabilized as communities from Sarat and Attabad were shifted to shelter sites in Altit and displaced from their home and land. The lands in Sarat and Attabad were declared Red Zone area and affected people were forbidden to access these. In this sense, their land use and livestock practices were ceased, and they were confined to the shelters in Altit. This meant that they could not grow crops or vegetables, or look after their orchards or livestock, therefore had to rely on the aid packages for food, fuel and subsistence. It also meant that once the aid packages[7] depleted, the affected people would have to buy food, fuel and fire wood since they couldn't grow or collect it from their lands. In what follows, I will discuss how the affected people adopted different ways of establishing correspondence with lost practices and routines and how they devised ways of making do and living on while residing in the shelters.

When I was told by the man at a stationery shop in Aliabad to visit the settlements in the Red Zone area if I intended to meet IDP[8], I was perplexed; why would I find IDPs on their lands when they have been provided shelters? This apprehension was confirmed when I visited the shelter site in Altit. It was around 9:30 in the morning and some women were seen quickly finishing their chores in the shelter in order to make a visit to their land. The local van runs several times every day connecting the different villages across the valley, however, a considerable walk is required between the main road and the villages of Sarat and Attabad (located opposite the KKH and in the Red Zone area). These visits are either day-long or last a couple of days depending on the season and the kind of work required on the land. While at land, they are involved in the practices of sowing

[7] Food Aid packages were given to the IDP on a monthly basis from 2010 until 2014. The aid on Gojal side was sent by the Chinese Government, while the food aid on Hunza side was managed by the Government of Pakistan.

[8] The term IDP is the official term used for the people affected by Attabad Disaster. In certain instances, this term is also used by the IDP themselves, however in most cases the affected people do not like this term being used for them. The term is claimed by the affected people in instances of aid and compensations distribution, but within their own social and cultural engagements, they avoid this term as it shows that they are helpless and in need.

seeds, watering crops, reaping harvest, cutting grass, gathering fire-wood and managing the seasonal produce from cultivation and orchards. The routine table (image 14.a) developed by women in Altit and Sarat shows how IDPs usually divide their time between shelters and land according to seasonal activities.

Figure 33. In Sarat Village, each house has considerable outdoor area for drying fruits and vegetables.

These micro – migrations between shelters and lands emerged two years after the landslide disaster when the conditions to access the land became possible. Initially, these visits were carried out in secret by some of the men who would leave at first light and return after the dark. This was to avoid the regulations around using the Red Zone area. Over the years, these visits became frequent when the last round of food aid packages ran out. By 2014, the elder members of the family (mostly women) shifted back to land for the duration of summer period and would only return back to shelters to spend the winters. Elderly women in Sarat returned to their lands within three years of the disaster and resumed their everyday routines that constitute the life of mountain communities. These comprise of land work, looking after the cow, growing, storing and drying vegetables. The older male members look after the orchards and manage storage and sale of fruits. On the other hand, the middle-aged and younger persons are compelled to live in shelters since the school, *jamaat-khana* and Health Centres that have been shut down in settlements in the Red Zone area. Hence the daily routines of middle-aged men and women alternate between the shelters and land depending on seasonal and social activities. These micro-migrations have to be negotiated between the house work and the land-work, proving children with food, or asking fellow community members to look after children while they are away. Through the support

network developed by maintaining cordial social relations, locals are able to divide their time between shelters and land. At the land, they help elders with crop cultivation and managing orchards and during the time in shelters; look after children and care for neighbours sharing vegetables and fruit brought from the land. But through the micro-migrations of moving between the shelters and Red Zone area, and carefully timing their activities according to the seasons, local people maintain social and economic balance to keep life going. What it also shows is how IDPs themselves frequently re-locate to the lands thereby questioning the notion of displacement; resisting the notion of settling for the shelter life and instead keep visiting and working on their lands and homes in the Red Zone area, but also return to the shelter. However, the practices of corresponding with the land have only been established in ways that the conditions and situations of the affected people allow. For example, although practices on land have been established, but these are only to meet the food requirements of the family or earn a mere income from the fruits and nuts that can be sold in the market. However, through these practices they also re-establish lost correspondence, and maintain social and cultural ties with family, neighbours and kin. The practices of correspondence are thus relational and intertwined allowing the affected people to make do and live on as well as keep the socio-cultural fabric intact. These can be observed in the following practices.

5.2.3 Establishing lost correspondence

Since the landslide disaster and displacement of communities from their homes and land, the land-use has been modified due to limited presence of farmers and caretakers therefore families are divided between shelters and lands, limited work can be carried out on the land, therefore, crops or vegetables that require more time and care have been substituted for others. In the process of re-establishing correspondence with lands and crops, a marked shift can be observed in terms of work that is carried out. A series of improvisations can be observed in terms of how affected men continue to maintain a correspondence with the land. For example, affected men who have taken up daily-wage jobs in the cities to work as *Mazdoor* on Rs 500/- per day (apx. GBP 3.5) return to shelters or land periodically to tend to the orchards and fields. Another affected man in Attabad explained how he makes use of land to maintain finances,

> "I go to the land for about a week, we grow some potatoes and spinach on land, but not as much as before. In the orchards, we have apricot trees that need to be watered - takes 3-4 days. In the remaining time, I cut grass, collect it, dry it and sell some in the town centre in Aliabad and keep some for our self. You see, about 40kg of grass bundle sells for Rs. 1200. It takes us me 2-3 hours to cut this quantity, then load it in jeep – take it to shelter and borrow shelter roofs to dry it. We do the same with Apricots, first we pick them from trees – and then dry them at someone's house on the land, then pack them in packets and sell

them. A 40kg sack of Apricot sells for Rs 6000. So I go to the land after every 4-5 days. You see now I do all this to make do and live on" (Field Conversation, Aliabad, 2016).

What this shows is how the daily circuit of the man which was earlier confined to his home and land now encompasses several sites, such as the land itself, neighbour's land, shelter site, market and his daily wage job site. By improvising his time, movement and relations between sites and different actors (neighbours and kin) he makes do and live on. While these improvisatory practices show how man make do and live on, we can also observe that new relations are being established with the neighbours and kin, in terms of using their space, roofs and racks to dry stuff whereas previously the affected people had their own space and didn't have to ask for a favour. It also shows how men return to the land practices in different ways; this time instead of cultivating crops, they grow and dry grass to sell.

Another interesting correspondence being established with the land affected by the lake is described by an affected man living in Aliabad shelter whose land was submerged in the Attabad Lake, he explains that, "Since the FWO has been working on the spill way – water level of the lake has decreased considerably and has now become stable. In summer season the water level rises from about 10 to 12', but in winter it decreases again. So, we can now access some land in winter and clear it from the silt to plant grass – it can be used." (Conversations, Aliabad Shelter, 2016). Where submerged land and houses have re-appeared permanently, inhabitants are seen to be working on clearing the silt off the land and preparing it yet again for cultivation. Since these affected people already built a house on higher land, they are renovating the one that has re-emerged as guest house because "lake has become an attraction, many people come to see it – and with the new road by Chinese, more tourists will come, however we will keep cultivating the land around it for our purpose" (Conversations, Shishket, 2016). Some men who lost their land have further improvised a way of re-establishing their relations with the land instead of settling for jobs in the city. They have negotiated with land-owners in their own village to work on their land and earn a living, because "this is the work we have done all our lives, we know the land and how it speaks, it is better to stay with it" (Conversations, Attabad Bala, 2016).

This shows how practices of corresponding with the land is varied and being established in different ways for holding life together; such as using the land that is still available for some economic benefit or putting the farming skills to use on other people's land, and also to ensure food supplies for the families living in shelters. But when we take a closer look at how food supplies are ensured, we can see how practices of correspondence are more than just about 'making do' and 'living on', which I will discuss in the next section.

5.2.4 Ensuring food supply

When I visited Sarat (village in the Red Zone area) in October, it was time when inhabitants of the village were cutting grass, collecting firewood, managing apple picking and drying vegetables in preparation for winter season. While conversing with the women, I found out that these items are carefully divided between neighbours and family by the women who work on the land. Alongside this, women also tend to the cows and goats in order to produce milk and other dairy products. However, the numbers of cows and goats they now keep has significantly reduced since most of the work at the land is now carried out by elderly women. Therefore, the dairy products, fruits and vegetables are also limited due to the reduced number of people working on the land. And while these food products are limited, women carefully sort them to be sent to their families and kin living in shelters on regular basis in order to ensure food supplies and help maintain finances. The continual efforts of the few elderly people who live and work on the land manifest in maintaining familial relations with their children and grandchildren. As the winter draws in, elderly people shift back to the shelter in order to spend time with family and share the firewood.

Likewise, in Shishket, where certain displaced families live in shelters on their relatives' land, the supply of dairy products for them is ensured through the practice of lending goats. The 'goat lending practice' emerged in Shishket village after a few years of the landslide and displacement and being exercised between a few families. Here, a goat or two are lent to affected family (who had to previously sell their livestock due to lack of space) for six months to care for the goat as well as for dairy products. In the winter season, the goat is returned to the owner to be kept in the goat-house. A young girl is Shishket expressed her delight about this, "we had to sell our goats, but our relatives have been kind, I have a goat again and I look after it all through summer, like I used to before we were displaced" (Conversations, Shishket, 2016). Her mother explained how this arrangement is useful for both parties, as the owner is relieved from the goat work and the IDP family gets to use its milk. While this practice ensures the supply of dairy products for the affected family, it also allows the affected people re-establish their practices of tending and caring for animals and shows how sharing the goat results in caring for the affected people. Through the 'goat lending practice', new relations of care are being woven between those who have lost their homes and lands to the lake, and those who haven't, in order to maintain socio-cultural relations.

At the Altit shelter site, I was told by women that the only thing that remained consistent amidst the displacement were the tea and meal times which they continued to follow. One woman explained that, 'initially we had to eat Dawn (local brand of white bread) Bread, which was very bad for our health, then after a year or more, we started making our own bread once again' (Conversations, Altit, 2016). I observed how borrowing vegetables from neighbours, friends and family were a normal practice. Where some patch of land is available with the shelter unit, affected people have cultivated their own vegetable patch to grow potatoes and spinach,

while others grow tomato and pumpkin vines on nearby boundary walls. However, the quantity of vegetables from patches and vines doesn't fulfil their needs. Although women living in shelters explained how their weekly budget includes buying vegetables from the market, in practice, it was hardly ever bought. During field work, I observed women visiting each other's shelters with a bundle of spinach or a bag of potatoes. Other times, they would visit neighbours and relatives (residents of Altit) for tea and inquire about the health of tomatoes growing in the garden and returning with a few in hand. Sometimes, dried fruits from the previous season were subtly exchanged for fresh vegetables. During my conversations with women, it wasn't at all clear how meals were managed and prepared every day. Seemingly inconsistent practices of food insurance were revealed during observation; fruits and vegetables are grown, or bought, sent by a relative or borrowed, brought from the land and shared, but a precarious balance is being maintained; from ensuring food supply, maintaining social ties to carefully preserving identity and self-respect through give and take. The green patch in front of the shelter doesn't always grow vegetables, 'spinach doesn't always arrive', there isn't always enough money to buy and you can't ask or borrow every day. But a continual correspondence is established through the subtle acts of observation of who grows what, sharing fruits and vegetables, visiting others for tea and conversations and through these, women make sense and plan for meals while maintaining socio-economic and cultural ties. By subtle acts I mean, that these are not entirely deliberate, but these acts seem to form an important part of 'making do' and 'living on' in fragile conditions. While these practices of making do and living on are inconsistent and risky because one cannot be sure if there will be enough food, continual efforts of corresponding with the neighbors, kin, material, resources and conditions holds the act together. Moreover these practices are improvisatory in terms of how women make do and live on within limited resources and deeper observation shows how the particular ways in which these practices are carried out allow affected people to weave relations of care and maintain the socio-cultural fabric.

However, it is important to mention here that even these different modes of collaborative action and care are not uniform across different sites, there are instances in which collaborative action breaks down or bypasses certain actors in the same shelter site. In these instances, circumstances demand a particular kind of response which may not always be pleasant because; when the next meal is at stake, one begins to collect garbage from the streets at night to burn the stove for next day's breakfast (Conversations, Anonymous, 2016). Here, the mode of correspondence shifts from doing things in a particular way, to adopting whichever ways possible in order to deal with the challenging circumstances.

5.3 Correspondence in the post-disaster landscape

The above sections show that there are different kinds of correspondence that are established in the post-disaster landscape in order to hold life together, make do and live on. What practices of correspondence show is that in most situations, things are being held together in particular ways that the affect people adopt and negotiate in

the challenging environments. These particular ways are often the ones that the affected people are familiar with, desire for or deem important. And these practices of correspondence demonstrate how affected people exercise their agency in holding things together and making do by somewhat re-establishing their way of being in the world. For example, men have improvised different ways of re-establishing their links with the land (that they are familiar with) in order to make do and live on. Likewise, the practices around ensuring food supplies are improvised and aggregated in way that is not merely limited to the immediate family (like an aid package) but brings into account neighbours, relatives and extended kin.

Likewise, this correspondence also shows how affected people subvert the normative and regulatory processes relief, rehabilitation and resettlement introduced by government organisations and planners. The particular ways of *doing* correspondence is exercised by people in conditions regulated by a particular authority, that excludes or disregards their way of being in or knowing the world. In this sense, it relates to how affected people and IDP in the post-disaster landscape of Attabad deal with the regulatory process of resettlement plans, as well as the declaration of certain villages as 'Red Zone' area by the NDMA prohibiting locals to access their lands and homes (mainly Attabad and Sarat). Practices of corresponding with the environment and conditions show the particular ways in which affected people skillfully divert from the normative structures, and in doing so, exercise their autonomy and agency as they compose the post-disaster landscape. This can be observed in terms of how Red Zone area continues to be trespassed and cultivated, or how shelters may be used or not used by IDPs or used to keep a cow so that the milk can be used for selling purposes. In this sense, many practices and processes of negotiation and resistance occur 'off the radar' and by circumventing regulatory processes. Through these, locals create platforms for exercising their agency and control that becomes visible across different sites; in the make-shift architecture of shelter sites (making space for belongings and guests), the micro-migrations to Red Zone area (to grow and share food and firewood) and the various ways in which locals make do and live on; by sharing goats, or working on other peoples' land, or creating larger circuits of movement in order to earn a livelihood (grass growing, cutting, drying selling). However, as mentioned earlier, in some scenarios correspondence fails to allow affected people to weave their present conditions in particular ways, but to make do in whatever ways possible (spending hot afternoons outside the unbearably hot shelters, or gathering garbage in the dark of the night to light the stove).There are times when actors fail to correspond (the shelter is worked upon put it doesn't look beautiful) with the contextual conditions and environments. These moments of failure and breakdown create conditions of anxiety, exclusion, and displacement.

The empirical material discussed in this chapter shows how practices of correspondence emerge as sites of resistance and experimentation (e.g. retrofitting particular spatial arrangement or using the land marked as Red Zone area) and improvisation (e.g. making do and living on through inconsistent food sharing practices or using the submerged land when it appears in winters) in a post disaster landscape. It also shows that the kind of correspondence that each actor performs is significantly linked to their past lives. This can be observed in

terms of how agro-pastoral lives are being negotiated while living in shelter sites and working daily-wage jobs or delaying moving into the resettlement house. Each of the processes described above entailed a particular way of establishing correspondence with the environment and entities in order to make do and live on. Therefore, although people may be physically displaced from their familiar landscapes, correspondence is established with materials, resources, skills, etc. in particular ways in order to hold life together and re-inscribe social and familial relations in order to achieve a semblance of control in the challenging environment.

The next section presents the analysis derived from the empirical material discussed in this chapter in terms of what the practices of correspondence do to the making of post-disaster landscape and how we can relate it to the normative understanding of resilience as a condition of stability.

5.3.1 Correspondence is a variant, instable and difficult labor

The material from the field shows how practices of correspondence are varied and diverse. Here, the process of improvisation can be observed in the various acts of affected people, as they figure out new ways of making do and living on; by lending their land, goats or roofs, by sharing fruits and vegetables, by exchanging dry fruits for fresh vegetables, and, returning to land marked as the Red Zone. Moreover, the seemingly instable process of circulating food items, dairy products, grass and dry fruits from one site to another allows survival, as well as helps keeping familial relations intact. However, what also comes to the fore is that establishing correspondence may not always be pleasant, and improvisation is not always an emancipatory process (e.g. for those who collect garbage to burn), it can be difficult and humiliating and requires the people to adapt to the conditions in whichever ways possible. Here, a slightly different equation is at play; one loses their agency to mould situations to their benefit because there is a lot at stake (to light the stove for meals) and the only resort is to carry out acts that are not agreeable to one's way of being in the world. Here, correspondence entails the hard labour carried out by certain actors which is soaked up by the narratives that celebrate resilience of communities; the close-knit ties and community cohesion of the Attabad IDPs. Thinking this through the concept of correspondence allows us to attend to the different and various ways in which life is being held together through the various relations that are established by the affected people in order to take part in the construction of their world.

These practices of making do and living on are precarious, fragile and inconsistent (different ways of ensuring livelihoods, income generation and food supplies) showing how 'being resilient' is a variant, instable and incongruent condition. These stories of holding the act together, subverting regulatory processes, and experimenting different ways of making do and living on show the instability, inconsistency and hard labour involved in holding the act together, as there no one way of doing 'post-disaster life'. This hard labour can be observed when women leave their children behind in shelters in someone else's care in order to return to the land to ensure food supply. Here, 'being resilient' also involves the decision to maintain a particular relation with the trees, instead of cutting them down to be used as a resource (firewood) (Recall Story 4). These practices

show how the post-disaster landscape is full of inconsistent, messy and instable practices that dismantle the normative understanding of resilience where assumed capitals (personal resources such as tree wood for fire) may not be put to use, and other risky relations are established in order to make do and live on (returning to land in the Red Zone area). Correspondence shows that the post-disaster life is not always about achieving stability, but about returning to the 'familiar' through diverse ways which may entail a harder labour, instability and difficulties.

5.3.2 Correspondence as 'return' to the familiar practices

The Attabad disaster primarily displaced communities from their lands and homes and most attempts to establish a correspondence were related to reviving lost connections, continuing practices of hospitality, following the tea times, putting learnt skills to use, and maintaining social status and identity. For example, the 'return' to land is performed in various ways, by physically returning to land in the Red Zone area and cultivating it, or by returning to the agro-pastoral activities on someone else's land. Or using the submerged land which appears periodically to grow or dry grass for use. This return can also be observed in the practice of clearing away the silt off the land in order to cultivate it again. For example, when I met an old couple in Shishket who were clearing away silt from the land, they explained their intentions of returning to the land (which appeared after lake levels were lowered) as not something that is required, but desired. Although they have comfortably resettled on their own land a few meters away from their submerged land, they still desire a correspondence with the lost land and are therefore working each day to clear the silt away in order to make it fit for cultivation again. On another occasion, at the resettlement site in Danyore, the three and a half meters offset between the house and its boundary has been retrofitted for a garden rather than paved veranda. The owner of a house explained, "I will plant an apricot tree here like I used to have back at the land", demonstrating how he continued to long for the trees which he lost with the land.

Another way of performing 'return' or continuing traditional practices can be observed in the shelter sites as well as the resettlement house. In the shelter, practices of hospitality are maintained by re-arranging the physical space of the shelter. Similarly, in the resettlement house, IDP improvise ways of appropriating the house according to their traditional spatial patterns. This entailed negotiating space for family gathering, cooking, and host guests (more on spatial configurations in the next chapter). Women at Danyore explained their reasons "how do they expect us to host guests in such a small room – and then make a separate fire for rooms and separate for kitchen to cook food and keep warm – it is our way to make only one fire and use it for all the tasks" (Conversations, Danyore, 2016). The practice of correspondence and the resultant improvisatory techniques employed by affected people are not so much about looking for profitable opportunities in the face of an uncertain future, but about returning to the familiarity offered by past lives in particular ways.

5.3.3 Correspondence holds the delicate socio-cultural fabric intact

Practices of correspondence also give an insight to how displacement or belonging is experienced, and how identities and ways of being are continually inscribed by the affected people through different practices. Within the shelters, IDP come to negotiate their presence and actions through different ways of articulating space and materials giving rise to new spatial arrangements; add-on flexible structures and well as appropriate space for social gatherings. Where shelters are installed on other people's land (in Altit), practices of correspondence are adopted as IDP carefully and continually negotiate their existence in the shelter site while maintaining social relations with kin and neighbours. Visiting neighbours and family members and continuing the gift-exchanging practices helps IDP preserve their identity. Among other things, maintaining a position involves staying passive when landowners water the fields flooding the pathways that the affected people use to access their shelters on a daily basis. While this flooding becomes a nuisance for the affected people, these are seldom mentioned as an issue. These instances of micro-aggressions by the land owners in Altit are never tackled head-on by the affected people who live in shelters – rather such instances are ignored or subtly shared with other IDP members. There is a deep awareness of ones' position on a land they don't own, and while their pathways maybe flooded, IDP women make efforts to sit with the land owner women for tea and keep conversations alive around the everyday, land and livestock – in a quest to re-iterate their identities. Therefore, while the sense of indebtedness (of living on kin and relatives land) is rather diffuse and undefined, it becomes actualized through these activities of re-inscribing social relations on a regular basis. Correspondence becomes a way to keep the delicate social and cultural fabric intact by deferring conflicts, lying low and maintaining cordial relations with kin and neighbours.

However, this correspondence is not only practiced by the affected people/IDPs of Hunza Valley and Gojal Valley, but also their relatives and kin, who take active part in weaving the social and cultural fabric threatened by the disaster and displacement. One woman in Shishket explained, "I have a lot of land and nothing was affected by the lake, but when this tragedy befell my sister, how could I not offer her a patch of land to build a house and cultivate – it wouldn't be right for our relation". Their attempts to establish correspondence were observed in gifting land to IDP relatives, offering cattle and goats to keep during summers or sharing fruits and vegetables more than usual. Correspondence or efforts to make do - are then not only established by the actors who are affected or constrained by the environment, but also the other actors who are part of the social and cultural fabric sustaining these communities.

5.4 Concluding Notes

This chapter highlights how the practices of correspondence are integral to the making of the post-disaster landscape in Hunza Valley and Gojal Valley where affected people work with the given situations, materials and immaterial entities to make do and live on. Instances discussed from the conversations and observations in shelter sites and villages show how short-term interventions by government organisations are negotiated,

appropriated or given up on altogether. It shows that affected people carefully negotiate their existence and actions through a range of possibilities in face of an uncertain future. Through the practices of correspondence IDPs carefully weave materials, desires and relations in order to make do and live on by the subtle processes of adopting multiple positions; as kin, an IDP, a community member, and a recipient of aid are juggled and negotiated. The shelter site exemplifies this 'correspondence' in the active practices of appropriating shelter, or in their subtle acts of 'making do' and 'living on' and maintaining an identity as a land-owner although she has lost all her land to the lake. In this sense, observing the practices of correspondence allows us to analyse how affected people continue to maintain certain practices and living patterns amidst disruption and displacement caused by the disaster event.

Viewing the post-disaster landscape through the practices of correspondence potentially dismantles the conventional imaginaries of resilience as a governance framework, as it shows how the agency of making do and living on rests with and is exercised by the affected people. In particular, the relational aspects of correspondence developed in this chapter breaks away from resilience as a governance framework which is based on identifying and measuring resilience as separate systems (social resilience, economic resilience, emotional resilience) as discussed in the second chapter. For example, this approach allows us to move away from the top-down resilience strategies that propose to measure resilience through particular set of capitals (social, economic, physical) and instead understand how 'holding life together' is a relational process which brings these systems into correspondence with one another. The practices of correspondence allow us to observe the interrelations between the human, material and immaterial entities that are brought into relation in order to hold things together. The active strategies and techniques used by the affected people in challenging conditions of the post-disaster scenario shows how 'holding things together' is a relational, variant and inconsistent process which is actively initiated and carried out by the affected people themselves. In this sense, it supplements the work developed on resilience as resourcefulness (MacKinnon and Derickson, 2012, p.263) which is explained as, 'forms of learning and mobalization based upon local priorities and needs as identified by community activists and residents. In terms of the localised action on the ground, this chapter shows how affected people, beyond their position as activists and scope for collective action, employ subtle ways to make do and live on. By exploring the improvisational economies (Simone, 2013; Simone, 2004) of the affected people in the post-disaster landscape, this chapter analysed the 'ongoing' alternative actions of affected people in order to make do, live on in the fragile and challenging conditions. In these, correspondence can be located in how things are held together in particular ways by the affected people through their actions, practices and dispositions.

Correspondence as acts of 'holding things in sympathetic union' (Ingold, 2017) offered the vocabulary to explore through which practices and processes life is held together in challenging conditions. Most empirical cases that were mentioned in this chapter, show that the 'holding together' matters because it allowed the affected people to improvise, hold on to and retain a particular way of being in the world. Practices of

correspondence also allowed us to see how different materials and forms are deployed beyond the normative meanings associated with them. For example, the affected people used the shelter in many different ways and the socio-economic conditions were maintained through different kinds of practices that speak to the assembly of the post-disaster landscape. It helped us analyse how the underlying structures and aspirations that organise lives of people are negotiated and maintained. In this sense, practices of correspondence also speak to the making of the common world, where the IDP (docile people – recipients of aid and support) carve out their own ways of making do and living on, use the shelter in ways that work for them in the post-disaster landscape. It enables us to see how the repositories of past lives seep into the processes of everyday life, allowing a particular way of being in the world to continue to exist in some way. It also showed that the kinds of correspondence that affected people establish in the post-disaster landscape gave rise to specific kinds of collaboration, relations of care and ways of being in the world.

6. Forms & the project of resettlement

This chapter aims to explore how forms play a crucial role in the process of resettlement and recovery in the aftermath of a disaster. In 2014, Aga Khan Planning and Building Services (AKPBS) initiated a Resettlement project for the IDP from Gojal Valley in a sub-urban land near Gilgit City. Oliver Smith (2016) argues that often disaster resettlement interventions 'endanger the connection that people have with their built environment, violating cultural norms of space and place, inhibiting the re-weaving of social networks and delaying or stopping the re-emergence of community identity' (p.23). Therefore, this chapter focusses on the notion of spatial forms, and how these can assist or impede the process of rehabilitation. By discussing relevant literature on the production of form, this chapter will explore how spatial arrangements and activities of inhabitants together giving rise to spaces of everyday life ranging from a house to an entire landscape. In so doing, it will highlight not only how material forms are shaped through immaterial flows (desires, movements, etc.), but also how iterations in form can result in experiencing displacement and belonging in different ways.

Predominantly, displacement in post-disaster scenario is seen as a condition that is established when people are physically displaced from one location to another and this displacement is 'resolved' by providing the physical infrastructure required for resettlement. However, my interest in displacement goes beyond the condition of physical displacement. I approach this by paying attention to the 'persistent behaviour of displaced persons' to 'return to home' and re-settle in familiar landscapes (Campanella, 2010; Potangaroa and Kipa, 2011; Smith and Wenger, 2005). This urge to 'return' has only been investigated in terms of physical re-location of displaced persons to their homes, lands and familiar environment, I am interested in exploring how this 'return' is enacted and experienced in different ways by the affected people; through spatial and temporal forms in the post-disaster landscape. Not only in terms of returning to physical homes or location, but also in practices of everyday life,

inhabiting new spatial forms (shelter, resettlement house) and new landscapes. This requires a closer engagement with how displacement is resisted in post-disaster scenarios by enacting return while occupying and inhabiting spatial forms e.g. the shelter site or the resettlement housing projects. This brings me to my second point: when any form of 'return' is denied, what kind of displacement do the affected people experience? In this chapter, the interest in spatial forms is two-pronged; one is to understand how post-disaster spatial interventions shape, break and morph prevalent forms and second, to understand what forms emerge in the processes of negotiation and adaptation within the given spatial arrangements. This chapter will begin with a discussion on spatial and temporal forms followed by a detailed analysis of spatial and temporal forms practiced by the inhabitants of Hunza Valley and Gojal Valley. Towards the end, this chapter will discuss how practices and routines of IDP challenge the project of resettlement envisioned by the NGO's.

6.1 Forms; spatial and temporal

Form is a broad concept and can entail a range of different meanings and understandings for different disciplines, generally denoting a particular arrangement, formation, structure or style. Caroline Levine (2014) suggests that form 'always indicates an arrangement of elements-an ordering, patterning or shaping' (p.3) which is not only confined to materials or spaces but also include 'patterns of socio-political experience' or in other words, social arrangements (p.2). She explores forms as all kinds of configurations, ordering principles and patterns that repeat or differ in any given condition.

What is crucial for this chapter is how Levine explores politics in the notion of form and states that 'there is no politics without form' (p.3); it entails an imposition of an order; distribution, hierarchy and affords particular interrelations and interdependencies. Politics is about setting a particular order – 'a matter of distributions and arrangements' (p.3). This ordering and patterning she explains is not only confined to spatial arrangements but also temporal configurations; how different actors or institutions organise time for various functions, tasks and events. A defining function of form is that it structures relations, experience and agency; 'because they shape what it is possible to think, say and do in a given context' (p.5). Hence, form lends and extends a set of possibilities which Levine discusses through 'affordances of form', arguing that each form has particular constraints and possibilities, as well as potentialities (p.6). Forms can be constrained by materials and shaped by actions and vice versa, resulting in a continuous iteration of form. She uses the example of a prison as a panoptic configuration, which presents a disciplinary power and regulates the daily routines of prisoners; however, it is also linked to other illegal activities outside the confines of a prison. In this sense the prison is not a contained form; rather it spills across, mutates, shifts, changes and lends multiple affordances thereby extending new patterns of organization and arrangement.

Since forms are inherently political, it is an important trajectory to follow in a post-disaster landscape where spatial forms are introduced for the displaced communities. In the context of this chapter, spatial forms include

how local communities arrange their spaces, lands, water channels, orchards and dwelling units, while temporal forms are constituted through the practices of everyday life performed by inhabitants in the landscape. Therefore, crucial questions this chapter will address are; how are spatial and temporal forms arranged, re-arranged and reconfigured in a post-disaster scenario? How do local communities respond and adapt to the forms imposed on them and do they build, retrofit and negotiate them? What kinds of forms do we see emerging in the post disaster scenario and how do these relate to the concept of displacement and re-settlement?

In this chapter, I will unpack the form of a traditional Gojali house (also known as *Wakhi* house) and its iteration over time in order to understand how the abrupt introduction of a new form; the resettlement housing project in the post disaster scenario poses challenges to the resettlement project. The analysis moves from a traditional form to the form of a shelter unit and the post-disaster resettlement-housing scheme. To analyse the spatial forms, I will introduce Christopher Alexander's theory of the Pattern Language as a means for documenting and analysing spatial arrangements. I will further engage with Tim Ingold's ideas around form-making and '*taskscape*' to show how movements and practices of everyday life shape and sustain forms. The empirical material will show how people 'return' to certain kinds of forms and how forms continue to persist in challenging scenarios, followed by a discussion on how imposed forms instigate particular 'modes of displacement' such as physical, social, cultural and emotional.

6.1.1 Pattern language and spatial ordering

In order to engage with spatial forms in the field, I used Christopher Alexander's theory of the 'pattern language' (1977) as a means for documenting spatial arrangements. The theory of pattern language offers the generative grammar useful for analysing patterns of arrangement in the built environment. To further engage with Levine's notion of forms as 'patterning', 'ordering' and 'arrangements' (2014, p.2-3), a study of the pattern language can help analyse spatial arrangements in the traditional houses. This method will allow us to map the intricate relations between activities of people and architectural spatial arrangements to understand how displaced people inhabit and negotiate spatial forms that are introduced in post-disaster scenarios. Architectural patterns develop through a correspondence system between the contexts, materials and activities performed in space giving rise to a particular kind of form. These patterns are shaped and arranged due to the interrelations between social, temporal, geographical, religious and cultural inclinations.

'Pattern language' is a renowned theory introduced by Christopher Alexander in the 1970's as a guiding framework for restoring wholeness and beauty in architectural forms. In his much-celebrated treatise, he and his colleagues discuss 253 architectural patterns prevalent in traditional and regional settlements that range from individual household unit, its surrounds, the district, to an entire settlement. A pattern language contains rules for how human beings interact with built forms —it codifies practical solutions developed over millennia, which are appropriate to local customs, beliefs, norms, society and climate (Alexander, Ishikawa et al, 1977).

Through his work, Alexander proposed 'to create a common language for designing and construction, in order to establish a process to let everybody participate in creating their own environment in non-industrialized era' (King, 1993). In this book, some patterns have been discussed as strong ones while others are less developed and depend on stronger patterns to produce meaning and coherence in spatial forms (Dawes & Ostwald, 2018).

As opposed to the often rigid and uniform production of architectural space due to modernization, patterns emerge as a result of how space is organically arranged and developed in a context. Mainly inspired by the architectural forms found in traditional cultures, Alexander (1977) set out to explore the aspects of community living, environmentally friendly design and culturally informed spatial patterns in traditional societies. The spatial patterns and their interconnections that were found to be repeated in different contexts were described as 'universal patterns'. Patterns can be identified as the recurring arrangements in a spatial form creating a form of regularity as everyday life is lived 'combining geometry and social behavior patterns into a set of useful relationships, summarizing how built form can accommodate human activities' (Salingaros, 2006, p.220). For example, the spatial form of a gathering space in mountain communities in Northern Pakistan is defined by the central hearth arrangement which recurs in every house. Patterns emerge as a result of the need of inhabitants and the environmental context in particular conditions and contexts. The collection of spatial patterns together creates a language for built form, which for Alexander is essential for achieving beauty and harmony and creates what he calls 'quality without a name' (Alexander, 1979) in a building, site or settlement. What is important to understand is that individual patterns are formed through relations with different entities and also in relation to other patterns. In Pattern language, the relations between different patterns have been given great importance, as

> 'no pattern is an isolated entity. Each pattern can exist in the world, only to the extent that it is supported by other patterns: the large patterns in which it is embedded, the patterns of the same size that surround it and the smaller patterns which are embedded in it' (Alexander et al, 1977, p. xiii).

Like a language which requires sentences and not just individual words, the patterns like words must be seen together in a network to create wholeness, beauty and meaning (Alexander, 1979). This network or language gives meaning to the spatial form due to which it recurs in a specific context.

While the interrelations between the 253 universal patterns have been emphasised, it is argued that the universality of the pattern language tends to project a rigid framework (Kohn 2002; Saunders 2002; Dawes & Ostwald 2017) that propagates one-view of beauty, wholeness and common value systems and lifestyles in human societies. However, Alexander's discussion on 'forces' and 'tendencies' that act upon an environment and shape it for a particular use (1979) can help us move away from the rigid framework of patterns. He argues that "once a conflict between tendencies is clearly stated, it is then possible to define the geometrical relation

which is required to prevent the conflict" (Alexander, 1966, p. 2). In this sense, the architectural spatial patterns aim to resolve the conflicts presented by a context in order to achieve a balance, harmony and a 'whole' environment. He lays great stress on the 'reciprocity' between different forces due to which patterns are formed highlighting how inhabitants' par-take the construction of environment valuing tradition and a shared design language (Alexander, 1979). And while Alexander explains that built forms are created by the interrelations and reciprocity between tendencies and forces, he does not discuss in depth what is meant by 'forces' and frequently mentions shared value systems, environment and traditions as the active agents in generating patterns. Likewise, his work does not identify with how spatial patterns continue to exist or disappear. However, pattern language is a useful mode of analysis for how spatial arrangements are organised, arranged and are seen to recur in a specific context.

For example, the distinct architectural identity of Hunza Valley and Gojal Valley is featured in the 'traditional house' inspired by religion, cultural practices and the physical landscape dating back to the 16th century. The spatial typology of a traditional house arranged around the hearth is designed to retain heat and accommodate social and cultural gatherings owing to its rich culture of hospitality. A study of the pattern language of a traditional Gojali house might limit us to the historically embedded patterns and overlook the transformation that occurs over time due to the changing requirements and needs of the people; introduction of new methods of construction, building materials or changing climate. To capture this evolution of spatial forms, the discussion on forces will be enhanced, because they shape and morph existing spatial patterns and allow the emergence of new patterns. Forces that shape patterns are important to highlight in terms of how patterns are able to sustain challenging environments and how they continue to exist. Moreover, this chapter is interested in analysing how spatial arrangements and resultant forms persist in times of crisis, disasters and displacement, therefore we need to analyse first how spatial forms evolve and recur in order to explore how they persist and emerge in new forms. The next section will unpack the notion of 'form-making' as a dynamic and emergent process.

6.1.2 Forces, patterns and temporal Forms

Tim Ingold explores the dynamic processes involved in the 'making' of a form. In a series of essays in his book titled *The perception of Environment, Essays on livelihood, dwelling and skill* (2000), Ingold engages with the notion of form – making. He explores this through various form-making activities; ranging from a basket, a dwelling form to an entire landscape (Ingold, 2000). His work focuses on how landscapes are constituted through the interrelations, correspondence and movement of different entities in the environment rather than thinking of the landscapes as a background for human activities. Therefore, the landscape is always in the mode of being made and remade through the correspondence between materials, winds, soil, trees, activities of humans, animals, etc. He suggests that, 'what we have been accustomed to calling 'the environment' might,

then, be better envisaged as a domain of entanglement (Ingold, 2011, p.71). This entanglement as a form is created through the movement and flows of materials, environment, animals and humans. The flows of matter and environment and the movements of inhabitants give rise to forms. For example, in traditional settlements the openings of a house are designed to channel winds through the house, be it the circumpolar North (Ingold, 2000) or the arid desert lands (Fathy, 1986). Here, the wind is carefully channelled through the doorway or window depending on its capacity and the orientation of the house. Similarly, the rainwater has its own tendency to drip through the fragile mud-thatched roof or a hearth is carefully designed using suitable materials to make fire and retain heat. Likewise, the social and religious tendencies also shape forms in terms of how much space is allocated for gathering and how sacred spaces are carefully orientated and demarcated (more detail on social and religious significance in built forms with regards to a traditional Gojali house will be elaborated later in this chapter).

Built forms are constituted through the conjunction of available materials, social practices, religious beliefs and seasonal conditions. The way people carry out everyday life in a landscape can help us examine relations between the natural, social and cultural entities which come together to form the landscape over time (Ingold, 2000, p.195). Similarly, the dwelling unit comes to assume a particular form 'held in place' (Ingold, 2015) through the social and cultural activities performed in it and the continual upkeep and maintenance. These activities can include seasonal plastering, preparing the roof before monsoon winters and the everyday usage that shapes and morphs the spaces in the house for a particular use. For example, in last few decades in Gojal Valley, due to the rise in temperature during summer season, locals shift the hearth outside for cooking, which is originally positioned in the centre of the house. The hearth is shifted back inside as soon as the first autumn leaves begin to fall. In this sense, the hearth is flexible pattern and is positioned according to the changing climatic conditions. Therefore, the patterns in a spatial form are morphed and shaped over time in response to the changing environment.

Another important aspect of form making is highlighted by Ingold as, 'a product of the activities of its human's builders' in the making of a house (Ingold, 2000, p.175). He further explains that 'the forms people build [….] arise within the current of their involved activity, the specific relational contexts of their practical engagement with their surrounding' (2000, p.186). This practical engagement occurs through the tasks that people carry out in their everyday lives. Ingold describes, 'tasks are constitutive acts of dwelling …takes its meaning from its position within an ensemble of tasks, performed in series or in parallel, and usually by many people working together' (p.158) elaborating that the 'entire ensemble of tasks in their mutual interlocking' is what constitutes a 'taskscape' (p.158). Empathetically present to the moment and the environment, the maker cultivates living arrangements that are sedimented through routines and rituals. This shows how the everyday life practices and routines play an important role in the making of the spatial form of a house. It is through these practices of form-making that people come to belong in the landscape, by re-inscribing their practices of everyday life;

doing things and re-establishing relations to the surroundings, weaving an intricate web of relations between places, practices, memories and identities that not only performed but also embodied (Bennett, 2012). These practices play an integral role in who we are, and, consequently, how everyday life is lived establishing a sense of place and belonging (Stevens, 2012, p.588).

Here, I would like to enhance the discussion on movement and temporality in terms of how forms are sustained by these. Engagement with temporality is important for a discussion on spatial forms and its iterations in a changing context in order to see how spatial forms are shaped and morphed - and how a sense of belonging is attached to it. Here, we can turn to Kevin Lynch (1972) who discusses two kinds of temporalities; the daily rhythms and repetition of tasks and activities and the progressive and irreversible change-growth over a passage of time. Both these are relevant for the discussion on spatial forms that are shaped by two kinds of temporal rhythms; the daily routines of inhabitants in the landscape and the evolution of the traditional house form that occurs over decades, even centuries and its iteration in the present.

6.1.3 Temporal rhythms and spatial order

Temporalities of the everyday practices play an important role in how environments are shaped and inhabited. Georges Teysott (2013) explains that 'the plurality of micro-events, the series of individual and social habits, repeated over the course of time, seems to hammer spaces with tiny repeated blows, molding and forging, as it were, an 'environment' […] of everyday life' (p.23). Returning to Levine's (2014) idea of temporal circuits as forms, it is useful to reiterate that spatial patterns are informed by the recurrence of different temporal cycles and repetitive routines, which is essential to 'order our lives' (p.2). In temporal forms, rhythms are one way of establishing an order of repetition and variation. Gaston Bachelard (1936) presents rhythm as an organising principle, 'the only way of disciplining and maintaining the most distinct energies' (p.121). Rhythms are also evident in the tasks of everyday life which repeatedly occur at certain times of the day maintaining a sense of regularity. These can be meal times, tea times or prayer times that shape the daily routines and instil a sense of purpose and belonging (Edensor, 2010; Bennett, 2015). The recurring movements of inhabitants performing practices of everyday life inscribe space with particular network of patterns that extend a certain kind of built form. For example, in a traditional Gojali house, bread is baked in the central hearth each evening; it gathers the family and warms up the room for the cold winter nights.

Therefore, forces that shape spatial patterns are not limited to shared values and traditions, as Alexander (1977) claims, but are also found in the performance of everyday life practices that play a crucial role in establishing a particular kind of form. Like other regional communities, the everyday movements and routines in Hunza Valley and Gojal Valley are important constituents in shaping spatial patterns of a Gojali house (discussed in the next section). Forms are aligned with rhythms of everyday life in order to create smooth flow of tasks and activities throughout the day, through different seasons and through generations. This is applicable to seasonal

activities as well, for e.g. in the summer, a few members of each pastoralist household residing in the villages of Gojal Valley relocate to pasture lands with their cattle and goats where they set up temporary wooden structures for living. The temporary house is constructed wooden beams that are easily put together and dismantled as required. During summers, this is used by herder families as a temporary shelter and it is dismantled in autumn when herders leave the pastures and relocate to their villages. This material and movement 'arrangement' comes to assume a particular form as a 'seasonal house' due to the rhythmic cycles of occupation and abandonment. Rhythms of movement and pauses, depending on the contextual conditions of the region create a pulse that is unique to each landscape leading to the formation of a particular kind of dwelling, a certain kind of hearth, a specific configuration of openings to let the air in and exhaust it out and a distinct mode of gathering, etc. keeping the singularities alive and emergent.

Temporal forms impose their own particular order of function in built form, re-iterating how spatial confines are used in everyday life and are crucial for how spatial patterns are able to exist, transform or disappear altogether. In the post disaster scenario, where there is an abrupt introduction of forms (a shelter, a resettlement housing scheme) as opposed to the gradual evolution of traditional forms, an analysis of temporal rhythms will allow us to observe how newly introduced forms are shaped and morphed by the daily and seasonal routines of the affected people. The post-disaster scenario offers a different range of temporal rhythms of the activities and practices of the affected people initiated in the wake of due to the displacement from homes and landscapes. The previous chapter highlighted ways in which the affected people are making do and living on, and that the spatial form (shelter) plays an important role in how they associate with it.

In terms of the resettlement housing project, it is therefore important to ask, what kinds of temporal rhythms is it designed to host. For a project, which is to be designed in a specific duration, how can a dynamic and itinerant process be executed in a single design episode? How can the temporal rhythms of daily life practices and the spatial architectural patterns of a particular context be embedded in a project operating in certain logistic and financial constraints? The task is not a simple one and even with genuine intentions of designing for a particular context inspired of the local pattern language, Salingaros complains that "architects who use patterns tend to be unaware of how patterns link to each other, so the resulting design frequently lacks large scale coherence" (Salingaros, 2000: 153). It is important to remember that the spatial arrangements and the resultant form is not only dynamic and emergent but also fragile in terms of the social and environmental networks it holds together where any discordance, collision or clash of rhythms can break down the 'wholesome' and 'coherence' and result in what Architect Peter Smithson described as the form 'fall[*ing*] to pieces' (1970, p.373). Therefore, in what follows, I will analyse how spatial forms introduced for the displaced communities are inhabited, retrofitted, negotiated and appropriated in a post-disaster landscape; how living spaces are arranged, used, made useful or abandoned. And in this scenario, I would like to inquire how forms resist, persist, transform or collapse in the face of change and interventions and how that results in inhabitants feeling

a sense of belonging and/or displacement. This chapter is interested in analyzing the question; through which orientations, practices and processes are forms and their underlying order *held in place* by people who use them? And how do temporal and spatial forms travel between different contexts and conditions; a refuge, a shelter site, a resettlement housing scheme in order to establish a working environment and a sense of belonging.

6.2 Forms in Mountain Landscapes

In this section, I will introduce the spatial form of Hunza Valley and Gojal Valley through a study of the pattern language, focusing on the house and how this form morphs, shifts, disperses and is re-arranged in the context of a shelter sites and then in the designed resettlement housing scheme introduced by the AKPBS. I will highlight the architectural patterns of a Gojali house which I documented during fieldwork. And I will also discuss how these patterns are connected to the temporalities of everyday life in mountain communities investigated through the daily and seasonal circuit mapping. The task is to understand how an order of living is established, held on to, transported to different contexts, morphs, disperses, negotiated, re-arranged and subverted through spatial forms. A closer engagement with the spatial arrangements will allow us to understand how the order of the resettlement housing project is negotiated, appropriated and re-written by the IDP themselves. In this sense, form becomes a crucial element that gives rise to different kinds of socio-culture formations, negotiations and re-arrangements.

The image (Figure 34) shows visuals and descriptions of some of the spatial forms evident in the Hunza Valley. In 1999, the AKCSP initiated the Northern Areas Heritage Inventory to document the cultural landscape of Hunza and adjoining valleys in order to preserve the architectural and arts heritage in the valleys. Architect Yasmin Cheema and her team between 2001 and 2006 carried out meticulous surveys of the settlements and traditional dwellings to map the architectural spatial arrangement of houses, neighbourhoods and settlements. In her book chapter (Cheema, 2007) she lays out photographs and descriptions of spatial patterns in Hunza Valley (see figure 35) that are seen to recur in multiple villages forming a pattern language. The documentation is however confined to a historical period with little discussion on the current and evolving spatial patterns in the valley.

Clustered houses built on a flat plateau with walled tunnel-like lanes totally covered by the extensions of the upper floors. Most settlements of the Skardu region are built in this manner for protection from severe winter winds.

Two rows of connected houses leaving between them a narrow curved lane, located on a man-made terrace. The access to the first row of houses is from the upper-level lane, while the other row of houses is entered from the lower-level lane. Baltit village is the only example of this type the inventory team has visited to date.

Rectangularly-shaped villages on flat areas, with streets of roughly equal length and two-storey houses. The Sumaiyar *khan* is planned in this manner. These villages normally feature a *jataq*, *imambarha* or *matam-sarai* (religious meeting places) and a water storage, as well as a polo ground near the entrance, similar to the settlements of Hunza and Nager lo-

Figs. 170-173. Various views of the Broshal settlement, with close-ups of houses and interior lanes.

Figure 34.Excerpt: Hunza Settlement Patterns (Cheema, 2007).

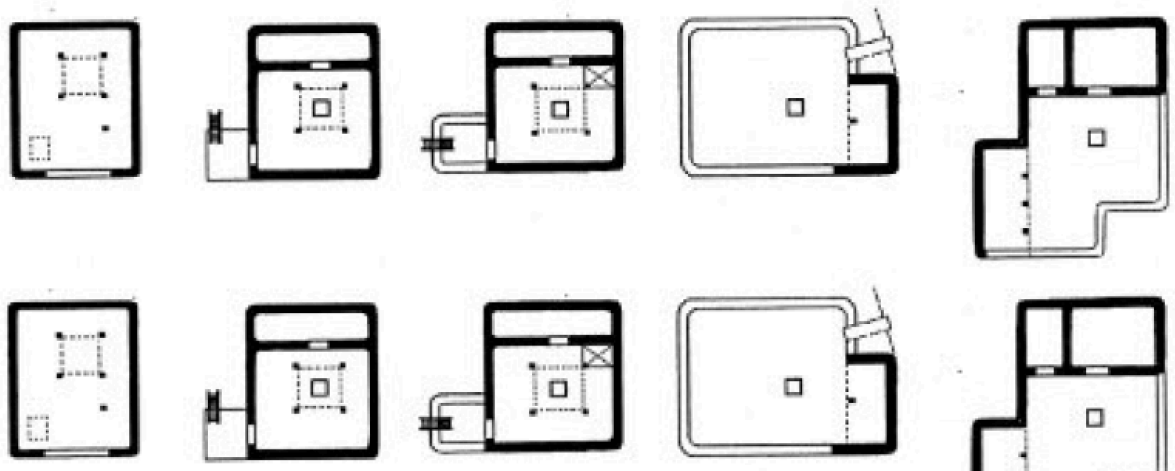

Fig. 179. Typical variations of the basic traditional Hunza house, with the *ha* in the centre, often accompanied by lateral sitting platforms and by attached rooms or storage spaces. Ground floor plans on the lower row and upper floor plans on the upper row (see note 7).

Figure 35. Excerpt: Variations of the open-plan Hunza house (Cheema, 2007).

A distinct architectural identity of Hunza Valley and Gojal Valley is featured in the 'traditional house' inspired by religion, cultural practices and the physical landscape dating back to the sixteenth century. The spatial typology of a traditional house arranged around the hearth is designed to retain heat and accommodate social and cultural gatherings owing to its rich culture of hospitality that forms an intrinsic part of their identity. Being able to host guests in the everyday life and conduct festivities in the house is thus an important feature in local architecture due to which the traditional house has an open plan (see Figure 35). The pattern language of these valleys has been shaped over a long duration by the extreme weather and geological conditions. From clustered houses (now known as old settlement) to scattered settlements, the houses, fields and orchards are either developed on the terraces of Hunza Valley or the gradual slopes of Gojal. Moreover, these patterns are shaped by the different cultural and religious influences brought by invading forces, and the patterns and materials brought by the travellers and traders from the silk routes.

By carrying out seasonal and circuit mapping activities with inhabitants of Hunza Valley and Gojal Valley, it became evident that the everyday practices and movement in and around home and land are informed by the geographic landscape, seasonal routines and climatic conditions, exemplifying deep correspondence. This correspondence has developed over a long time; as practices and processes are attuned to the environment, and the environment is morphed and created in response. Land is assessed and prepared for cultivation; processes of tilling, ploughing, watering through the different seasons and climate conditions entail continual movement and relations with the land. Land and home mark important anchors for the locals as demonstrated in the spatial-circuit maps - and within these anchors, the movement and circuits of everyday life shape the architectural pattern language.

Another important rhythmic cycle can be observed in the historical habitation patterns of the mountain communities in Hunza Valley and Gojal Valley which relates to the recurrence of disasters. The Hazard profile of this region shows that it is prone to multiple hazards and disasters such as glacial lake outburst floods, landslides, avalanche, and earthquakes. Hazards and destructive events that have occurred in these valleys for the last two hundred years have also dictated the movement and settlement patterns of the inhabitants. Notable ones are; the 1830 mud flow and glacier movement in Chupursan Valley in Upper Gojal resulting in covering the land with thick fluvial deposits and evacuation of all inhabitants from these valleys. The inhabitants returned to these villages and resettled two decades after this event. Shortly after, another notable incident occurred in 1853 when land near Sarat (village in close proximity to Attabad) slid down and blocked the Hunza river resulting in the formation of a lake, flooding villages from Sarat to Passu in Gojal initiating another wave of evacuation and abandonment. However, habitation persisted as people returned and resettled on their lands. In these evacuations, return and re-building, the traditional patterns of settlements and houses were retained (Kreutzmann, 1994, p.343-44).

On a micro-scale, at the level of a house, daily circuits of inhabitants indicate how spatial arrangements are aligned with the movement and flows of materials, environments and human activities. Figure 36 is a map of house in Sarat showing the animal house, fields and orchards surrounding the house. The vegetable patches are located close to the house, while the orchards are lined away from the crop lands. The storage areas attached to the house are in close proximity to the open area to allow preparation and sorting of dried grass, wooden logs, wool, etc. as well as drying fruits and vegetables for winter season. The map below was developed by women in Sarat Village showing their daily circuits of movement between different parts of the dwelling area. The purple lines show paths of movement and the multiple lines show repeated movements between the house – cow house - fields and orchards layered with communal tea sessions, cooking and tending to the house.

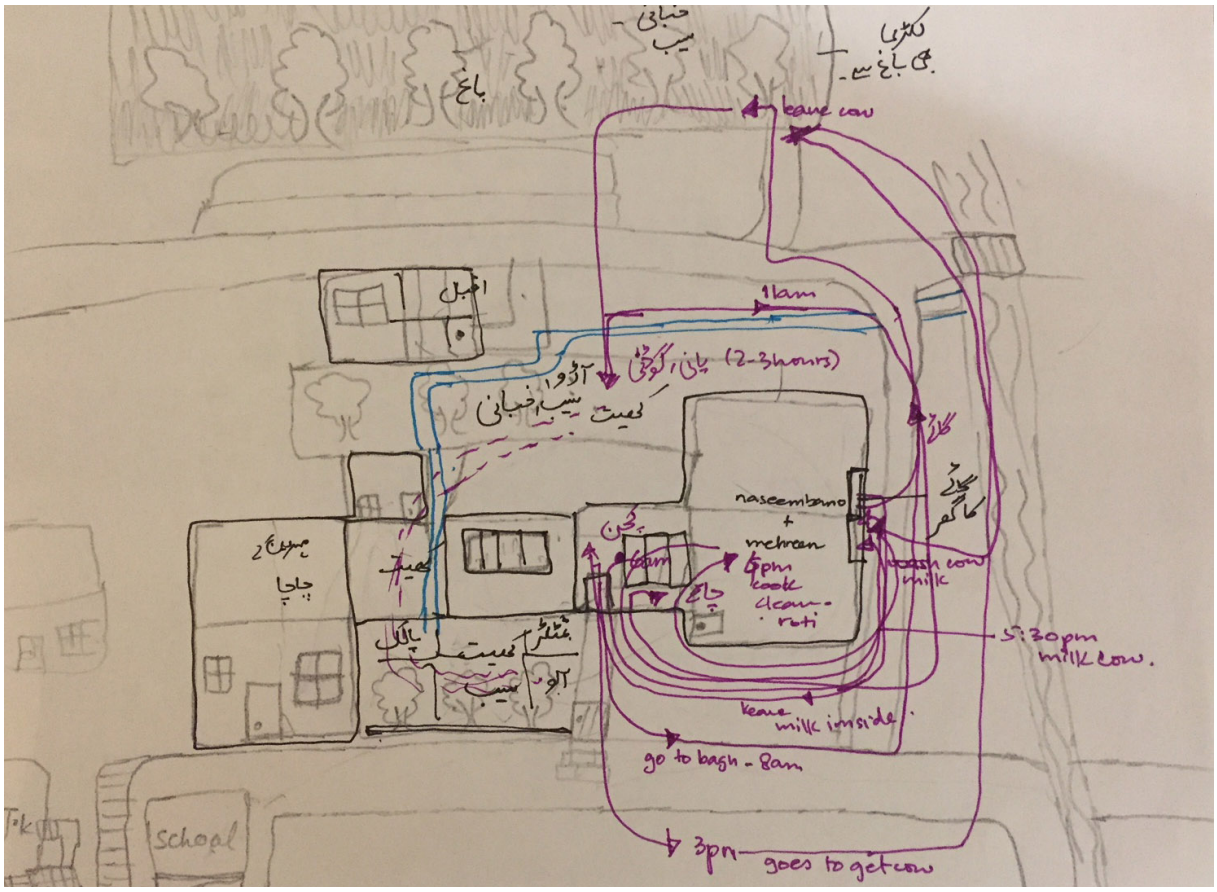

Figure 36. A daily circuit movement map drawn by two local inhabitants in Sarat Village. This diagram shows leeward facing house to avoid cold winds from the valley. Purple lines show the daily circuit of two women in the house who move between the house – cow house and orchards. The arrows in on the lines indicate orientation, where the return to house is usually followed by a cup of tea.

This map shows the everyday movement in and around the house. Each cycle of movement is followed by a pause at the central stove area inside the traditional house/kitchen where women sit to make tea, cut vegetables, wash dishes and cook food. While making the circuits, women expressed how the 'pause' for tea is always something they look forward to after the tiring work in the fields. One woman explained further why the 'pause for tea' is desired, 'it's not just because we are tired, it's because we like to talk together' (Field conversations,

Sarat, 2016). The internal space of the house shows a clear spatial order where the stove or hearth takes a central position.

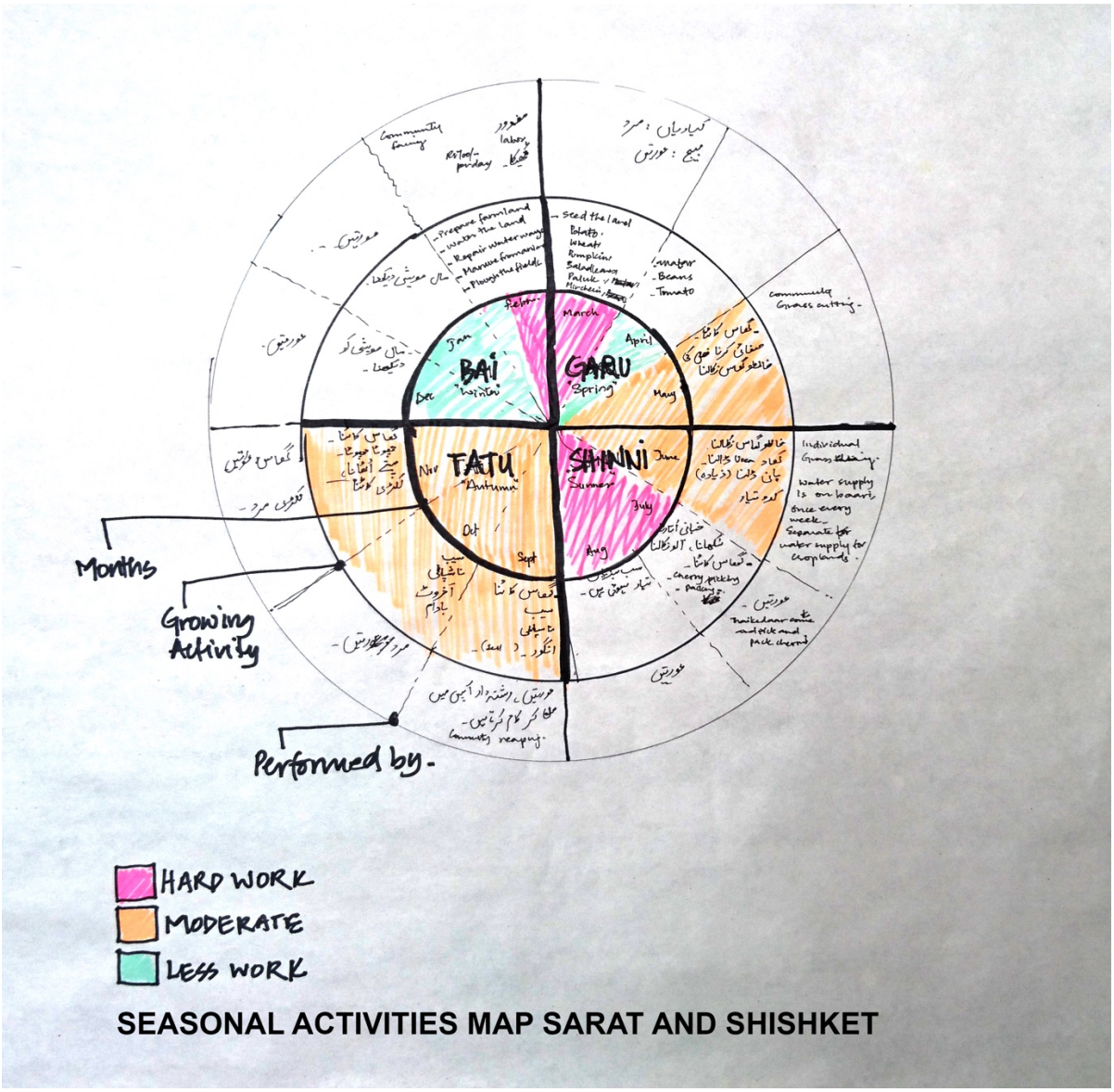

Figure 37. Work map made by women showing 4 seasons and the intensity of movement between fields, seasonal houses and traditional homes. Most outdoor work is carried out in orange and pink time zones.

Relations between human, animals, soil, crops and trees are entangled in the daily and seasonal circuits of life in the mountain communities. Alongside this, every household has designated orchards and croplands lined with water channels which are prepared and maintained through the different seasons. Daily and seasonal routines (see Figure 37) of inhabitants are dictated by the movement between the crops, orchards and the house. The communities derive a spatial order from the multiple rhythms of temporal forms and materiality. The rhythms of everyday life and seasonal variations exemplify temporal forms in themselves that are deeply tied to the spatial order and arrangement, giving rise to a Gojali house. In this sense, the Gojali house is a complex

entanglement of materials, cultural and religious practices and the multiple temporalities of everyday life which is gradually modified as ideas and things enter and exit the valley.

6.2.1 Form of a traditional Gojali house:

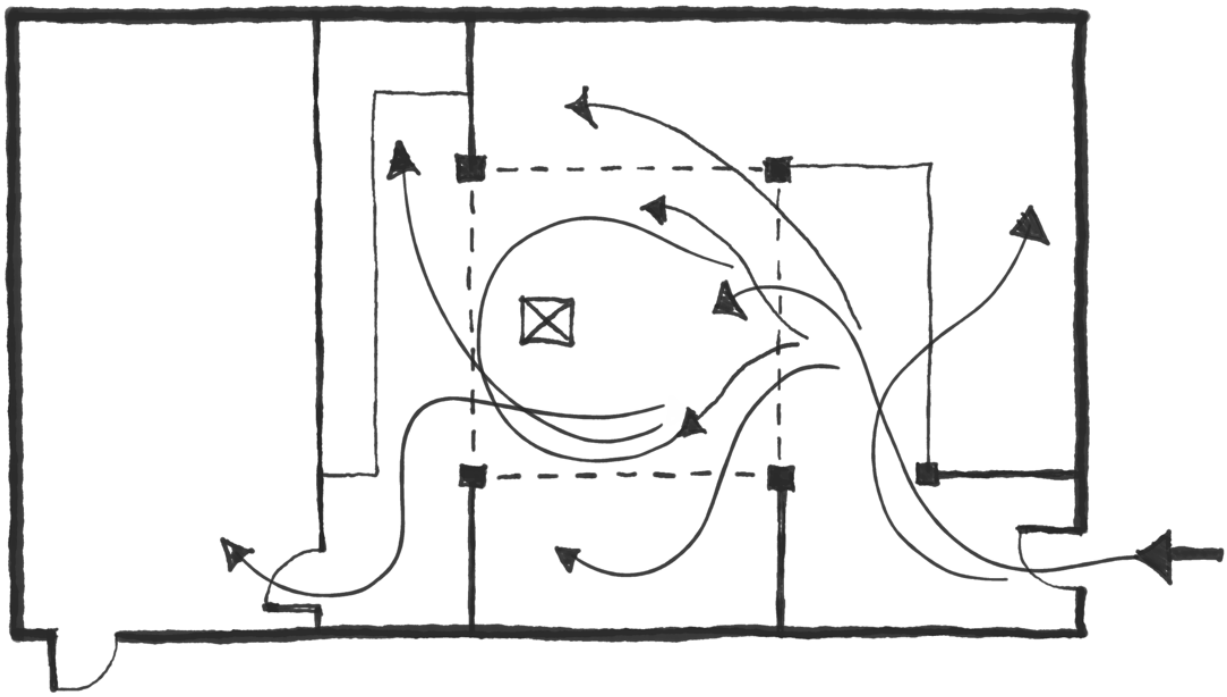

Figure 38. Plan of a Gojali house. the stove is located in the centre of 4 column, the fifth column is at the entrance.

A traditional house in Hunza Valley and Gojal Valley comprises of an open-plan space which is used for various activities that are carried out in the house such as sitting, cooking, storing, sleeping, etc. The hearth or cooking space takes a central position in order to distribute heat on all sides. The spacious and open plan house is favourable for hosting festivities and large gatherings. Internal floor is laid with carpets and rugs that are woven locally. The wet areas of house such as laundry and toilets are not part of the internal house and are accessible from the corridor that leads to the internal house. In the recent past, a television set has also been introduced in the space where the family gathers and watches TV during the numerous tea times (in the daily circuits – tea times form an important part of daily rhythms – it is the resting and recuperation time for men and women working round the clock. It is not only limited to the people working on land, but also the ones working in offices on 9am-5pm schedules). The design and arrangement of the house is based on thermal comfort, which is ensured through the 'tried and tested' techniques of vernacular construction done in local materials. The inlets and openings in the house are designed to channel the air through the house causing minimum change in internal temperatures. Due to extreme cold climate, until two decades ago, most traditional houses were built two to three feet sunken in the ground in order to control the temperature. These are the main elements that structure the spatial arrangements in a traditional Gojali house, however the spatial orders that channel

multiple flows and movements through the house are also clearly visible. Following are a few spatial orders evident in Gojali houses.

Order 1: Entrance - hearth - gathering

The central hearth gathers inhabitants of the house and their activities throughout the day; starting with a pot of tea that is put to boil at dawn, through to the six tea gatherings in the day, ultimately taken over by the local bread which is based in the central hearth at night. Elders explained that when land activities come to a halt in winters, the hearth becomes the central focus for family – as they gather around it to keep warm and carry out indoor activities such as weaving, reading and sharing stories. Keeping warm entails, a constant task of closing off any outlets or spaces through which wind can enter, hence locals take necessary measures to close off ventilators. To ward off cold winds, the entrance to the traditional house is always located on the leeward side, opening into a transitional space between the outside and the inner house. The entrance door is the single largest opening that lets winds in the house hence the transitional space is used for controlling the temperature of the house. It is a relatively dark corridor with openings placed in an arrangement that blocks the wind from entering the main house. When the wind enters the doorway; it travels through the corridor and takes a turn to enter the central room. During this process, it loses its velocity and strength ultimately entering the central room without much of an announcement – it joins in with the already present air. As opposed to winters, the wind and air flow freely through the house in summer – it enters from the doorway and exits through the skylight ventilator located exactly above the hearth. The arrangement of the entrance and central hearth as a spatial pattern maintains comfortable temperature in the house throughout the different seasons.

The hearth acts as a focal point of the house and is placed centrally. The space around the hearth and stove[9] is used for preparing meals, cutting vegetables or kneading dough for the bread. There is a flexible arrangement for the hearth and cooking space and while it occupies a central space in the house in winters, during peak summer the extensive cooking (apricot jams) is shifted to the store room at the back (primarily used for storage purposes and for keeping dry rations) in order to control the temperature in the house. Cooking and drinking tea is a frequent activity throughout the day hence is still prepared in the central area in the company of family and guests. Guests are usually invited to sit here and gather around the hearth for conversations, tea or meals which allows the tea-maker to remain part of conversations and entertain guests. The entrance – central hearth and gathering space are strongly inter-connected and exemplify a field of temporal, material and environmental relations; from channelling winds, maintaining favourable temperatures, to carrying out daily chores and socio-cultural engagements.

[9] The stove within the hearth is a recent addition introduced by AKRSP and design in thin steel sheets and an exhaust pipe leading the smoke out from the central skylight ventilator.

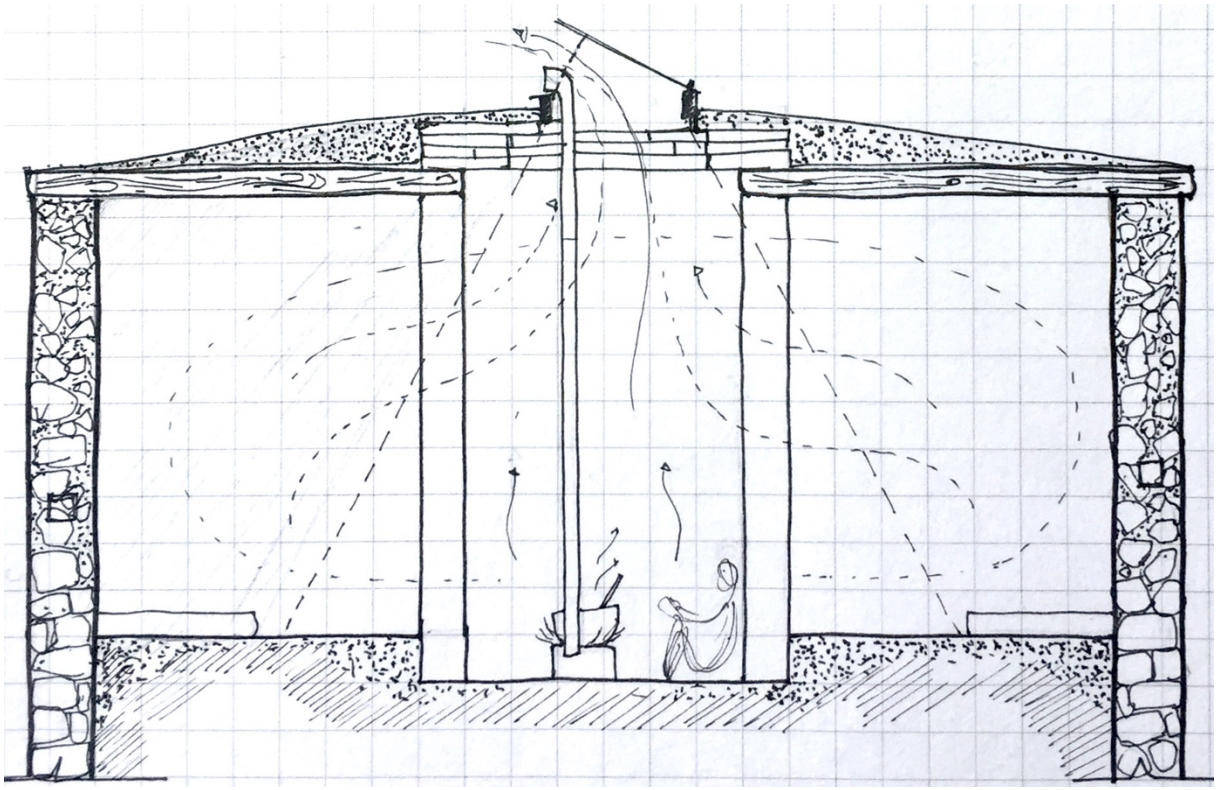

Figure 39. Section view of a Gojali house showing floor platforms, skylight ventilator and hearth.

Order 2: Open plan – Movement – Central Skylight

Another order visible in the house is that of an open plan that channels the light, air, tasks and activities. The floor arrangement in the traditional open plan house comprises of platforms of varying heights used for delineating spaces between grandparents, parents and children. Arranged in relation to the central hearth and circulation space within the open-plan, the platforms on either side of the hearth are higher and also used for resting ones back when having tea, food or just sitting near the hearth. Parents and grandparents use the higher platforms on either side of the hearth for sleeping, while the platform near the entrance is designated for children. This platform is also used for seating musicians during festivities such as weddings and celebrations. The central platform comprises of the hearth and is frequently used space for gathering. The open plan allows free-floating movement around the house. Platforms are flexible spaces in themselves used for manifold functions; sleeping, sitting, working, stacking things, placing TV, etc., where floor beds are rolled away in the morning and the space is used for other tasks. When guests arrive, they are allocated a specific platform for sleeping. There is one source of natural light which is centrally located located directly above the hearth. Light from this inlet brightens up the middle platform during the day, however the intensity of light reduces as it reaches the platforms on the sides making is favourable for resting in the day and sleeping in full moon night. The skylight has an adjustable ventilator used for extracting the warm air in summers thus keeping the house ventilated. The skylight moderates the movement and channelling of air as well the entry of light in the house.

Order 3: Wood frame – punjetan – octagonal roof

The open plan follows a generative grammar in terms of the spatial layout, as well as the structural framework. The Gojali house is significant for the vertical columns which hold the octagonal roof and the central skylight. This central feature consists of five columns known as *Punjetan*[10] *(five)*, denoting a strong spiritual significance for Shi'ite Ismaili community. While four columns support the roof, the fifth column defines the entrance into the open-plan space or is located in the direction of *qibla (direction to face during Muslim Salah prayer).* The roof comprises of 72 (religious significance denoting number of people in service to Imam Hussain in the event of Kerbala) horizontal beams in total to hold the structure together. The wooden beams and columns used in houses are carved with patterns. Over the years, the smoke from the hearth has covered the wooden beams with a natural agent that protects the wood against rotting. The framework supports future extensions and is proven to be an earthquake-resistant structure. Traditional Gojali houses are built in local material; rubble stone walls are constructed with mud mortar, while the roof consists of wooden beams and planks layered with sheets and mud plaster. The two feet thick walls provide ample thermal insulation and the wooden column - beam framework provides flexibility to the structure. When the house has to be dismantled for any reason, the roof is taken off and the wooden beams are used again in the next structure ensuring consistency in the module size. In the event of the Attabad Disaster and the rising water, local people dismantled their roof and saved the wooden beams and rafters which were later sold, used up, or burnt.

Figure 40. Stacked wooden octagonal roof ending in a square skylight – Wakhi House.

[10] *Punjetan* represents the five sacred five members of Islam's Prophet Muhammad's family (Muhammad, Ali, Fatima, Hassan and Hussain).

The Gojali house is this a particular form shaped through various social and cultural rhythms, materiality of the components and the continual upkeep and maintenance of the items including seasonal plastering, preparing roof before monsoon and winters, and the everyday usage that shapes and morphs the house. However, the spatial arrangement is not only informed by the movement of people, but also the seasonal conditions, the geographic terrain and the movement of sun, winds and soil. The form of the Gojali is unique due to the conjunction of available materials, skill-sets, social practices, religious beliefs and seasonal conditions of this particular region. But it is important to note that the form of the house is not static, it morphs, shifts and evolves according to the changing conditions. During fieldwork these conditions were observed as local inhabitants mentioned changes in spatial usage of the house due a steady increase in temperatures in the last two decades. Moreover, the vehicular access to Hunza Valley and Gojal Valley has resulted in the introduction of new building materials as well new designs inspired from the cities.

6.2.2 Morphing forms

In the recent past, these valleys have become accessible through the road (Karakoram Highway, now CPEC) being built by Chinese, bringing in the tourists from Southern areas of Pakistan especially in the summer season. Locals too have been traveling down South for university education or jobs, which has led to the introduction of new ideas in terms design of the houses. Especially visible are additional rooms adjacent to the traditional house are evident in some houses. These are used for younger men for privacy, but mostly used for guests who visit from southern parts of the country. In summer season, these rooms are also let-out to tourists. Only close family guests, neighbours or people from the community are invited into the traditional house, while the tourists and outsiders are hosted in the additional rooms. Hence the architectural pattern language also evolves with the needs and the requirements of the inhabitants. In terms of the building materials, cement blocks were introduced in the valley several years ago as a cheaper a quicker alternative to rubble stone constructions. Locals have begun to use it in their houses although they understand and mention the inefficient thermal conditions produced cement blocks leading them to purchase and use heating or cooling appliances (fans) in the new constructions.

An interesting case study for a newly built house in Gulmit is that of an IDP family who lost their house to the Attabad Lake. This family had enough funds to build a house on their land above the main road that resulted in a single design episode. Here, the son who was funding the construction of the house also designed it, combining the traditional house and contemporary desire of private rooms. The spatial arrangement is based on a corridor dividing four adjacent rooms. One of the rooms is based on the open-plan traditional house with *Punjetan*, a central cooking area and small inlets. The other rooms are designated as bedrooms and guest rooms, while the toilets and washing area at the end of the corridor. The corridor is open on both sides making it a thoroughfare for winds; “you see, the winds pass through here and now the corridor is like a cold spine in the

house making it difficult for any room to be warm" expressed the man's sister. During discussions with the inhabitants and while drawing the daily circuits maps with them, it became evident that most of the time is spent in the traditional house-like room due to the frequent tea sessions and the thermal comfort it provides throughout the day. The traditional house-like room in itself acts as a sustainable living unit, where the elders prefer to gather as well as sleep. The additional rooms however are divided between the younger male and female members of the family who use it for keeping their personal belongings, although most of their time is also spent in the traditional house-like room. Hence the need for private rooms is apparent in the evolving pattern language of the valley, but the open-plan traditional house remains desirable and relevant. Moreover, the sensibility towards the wet and dry areas in the house is also visible since the toilet and washing areas are located at the far end of the corridor.

The two spatial orders described in the previous section are seen to be transforming and diminishing in the new constructions. While spatial order 1 continues to be desired, spatial order 2 and 3 have become more of a cultural identity which people tend to hold onto. The *Punjetan* arrangement of columns initially associated with religious belief has come to be identified as the cultural identity of Gojali people. Due to this, a large room dedicated to the *Punjetan* column arrangement is used for seating family and guests in newly built houses. In this sense, spatial order 2 and 3 continue to live on with iterated meanings. However, the arrangement of material in spatial order 3 has completely diminished and is replaced by cement block walls with a few wooden beams to hold the structure. Alongside this, the iteration in the inlets and outlets has modified flow of air as skylights have been replaced by windows in new constructions. These iterations in the spatial arrangements of the house show how certain patterns are held on to, while others are discarded. The open-plan arrangement to gather family and guests in the traditional house is seen to repeat in newer constructions which shows that it is required as well as desired. Hence, while inhabitants may introduce rooms, windows and flexible stoves modifying the flow of air, the central gathering space has endured changing circumstances and conditions. The spatial form of a Gojali house continues to host guests and gatherings throughout the day and through the different seasons.

In terms of the surroundings, the outdoor area of the houses is often occupied by bundles of wooden logs, grass and flat baskets to dry apricots. Moreover, each house has a vegetable patch in close vicinity used for growing basic vegetables for daily use – the vegetables vary from season to season.

6.3 Form and spatial order in post-disaster context

In this section, I will discuss how spatial patterns persist in times of crisis, displacement and relocation. In the aftermath of the Attabad disaster, communities were displaced from their homes and land and re-located to the shelter sites in Altit and Aliabad Villages. In the post-disaster scenario, two forms are at play, one that is designed by the NGOs and offered to the IDP, second is the one being rewritten and re-arranged by IDP themselves.

The re-writing and re-arrangement occur in an attempt to carry out everyday life in ways they know and they comfortable with. This gives rise to a reconfigured spatial order thus introducing new meanings and new potentials of the given form. It is interesting to observe how forms emerge in this make-shift and temporary environment and how inhabitants establish a certain spatial order. The task is to understand how a certain form is imposed during rehabilitation projects (shelters) how these imposed spatial forms are rewritten and re-arranged by the inhabitants. This is crucial to analyse in order to establish that the displacement of IDP must not only be understood as a condition of physical displacement from their homes and lands, but also how displacement occurs through spatial arrangements.

In what follows, I will illustrate how IDPs arrange their spatial confines in the shelter and how a particular order is established through their movements and practices of everyday life. I will analyse the spatial patterns and their arrangement which re-appear in the context of a shelter unit and eventually in the resettlement house.

6.3.1 The shelter unit

The shelter sites are located in the predominantly traditional settlements of Hunza Valley, the towns of Altit and Aliabad. The previous chapter gave an overview of how shelter units are arranged in Aliabad (as a compound surrounded by houses and fields) and in Altit (scattered shelter units on relatives or kinsfolks' land). I also discussed how IDP carry out their everyday lives in shelter sites which gave an insight to their movements and routines, etc. For example, amidst the displacement, tea times continue as usual in shelter sites. The mid-morning tea becomes a gathering for women where they get together and either work on embroidery or do 'something' together. I happened to join them in one of these gathering when they were having tea, which was followed by my map making exercise. One woman exclaimed, "we have so much time now, no lands, cows, or trees to look after, we get bored' (Field conversations, Aliabad, 2016). Other responses to spending time in Aliabad shelters were, "we do embroideries now, to pass the time", "the time is long and slow now", "not much to do – just sit and think", "now routine revolves around school, when will children go or come back from school", "nothing much to do, but we look forward to that time of the day when we get together for tea" and a unanimous response was "the whole day is spent in the shelter".

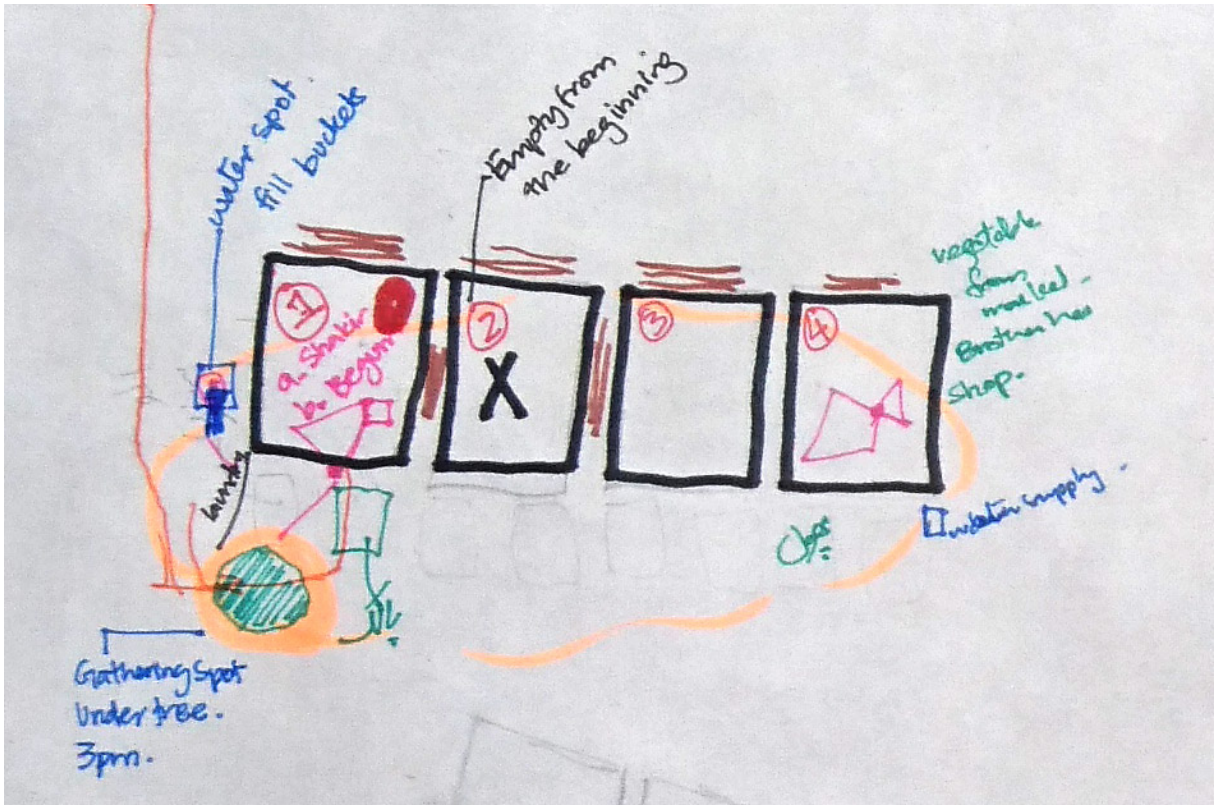

Figure 41. Aliabad shelter map drawn by women shows the daily circuit (pink lines) of affected women living in shelters.

Here, I am interested in examining the spatial arrangements of shelter units and how inhabitants, mainly women have negotiated these in order to make it fit for living. The shelter unit designed by the AKPBS is an open-plan unit with central hearth/stove. The entrance is centrally located with a toilet and storage on either side. There is one window located on the wall opposite to the shelters.

Figure 42.a (left) Plan of shelter using showing location of stove. Figure 42.b (right) and Internal arrangement of stove tucked in the corner.

The open-plan, central hearth and gathering coincides with the central arrangement of the hearth/stove derived from the spatial order 1 **entrance – hearth – gathering** that I introduced in the previous section. However, the spatial arrangement is seen to be modified in the shelter units. This modification was recurrent in the shelters

in Aliabad and Altit. The following excerpt from my field notes highlights why the spatial pattern was modified by inhabitants. This engagement took place in one of the shelters in Aliabad shelter site,

> 'The shelter is dark inside. I am asked to sit in the centre and I start looking around. I look up and see a hole in the roof on top of my head. The host woman notices this, and says,
>
> "this was for the stove's chimney – but I changed the location of the kitchen, (she looks pleased when describing this) it was in the middle before, leaving small spaces on both sides and the wind from the doorway wasn't good for the stove. So I changed the location - now we have a bigger space – its good for our guests – (pause) - we have guests to attend to – it requires space" she says in a matter- of- fact way.
>
> The conversations continued around life after the disaster and after a while I asked how often they receive guests and if they host celebratory gatherings in the shelters, and the host woman responded 'not many guests, and we don't host celebrations here, we rent a hall or house for weddings and bigger celebrations. After this conversation, her shelter unit began filling up with women from neighbouring shelters. They started occupying the space reserved for guests - it was time for the 11o clock tea.' (Field conversations, Aliabad shelters, 2016).

It was interesting to note how an evident spatial order (gathering) found in traditional houses was re-introduced in the shelter unit by the women. The central stove position is abandoned to create more space for gathering and hosting guests. In this sense, the spatial arrangement for the gathering space seems to persist in the shelter units. This modification allows women to 'return' to the previous pattern where they are able to host guests and their 11 o'clock tea gatherings. Moreover, the relationship between wind draughts and stove is also deemed important hence re-arranged within the given possibilities. Apart from the internal spatial pattern, the storage spaces have also been improvised and introduced around the shelter unit which resembles the pattern of outdoor storage in traditional houses. The pattern of the outdoor vegetable patch also persists in the IDP shelter sites. Each shelter family keeps a patch of vegetables near and around the shelter for self-subsistence since reliance on the market is not considered favorable.

Another encounter which took place exemplifies the challenges which are hard to deal with,

> The women responds, "We are in a poor condition, she pauses and sips her tea, we had land and livestock - now even the sun and rain have become a nuisance,

> .. she sips more tea and continues. .. in the shelters it becomes very hot in sunny days and very noisy during rain, no place to sit or relax, if it rains at night then forget your sleep". I ask about the grass drying on the roof and they explain – ' it was to cover the roof – for some insulation but that doesn't really help much'. To this the host woman adds, 'it doesn't end here, wait for winters and this place is freezing – it's expensive, we need to burn more fire wood which isn't freely available as it used to be on our land'. She further explained that they cut and brought some of their trees with them as the water started rising and that stock was used up in about four years, now they ask relatives, neighbours or buy wood from the market (Conversations, Altit Shelters, 2016).

While the internal spatial pattern has been modified according to the needs within the given constraints, other issues persist because certain forces cannot be tamed or channelled to produce conditions favourable for living – such as the difficulty of sleeping under steel roof sheets in rainy nights or the unbearably hot temperatures in summer afternoons. Where challenges cannot be resolved, 'displacement' returns and makes itself present in the most peculiar ways - when the space refuses to 'look beautiful' or when space becomes hostile and expels one to spend the hot summer afternoon under the shade of trees. In this sense 'displacement' is not merely a sustained condition of being physically dis-located from home and lands, but varying intensities that cannot be anchored to any stable context, condition or situation. And 'return' is not only enacted through physical return to the lands and homes, but also by returning to 'spatial patterns' that the affected people desire in order to maintain socio-cultural relations.

6.3.2 The resettlement housing project

The resettlement-housing project is located in Danyore, a barren land in in close proximity to Gilgit city. The resettlement-housing scheme has been devised by the AKPBS according to the number of families still displaced and aims to resettle three hundred households.

On site, AKPBS engineers and site managers administer the construction process which includes managing payments from the affected people, checking quality of materials procured, construction techniques, house design, etc. The payment plan is devised according to the category each IDP household was placed in, which meant that some IDP had to pay a sum in order to start the house-building process. And payments had to be made during the construction process as well. The construction of the resettlement house has to follow the 'safety' standards of as advised by the AKBPS and is therefore constructed in cement blocks. During my visit to Danyore, the Site Supervisor explained that AKPBS engineers constantly monitor the site and construction process of houses hence "if anything is not up to safety standards; it is taken down to be constructed again in the correct format. The cement blocks are provided on site by the AKPBS cement block machine however,

there is no restriction on the IDP and they can either buy it from AKPBS or the market" (Conversations, Site Supervisor at Danyore, 2016). An IDP explained that "the cement block provided by AKPBS has a specific aggregate making it stronger than the ones available in the market and is thus slightly expensive, but I would like a 'stronger' block for my house" (Conversations, Danyore, 2016). According to the safety standards provided by AKPBS, lintel and roof beams are considered the most crucial elements in the house – the RCC roof rests on these beams hence these are strictly monitored by site engineers. The construction process and mechanism laden with idea of 'safe' and 'strong' house holds significant traction for the IDP. During my conversations with the affected people on resettlement site in Danyore, I could sense the issues they were grappling with; on the one hand, they were frustrated with the control mechanisms and constant monitoring of the resettlement process, on the other, they were drawn to the idea of 'strong' and 'safe' houses and felt the need to follow instructions issued by the AKPBS.

The resettlement house plan

The size of the house is calculated in terms of the number of occupants hence three categories have been designed (250sqft for a family of 3, 400sqft for a family of 5-7 and 600sqft for a family of more than 7). Each house has a small separate kitchen designed with counters in a 'standing' or 'western style' arrangement. The house has a centralised entrance and foyer with access to the toilet in the middle and two rooms on each side. The design has provision for expansion which the IDP are supposed carry out themselves in the next phase, given their spatial requirements and financial conditions. The resettlement houses are identical and lined in rows divided by pathways and lanes. Following are some of the features that are evident in the resettlement houses and are in contrast to the spatial patterns found in the traditional house and its surrounds. The analysis has been derived from observations and conversations, with lDP and reflects their view.

Figure 43.a (left) This plan shows the how the space is divided by the centralised entrance and corridor which leads to the two rooms on the side. Figure 43.b. (right) Photograph of CAD drawing of resettlement housing scheme taken at Danyore Site.

1. Separate Kitchen: In the design of the resettlement house, the hearth has been extracted from the central space and installed in space known as a kitchen in the corner. This kitchen space is a small enclosed room meant to have counters where a person must stand and carry out tasks such as cutting vegetables, cooking, dish-washing, etc. In the first phase of construction, this space is designated for the kitchen, while in the extension plan, it will be converted into a store and the kitchen will be moved to a larger space which will have to be constructed by the occupants.

2. The useless openings: The walls of the house have windows, which open out to the front yard or the buffer space between the boundary walls on the side and at the back. There is a one-meter distance between the window and boundary wall. The function of the opening is thus transformed; it is not arranged in a position to channel air in the house and neither does it act as a direct source of light. Due to the closely positioned houses, only diffused light will enter through the windows.

3. Rigid Plan: The entrance of the house is centralised and gives access to the rooms and the toilet directly opposite to it. The entrance and toilet thus cut across the space of the house segregating the spaces and making it a rigid plan. The extension plan of the house also places the entrance in the middle. The space of house that is already limited is further restricted due to the central division.

4. Confined Surrounds: The external space around the houses is limited and will be demarcated by boundary walls – the front yard can accommodate a small vegetable patch and two fruit trees. However, currently the soil is not fit for cultivation hence the garden will have to prepared. Grey water from the toilet and kitchen sink will be extracted through underground pipes and channelled towards agricultural plots near the river. These agricultural plots however, do not belong to the IDP community.

It is interesting to note what the design of the resettlement house assumes; with the rigid planning and separate kitchen space – the central division that segregates the spaces into smaller rooms. The kitchen is presumably meant for the women to occupy, who originally used the central space in the house. The following section describes my encounter and observations at the resettlement site in Danyore.

6.3.3 Speculating Resettlement

I accompanied some IDP families from Altit to Danyore, who had come to pay their first instalment in order to start the construction process. I could sense an excitement and apprehension, the woman (mother of three) exclaimed with joy, "MashaAllah, this is finally coming to life", followed by a pause and in a lower tone, "don't know what will happen, we will have to see what happens". As we walked around and took a tour of the houses under construction, the conversations, amongst the women included concerns on the space, kitchen and storage. Women especially criticized the separate kitchen. This is particularily due to the frequent use of the hearth where tea, food and gathering activities take place in the house. This hearth is occupied by the women and although the stove might be shifted to the side in the shelter unit, the woman still remains in the same room. However, in the resettlement house, the woman is expelled to a separate kitchen which results in exclusion from the gathering space. Therefore, the women speculated around the options of shifting the stove back in the room. The owner, a cousin of one of the women I was accompanying showed how his family had re-arranged the design of the house, "there was a very small standing kitchen marked here (he points to space the room), but we removed the wall so we have a bigger space for sitting and cooking", to which the women responded, "yes, that's important, a small kitchen which is also separate is no use to us".

As we walked into another house, the owner expressed the need for storage area and showed how he had inserted a cupboard in the entrance and given access to the toilet from one of the rooms, to which a woman expressed her disproval for the toilet opening into the room. Having noticed that one of the windows in a room directly faced the window of the house several feet away, I asked "now you will be able to see what happens in your next-door neighbour's house, to which the man replied, "No no! there will be a wall between the two houses'. I sense the despair that follows this conversation amongst women. Alongside this, they also discussed the small room sizes, which are insufficient to accommodate guests, a woman exclaimed, "we have brought the stove in the room, but cannot bring in guests, it's too small – it will hardly fit the family". This grievance is equally shared by men who stressed upon the importance of being able to host guests – "that's how it goes – but now with this small space, what can we do" (Field conversation, Danyore 2016).

In terms of the temporal forms and daily routines, there is little certainty as to what the inhabitants will do whilst living in Danyore. During conversations, with AKPBS, it became evident that 'economic stability' and 'livelihoods' of IDP were the aspects given most importance in the resettlement process hence the site was located in close proximity to Gilgit city. Their planning assumed that men will find jobs (daily wage, clerical

or something) and the women will stay home and carry out household chores. On the other hand, affected women were already grappling with the issue of being confined to the shelters, as they often iterated during our conversations, that "there is a lot of time now, we get bored" but in the cultivation season "we move back and forth between the land and shelter". In shelter sites, while their daily circuit maybe confined to the shelters, the seasonal circuits continued to be dictated by the agro-pastoral practices allowing women to move between the shelters and the land. However, Danyore is located approximately three hours' drive from their homes and lands. Explaining this, one woman exclaimed, 'it will be so much more expensive to travel between here and the land' (Field conversations, Danyore 2016).

The contextual arrangement of the resettlement site and the spatial arrangement of the house made the affected people apprehensive and hesitant. The spatial form of the resettlement house had been imposed as a top-down project allowing little possibility of re-arrangement and re-configuration. The rigid order of the resettlement house sliced up the daily circuit for the house hold members confining tasks to particular areas. Moreover, the spatial area of the house was compromised due to the centrally located toilet making it difficult to have a large gathering area. This spatial form imposed a certain kind of order in space where position of the woman was also reconfigured. In the resettlement house, she is expelled to the separate kitchen. And while she is still tied to the tasks of cooking food, making tea five times a day and hosting guests, the additional circuits added to her daily routine between the kitchen and the gathering room put her at unease. The spatial arrangement in the resettlement house displaces women from the central position they originally held in the traditional house.

Between the given form and the desired form, continual efforts of the IDP can be observed in the act of removing a wall within the internal space, inserting a cupboard for storage, or bring the hearth back into the room. However, this imposed form restricted other important factors such as the requirement to host guests, store belongings and host large gatherings. It also showed the absence of certain patterns that hold the life together – such as the space for grandparents who take equal part in raising the children and taking part in house-hold activities. These factors made the affected people hesitant to move into an unfamiliar landscape. It was evident during our conversations, that there is a lot of speculation and apprehension around how this resettlement house and site will be occupied by the affected people. The affected people raised questions about what facilities will be provided, who all will shift into the house and what are the possibilities of making do and living on in a place far from their village and lands. Upon my inquiry about how the house will be inhabited – the IDP man gave an unsure response, 'let's, see, we will come and sit here and see what happens'. Another man mentioned with some hesitation, 'the older ones who like sitting on the land with their cows and trees will remain there – the parents and their children who have schools will move here'. To this I asked how people will make do, and an older man responded, 'what can they do – they will go out for daily wage or a job if they find one – bring bread home and feed the kids and start off the same next day'. Another man said that he had been speculating if he could move his family here or let them remain in shelters and he could keep moving

between his house in Danyore and his land in Hunza Valley in order to make do and provide for his family. Here, I was reminded of the IDP I met on my first day in Aliabad, who told me how he migrates between Gilgit and his land in Hunza Valley in order to *make do* since the daily wage acquired from labour work or driving a taxi is not enough to sustain his requirements, while the land provides sufficient means to carry on life. In another instance, an IDP man had negotiated his livelihood options to stay and work on his relatives' land to earn money in order to avoid moving to the city and is therefore in no hurry to get involved in the process of building his resettlement house in Danyore. Some IDP families who still own land or have other means of subsistence were also stalling the process of constructing the resettlement house, while others are gathering funds to start building the house.

But the 'return to land' circuits were not the only one occurring in this situation. In some cases, men were deliberating on moving to cities in the South to find jobs. In such a scenario, they mentioned their preference of leaving their families in the shelters or with relatives rather than bringing them into an entirely new environment in Danyore. In other discussions, IDPs shared their plan of building the house now and renting it out which would be more beneficial to them than shifting away from their relatives and other possible means of income within the local landscape. Others saw this resettlement house as a future investment, in which case they will build the house to be used when children will go to university in Gilgit city. And there were those who have nothing left to look back to and they were slowly gathering funds to build this house. So, you will see a few houses coming up but not the vision of a housing settlement society with houses and a thriving community that was envisioned by the AKPBS in the plans. At least not yet. IDP families were hesitant to shift or completely relocate to Danyore re-settlement site. Hence the relocation and resettlement of IDPs and project completion desired by the AKPBS remains to be fulfilled as the step-by-step scheduled process. It seemed as though what the elders mentioned at the Land in Sarat had come to haunt this resettlement project – "we keep sitting here (at the lands) because it gives us much – everything is here" (Conversations, Sarat, 2016).

6.4 Concluding Notes

> "We don't understand why the IDP are not moving into the resettlement scheme", said the baffled personnel of the AKPBS when I inquired about the resettlement housing project for the IDP. He continued, "I realise it is hard for people to move away from the land they are attached with, but the organization has its own procedures that have to be followed. For us, safe and secure houses are the first priority and then it is their livelihoods, which is why we made it close to Gilgit city, so people could find livelihoods easily" (Conversations, Danyore, 2016).

At play are two forms in the resettlement procedures of the Attabad IDP and both operate on the logic of safety, security and livelihoods. The AKPBS concerns itself with particular standards and procedures of executing this logic. On the other hand, IDPs also enact the same logic of safety, security and livelihoods but in different ways. They do this through spatial re-arrangements, micro-migrations between shelter and lands, the deliberations upon how the house will be used and how people will come to inhabit it or not. In this sense, movements and circuits of the IDP in the desire of living in a particular way, as well as making do and living on defines the form the resettlement house will take; a temporary arrangement, a seasonal house, a future investment. The form of the resettlement house is being deliberated upon in terms of its potentials and challenges and doesn't stay contained as a resettlement house, rather stretches across and along the anticipatory planning of the IDPs compromising the normative structure of resettlement project envisioned by the AKPBS. The exercise of form-making in terms of Ingold's 'entanglement' shows how in the post-disaster landscape of Hunza Valley and Gojal Valley, the top-down planning of NGO and practices of IDP come together as a generative process that is largely shaped by the movements and practices of the affected people who will inhabit these spaces.

Moreover, the emergent forms in the post-disaster relief and resettlement procedures increasingly question the presumed notions of displacement and resettlement. What this chapter shows is how IDP are seen to be displaced from one form to another in the process of being supposedly 'resettled'. And within this process, the roles of men and women in terms of their practices of everyday life and their temporal routines are also re-configured. The relief and resettlement arrangements assume a gendered role for the women to take up or fit in, 'the stay at home wife or mother' who will have her kitchen to cook in. Women increasingly find themselves in a position where they feel 'useless' or 'disempowered' being confined to shelters or houses as there is no land to work on. These temporal confines are further sedimented by the resettlement project. On the other hand, men are also grappling with the pressures of their new role as the sole 'breadwinner', a position that was previously shared with the women and other members of the family. Inhabiting a spatial and temporal confine is a laborious task, when done against ones will – the men need to learn how to carry out a 'daily wage' and the women have to try hard and get used to 'being bored' and 'have nothing to do most days'. In this sense, 'displacement' becomes precisely a matter of spatial and temporal forms, where the people are made to inhabit forms they do not associate with. Cobo-Guevara et al. (2018) suggest that displacement is 'all kinds of disempowering affects and existential disorientations: precarity, vulnerability, othering; unstable and contradictory relationships of belonging; loneliness, disorientation, anxiety' (p.12). Displacement happens when 'one is expelled from the shelter during hot afternoons' or spends 'sleepless nights in thundery rain'. Displacement occurs as lives are assembled through imposed forms where people cannot or do not know how to inhabit a particular form. Displacement occurs when the position you occupied in the house is no longer yours in ways that you associate with it. Displacement is the anticipatory planning in the absence of forms that

holds one in place. Displacement is when you fail to inhabit a house that is meant for your rehabilitation. In this sense 'displacement' is not merely a sustained condition of being physically dis-located from home and lands but is embroiled in the multiple acts of *restrain* and *return* working against a condition that exists in varying intensities and cannot be anchored to any stable context, condition or situation.

7. Remainder of the disaster

This chapter responds to an over-arching concern within thesis: how does the disaster event live on. To examine this, I attend to the 'remainder' of the disaster event in its physical, material, and emotional forms that question the temporality of the disaster event as that which has passed by exploring the different ways in which the 'presence' of the disaster event is felt and negotiated by different actors. To do this, I will engage with entities that trouble the assumed stability of the disaster in the post-disaster landscape where the event is supposedly no longer present. Exploring the traces and remainder of the disaster event brings to life different ways in which the event lives on and troubles the 'post' in the post-disaster landscape which is known as the phase of recovery (where the event subsides and dissipates, and things return to normal and move on).

In line with constructing Stengers' cosmos (2005b) this chapter specifically analyses what stories do the remainders of the disaster tell, and what other lives, aspirations, and possibilities come to light while engaging with the traces of the disaster event. This means attending to the afterlives of the disaster event; how its traces are negotiated and lived with in the everyday landscape of Hunza Valley and Gojal Valley – as well as attend to what they do to the post-disaster recovery. This chapter will assess the post-disaster scenario through spectral geography which allows one to attend to the traces and remainders of the disaster event. This chapter experiments with different forms of analysis and representation in order to engage with the remainder of the disaster, highlighting how the disaster event continues to live on in varied and disparate ways in both, tangible and material, and intangible and emotional. This chapter begins with presenting an encounter from Aliabad Shelters highlighting how the disaster event seems to be very much present for the affected people, especially affected women who live in shelters in Aliabad. The chapter will then introduce three conceptualizations of remnants and traces in order to attend to the traces in the post-disaster landscape of Hunza Valley and Gojal Valley. These three conceptualizations are then mapped in the empirical material showing how the Attabad disaster remains present and continues to live on in different ways. The empirical material is discussed in four

sections with analysis at the end showing how the disaster is not a single event, but rather multiple ones that spread across various temporalities and spatialities challenging the normative ideas around recovery.

7.1 An uneasy encounter

Field Diary, 18th October 2016.

When I entered the Aliabad Shelter site, I saw an old man tending to his vegetable patch, while his wife sat in the doorway of the shelter with her embroidery. I waited for them to notice my presence. The man saw me and inquired about my presence and I replied, 'I am carrying out some research on the disaster'; he responded sourly, 'they already took truckloads of information, what more do you want?'. I immediately felt a kind of hostility in the air, of being unwanted here. After some hesitation, I was invited into the shelter for tea. The slight delay in the invitation for tea – the delay in asking me to seat myself in the shelter [...] this was different from all the other sites and villages I had been to. There was always a sense of comfort and warmth, but here in Aliabad Shelters, it was as if the loss was looming in the air – in the unsaid, the brief conversations, the sour tone, and the silence of women. There was hesitation and almost a disinterest in what I had to say. It was not even that they were busy in the household chores - they just did not want to engage. It felt as if the disaster had happened recently and it was locked in a time and no one could think of moving on. It seemed as if the wound was fresh and I was being kept at a distance. The disaster hovered like a dark cloud over the shelter site.

How do I translate this encounter while keeping the sheer presence of the disaster event alive in writing? Must I reduce it to a particular description or representation? During conversations with the locals, the sense of loss and trauma could be observed not only in the way they spoke about the disaster and its effects but also their expressions, gestures, and silence. As I moved from one shelter to another, several acts, gestures, tone, moments of silence, movement, and whispers of the women contributed to the 'presence' of the disaster event that became larger and heavier as time went by. This 'presence' became so uncomfortable that I ultimately shortened my research session trip in Aliabad Shelter site and returned to the guesthouse. Throughout the twelve weeks of field research, this three-hour encounter stayed with me, specifically, the two instances described below that contributed in building up the unease during fieldwork in Aliabad Shelters:

a) When I approached the shelter site, I saw a man watering plants in front of his shelter and a woman sitting doing embroidery in the doorway. I introduced myself as a researcher who was working on the Attabad Landslide disaster to which the man responded, "they already took truckloads of information, what more do you want?". The woman looked up from her embroidery and looked down once again. I stood there thinking about what to say and then decided to reiterate, "I would like to have a conversation about it if that's okay". Silence.

> The man kept watering the plants and the woman continued working on the embroidery. "Okay" he finally said with some hesitation, "you may go in". Silence followed once again. The woman looked up, and then stood upright and signaled me to come inside. As I sat down, she began making tea and seemed resistant to starting a conversation [….] between questions and long pauses, I received a few brief answers in a sour tone.
>
> The slight delay in inviting me into the shelter had made me feel uncomfortable. As she did not offer many words either, I felt even more unwelcome.
>
> b) In another shelter, a group of five women gathered to have a conversation with me about their lost homes, orchards, and lands. We spoke about how much they remember and what have they forgotten over the years and what do they miss the most, etc. A drawing exercise was introduced in the process, where women were asked to draw their houses and lands and show their daily routines by marking their daily circuits of work and movement. Four women with some hesitation began drawing their houses with help from their daughters and gradually started taking an interest in the exercise. However, one woman refused to draw the house – she sat there and watched the other women draw and her blatant refusal placed me in an uncomfortable position. I asked her why she was not drawing but she didn't answer and smiled instead. I asked the others why she was not drawing and one of them looked at her and exchanged a few words in Brushiski, replying "she doesn't want to – it pains her". I didn't have the courage to ask her why, however, at the same time I questioned my research exercise and engagement that is all about 'remembering' the disaster or what is left of it.

A slight delay in offering tea made me feel so out-of-place. It defied rules of the local hospitality, which I had become accustomed to during my fieldwork. During the three hours spent in the shelter site, the unsettling atmosphere developed through the sour tones, silences, and delays. It seemed as if the 'disaster' was very recent for the people living in Aliabad shelters. They had lost their homes, land, routines and livelihoods to the disaster event, unlike the other IDP in Altit Shelter site where they could return to the land demarcated as the Red Zone area. Here, there were no lands left to return to and the conversations with women reflected the sentiments: '*it is all gone, what's your research for?*', '*it was ours that we lost, this isn't ours*' and that '*even the sun and rains have gone against us (in the context of living in a shelter),*' and that '*land is – the land was everything*'. In addition to the loss of a material entity, women also expressed how they had lost a time 'filled with activities'

and they now live in a time where 'the days are too long and empty'. In this sense, the affected people living in Aliabad shelters were grieving the loss incurred due to the disaster event; the loss of home, land, belonging, and the loss of a time filled with chores and activities that can no longer happen. Surely the other sites and villages had moved on from this disaster event, possibly on a path of rehabilitation because I had not come across such an atmosphere anywhere else. But here, the disaster was ever present in the silences, the sparse responses, and pauses creating an 'unsettled' atmosphere. It accompanied them in their empty time, the unbearably hot shelters in the summer afternoons, and the noisy nights during rainstorms. For instance, the woman who refused to draw her house grieved the loss of a home she can no longer return to. And she refuses to return to it through the drawing exercise because there is no real/actual possibility of a return; she cannot relive the loss. What she has lost, accompanied her in the present – both the loss of home and the cherished memories of home co-existed and her refusal to draw her house indicated that her mourning was not over. Her mourning was an 'unfinished' business.

More or less, the encounter in Aliabad Shelter site was unsettling, and it recurs to me often, compelling me to ask why I felt so 'out of place' and uncomfortable. It might be because it was not meant to happen this way; normally there should not have been a delay in inviting me for tea, the tones should not have been so sour, and the woman should not have refused to take part in the drawing exercise. Overall, I should not have had to leave the shelter site with a strong unsettling feeling. In some sense I am saying that when things happen, which are not supposed to happen, they return to disturb us because some wrong has been done. And it is this 'return' which has the capacity to disrupt a linear sense of time, where the past returns to disturb the present in different ways. Here, the moment becomes a rupture as temporalities collide and reside simultaneously, making us revisit the event. This has important consequences for how we might understand the phase of 'recovery' in a post-disaster context, which implies 'return to normal' or 'constant rehabilitation' for the people who have suffered due to the disaster event.

The kind of haunted space-times that I observed with the affected people and IDP were related to the loss of land, home, and a way of being in the world. These experiences were not only observed with affected people but also my own presence in a landscape that I had known prior to the disaster event. Work on spectral geographies and landscapes tainted by memories and ghostly presences explores relations between landscape, traces, and absence as constitutive elements of place (Wylie 2009; Tolia-Kelly 2004; Edensor 2005). Places are constituted by the 'ongoing composition of traces' (Anderson, 2015, p. 7), as residuals of past civilizations pile up, physical infrastructures deplete, and war or conflicts cause destruction. Here, conflicting temporalities co-exist with reference to place, landscape, and memory that have been discussed in terms of 'absence, distance, displacement and the non-coincidence of self and world' (Wylie, 2009, p. 279). In the post-disaster landscape of Attabad, the experience of absence, loss, and inability to return seemed to create a persistent loss, which was present in varying intensities during the engagements with people who lost their homes and land to the lake

and were now living in the Aliabad Shelter Site. In this chapter I am interested in analysing the 'remainder' of the disaster continued to appear in the landscapes in different ways. It aims to explore how these remainders and traces of the disaster event are encountered, negotiated, and appropriated by the affected people and how the disaster continues to live on. In what follows, I will engage with the concept of 'remainder' and highlight through empirical findings how the Attabad 'disaster' continues to remain present in the post-disaster landscape. This chapter is thus dedicated to understanding how affected people negotiate and live their lives in the presence of an immense loss.

7.2 Why remainders matter

> 'The disaster is the improperness of its name and the disappearance of the proper name (Derrida); it is neither noun nor verb, but a remainder which would bar with invisibility and illegibility all that shows and is said – a remainder which is neither a result (as in subtraction), nor a quantity left over (as in division)'.
>
> Maurice Blanchot (2015, p.40)

The disaster event remains in ways that cannot be quantified or measured, but it nonetheless remains and affects the stable temporality of the present time. The remainders of the disaster include physical traces of what is left behind, such as objects or remainders associated with a place or event, as well as memories of that which is lost due to the disaster event. Although the disaster event has passed, it lives through traces that are neither fully absent, nor present; however, neither do they encompass the whole event nor that which is lost to the event. Usually, a trace is understood as a weak or fragile reminder left behind by something that is no longer there. Traces can be the material presence as debris of a destructed building or site, or scars or marks on a particular surface. However, traces are also the immaterial remainders that exist in the form of feelings, memories, and emotions (Anderson, 2009, p.5). A trace can also appear and emerge in multiple forms: natural, material, emotional (loss, fear, trauma), embodied (fat or unhealthy), or even an arrangement (spatial form) and a haptic experience (smell of wood). They are also visceral where they appear momentarily triggering memories of experience, associations, loss, belonging and displacement.

In what follows, I will introduce three conceptualizations around traces and remainders that align with my interest in the remainders of the disaster event. In so doing, I will show how these conceptualizations over-lap simultaneously effecting the construction of and recovery in the post-disaster landscape of Hunza Valley and Gojal Valley.

7.2.1 Traces tell other stories

Traces are an interesting terrain to explore as they can offer more than what is visible or easily accessible and therefore invite investigation. Traces and remainders are suggestive in nature, offering hints and clues, but never the definite or the entire story. This suggestive nature of a trace allows us to revisit the remainders and explore connections that can tell us different stories, as well as work against the dominant narrative. For example, in the investigative work of 'forensic architecture', traces are used to reconstruct the truth story (Weizman, 2014). These traces are material (buildings, debris, dust, etc.), as well as sensorial (digital sensory apparatus), for example, Weizman (2014) explains that when the dust settles after a destructive event, 'the way it settled can become as evidence' (p.16). On the other hand, 'movement on water leaves no trace' (Weizman, 2014, p.26) thus, when investigating the African migrants missing boat case, studying the sea as a 'digital sensorium' (p.26) in relation to other vessels and communication links helped locate the path of the boat. Here, the network became the trace through which the story could be resurfaced. Traces are frail remainders, yet they have an agency and perform an important task of providing another story amidst the prominent ones. Working with traces allows us to provide a platform for other narratives and stories to flourish and this aligns with the cosmopolitical inquiry and construction of a common world. As discussed in the third chapter, the construction of the post-disaster landscape must present the multiple, other, oppressed, and stories that have been silenced.

While my interest in exploring the traces of Attabad disaster is not of an investigative nature in the sense to look for the truth story, but this conceptualization Weizman offers allows us to look for stories other than the dominant one. Therefore, working with traces of the disaster enables us to re-construct and re-surface multiple stories of the event. By exploring the various traces and remainders of the disaster event, this chapter seeks to understand in what forms is the event remembered, lived with, and lives on. Engagement with the landslide debris as a remainder of the disaster may help overwrite the prominent narrative (blocked the highway and formed lake) by other stories (debris occupied cultivatable land, homes and bodies are buried under it, or that sounds can be heard from underneath it sometimes), which are very much present for the affected people in Hunza Valley and Gojal Valley. I am, therefore, interested in working on traces in order to explore other stories that the remainders of the disaster might reveal. These enable us to map how the event lives on through its traces (debris, lake, silt covered land, submerged lands, dead trees, etc.), as well as how affected people live with and negotiate the material and immaterial remainders of lost homes, lands, familiarity, and belonging. Moreover, working with traces allows me to surface the networks through which these traces thrive in the post-disaster landscape, for example how silt laden land is lived with, appropriated for use within the everyday life, or how the lost land is remembered and spoken about. Lastly, reconstructing stories of how traces are lived with and negotiated in the post-disaster landscape may also surface the forms in which reconciliation and recovery are sabotaged by the traces and remainders of the disaster event.

7.2.2 Remainders and residual affects

While there are different kinds of traces that evoke different meanings, I am particularly interested in traces that suggest a loss of associations as well as belonging and of marks of lives once lived and lost (Nicholl, 2011). One way of approaching this is through the notion of remnants, especially explored in the work of Yael-Navaro Yashin and others (2012) who describe, 'remnants as multiplex phenomena which have an enduring effect in the after-life of persons and communities that were once associated with them'. Yashin's work explores the concept in terms of the post-Turkish-Cypriot war landscape where she engages with the material and immaterial residues of the objects left behind by communities that are no longer there. She explains that 'the subjectivities and residual affects (that) linger, like a hangover, in the aftermath of war or violence' (Navaro-Yashin, 2009, p.5) and contribute to the construction of social relations between communities that fled their homes and those that inhabited them. She discusses how the left-behind objects have residual affect triggering certain kinds of responses. While her work explores how occupant communities (Turkish Cypriots) appropriate objects (she discusses as 'abject') left behind by refugees (Greek Cypriots) from the war, I am particularly interested in the residual effects of objects and materials left behind by the disaster event in a ruined and desecrated state, displacing communities and rending homes and lands inhabitable. Through this I explore how the submerged and transformed landscape of Gojal Valley has residual affects and how do local communities respond to the ruined and transformed landscape? This includes exploring how affected people live with the sight of half-submerged houses (once homes) that are not fit for habitation anymore, as well as how they move past the acres of land and associated memories which are lost to the silt. These are some of the concerns that I will address later in this chapter through the discussion of the empirical material.

The post-disaster landscape is laden with material and immaterial remnants of the event and that which has been lost to the event: the debris, lake, displaced people, shelter sites, and the memories and experiences of lost home, land, and a way of being in the world. In Attabad Payeen, for example, a local man exclaimed that 'the disaster is alive in its debris', as he pointed towards the debris of the landslide which wiped away half his village (Fieldnotes, Attabad Payeen, 2016). The debris was a continuous reminder of death of his daughter and grandson as well as the destruction and loss. Moreover, the debris in its material presence continued to occupy the land he owned – he could not move the debris thus could not use his land. In this sense, for him, the disaster was alive in the debris, both as a memory of the loss and destruction as well as the physical occupation of his land. The debris became the material trace which had residual affects and reminded the person of loss, sheer presence of the disaster, and his helplessness. It is through these affects, produced by traces of the destructed and ruined lands and trees and forced displacements from home, that the event lingered in the post-disaster landscape. I will therefore explore the residual affects of material traces when discussing the empirical material in terms of how the material remainders of land, trees, houses, objects, etc. lingered, evoked memories and longings, triggered anxiety or angst, or feelings of displacement since this chapter engages with the question

of how the remainders were engaged and negotiated with, and how the affected people continued to live in the presence of loss.

7.2.3 Traces as ghostly remains

Post-disaster landscapes are laden with traces of the disaster event, and there are multiple ways in which people engage with these in their everyday lives. Ogborn (2005) suggests that traces can be explored through 'tracing journeys, interpreting located moments of negotiation, and listening for the presence of ghosts (p.383). On the other hand, Derrida warns us from thinking of the trace as a mere track left by a thing that can be followed from one paw print to another in a quest to link things. Derrida's (2005) use of trace is not a 'trail of the hunt' but the cinder, he explains,

> 'The remaining of the remainder is not reducible to an actual residue, or to what is left after a subtraction, either. The remainder is not, it is not a being, not a modification of that which is. Like the trace, the remaining offers itself for thought before or beyond being. It is inaccessible to a straightforward intuitive perception (since it refers to something wholly other, it inscribes in itself something of the infinitely other), and it escapes all forms of prehension, all forms of monumentalization, and all forms of archivation. Often, like the trace, I associate it with ashes: remains without a substantial remainder, essentially, but which have to be taken account of and without which there would be neither accounting nor calculation, nor a principle of reason able to give an account or a rationale {reddere rationem), nor a being as such. That is why there are remainder effects, in the sense of a result or a present, idealizable, ideally iterable residue' (p.151-152).

This view is significantly different from how traces work for Weizman (2014) in investigating a crime scene in Forensic Architecture, or for Yael-Navaro (2012) when engaging with objects in the post-war landscape. Here, attending to the trace is a matter of listening for the presence of ghosts where the remainders are only accessible through the spectral zone, an instable presence which can return to haunt at its own whim. It is crucial for understanding the 'haunted' space times of the post-disaster landscape because the ghostly presence established an important relationship with loss and absence caused by the event. This relationship is that of injustice. In his discussion on Hauntology, Derrida (1994) explores the absent-present figure of the revenant ghost which is neither alive nor dead and certainly not fully comprehensible, but it returns to haunt. He claims, 'if I am getting ready to speak at length about ghosts, inheritance, and generations, generations of ghosts, which is to say about certain others who are not present, nor presently living, either to us, in us, or outside us, it is in the

name of justice' (p.18). The return of the ghost produces haunted space-times pertaining to those events and instances where some injustice was done.

The moment of encounter with ghost 'never produces comfort but instead angst, imbalance, apprehension of untimeliness and a 'disadjustment of the contemporary' (Derrida, 1994, p.99-101). In this sense, the return of the ghost creates conditions that threaten and unsettle the project of recovery. The encounter with the ghost produces what Derrida (1994) explains as 'time out of joint' (p.49), otherness-oriented nature of time. Following his work, Buse and Scott (1999) suggest that haunting, 'by its very structure, implies a deformation of linear temporality' (p.1) where you are taken back to a past undermining the stability offered by the present. The deformation of linear temporality then offers other routes and terrains to explore relations with loss and absence and these can affect how we approach and think about rehabilitation and recovery. Derrida suggests accessing these conditions by opening up spectral spaces that go beyond linear time and displace the present from itself. Here, a stable sense of haunting is not possible because there is always something unknown and absent in the presence that is felt and experienced; the moment of 'return' or 'appearance' of ghostly presence is always an event as one experiences the ungraspable singularity of the absence or loss that produced it. Avery Gordon (2011) explains these moments of encounter with the ghost as,

> 'those singular and yet repetitive instances when home becomes unfamiliar, when your bearings on the world lose direction, when the over-and-done-with comes alive, when what's been in your blind field comes into view' (p.1).

Here, the spectral moment offers the possibility of interpreting the present differently, creating an openness to once again revisit and comprehend that which has not been articulated. In this scenario, the return of the ghost must not only be seen as a repeated instance of experiencing loss but also a possibility for imagining an alternative present. It is these moments that I explored in the post-disaster landscape, where experience of loss is lived and negotiated in the present by the people who lost their home, lands, associations, and belongings to the disaster event and to understand how this 'return' effects the project of reconciliation and recovery.

7.3 Working with the debris of the disaster

The three points I discussed above can be summarised as: remainders have an agency to tell stories other than the dominant ones, remainders have residual affects that linger in the present, and remainder are the ghostly return of that which was lost. These multiple forms of remainders have the capacity to tell different kinds of stories about how the post-disaster landscape is reconfigured and shaped and how the disaster event continues to haunt the post-disaster landscape. These other stories open up the possibility of dismantling narratives of recovery and resettlement as well as challenge the linear temporality of a disaster event that is assumed to have passed.

This exploration also entailed working with the idea of 'loss' as it was articulated, managed, and governed, as well as felt, remembered, and experienced. As the man expressed in my encounter at Aliabad shelter site, 'they took truckloads of information…but to no end' (Conversations, Aliabad shelters, 2016) exemplified his disappointment with the information gathered by NGOs through numerous questionnaires and checklists to assess loss and damage to property and assets of IDP in order to draw up a fair and equitable resettlement plan. The truckload of information resulted in allocation of resettlement house and cash awards. However, his loss could not be measured in checklists and numbers – there was no end to the loss he had suffered, and while he was a recipient of aid and resettlement plans designed by the NGO, there was no compensation for his lost land, home, familiarity, memories, sense of belonging, and much more; a loss that is buried under the silt and submerged in the lake (Conversations, Aliabad shelters, 2016). The ones living in Aliabad shelters are primarily dealing with the absence of a lost landscape, which was no longer there. In this scarcity of traces, the sight of dead trees contains the memory of living trees, the homes, and land submerged in the water – the absence of trace as it gets buried under the debris, land submerged in the lake and being continuously covered with silt as the river flows through; it is this process of denudation that has taken away the possibility of return. Just as the landslide debris over the years has become concrete, so have the lands submerged in the lake covered with layers of silt cemented the impossibility and inability to return. They have outlived their homes, land, fields, and orchards and it is this erasure that haunts them, refraining them from experiencing a sense of belonging elsewhere. These 'hauntings' relate to the inscribed loss, like the 'marks' left upon a surface which cannot be erased, a deep wound. It is this inscribed loss that corresponds with the figure of the ghost which returns to haunt. The ghostly return has an agency and the capacity to organise mourning which has consequences for how we understand post-disaster recovery and rehabilitation. With this understanding of traces and remainders in the landscape that is lost to the disaster event, I will step into the field to analyse how traces exist and operate in the post-disaster scenario in Hunza Valley and Gojal Valley.

The disaster continues to live in the remnants and traces of lost home and lands and working with traces allows us to revisit the afterlives of the event. In that sense, every landscape is full of traces and consequently of ghosts from the past lives, however, the past does accompany the present in a sustained condition as well as through ghosts. In what follows, this chapter will explore the kinds of traces that can be analysed in the post-disaster scenario of Attabad as well as explore how the disaster event remained present in peoples' everyday lives and the kinds of relations they established to the loss of land, orchards, fields, and homes. These include the debris of the landslide event that buried several houses and lands and still occupies the territory, or the resultant lake formation which submerged an entire village, orchards, lands and houses, and continues to do so.

This chapter seeks to address how the former-inhabitants (affected people) of Gojal valley negotiate absence and loss of a familiar landscape; a landscape that was miraculously transformed leaving nothing to be claimed except silt laden land, dead trees, and lost homes. By taking a few instances and encounters from the field, I

will explore how the traces came to bear upon the space-times of everyday life in the post-disaster landscape. Each section engages with the ideas of traces introduced in the beginning, that is that traces tell stories, other than the prominent ones. Therefore, I will highlight the interactions that I had with the affected people of the disaster event in order to surface the multiple stories through which the disaster event lives on. The second concern relates to the residual affect of traces, which will be discussed in terms of how affected people deal with the presence of loss, a transformed landscape, and the remnants of home, lands, and trees. The third aspect concerns itself with the haunted space-times of the post disaster landscape that will be highlighted through the different forms in which the event returns to haunt the present. The empirical material shows how traces emerge, transform, fluctuate, transgress, and unsettle the phase of rehabilitation and recovery. Each instance that I discuss in the next section highlights a 'mode of contact' with the trace and most of these are followed by discussion and analysis. These sections are experimental in form where I present descriptions and analysis of conversations with local people, my own thoughts when encountering the landscape, and photographs that I took in response to the presence of traces. These forms are an attempt to capture the residues, remainders, and ghostly presence of the disaster event. I will begin with my own experience of encountering the Attabad Landslide and Lake which began a series of visits starting in 2011, followed by a trip in 2014, and eventually in 2016 for my PhD field research. In each of these visits, the Attabad lake and surrounding landscape was experienced differently in terms of how the presence of disaster was felt and experienced in these instances.

The next section presents my experience of the landslide and lake through a series of my own observations and conversations with local people and highlights how the trace emerges as an instable form evoking different kinds of feelings and emotions. The second section presents a series of conversations with local people about the transformed landscape and how it is experienced by the affected people, owners, and displaced people of the landscape. The third section is dedicated to an object left over by the disaster event that evokes certain memories in terms of its presence as an alien object as well as a stark reminder of the event. The last section is an engagement with the desolate landscape of the disaster through a series of photographs in an attempt to relate to the disaster event through its remainders. Towards the end, I present an analysis on how traces and remainders in post-disaster landscapes tell different stories of the disaster event.

7.3.1 Becoming the Attabad lake

Field Diary, 23rd July 2014

I had heard about the lake that was formed by the landslide in 2010, but I hadn't had the opportunity to see it until a year and half later. In July 2011, I travelled to Hunza valley to visit the landslide area, a trip planned for no reason other than a curiosity to witness a disaster site in a relatively remote area of Northern Pakistan. Traveling from central Hunza towards Gojal, it took more time than I anticipated to reach the landslide area. When I had visited the valleys in 2007, it took 45 minutes by car to travel from central Hunza to central Gojal on the Karakoram Highway. In 2011, however, the road was completely transformed as only four-wheel drive vehicles or trucks could access the road carved out from the landslide debris in order to access the lake.

Figure 44. Dirt road carved through the landslide debris, 2011.

The air was filled with dust and people walked about with their face wrapped in a cloth. The feeling was overwhelming; this was the debris from an enormous landslide event – the minute efforts of humans against the immense scale of nature were evident in the attempts to navigate their way across the calamity, the debris, and lake. As we reached the top of debris, the driver alerted us to look out for the lake as the air was filled with dust and there was no sign of a lake. We moved further and parked our vehicle behind other lorries and trucks and I got out of the vehicle into the dust filled air. With some difficulty I made my way to the spot where I could identify a turquoise blue blob. I stood there and tried to look as closely as possible – this was the lake surrounded by an enormous amount of debris and mountains towering thousands of feet above it. The disaster was present in its absolute entirety and in its immense scale and presence.

They said the lake was approximately three hundred feet deep in some areas – a measurement I couldn't even begin to grasp. Amongst the long line of trucks parked on the sloping road, boats and other things docked on its harbor, the lake was incredibly present in its enormity and power, disrupting movement and activities across the valley. I heard my car driver telling another visitor in a reassuring tone, "it (lake) is not going anywhere, it is here to stay". The lake was present like leviathan between the valleys, re-organising the entire movement and activities in the valleys, having submerged an entire village and caused extensive devastation and destruction of two others.

Figure 45. Lorries lined up on the dirt road.

Field Diary, 23rd July 2014

When I visited the Hunza Valley and Gojal Valley again in August 2014, the lake was still only accessible by the road carved through the debris. The dust had settled by now, and the traffic seemed to be relatively ordered. The trucks still were lined up and the boats docked by the lakeside and a few tuck shops could also be seen. A considerable order had been achieved since my first visit in 2011. This time, I took the boat in order to cross over to the other side (Gojal Valley). The journey stirred a slight fear; the blue lake, although beautiful, was deeper than three hundred feet and almost 27 kilometers long and could become turbulent as the wind passed through the mountains. The turquoise blue lake made its way through the mountains and eventually opened up to the panoramic view of Cathedral peaks – it was certainly a specular sight to witness. However, it felt unethical to take pleasure in something caused by a disaster and yet it was difficult to refrain from expressing awe and delight as I watched the beautiful, panoramic view. Who could have imagined a fresh water lake in the middle of

barren Karakoram Mountains and coloured boats moving to-and-fro between Gulmit and Attabad?

Figure 46. Pleasing for the eyes? What a disaster! exclaimed a man on the boat, 19th August 2014.

Field Diary, 27TH October 2016

In October 2016, when travelling between Hunza Valley and Gojal Valley for my PhD field research, the lake was no longer a disruption. The black-top Karakoram Highway and tunnels built by the Chinese and FWO had been completed and the access between Gojal and Hunza Valleys was resumed. As we approached the landslide area, the road bypassed the debris and lake through a series of tunnels spanning 24 kilometers, reducing the journey time by several hours (by boat) to a few minutes (by jeep). The lake was no longer a disruption, but rather existed as a tourist hotspot. As we bypassed the debris and the lake, I thought about how they now exist as sites, moments, and experiences that have passed, and their presence can now be bypassed without triggering fears and anxieties that were once ever so present.

In each of these encounters, the disaster was made present through its remnants in different intensities, from the sheer and absolute presence to being reduced as a mere trace of the disaster event. In the first few months within the formation of the lake, landslide experts, geologists, and engineers estimated the flooding of the lake, and consequently the Southern areas (NDMA Report, 2010). The locals, however, had faith, "the debris which blocks the lake is stronger than any mixture; boulders, mud, and silt mixed together with force of the landslide and sediment by the lake water over time; the lake would not burst" said Waheed in Gulmit when I was

inquiring about the apprehensions surrounding lake formation. The event of lake formation is not a new one, as it had happened before as Nazir BulBul explained,

> "we were reminded of a story which we heard from our grandfather who heard from his grandfather – a lake was formed in 1854 which engulfed the villages and valley between Attabad and Sost […] many say that Attabad village itself was built on the silt of the previous landslide" (Conversations, Gulmit, 2016).

In another instance, a local reiterated the same story with a slightly different version involving a saint, saying "we thought it was just a story, but most possibly there is truth to it – who could imagine a lake formation upon lands which our grandfathers cultivated". It was interesting to note how the remnants of the event led to other traces of other events, allowing locals to revisit their folkloric stories from past times. In this manner the traces of the past event as memories allowed the rewriting of a contemporary geological mass through folkloric stories.

Another mode of contact observed with the lake was as a remainder of the disaster and reminder of loss. This was during conversations with locals who expressed serious concerns regarding silt left over by receded water of the lake, "the problem is not the debris but the silt; Gojal river brings most of the silt from the glaciers and that is filling up the lake bed and the spillway", explained Didar, a local resident of Gulmit. He further iterated "the silting in the lake is actually increasing life of Tarbela Dam downstream, some say by seven years" (Conversations, Gulmit, 2016). The silt seemed to be the major problem due to which lake level was gradually increasing and may result in a spill-over. Another man from Aliabad shelters expressed his concern "my land is in close proximity to the lake; although it has re-surfaced, but I cannot be sure if I can use it – the water levels seem to vary through the seasons and each year it is rising, something will need to be done" (Conversations, Aliabad, 2016).

The conversations above show the pulsating anxieties around the lake that owe their presence to the shape-shifting lake; as the water began to rise and drove the people out of their lands, it also receded due to the spillway, exposed land, and was gradually getting filled up with silt, the water in the lake thus increased accordingly. Although the activity beneath the lake's surface was not visible it was rapidly transforming the landscape with additional layers of silt causing anxiety and anticipation. This anticipation was not only related to the fear that the lake might spill over, but also due to the concern that the lake had occupied and transformed familiar landscapes. The fear that was prevalent was that when the land emerges, it 'doesn't look like its mine, the one I cultivated' (Conversations, Shisket, 2016). While the lake continues to exist as a reminder of loss, it also holds the potential of further loss. The land was already lost to the lake and was being further lost to the silt. In this sense the lake submerged the land and has dissolved all possible traces of it – the anxieties around

the lake-spill were equally associated with how the lake might have changed the landscape with layers of deposited silt.

By expressing the different encounters with the lake, I want to iterate how the lake fails to assume a stable form as a remainder of the disaster event. Here, the lake, as a remnant of the disaster event tells multiple stories, beginning from the southern end in Attabad all the way through to Gulmit. The lake touches the different geographical scapes in different ways; while it fails to bother the inhabitants of Attabad and Sarat, it is very much present as a potential threat to the gradual slopes of Shishket. The shape-shifting form of the lake triggers various kinds of feelings: loss, fears, anxieties, and anticipations. Even seven years on from the disaster event, the lake exists both as a memory of the disaster and an anticipation of a crisis, a return of the event. The instability of the trace triggers a different kind of haunting, of all the past events that formed lakes, the resultant devastation, and the horrors it might bring as it thrives and lives on. Here, the past, overcome by the present looks into the future – the lake caused by landslide, submerged land, is waiting to spill over at any moment 'forking the future and the past' (Gordon, 2010, p.5). The lake as a remnant of the disaster event is not stable and it does different things (shape-shifting physical form; evokes different feelings; disrupts linear temporality) at different times and multiple things at the same time.

In this sense the materiality of the trace fluctuated in form creating different kinds of residual affects; the lake engulfed habitable and cultivatable lands incurring an immense loss and evoked fear and anxiety as it continued to deposit silt which could ultimately flood more lands. The instability of trace created a lingering loss as well as an anticipated loss for the affected people who live within those landscapes. The material instability of the lake created a different kind of haunting; of how the layers of silt might have transformed the landscape, a feared absence and loss that will be incurred in future, and an anticipation of what might have changed as the lake spills over and dries up. This instability of the trace offers avenues to explore the *other* stories that traces can tell, the residual affects it can trigger, and the ghostly as well as anticipated return of the event. Each shape-shifting moment brings to light other stories disrupting the dominant narrative of the disaster as that which had passed. In this sense, instability of the trace has the potential to enable multiple stories to co-exist, stirring up memories from the past and weaving stories of possible futures.

7.3.2 Wrecked-scapes of the disaster

When entering Gojal Valley through the newly-built tunnels (China- Pakistan Friendship Tunnel on the Karakoram Highway – now CPEC) and the smooth drive on the Karakoram Highway, it is almost impossible to imagine what this travel meant only two years ago. The silt-covered landscape was strikingly evident when exiting the tunnels, in the grey hues of the sand and mountains. Here, almost all traces of former life could be observed in the abandoned roofless structures, silt-laden, barren land, and the dead wood of tree trunks. The silt-scapes were alive though, as the wind passing through the valley blew the sand, displacing it from one area

to another. I had already reached the next settlement, not realising that I had driven past the sunken Ayeenabad village. The landscape had drastically changed as Ayeenabad had completely disappeared.

Figure 47. Tractor trolley taking away dead wood in Shishket.

Here, the sheer presence of disaster could be traced in the panoramic views of the turquoise blue lake, the barren silt-scapes, dead tree trunks standing tall, and the abandoned, roofless dwelling units. The remaining settlement amidst the silt and lake is known as Shishket Village, a considerably flat valley few kilometers ahead of Ayeenabad. Here, large areas of land were dedicated to wheat and potato crops, surrounded by orchards, while a significant portion beneath the main highway is occupied by the silt, abandoned boats, and dead trees. However, some pathways and roads were still visible, and a tractor trolley could be seen transporting dead, wooden logs from one place to another. The once fertile land and fruit-bearing trees were now dead and buried under layers of silt and sand leftover by the lake. The land exists today in a state of ruin. It is this land that the locals were displaced from and it is the same land that people often spoke about in their conversations. Although ruined by the disaster event, the land seemed to hold an important position, not only in the memories but also in the everyday lives of affected people. This land, which had been lost to the event, was being held on to in different ways. Following are some instances where loss of land was spoken about and negotiated through activities and practices.

What the woman in Aliabad Shelter site expressed, "*land was abundant for us and much more*" encompasses a range of meanings and associations that affected people hold with the land. Through this she expressed the immense benevolence of land, which was not only abundant, but much more that need not be said. Children in the shelters repeatedly expressed their memories of animals and orchards which they missed when living in shelters: "*we miss the fruit trees, there was so much fruit and we also played with the cow […] we would want fruit trees again*". Nazir BulBul in Gojal expressed his views on the misery felt by the IDP of Shishket,

> "zameen ke saath aik taaluk hota hei, people have a relationship with land - people who live within their landscape have a support system which is not only economic, but socio-cultural and emotional as well. IDP who remained within their landscape are grounded, while the ones who moved to shelters, well (pause) the shelters have isolated them" (Conversations, Gulmit, 2016).

The locals who have lost their land to the disaster event live with a double-loss, where they are not only displaced from a familiar landscape, but the land itself does not exist in its previous (fertile) form. Alienated from the land, home, and sense of belonging and in the absence of its remainder – the locals experience a perpetual displacement. I am reminded of what Ian Sinclair (2009) expressed in an interview about belonging in a familiar landscape,

> 'Bits of stone and river accept me, and I know myself by that. If the landscape changes, then I don't know who I am either. The landscape is a refracted autobiography. As it disappears you lose your sense of self' (Ian Sinclair, 2009).

The loss of land and erasure of a familiar landscape places their entire presence and being in the world at stake because the possibility of return is erased from this equation. Here, the materiality of trace matters in the sense that the transformed landscape creates a double-loss because the silt-laden landscape which is strikingly present threatens the memory of a once fertile land. The ghostly presence could be felt in the sheer absence and erasure of life in silt-laden landscapes of Shishket. Other than memories of land, and experience of loss and displacement, there were occasions during field research when a slightly different relation to the lost landscape surfaced. This was not restricted to interactions with the locals, but also how I felt and experienced the landscape differently. Something was amiss, which could be not pinned down, described, fully articulated, or defined. In what follows, I will provide snippets from my field diary which contains notes and keywords that tried to capture the \feel\ of the landscape in Shishket, Gojal where large patches of fertile land and orchards were occupied by the lake formation resulting in the slow death of all life on land.

Figure 48 Land covered with silt and dead trees standing tall

Field diary, 2nd November 2016

Over the years, as the lake water receded due to the spill-way, some land in Shishket re-surfaced exposing the barren, silt-laden land with dead trees. As I drove towards the silt area, I saw some locals moving about on a fenced land. I got off the car and was struck by the aeolian performance of the wind, not only transporting silt from one site to another but also producing a sonic composition in the landscape. As the wind moved past the dead trees – the symphony of disaster could be heard in the creaking sound of hollow, dead wood. One cannot help but feel an immense loss – the sheer wastage of life – of the trees that weren't meant to die and of the land that wasn't meant to go to waste. Here, I was reminded of what the IDP girl in Shishket had narrated about shifting out from the land when the water was rising,

"It was blossom time, we couldn't cut the trees (as advised by others to save and use up wood); they were alive – they had to face their own fate, like we faced ours"

In this landscape of Shisket, I made my way to the man who was shoveling away silt to expose the land beneath. During the conversation, he shared how he works everyday with his wife to clear away silt in order to re-surface his land. "Silt is death – until you remove it, the land cannot live again". He expressed this and continued to explain the difficult, lengthy, and dreary process of clearing the silt off the land. By this time, the wife called us for tea. We made our way to the dwelling, which was currently undergoing renovations. We sat down for tea

and they shared their plan of converting this house into a guesthouse because the lake water had receded, and the land and house could be used again. The wife gave me a tour of the house to show where the traditional house used to be and where the extra rooms were added. The man took me out into his front yard and pointed towards the dead trees and said, "eee that tree, it's an apple tree and here I have five apricot trees, I nurtured them with my own hands". (Conversations, Shisket, 2016).

Surely the trees were dead, but that is not how he acknowledged them; for him, the trees were alive. There was an immense weight in what he had expressed, both a deeply engorged sense of loss and a hope for a familiar landscape. Longing and loss were both equally present in this instance; the trees he pointed to were dead, but the reality of loss was sabotaged for a memory and an imagined possibility – living and fruit bearing trees. Revisiting the remainder allowed him to craft an imagined or desired possibility. It may also have been an act of achieving a sense of stability and permanence, where the trees were still alive and known by the fruits they still bear. Or perhaps, this allowed him to not be overwhelmed by the expanse of ruin and death that surrounds him as he returned to visit the land each day and work on it as he used (before the disaster) to in order to make the land fit for plantation once again.

On another occasion, when sitting in a recently-constructed house of affected people in Gulmit who had lost land to the lake, the family spoke about the disaster as something that was dreadful but had passed. They had moved back on their land where a larger and stronger house had been constructed recently. "Bad times are over, we are past that, Alhamdulillah" said the women, to which I responded, "you seem to be well settled". The elder woman's daughter was making tea on a traditional stove, and added, "but we lost a lot of trees, it's not like we didn't bear any loss […] "; I nodded, and she offered to take me out to the back yard to see the trees. After finishing a cup of tea, she insisted we walk to the back yard. Upon arriving on a terrain sloping towards the Gojal River, she pointed to many hollow trunks of once living trees, "there were a thousand trees… wasted in water… although we do use them for burning the stove, but because its rotten wood, the smell is awful… it reminds me of the awful incident (disaster)" (Conversations Gulmit, 2016). While the tone and expression of our conversation portrayed a resolve with a disaster event that had 'passed' – it seemed to re-surface in her lowered voice as she spoke of the awful smell, which reminded her of the disaster.

The disaster seemed to re-appear in the most peculiar way, seeping into the smoke from the stove through the rotten deadwood, bringing with it the memory of an event, the wreckage, and loss of a thousand trees. In these encounters, a range of different negotiations with the traces of silt-laden land and dead trees are made present in terms of what was considered alive or dead – what was to be let to live (shoveling away silt)– or to made alive (dead fruit trees). Complex entanglements of place, memories, belonging, erasure, and loss can be discerned from these encounters questioning the linear temporality of present time, for example, in how the residual affect of dead wood makes the event alive once again. In these instances, grieving was negotiated by holding on to

memories of decisions that acted as resolve such as letting the trees live to face their own fate rather than cutting them down, or making the land fit to bear life again, in a longing for a familiarity, a place, or permanence.

These are some of the many ways in which absence, loss, and ruin lingers, circulates, emerges, and haunts the post-disaster landscape. In this sense, traces highlight the unresolved and uncontained space-times of the post-disaster landscape. Different modes of negotiating this loss and absence show how the remainders of the disaster event cannot be contained in particular frames (dominant narrative of how the loss of submerged land has been compensated by cash, etc.), neither resolved, because people continue to establish different relations to it and the loss remains present in their lives in different ways. Traces cannot be contained as they emerge and appear in multiple forms such as in the sight, smell, or sounds of dead trees, or memories of fruit bearing trees. There is no stable site for this haunting – it shape-shifts, morphs, transgresses, and assumes different forms, cautioning us against any project of recovery. The remainders cannot be contained, and neither can they be resolved; rather they open up different ways of re-living the event and imagining an alternative present. Remainders push against containment or resolution unsettling the 'present' time. Hence the 'post' in the post-disaster landscape must then be understood as emergent, as it continues to evolve through the negotiations between what has passed, is passing, will never pass, or the impasse, neither allowing a linear time nor a stable site.

This unresolved and uncontained nature of traces present a slightly different relation to temporality as opposed to the instability of the trace discussed in the previous section. The unresolved and uncontained nature of the remnants allows the event to 'erupt' or 'return' in specific moments in present time, while the instability of the lake-form presents a simultaneous lingering of loss and anticipation that accompanies the present. Both cases disrupt and challenge the temporality of recovery and rehabilitation in different ways: as sites and moments when the disaster returns, and as the perpetual presence of loss and anticipation of further loss.

7.3.3 The object does not belong

As one drives past the silt-scapes and lake in Shishket valley, it is difficult not to notice half-sunken boats or the broken ones docked in different areas. The boats themselves remind one of the once thriving activities upon the lake as they passed to-and-fro across the Attabad lake between the years 2010 and 2015. At present, the boat was a sight of neglect, as if something happened and the boats were no longer required. And as we entered Gulmit area, the boats seemed to be abandoned half-buried in the silt. They looked incredibly out of place – who could imagine boats in the high Karakoram mountain valleys.

Figure 49. Half sunken boats tied to Dead trees in Shishket, 2016.

Figure 50. Dismantled boat in Shishket, 2016.

Figure 51. Three abandoned boats in Gulmit, 2016.

"When the Attabad lake was formed, boatmen from down South were brought here, some came on their will, it provided them a good business opportunity" said a local man in Gulmit, further explained, "Traveling through boats wasn't easy, we weren't used to it. Sometimes the winds could take the boat right to the edges; thankfully there was no accident and now the road access is restored".

"the boat is alien for us, who could imagine boats in this region?" said more than one local person. The boat is an object which does not belong to the landscape of Hunza Valley and Gojal Valley and exists as an object directly related to the disaster. Locals expressed their wish to commemorate the event as "the boats are of no use, but we can install it somewhere as a memorial of the disaster". The boat seemed to be an enduring record of the disaster, a whole form in its appearance and usage which only linked to the disaster. Perhaps, since it was referred to as an alien object, it lacked an emotional attachment for the locals and was thus abandoned. Some locals mentioned that "occasionally it may be used for fishing or giving a ride to visitors, but not so much." However, the out-of-place-ness of the triggered my interest in analysing it as a trace or reminder of the disaster event.

The boat was definitely out-of-place in the landscape of Gojal Valley, but its position within the landscape existed beyond its own place; they lay on silt or half- sunken in water whereas boats are to be docked and kept afloat. Clearly the boats were not being kept in the context they require because since the vehicular traffic was

resumed, the boats were no longer required and were thus left unattended. This neglect for a once popular object exemplified a 'past-ness' – the event had passed, but at the same time, the unsettling presence of boats in the landscape evoked memories of an event and a lost landscape. In this sense, the boats can be analysed as gathering of traces and a recognizable form that is attached to the disaster event. Boats were a distinct reminder of the disaster in Gojal Valley, however, in its singular presence a boat does not imply a loss, absence, or trauma, however, in that context it projected a disjunction as it appeared out of its ordinary context, half sunken, abandoned, and toppled over in silt; the object, therefore, did not belong and is no longer required. The boats acted as a memorial that implied a remembering due to their out-of-place-ness – since they did not belong in the landscape. In 2016, it was perhaps safe to conclude that the boat was an object that did not belong, and its presence and its out-of-place-ness made it a probable site for haunting.

In landscapes such as these, where objects, natures, and environments are corresponded with and put to use in everyday lives, an unnecessary or abandoned object stands out. Perhaps it's too soon to imagine their fate; after all, the road and tunnel were only recently opened up. As more tourists begin visiting the valleys and the famous lake, no doubt micro economies will start boosting around the lake. If occasional boat rides are arranged for visitors now, there is potential for boats to be re-purposed to fit a tourism economy. For how long then the boat will not belong, and will it always be the object that arrived with the disaster. Perhaps, with time, this trace which is distinctively linked to the disaster event will fade away in the landscape as it is re-purposed to fit another life.

7.3.4 The desolate silt-scapes

> '[c]emeteries seem silent, yet cemeteries are as silent as they are not. If one sees cemeteries as a rhetorical space, then there are thousands upon thousands of voices clamoring to be heard, a cacophony of remembrances are calling out.'
>
> Elizabethada Wright (2005, p.60)

‘a haunting, a ghost, a presence whose location in space is ambiguous and whose existence in time is transitory. The intangibility of time is uncanny – a phenomenal presence both in the head, at its point of source and all around – so never entirely distinct from auditory hallucinations. The close listener is like a medium who draws out substance from that which is not entirely there.’

David Toop (2010, p. xv)

7.4 Enduring the revenants & remnants

The empirical material discussed above explored how the remnants and traces of the disaster are unstable, un-contained, and un-resolvable; therefore, traces of the disaster event allows multiple stories to co-exist. It also demonstrated how traces unsettled the present time in different ways, as instances of 'ghostly return' or the simultaneous presence of fear, loss, and anxiety that lingered in the post-disaster landscape. Moreover, the landscape of traces and remainders in the post-disaster scenario of Hunza Valley and Gojal Valley was in a state of flux, the remainders failed to assume a stable form; traces appeared, diminished, transformed, fused, and disappeared, instigating different modes of negotiations. Through a discussion on how traces and remainders were negotiated and dealt with in the daily lives of affected people, this chapter showed how the disaster event seeped into the practices, processes, and memories, and in doing so, lived on in different ways.

The landscape was miraculously filled with loss, absence, and remainders of lives once lived. Things were incredibly out of place – what was the lake doing between valleys where the river runs at gushing speeds? What were boats doing in a landscape where people had nothing to do with them? The landscape and its inhabitants endured the remnants and the revenant in various ways: by acknowledging, grieving, ignoring, forgetting, remembering, or sabotaging their presence. For example, within the activity of shoveling away the silt on re-surfaced land, retrofitting the house, and imagining the possibility of living trees, the man and wife seem to be engaged in a process of unearthing the lost landscape, keeping alive the memories of a land that it once was. It was also perhaps an exercise in orientation; to navigate and re-write a silt-laden scape that had erased every trace of life that once was, thus projecting a non-linear temporality where the past, present, and future co-existed between the present, the absent, and the presence of absence.

Encountering the post-disaster landscape as remnants and traces of the disaster event itself was a fragmented experience and the writing about it also exemplifies it. Remnants and traces called out in different ways as I treaded the landscape: as sheer material presence of desolation, or as signals hinted through conversations, silences, and gestures. Even a slight smell of rotten wood could in a particular instance remind you of a thousand trees that once flourished in the backyard and invited you to once again mourn the immense loss. Likewise, in instances of buying or borrowing vegetables, women were reminded of their own vegetable patches on the land they once lived and cultivated, and the revenants may choose to accompany the men as they set out to earn a daily wage as result of displacement from their land; the ghosts were everywhere. Even as affected people established correspondence with the transformed environment in order to re-build their lives, ghosts accompanied them reminding them of the immense loss of land, a sense of belonging, and a way of being in the world. For example, consider the spatial forms discussed in the previous chapter; the resettlement house was equipped with basic necessities for a family to rebuild their lives and yet the feeling of loss and displacement refrained them from experiencing belonging in a new place. They yearned for familiar spatial patterns to once

again occupy and navigate spaces etched in their memories. In these instances, a struggle with a stable and calm present became apparent as the event continued to remain present in different intensities. It could be seen in one of the many glimpses of the dead trees, or in a particular moment when shoveling away the silt, in the smell of rotten wood, or even at the sight of debris. The ghosts could appear at any moment in time and disrupt a mode of rehabilitation and re-settlement working against the project of recovery.

This chapter was an attempt to revisit the disaster as more than a single event restrained in a specific time frame and geographic zone, allowing us to see how the disaster event stretches beyond any temporal and spatial confinements. The event goes back centuries in history as traces of the disaster existed in the conditions that enabled it; in the story of the 1800c lake and the silt upon which Attabad was formed, or the cracks in land which began to appear in the year 2000, creating an atmosphere of anxiety and anticipation around an event that had not yet occurred. As the landslide occurred, it showed the afterlives of disaster event as it spilled over and continued to exist in a range of different forms: material and immaterial, the lake, silt-laden land, objects, memories, stories, etc. The landscape continued to transform as the river added silt to the lake which became a cause for concern and anxiety for local people of what they might have to witness when the water overflowed, and the land fell victim to the layers of silt. This instability dismantles the hegemonic claims to the disaster as an event that had passed, because the traces of the disaster continue to emerge, are restaged and relived rather than gradually dissipating.

This also has consequences for how we choose to understand the disaster, which entities become part of the transformed landscape, whose stories matter, and how the post-disaster landscape is negotiated and constructed in response. While we may choose to read the disaster in particular temporal frames, the empirical material showed that it moved past the assumed forms and temporalities that claimed to organise and contain the post-disaster landscape. The disaster event was thus multiple, as indicated by the multiple forms in which it continued to live on and returned to haunt the post-disaster landscape. In the manner in which the man continues to shovel away the silt (Shishket, 2016), or plant and water the vegetable patches in shelter sites, and numerous others who have established a correspondence and improvise practices in pursuit of everyday life, perhaps we can safely assume that they have learnt to 'live with ghosts' (Derrida, 1995, xviii) in the haunted space-times of post-disaster landscape. The event lives on through these negotiations where the event that has *passed* accompanies the present and looks into an uncertain future.

The disaster event remains the unresolved and unfinished business.

8. Thinking the disaster differently

This thesis was an attempt to understand how disasters live on, and how life is held together within the post-disaster landscape. To do this, it revisited the Attabad landslide disaster to explore different ways in which the disaster remains present in the post-disaster landscape and to analyse how the post-disaster landscape is shaped by the multiple practices and processes that occur within it. To embark upon such an inquiry, the research moved away from the dominant conceptualisation of disaster in the disaster governance framework as a linear (stable normality → rupture → return to normal/new stable state) project delineated through different phases; namely relief, mitigation, response and recovery. It instead approached the disaster as a problem of multiple actors and temporalities that troubles the assumed linearity organised around the 'tipping point' or 'rupture' followed by a slower or faster 'return to normal or stable' conditions. This thesis focused on the processual temporality of the disaster event, its intensities and various afterlives by attending to the emerging landscape in the post-disaster scenario. Assessing the disaster through this approach opened up ground to attend to the multiple orderings of the same disaster landscape as it is organised by the temporality, practices and processes of the various entities, human or not, involved. This approach is important not only to understand how the post-disaster landscape is organised and recomposed, but also how a particular way of being in the world is undermined when a unilateral approach is taken towards problems that are shared by multiple entities. Therefore, through this thesis, I tried to explore which other entities are involved in the making of the post-disaster landscape of Attabad and through whose practices, processes and stories it is actually shaped.

I used Stengers' conceptualization of 'cosmopolitics' to attend to the 'emergence' (2011, p.207-212) of the post-disaster landscape in order to analyse how the disaster event lives on and seeps into the processes of everyday life. The effects do not become simply more attenuated, as perturbation and recovery suggest, but

lived on in three different modalities (correspondences, forms and traces) that together form an emergent post-disaster landscape. What became apparent in these is the instable, dis-jointed and fragmented space of the post-disaster landscape defies any single or stable ordering. In so doing, the thesis put forward multiple ways to address the post-disaster landscape.

In attending to the three different modalities of how the disaster lives on, this thesis ventured into the everyday lives of those affected by the disaster event and treaded a landscape replete with traces and remnants of the disaster. In so doing, it explored the practices employed by the affected people to hold life together, make do and live on. It analysed how people claim space in particular ways and, through their practices, write new spaces with familiar patterns. This thesis also explored ways in which stories, remnants and traces multiply, order the landscape and keep the disaster event alive in different ways. Each of these orderings allow us to take a closer look into how the post-disaster space is managed, made and maintained by the practices of those who continue to live in that landscape. Through these orderings, this thesis unsettles the linearity assumed in disaster governance frameworks, specifically with regards to the 'return to stability', by bringing into question how different entities and practices partake in the composition of the post-disaster landscape. It shows how the frameworks that try to capture the disaster in phase-based delineations are often undone by the disparate practices (such as returning to practices of inhabiting shelters and resettlement houses or micro-migrations that unsettle stable shelter life) that affected people carry out, as well as the remainders of the disaster event (memories, stories, hauntings) which continue to emerge, are restaged and relived rather than gradually dissipating in the post-disaster landscape. By focussing on the materiality of the landscape, the process of inhabiting spatial and temporal forms and the multiple practices for holding life together, this thesis conceived of the post-disaster landscape as an 'emergent' process rather than a fixed stable state.

Each of the empirical chapters in the thesis can be approached as an order through which the aftermath of disaster event and the re-construction of the post-disaster landscape can be analysed. The chapters explored how the micro-acts of everyday life stitch together the ruptured fabric of life in the valleys and how the event continues to live on. In this sense, each chapter highlighted frictions and fissures between the formal and informal processes of governance and how people exercise their agency in the 'making' of the post-disaster landscape. For example, each chapter explored how loss is configured in the equation of post-disaster re-construction, the different forms in which loss is made present, experienced, lived with and negotiated by the local people. Alongside this, these chapters offered an alternative lens for assessing the terminologies of displacement, resilience and rehabilitation as opposed to the normative frameworks of disaster governance. They explore how different practices and processes of 'return' and 'refrain' unsettle the fixed conditions of displacement (as a physical relocation), resilience (as a condition of stability) and rehabilitation (as form of constant recovery). For example, in chapter five, practices of correspondence, among other concerns, focus on how inhabitants negotiate a loss of daily practices and routines of everyday life. Alongside this, it also showed

how practices of correspondence enable us to understand 'holding life together' as a relational process exercised by the affected people in ways involving all sorts of incongruent, instable and laborious practices, instead of a stable, measurable condition (resilience). Chapter six discusses the loss of familiar spatial forms highlighting how particular orders in spatial and temporal forms can potentially create displacement, thereby suggesting that displacement should be understood as more than just a 'physical displacement' from home and familiar landscapes. Alongside this, the chapter explores the intricate relations between space, habitation and belonging and shows how affected people rewrite the spatial and temporal forms giving rise to new kinds of mis-matched spatial forms, for example, in using the shelter unit in different ways (temporary abode, animal house, storage unit) and in speculating the use of resettlement house (future investment, rent-out, seasonal house) the affected people come up ways of using forms which work for them. Through these acts of re-writings, we are also encouraged to re-think displacement (physically displaced from home and familiar landscapes) as a more complex condition which is entangled in socio-cultural and economic practices of affected people. The chapter on traces of the disaster event discusses how loss returns to haunt the post-disaster landscape. It also highlights the multiple ways in traces and remnants of the disaster work against the project of recovery through their continual presence as they are restaged and relived rather than gradually dissipating.

Taken together the empirical chapters recompose the narrative of the landscape by attending to the subtle processes and everyday lives of different actors and entities, remaining committed to the entities, practices and stories involved in its making. The thesis is mainly configured around two trajectories:

- It disrupts the linear temporality of disaster governance framework and dismantles the 'return to normal' condition by exploring the multiple practices and process through which the post-disaster landscape is shaped.
- It brings to light other entities involved in making the landscape, considering what is actually happening and which alternate worlds are created other than those captured through the dominant frames of reporting and representation, thus telling other stories.

These chapters address the conceptual questions outlined in this thesis by investigating the afterlives of the disaster at different sites; in the practices of everyday life, in the process of inhabiting spatial forms and through the traces and remainders of the disaster event, deeming the disaster an unfinished business. The approaches outlined above recognise the disaster as an ongoing event that is made present through different practices and processes, and that any attempt to foreclose this 'becoming' through disaster governance framework causes additional fragmentation. This thesis is in no way a finality or description of what a disaster event is but an exploration of a few ways in which it can be conceptualised when thinking about the reconstructing the post-disaster landscape with actors and entities that are usually marginalised and silenced. The conclusion is thus a

series of propositions in terms of how we might think the disaster differently and what an open inquiry brings to research on disasters.

8.1 Thinking the disaster differently

Disasters are predominantly approached as single events that are governed and managed through specific governance frameworks. This single event is contained in a linear temporality, which is managed through phase-based, task-led delineations between the start and end of the event. This linear temporality results in the selection of specific entities that are involved in the disaster leading to a particular and often unilateral ordering of the post-disaster landscape. These entities are often the ones most obvious and accessible recognised through the frames of cause (landslide debris caused disruption and lake formation hence construct the spill-way to stabilise the lake water levels) and effect (local people are displaced hence they should be resettled, and the highway is blocked hence vehicular access should be re-established). In attending to these, procedures are initiated and managed by the dominant actors, such as state institutions and NGOs who consulted with experts (landslide experts, spill-way engineers, civil engineers) to ensure the most efficient, safe and rapid solutions, and involved the local community in the managing the distribution of aid. It is important to mention here that the debate is not about top-down or bottom up governance techniques, but about recognising the entangled space of the disaster event and the multiple entities that are involved in shaping and affecting the making of post-disaster landscape. This entangled space and multiple entities (human, material, practices, forms, memories) that are operating in the post-disaster landscape are undermined in the procedures of governance issued by the State and NGOs.

In thinking the disaster differently, I move away from this conceptualisation of disasters and set out to look for the other ways in which disasters can be assessed and explored as a problem for multiple entities. In thinking of the disaster as living on and being actualized in multiple ways, we can consider the subtle and nuanced practices and processes that shape the post-disaster landscape. Moreover, formal governance processes extend a single ordering of the landscape, i.e. disaster event (stable normality → rupture → return to normal/new stable state) however, the situation on the ground shows otherwise. The disaster event spills out of specific temporal and spatial bounds of the post-disaster landscape and cannot be contained in a fixed state or condition. The unfolding of the Attabad disaster event, as well as how it was negotiated by different actors, shows the 'processual' becoming and instability of the post-disaster landscape. Another important aspect this thesis presented is that the ordering of the post-disaster landscape is not only organised by the actions and practices of humans, but also how material and immaterial entities play a role in ordering the post-disaster landscape by keeping the disaster alive through its remnants particularly evident in the anxieties that are erupting alongside the shape-shifting lake, or how the silt-laden landscapes and dead trees give rise to particular forms of

negotiations, as well as the how the smell of deadwood wasted by the lake can make the disaster present once again.

To extend these orderings of the post-disaster landscape, I use the vocabulary of *correspondence, forms* and *remnants* in order attend to the different ways in which the disaster lives on and is actualized in practices and processes of everyday life. This vocabulary offers the relational and generative grammar required to explore the emergence of the post-disaster landscape through different temporalities and spatialities (in terms of the geographic sites that are affected by the disaster, as well as how the Red Zone area and silt-laden landscapes are accessed and used by the affected people) that are neither linear nor fixed conditions. For example, exploring the landscape through the practices of correspondence shows that we cannot draw a coherent or stable condition for how life is held together owing to the varied acts of improvisation and disparate practices of the affected people in order to make do and live on. The same instability can be traced in the process of inhabiting forms in the post-disaster landscape. It explores spatial forms that are inhabited, or not, in different ways, and the temporal rhythms of making do and living on, showing that there is no one way of living in shelters. Different orderings are enacted through acts of improvisation, refrain and return. It therefore questions the assumed idea of the 'return to normal' as embedded in a particular form of stability (stable routines – situated lives). Engagement in the field shows that the affected people carry out all sorts of activities in their everyday lives that are incoherent, non-repetitive and unstable, often performed in lieu of familiarity as opposed to stability.

Thinking the disaster differently has implications for how we attend to common areas of concern, i.e. the terminology that is employed by the disaster governance frameworks: resilience, displacement, rehabilitation and recovery. In thinking the disaster through the generative and relational grammar, the conventional understanding of these terminologies is dismantled, or rather given a different flavour. For example, the practices of corresponding with shelters and the surrounding area not only show the multiple ways in which IDP retrofit and appropriate space for use, but also how these seemingly incoherent practices are not necessarily repeated in other shelter units. This shows that a stable sense of inhabiting shelter sites cannot be derived from these arrangements; shelters can be lived in, seldom used, used by animals, or converted to storage. There is no one way of living in shelters. Moreover, the practices of making do and living on, especially in terms of ensuring food supply, show the inconsistent practices that are employed in order to provide meals and tea, and hold life together.

It also dismantles the conception of 'resilience' as a condition of stability, showing that the relational practices of affected people are not so much about achieving stability but about returning to the 'familiar' through diverse ways that may entail harder labour, instability and difficulties. Similarly, in investigating the spatial and temporal orders in the post-disaster landscape, the notion of displacement becomes apparent in moments, instances and varying intensities rather than in sustained conditions. In the context of spatial and temporal

forms, displacement occurs as lives are assembled through imposed orders of living where people cannot or do not know how to inhabit a particular form. Displacement occurs when the position you occupied in the house is no longer yours in ways that you associate with it. Displacement is the anticipatory planning in the absence of forms that holds one in place. In this sense 'displacement' is not merely a sustained condition of being dislocated from home and lands, but varying intensities that cannot be anchored to any stable context, condition or situation. As an overarching note, the practices of correspondence and modes of inhabiting forms show the diversity and instability operate in the post-disaster scenario. When formal governance framework extends a single ordering and composition of the post-disaster landscape, a range of different practices and processes – not to mention the hard labour of holding things together – are left out and flattened in the process. Here conditions of survival, endurance that keep life going are not anchored to fixed states but rather fluctuate, where improvisation, refrain, resistance and return are enacted simultaneously by the people affected. Thinking the disaster in ways that this thesis does extends a more complex set of relations that are at play in the post-disaster scenario which challenge the linearity assumed in the conventional approaches to disaster governance frameworks and policy.

Thinking the disaster differently thus entails thinking with the shifting terrains of the 'emerging' post-disaster landscape, as well as thinking with the varied and pulsating temporalities through which the disaster lives on. It includes thinking with different modes of being, knowing and living in the post-disaster scenario by attending to the practices carried out by different actors, and processes initiated through the interrelations of different entities. Thinking the disaster differently is to look for and recognise the actors and entities that may be silenced or are unwilling to voice their stories and concerns, whose presence matters for how we reconstruct the post-disaster landscape. Thinking the disaster differently means staying with and working with the unstable, incoherent and conflicting practices and ideas that shape the same post-disaster landscape in multiple ways. What this conceptualisation offers to the dominant literature on disaster governance is to learn to work with this instability rather than envisioning to end it through particular governance techniques. This means working with and amidst this instability and to proceed without a clear framework for how fragments must fit together. For policy studies, this conceptualisation opens up the post-disaster landscape as a problem to be attended to by multiple actors and entities and their practices and processes to envision a shared future.

8.2 Disaster cosmos: a methodological openness

More than anything for me, this thesis was a journey in learning to conduct an open inquiry and opening up new worlds. It was a risky process given the timeframe I had for conducting research in the field, to generate the empirical material and write up my findings. There were times when I was completely lost in field because there was no particular research schedule to follow. There were times when I was overwhelmed by the enormity of the material generated and how I was going to let the material speak to me in order to sift through it. By

employing open inquiry this thesis tried to open up the world of disasters by exploring multiple entities such as humans, non-human, material and immaterial entities that together compose the post-disaster landscape through complex and non-linear linkages. This was made possible by conducting an open inquiry which meant staying open to the trouble posed by simplistic and linear approaches, definitions and terminologies. Open mode of inquiry enabled the thesis to move beyond simplistic definitions, dominant binaries between top-down and bottom-up approaches and defied a singular ordering of the post-disaster landscape. One way of doing this was exploring the disaster landscape through the three-tiered process; recognising the assembly, engaging with the assemblage (being open to the 'emergent') and composing the cosmopolitical landscape.

Alongside this, open inquiry meant allowing are questions to be redefined by the field. For example, before I entered the field, one of my questions for the thesis was 'How are disasters governed by different entities in the post-disaster scenario?' However, when I explored the field and the disparate practices of the affected people, I was encouraged to ask a slightly different question: 'How is life held together in the post-disaster landscape?' Whilst the first question led me to observe particular kinds of governance processes (active actions or ways in which communities collectively respond to disasters), the second question allowed me to explore the relational processes between different entities and disparate practices (which may not necessarily be collective action) through which life is held together. The second question was closely aligned with Stengers' conceptualisation of cosmopolitics (2005b) to engage with multiple entities in order to construct the common world. To this end, the enquiry took a discipline of attending to different voices and different entities. Here, recognising the actors entailed deliberating upon which actors' matter, rather than working with the most obvious and accessible ones. This meant considering the non-humans, material, non-material entities, where trees, goats, plants, stoves, silt, smoke, earth, soil, debris, gathering spaces, shelters, embroideries and even spinach leaves are woven into and define the post-disaster landscape. When analysing the post-disaster landscape, actors, entities, practices and processes, correlations, synergies and negotiations, the need for reading multiple orderings of the same post-disaster landscape became crucial.

In practice, on a basic level, this meant adopting different methods and practices of engaging with the field in order to surface this multiplicity. For example, using the practice of ethnography and participatory diagramming during a tea session allowed us to create a multi-planar map which not only showed how local women spend their days in different seasons, but also surfaced their relations to spatial arrangements, socio-cultural linkages and their memories and desires highlighting the entangled space of the post-disaster scenario. On a deeper level, conducting an open inquiry meant dealing with a whole different set of challenges such as, learning to 'let go', and finding ways to deal with different kinds of closures and to find different ways of bringing in non-human entities as well as reticent human entities.

I entered the field with an openness to what it offered, however, it was impossible to completely let go as one always hangs on to something that makes the research process easier and controllable. This could be seen in my attempts to streamline the mapping process, which was to some extent jeopardised by the open inquiry approach until I realised it was not the method but the stories that mattered. This meant that the stories needed saying in their own particular ways, that there was something else at stake which had to be discussed and expressed differently (recall stories told by affected people in Attabad Payeen where the disaster was alive in its debris – it needed to be witnessed therefore the mapping exercise was going to be of no use. Likewise, in Shishket other issues such as affected people imprisoned by the State were at stake which couldn't expressed through the map). And through these stories, the material and non-human entities also entered the cosmopolitical scape. It enabled me to see different ways in which the disaster lived on, through the debris, memories, dead trees. In letting go of a particular way (method of engagement), I was able to locate some of the ways in which the disaster lived on where entities made themselves present, both in material and immaterial forms.

In terms of dealing with different kinds of closures, it became evident that the researcher is required to take a particular position which may close off certain terrains they want to explore. For example, within the rich culture of hospitality in Hunza and Gojal, there were instances where even being in the hearth of the home and having tea with the hosts, I could not access their stories because I took the position of a guest (see Story 5). Likewise, another closure can be traced in the time I spent with women in Aliabad Shelter, where I had to cut my research short because the environment seemed hostile, although nothing was said or done in particular to send me away. A challenge remained that of attending to the reticent entities; humans and non-human alike, as there were only a few ways in which I could trace their presence in the cosmopolitical scape of the disaster event. This required finding ways of working with those entities who did not wish to speak 'since they had already given truckload of information', or because 'all is gone, what's the research for' or that the lake did not matter because we could bypass it through the newly constructed highway and tunnels. In this sense, one encounters different kinds of closures and there is no correct formula for conducting as open inquiry, but only a set of propositions one can employ whilst in the field.

In terms of working with the material generated from the field, an open inquiry required settling with the instability, non-repetitiveness and non-linearity of the multiple ways in which the post-disaster landscape was ordered. This was especially visible in the different practices of correspondence of making do and living on, inhabiting space, retaining a sense of identity. In terms of exploring the processes in the post-disaster landscape, the thesis was able to look beyond the social and into the material constellation, the spatial configurations and how material space and temporal rhythms together give rise to specific kinds of forms in the post-disaster landscape.

To construct the cosmopolitical landscape I tried to generate space for the co-existence of multiple temporalities and narratives (there is resolve yet no resolve, some seem to have moved on, some have not, some prefer to stay in shelters (Aliabad), some prefer to return to their land through micro-migrations), stories and practices through which the post-disaster landscape was being made. However, the challenge was that only certain stories and narratives could be picked to make a certain argument, therefore the task was to find resonances across multiple stories. As with any research, this thesis could only surface a few ways in which the ordering of the post-disaster landscape could be assembled, and this was largely done through the three empirical chapters, as well as stories from the field site discussed in Chapter Four. While the thesis composed the post-disaster landscape through the practices of correspondence, the process of inhabiting spatial forms and the remainders of the disaster event, there are definitely more ways of composing the same landscape. These might be, for instance, the different technologies, strategies and practices (Mol, 2002) that bring a different ordering, a different set of practices and processes to the fore showing how disaster events are made present, become present, are understood, approached and governed and how they live on in different ways. Of course, there will be many different ways of conducting an open inquiry, where what matters is that one must stay as open as the situation allows, because one will encounter closures of different kinds (e.g. what position you take, which stories you end up telling). More than anything, an open inquiry makes it 'okay' for the researcher to stay with the instability, emergence and non-coherence of the field and the research material. It is a commitment to the 'cosmos' where multiple actors and entities are recognised in order to probe deeper into the object or space of inquiry in whatever ways the field demands. Remaining completely open in an open inquiry is not possible but the idea is to not foreclose a possibility, which makes this process suitable and adaptable for researching with the 'worlds in the making', the emergent and the unfinished.

8.3 Horizons of an open inquiry

There are multiple ways in which the conceptual and analytical framework of this thesis maybe further explored. It could be by taking into account more actors, more processes, different kinds of presence of the disaster, an impending disaster or one beyond the tipping point. What this thesis suggests, however, is that it is not about which entities or how many are accounted for, but that they are accounted for in a way that makes finality a problem, that the disaster event is always an unresolved and unfinished business. However, during the course of this thesis, there were various instances when I would question open inquiry in terms of its feasibility in different situations. In particular, I thought about the applicability of an open inquiry approach for the disciplinary practice of architectural design, which came up when I was putting together the chapter on spatial forms. Due to my academic background in architectural design, and also due to various kinds of entities an open inquiry discloses, design becomes integral to how we begin to work with other entities. I was encouraged to think about how open inquiry relates to the process of design in architecture, where the open-inquiry can be

put into action in terms of bringing patterns, materials and movements together. Secondly, I was also encouraged to think about how open inquiry can be employed for different kinds of disasters.

8.3.1 Design for an entangled and emergent world

An open inquiry has direct implications and contributions to design, both in terms of designing the inquiry and scenarios upon which it is based. While this thesis is mainly concerned with how entangled worlds can be unpacked and surfaced through open inquiry in terms of their interrelations and interdependencies, chapter six probes deeper into how it can help analyse forms in terms of how they are created, inhabited, morphed and abandoned. A study of the evolution of spatial forms in Hunza Valley and Gojal Valley and how they morphed over time shows the entangled relations between humans, their practices, non-humans, religious and social associations, materials and non-material entities that together give rise to a particular spatial form. One approach that could be further explored is to probe deeper into how design (particularly architectural design, following the context of Chapter Six) can be engineered for an entangled and emergent world especially in post-disaster resettlement housing.

The issues around resettlement housing in post-disaster scenarios are not new, and the failure of these schemes has been discussed by many (Barenstein, 2008; Ganapati and Ganapati, 2009; Oliver-Smith, 2007). During the course of this thesis, I had the chance to share my findings with the AKPBS in the summer of 2018 in order to demonstrate why the resettlement housing project designed by them does not work for the local people and why they choose not to inhabit it. At the beginning of my presentation, it seemed to them that I was vouching for traditional architectural style rather than contemporary. But as I unpacked the entangled world of spatial forms, it became clear to them that there are other forces and entities that are involved in shaping spatial forms and in making them fit for living. The most impactful example for them was when I mentioned how women feel alienated in new houses due to the separate kitchen. There was unanimous agreement that in new constructions in the valley, where the kitchen is a separate unit, women have expressed their discontent. It was only when a simple connection between spatial patterns and the practice of inhabiting them was made that men from the AKPBS realised the debate was not about traditional or modern style, but about what kind of practices can persist in new forms, and who gets to occupy what kind of position in the house.

Likewise, this includes what kind of socio-cultural relations these spatial arrangements potentially allow. On the surface, this may direct us towards the well explored terrain of top-down and non-participatory interventions that do not fit the ground realities and desires of local people, and therefore more participatory approaches should be taken towards 'design' during resettlement projects (See Delaney and Schrader, 2000, on 'tyranny of the urgent'). However, on a deeper level this shows the entangled world of materials, humans, non-humans, practices, processes and their temporality and materiality which is in flux during times of crisis. In this sense, open inquiry offers to explore design by analysing the multiple and interlinked entities, processes and

temporal orders that will potentially operate in a particular spatial form. Merely engaging the community in a participatory 'settlement design' exercise is not enough, it requires deeper engagement and commitment to the existing pattern language (of houses) and the 'persistent' and 'emergent' forces and movements that comprise life for the people affected.

In this context, design means working carefully with the emergent patterns and experimenting with different ways in order to extend forms that are flexible and adaptable. The form will have its pattern and a particular order, but the same order has potential to allow re-interpretation and re-arrangement giving rise to new meanings for the same spatial confines. In terms of what was discussed in chapter six on spatial forms, the approach to design would require paying close attention to spatial patterns, temporal orders and their underlying associations, through the 'intricate overlapping and interweaving of space, circulation and program in an open framework' (Deyong, 2014, p.240). As opposed to the resettlement projects that celebrate a 'break with the past' in hopes to create secure, safe and organised housing, open inquiry designs for an entangled and emergent world by focusing on both the persistent and emergent. This means working together with the patterns of movement and activities that continue to occur and to speculate on those that might emerge. Design for entangled world is about working together with patterns and fragments in terms of their associations, with the possibility of detours and continuations. This offers an ongoing and generative field, where spatial arrangement acts like a rhizomatic space allowing the users to continuously move around and discover possible relations between one space and another and with other users, 'losing, finding, passing by, encountering, entrapping, nearly missing' (Ray, 1997, p.53). Design for an entangled and emergent world is thus about creating rhizomatic constellations that allow varying temporal rhythms and disparate programmatic orders to thrive in the same space. The findings from chapter 6 about spatial forms and the approach to the architectural design of resettlement housing introduced in this section are an important contribution not only to architectural design but also disaster policy studies. For architectural design, this is a call to attend to persistent and emergent patterns in order to create meaningful forms. For policy studies, these findings suggest that collaboration between cultural geographers, architects and policymakers for disaster resettlement policy and design is crucial in order to design settlements that adapt to the varying requirements of the inhabitants.

8.3.2 Open inquiry for a landscape in waiting

This thesis set out to explore how disasters become present and live on in different ways, particularly by investigating which actors and entities are involved in the making of the post-disaster landscape. The complex temporality and continued *presence* of the disaster event in Hunza Valley and Gojal Valley stirred my interest in analysing in what forms is life held together in conditions of crisis and displacement. The thesis employed open inquiry to analyse the *making* of the post-disaster landscape by different actors and entities. In so doing, the thesis argued that the disaster and its afterlives defy a single reading or stable state. Due to contextual

concerns, the thesis was able to raise a particular set of questions mostly organised around the 'making' and 'living on' of the disaster event, which could be discussed in only a few ways. However, during the course of writing this thesis, whenever I heard news of a disaster in any part of the world, I would immediately think of how the conceptual process of conducting an open inquiry would attend to that disaster. In such instances, I was pushed to think about the different kinds of disaster events and the different ways in which they come to shape and affect the landscape.

When thinking about climate change as an impending disaster, I am encouraged to ask: how does one conduct an open inquiry with an *ongoing* and *up-coming* disaster? A disaster without an event? This leads to thinking about destruction, devastation and degradation without a crisis or a rupture that allows things to unfold in a particular way. How does one think through conditions that never reach tipping points or cross critical thresholds? In particular this relates to work on 'slow death' (Berlant, 2011), 'slow violence' (Nixon, 2011) and 'quasi events' (Povinelli, 2011) where there is no significant event to hang on to, but the ordinary, mundane and non-spectacular progression of degradation, dispossession and erasure. This is where nothing really happens, yet destruction over time is irreversible. How, then, does one employ open inquiry for that which occurs 'gradually and out of sight, [it is] a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence' (Nixon, 2011, p.2). How do we recognise the assembly of a non-event that is dispersed across space and time and not necessarily significant? How can open inquiry be employed in abstruse atmospheres, where there is nothing distinctive to work with? An open inquiry must then venture into the kinds of vocabularies that are required to attend to processes that are 'indistinct', 'ordinary' and 'normal' where 'nothing really happens', in order to see how landscapes are shaped by them.

In the context of climate change as an impending disaster, which becomes partially visible through the sluggish temporalities of rising temperatures, shifting cultivation patterns and rising waters, how does one slow down research, where the field itself is unfolding slowly? And how does one attend to a different kind of presence, a perpetuity of something 'yet to come'? What tools and strategies must an open inquiry employ for exploring forms of making do and living on in scenarios where different kinds of materiality and temporalities are at play? Where encounters indicate slight shifts in the spatial, temporal and haptic environments, how then do you attend to processes (of the people and environment affected) where a different kind of endurance is at play?

This raises important questions in terms of open inquiry might attend to 'landscapes in waiting' that are shaped by humans, non-humans and material entities. Open inquiry must then be developed to attend to a different kind of temporality, that is not organised around the punctual event but the attritional and the endemic. It must explore what other orderings and stories we encounter in a disaster that deals with accounts of futurity (Anderson, 2014) and living with the anticipation of an event that unfolds slowly, for example, as a shared

social imaginary, as well as its enactment in the everyday lives. It also means exploring stories of 'living with' the different ways in which an impending disaster is made present: in a sudden downpour, a slight rise in humidity levels, the quicker ripening of tomatoes. The signs surely appear but are dispersed far and wide. Composing such a landscape would then mean working with a slightly different kind of temporality, a different set of intensities of persistence and emergent practices and dispositions that are involved in the making of a 'landscape in waiting'. Conducting in open inquiry in the context of 'slow violence' or 'slow death' would then mean employing tools to follow how the landscape is being woven where a particular knot holds the potential to change the entire pattern. Then one must learn to attend to these knots and speculate the potential patterns they can give rise to.

An Afterword

More than anything, this research was an adventure in learning to collaborate and work with other entities, human and non-human alike, and stories which paved way for developing other projects based on the conceptualisations that emerged from this research. In taking the open inquiry thinking forward, I designed an inter-disciplinary visiting school in Gojal Valley in 2017 together with local people and students from different universities in Pakistan to further explore the landscape that is developing amidst the challenges of Glacial Lake Outburst Flood and the CPEC. This allowed me, and others involved to think and design projects together. Another trajectory which stemmed from my research on spatial forms developed into a project in early 2018 to design and construct a local community museum in North-West Pakistan based on the traditional patterns of gathering spaces and the requirements of a contemporary museum. The process of designing, constructing and curating the museum created the possibility for diverse stories to be heard, shared and presented as part of the museum. In this sense, the explorative endeavours of this research were not confined to the research project and the written outcome, but also ventured into experimental collaborations of thinking with and working with different entities, patterns, materials, practices and stories.

For me, this process became one of gathering stories; stories of resistance, survival, experimentation, improvisation, loss, displacement, and resolve, and of working with these multiple stories to see how worlds are made and made to persist. The task, I learnt, is also to not be lured into telling the complete story or get deluded by a single story which might attempt to right all wrongs. In thinking with others and listening to many stories, I was reassured that the task is about gathering as many stories as possible and creating resonances across those stories rather than searching for the one big true story. And in a world full of other stories and other potentials waiting to be unleashed, one must learn the art of telling unfinished stories -stories that speak about the ongoing persistence, resistance and making of lives in the presence of some forms that continue to threaten some other forms of existence.

List of References

Adelman, S., Gilligan, D.O. & Lehrer, K. (2010) Childhood Interrupted: How Conflict-Induced Shocks Shape Human Capital Formation. Unpublished. Washington DC: International Food Policy Research Institute. https://doi.org/10.1080/14649357.2012.677124

Adey, P., Anderson, B. & Guerrero, L.L. (2011) An ash cloud, airspace and environmental threat. *Transactions of the Institute of British Geographers*. 36(3), 338–343. Available online: doi.org/10.1111/j.1475-5661.2011.00448.x.

Adger, W. N. (2006) Vulnerability. *Global Environmental Change.* 16, 268–281. Available online: doi.org/10.1016/j.gloenvcha.2006.02.006.

Akresh, R., Verwimp, P. & Bundervoet, T. (2010) Civil war, crop failure and child studying in Rwanda. *Economic Development and Cultural Change*. 55 (4), 777–810. Available online: doi.org/10.1086/660003.

Alexander, C. (1979) *The Timeless Way of Building*: Oxford University Press.

Alexander, C. (2002) *The nature of order: an essay on the art of building and the nature of the universe (Vol I), The phenomenon of life*. Centre for Environmental Structure, Berkley.

Alexander, C. & Poyner, B. (1966) The Atoms of Environmental Structure, Technical report, Center for Planning and Development Research, University of California, Berkeley, pp. 1-18.

Alexander, C., Ishikawa, S. & Silverstienm, M. (1977) *A pattern language: towns, buildings, construction*. Oxford University Press, New York.

Anderson, B. & Fenton, J. (2008) Editorial Introduction: Spaces of Hope. *Space and Culture*. 11(2), 76–80. Available online: https://journals.sagepub.com/doi/pdf/10.1177/1206331208316649.

Anderson, J. (2009) *Understanding Cultural Geography*. Routledge: Abington.

Aranda, K., Zeeman, L. & Scholes, J. (2012) The resilient subject: exploring subjectivity, identity and the body in narratives of resilience. *Health.* 16(5), 548–563. Available online: doi.org/10.1177/1363459312438564.

Arnall, A., Thomas, D.S., Twyman, C. & Liverman, D. (2013) Flooding, resettlement, and change in livelihoods: evidence from rural Mozambique. *Disasters*. 37(3), 468-488. Available online: doi.org/10.1111/disa.12003.

Aysan, Y. & Oliver, P. (1987) Housing and culture after earthquakes: A guide for future policy making on housing in seismic areas. Oxford, Oxford Polytechnic.

Bachelard, Gaston. (1936) *La Dialectique de la dure´e*. Paris: Boivin & Cie.

Baker, T., & Nelson, R. E. (2005) Creating Something from Nothing: Resource Construction through Entrepreneurial Bricolage. *Administrative Science Quarterly,* 50(3), 329-366. doi: 10.2189/asqu.2005.50.3.329.

Bakir, P.G. (2004) Proposal of a national mitigation strategy against earthquakes in Turkey. *Natural Hazards*, *33*(3), 405-425. Available online: doi.org/10.1023/B:NHAZ.0000048466.57378.ed.

Barber, K. (2007) Improvisation and the art of making things stick. In: Ingold, T. and Hallam, E. (eds.) *Creativity and cultural improvisation*. Oxford: Berg, 2007, pp. 29.

Barenstein, J.D. (2008) From Gujarat to Tamil Nadu: Owner-driven vs contractor-driven housing reconstruction in India, Internet proceedings of the 4th International i-Rec Conference, University of Canterbury, Christchurch, New Zealand. Available online: https://www.irb.fraunhofer.de/CIBlibrary/search-quick-result-list.jsp?A&idSuche=CIB+DC11511

Barton, A.H. (1969) Communities in disaster: A sociological analysis of collective stress situations. (Vol. 721). Garden City, Doubleday.

Béné, C., Wood, R.G., Newsham, A. & Davies, M. (2012) Resilience: new utopia or new tyranny? Reflection about the potentials and limits of the concept of resilience in relation to vulnerability reduction programmes. *IDS Working Papers*. 2012(405), 1-61. Available online: doi.org/10.1111/j.2040-0209.2012.00405.x.

Benjamin, R. & Chang, H. (2006) Jacques Derrida, The Last European. *SubStance.* 35(2), 140–171. Available online http://www.jstor.org/stable/4152890

Bennett, J. (2012) *Doing Belonging: A Sociological Study of Belonging in Place as the Outcome of Social Practices* PhD thesis, School of Social Sciences, University of Manchester.

Bennett, J. (2015) 'Snowed in!': Offbeat Rhythms and Belonging as Everyday Practice. *Sociology*. 49(5), 995-969. doi: 10.1177/0038038515589299.

Berg, M. & De Majo, V. (2017) Understanding the global strategy for disaster risk reduction. *Risk, Hazards & Crisis in Public Policy*. 8(2), 147-167. Available online: doi.org/10.1002/rhc3.12110.

Berke, P. R. & Campanella, T. J. (2006) Planning for post-disaster resiliency. *Annals of the American Academy of Political and Social Science*. 604(1), 192-207. Available online: doi.org/10.1177/0002716205285533.

Berlant, L. (2011) *Cruel Optimism*. Durham, N.C.: Duke University Press.

Bertrand, R. & Latjah, C. (2002) A new approach to crisis management. Journal of contingencies and crisis management. 10(4). 181-191. https://doi.org/10.1111/1468-5973.00195

Bhabha, H. K. (1994) *The Location of Culture*. London: Routledge.

Blaikie, P., Cannon, T., Davis, I. & Wisner, B. (2004) *At risk: natural hazards, people's vulnerability and disasters*. Routledge.

Blaser, M. (2016) Is Another Cosmopolitics Possible?. *Cultural Anthropology*. 31(4), 545–570. https://doi.org/10.14506/ca31.4.05

Blöschl, G., Nester, T., Komma, J., Parajka, J. & Perdigão, R.A.P. (2013) The June 2013 flood in the Upper Danube Basin, and comparisons with the 2002, 1954 and 1899 floods. *Hydrology and Earth System Sciences*. *17*(12), 5197-5212. Available online: doi.org/10.5194/hess-17-5197-2013

Bolin, R., & Stanford, L. (1991) Shelter, housing and recovery: A comparison of U.S. disasters. *Disasters*. 15 (1), 24–34. Available online: doi.org/10.1111/j.1467-7717.1991.tb00424.x.

Boris, P. (1998) Issues in the Definition and Delineation of Disasters and Disaster Areas. In: Quarantelli, E.L. (eds.) *What Is a Disaster? Perspectives on the Question*. London and New York, Routledge, pp. 56-72.

Bradley, D. & Grainger, A. (2004) Social resilience as a controlling influence on desertification in Senegal. *Land degradation & development*. *15*(5), 451-470. Available online: doi.org/10.1002/ldr.628.

Braun, B. & Whatmore, S. (2010) *Political Matter: Technoscience, Democracy and Public Life*, Minneapolis: University of Minnesota.

Brooks, N., Adger, W.N. & Kelly, P.M. (2005) The determinants of vulnerability and adaptive capacity at the national level and the implications for adaptation. *Global environmental change.* 15(2), pp.151-163. Available online: doi.org/10.1016/j.gloenvcha.2004.12.006.

Brown, G. (2001) Listening to queer maps of the city: Gay men's narratives of pleasure and danger in London's East End. *Oral History.* 29(1), 48-61.

Brown, K. (2011) Policy discourses of resilience. In: Climate change and the crisis of capitalism. New York, Routledge.

Brown, K. & Westaway, E. (2011) Agency, capacity, and resilience to environmental change: lessons from human development, well-being, and disasters. *Annual review of environment and resources.* 36, 321-342. Available online: doi.org/10.1146/annurev-environ-052610-092905.

Bulley, D. (2015) Ethics, power and space: International hospitality beyond Derrida. Hospitality and Society. 5(3).185-201. https://doi.org/10.1386/hosp.5.2-3.185_1

Bundervoet, T. (2009) Livestock, land and political power: The 1993 killings in Burundi. *Journal of Peace Research*. *46*(3), 357-376. Available online: doi.org/10.1177/0022343309102657.

Burton, I., Huq, S., Lim, B., Pilifosova, O. & Schipper, E.L. (2002) From impacts assessment to adaptation priorities: the shaping of adaptation policy. *Climate policy*. *2*(2-3),145-159. Available online: doi.org/10.3763/cpol.2002.0217.

Campanella, R. (2010) *Delta Urbanism: New Orleans*. New York, Routledge.

Carr, L.J. (1932) Disaster and the sequence-pattern concept of social change. *American Journal of Sociology*, 38(2), 207-218. Available online: doi.org/10.1086/216030

Cavallo, E. A. & Noy, I. (2009) The Economics of Natural Disasters: A Survey. *IDB Working Paper No. 35*. Available online: http://dx.doi.org/10.2139/ssrn.1817217.

Chambers R. (2006). Participatory mapping and geographic information systems: Whose map? Who is empowered and who disempowered? Who gains and who loses? *The Electronic Journal of Information Systems in Developing Countries*, 25(2), 1–11. https://doi.org/10.1002/j.1681-4835.2006.tb00163.x

Chaskin, R. J. (2008) Resilience, community, and resilient communities: conditioning contexts and collective action. *Child Care in Practice* 14 (1), 65–74. Available online: doi.org/10.1080/13575270701733724

Cheema, Y. (2007) Towards an Inventory of Historic Buildings and Cultural Landscapes. In: Bianca, S. (ed.) *Karakoram: Hidden Treasures in the Northern Areas of Pakistan*, 2nd ed, Turin, Italy: Umberto Allemandi & Co.

Christoplos, I., Mitchell, J. & Liljelund, A. (2001) Re-framing risk: The changing context of disaster mitigation and preparedness. *Disasters*. 25(3), 185-198. Available online: doi.org/10.1111/1467-7717.00171.

Clark, N. (2011) Inhuman Nature: Sociable Life on a Dynamic Planet. Los Angeles, SAGE.

Clark, N. (2014) Geo-politics and the Disaster of the Anthropocene. In: Tironi, M., Rodriguez-Giralt, I. & Guggeheim, M. (eds.) *Disasters and Politics: Materials, Experiments, Preparedness*. London: Wiley-Blackwell, pp.19-37.

Clifford, S. and King, A. (1993) *Local Distinctiveness: Place, Particularity and Identity*. London: Common Ground.

Cloke, P. & Conradson, D. (2018) Transitional organisations, affective atmospheres and new forms of being-in-common: Post-disaster recovery in Christchurch, New Zealand. *Transactions of the Institute of the British Geographers.* 41(03), 360-376. Available online: doi.org/10.1111/tran.12240.

Cloke, P., Dickinson, S. & Tupper, S. (2017) The Christchurch earthquakes 2010, 2011: Geographies of an event. *New Zealand Geographer. 73*(2), 69-80. Available online: doi.org/10.1111/nzg.12152.

Coetzee, C. & Van Niekerk, D. (2012) Tracking the evolution of the disaster management cycle: A general system theory approach. *Jàmbá: Journal of Disaster Risk Studies.* 4(1), 1-9. Available online: 10.4102/jamba.v4i1.54.

Collier, P. (1999) On the economic consequences of civil war. *Oxford economic papers*. *51*(1), 168-183. Available online: doi.org/10.1093/oep/51.1.168.

Cook, N. & Butz, D. (2016) Mobility Justice in the Context of Disaster. *Mobilities*. 11 (3), 400-419. doi: 10.1080/17450101.2015.1047613

Cook, N., and D. Butz. (2013) The Atta Abad Landslide and Everyday Mobility in Gojal, Northern Pakistan, *Mountain Research and Development,* 33(4), 372–380. Available online: https://doi.org/10.1659/MRD-JOURNAL-D-13-00013.1

Cote, M. & Nightingale, A.J. (2012) Resilience thinking meets social theory: situating social change in socio-ecological systems (SES) research. *Progress in Human Geography*. 36(4), 475-489. Available online: doi.org/10.1177/0309132511425708.

Crang, M. (2001) Rhythms of the city: Temporalised space and motion. In: May, J. & Thrift, N. (eds.) *TimeSpace: Geographies of Temporality*. London: Routledge, pp. 187–207.

Crang, M. (2003) Telling materials. In: Pryke, M., Rose, G. & Whatmore, S. (eds.) *Using Social Theory, Thinking Through Research.* London: Sage, pp. 127-144.

Cresswell, T. (2004) *Place: A Short Introduction*. Oxford: Blackwell

Cretney, R. (2014) Resilience for whom? Emerging critical geographies of socio-ecological resilience. *Geography Compass*. 8(9), 627-640. Available online: doi.org/10.1111/gec3.12154.

Cretney, R. & Bond, S. (2014) 'Bouncing back' to capitalism? Grass-roots autonomous activism in shaping discourses of resilience and transformation following disaster. *Resilience.* 2(1), 18-31. Available online: doi.org/10.1080/21693293.2013.872449

Cutter, S. L. (1996) Vulnerability to environmental hazards. *Progress in Human Geography*. 20(4), 529 – 539.

Cutter, S. L., Boruff, B. J. & Shirley, W. L. (2003) Social Vulnerability to Environmental Hazards. Social Science Quaterly. 84(2), 242-261. Available online: https://doi.org/10.1111/1540-6237.8402002

Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E. & Webb, J. (2008) A place-based model for understanding community resilience to natural disasters. *Global environmental change*. *18*(4), 598-606. Available online: doi.org/10.1016/j.gloenvcha.2008.07.013.

Dai, F.C., Lee, C.F. & Ngai, Y.Y. (2002) Landslide risk assessment and management: an overview. *Engineering Geology*. 64 (1), 65-87. Available online: doi.org/10.1016/S0013-7952(01)00093-X.

Dominelli, L. (2009) Introducing Social Work. Cambridge: Polity Press.

Davidson, C. H., Johnson, C., Lizarraldea, G., Dikmen, N. & Sliwinski, A. (2007) Truths and myths about community participation in post-disaster housing projects. *Habitat International*. 31 (1), 100–115. Available online: doi.org/10.1016/j.habitatint.2006.08.003.

Davidson, D. J. (2010) The applicability of the concept of resilience to social systems: some sources of optimism and nagging doubts. *Society & Natural Resources.* 23 (12). 1135–1149. Available online: doi.org/10.1080/08941921003652940

Davis, I. & Aysan, Y. (1981) *Disasters and the small dwelling*. Oxford. Pergamon Press.

Davoudi, S. (2012) Resilience: A bridging concept or a dead end? *Planning Theory and Practice* 13(2), 299–333. https://doi.org/10.1080/14649357.2012.677124

Dawes, M. J. & Oswald, M. J. (2018) The mathematical structure of Alexander's A Pattern Language: An analysis of the role of invariant patterns. *Environment and Planning B: Urban Analytics and City Science.* doi: 10.1177/2399808318761396.

Dawes, M.J. & Ostwald, M.J. (2017) Christopher Alexander's A Pattern Language: analysing, mapping and classifying the critical response. *City Territory and Architecture*, 4(17). Available online: https://doi.org/10.1186/s40410-017-0073-1)

Delaney, P. & Shrader, E. (2000) Gender and post-disaster reconstruction: The case of Hurricane Mitch in Honduras and Nicaragua (draft report), World Bank, Washington DC. Available online: https://www.humanitarianlibrary.org/resource/gender-and-post-disaster-reconstruction-case-hurricane-mitch-honduras-and-nicaragua-0

Deleuze, G. (2004) Difference and Repetition. Translated by P. Patton. London, Continuum.

Dello Buono, R. (2012) Writing the Relationship of Resistance and Social Change. In: Fasenfest, D. and Dello Buono, R. (eds.) *Social Change, Resistance and Social Practises: Studies in critical social sciences.* Chicago, Ill.; London: Haymarket; Turnaround [distributor], pp. 1–55.

Derrida, J. (1994) *Spectres of Marx*. (Trans.) Peggy Kamuf. New York: Routledge.

Derrida, J. (2001) *The Work of Mourning.* Chicago and London: University of Chicago Press.

Derrida, J. (2005) *Paper Machine.* (Trans.) R. Bowlby. Stanford, Califf: Stanford University Press. pp. 151-52

DeVerteuil, G. (2015) Resilience in the Post-welfare Inner City: Voluntary Sector Geographies in London, Los Angeles and Sydney. Bristol, Policy Press.

DeVerteuil, G. & Golubchikov, O. (2016) Can resilience be redeemed?. *City*. 20(1), 143-151. Available online: DOI: 10.1080/13604813.2015.1125714.

Dezeuze, A. (2008) Assemblage, Bricolage, and the Practice of Everyday Life. *Art Journal*, 67(1), 31-37. Available online: https://www.jstor.org/stable/20068580

Di Baldassarre, G., Nohrstedt, D., Mård, J., Burchardt, S., Albin, C., Bondesson, S., Breinl, K., Deegan, F.M., Fuentes, D., Lopez, M.G. & Granberg, M. (2018) An integrative research framework to unravel the interplay of natural hazards and vulnerabilities. *Earth's Future*. 6(3). 305-310. Available online: doi.org/10 .1002/2017EF000764.

Dickinson, J.L. & Bonney R. (2012) *Citizen science: public collaboration in environmental research*. Ithaca, NY: Cornell University Press.

Dombrowsky, W. (1998), Again and again. Is a disaster what we call a "Disaster"?. In: Quarantelli, E.L. (ed.) *What is a disaster? Perspectives on the question*. London, Routledge, pp. 19-30.

Donovan, A. (2017) Geopower: Reflections on the critical geography of disasters. *Progress in Human Geography*. 41(1). 44–67. Available online: doi.org/10.1177/0309132515627020.

Downs, R., & Stea, D. (1974). *Image and Environment: Cognitive Mapping and Spatial Behaviour*. New York: Hodder & Stoughton Educational.

Drabek, T.E. (2004) *Social Dimensions of Disaster (2nd Edition)*. Instructor Guide. Emmitsburg, MD: Federal Emergency Management Agency.

Drabek, T.E. (2005) Sociology, disasters and emergency management: history, contributions, and future agenda. In: Mcentire, D.A. (eds.) *Disciplines, Disasters and Emergency Management: The Convergence and Divergence of Concepts, Issues and Trends in the Research Literature, Emergency Management Institute*. Emmitsburg, MD: Federal Emergency Management Agency, pp. 61-74.

Dynes, R. R. & Quarantelli, E. (2008) A Brief Note on Disaster Restoration, Reconstruction and Recovery: A Comparative Note Using Post Earthquake Observations. Newark, Disaster Research Center.

Dynes, R. R. (1998), Coming to Terms with Community Disaster. In: Quarantelli, E.L. (eds.) *What Is a Disaster? Perspectives on the Question*. London and New York, Routledge, pp. 109-126.

Easthope, L. & Mort, M., (2014). Technologies of recovery: practices and entangled politics in disaster, *The Sociological Review*. 62(1), 135 -158. https://doi.org/10.1111/1467-954X.12127

Edensor, T. (2005) *Industrial Ruins: Space, Aesthetics, Materiality and Memory.* Oxford: Berg.

Edensor, T. (2010) Introduction: Thinking about rhythm and space. In: Edensor, T (ed.) *Geographies of Rhythm Nature, Place, Mobilities and Bodies*. Farnham: Ashgate, pp. 1–20.

Eiser, J.R., Bostrom, A., Burton, I., Johnston, D.M., McClure, J., Paton, D., Van Der Pligt, J. & White, M.P. (2012) Risk interpretation and action: A conceptual framework for responses to natural hazards. *International Journal of Disaster Risk Reduction*. 1, 5-16. Available online: doi.org/10.1016/j.ijdrr.2012.05.002

Enarson, E. & B.H. Morrow. (1998) *The Gendered Terrain of Disaster: Through Women's Eyes*. Westport, CT: Praeger.

Farías, I. (2011) The Politics of Urban Assemblages. *City: Analysis of Urban Trends, Culture, Theory, Policy, Action*. 15.3(4), pp. 365-74. Available online: https://doi.org/10.1080/13604813.2011.595110

Fathy, H. (1986) Natural, energy and vernacular architecture: principles and examples with reference to the hot climatic conditions, Chicago: University of Chicago Press.

Folke, C. (2006) Resilience: the emergence of a perspective for social–ecological systems analyses. *Global Environmental Change.* 16(3), 253–267. Available online: 10.1016/j.gloenvcha.2006.04.002.

Frerks, G. and Bender, S. (2004) Conclusion: Vulnerability analysis as a means of strengthening policy formulation and policy practice. In: Bankoff, G., Frerks, and Hilhorst, D. (eds.) *Mapping vulnerability: Disasters, development and people*. London, Earthscan, pp. 194- 205.

Fritz, C. E. (1961) Disasters. In: Contemporary Social Problems, edited by Robert K. Merton and Robert A. Nisbet. New York, Harcourt, pp. 651-694.

Gaillard, J.C. (2010) Vulnerability, capacity and resilience: perspectives for climate and development policy. *Journal of International Development. 22*(2), 218-232. Available online: doi.org/10.1002/jid.1675.

Gaillard, J.C. & Mercer, J. (2013) From knowledge to action: Bridging gaps in disaster risk Reduction. *Progress in Human Geography*. 37(1), pp. 93–114. Available online: doi.org/10.1177/0309132512446717.

Ganapati, N.E. & Ganapati, S. (2009) Enabling participatory planning after disasters: A case study of the World Bank's housing reconstruction in Turkey, *Journal of the American Planning Association*, 75(1), 41-59. Available online: https://doi.org/10.1080/01944360802546254

Gebbie, K. & Qureshi, K. (2002) Emergency and disaster preparedness: Core competencies for nurses. *American Journal of Nursing*. 102(1), 46–51. Available online: https://journals.lww.com/ajnonline/Fulltext/2002/01000/Emergency_and_Disaster_Preparedness__Core.23.aspx

Gibson-Graham, J. K. (2006) A Postcapitalist Politics. Minneapolis, University of Minnesota Press.

Gilbert, C. (1995) Studying Disaster: A Review of the Main Conceptual Tools. *International Journal of Mass Emergencies and Disasters*. 13(3), 231 – 240. Available online: http://ijmed.org/articles/319/

Gordon, A. F. (2011) Some Thoughts on Haunting and Futurity, *Border Lands*. 10:2. Available online: http://www.borderlands.net.au/vol10no2_2011/gordon_thoughts.pdf

Grasseni, C. (2007) Introduction: Skilled Visions: Between Apprenticeship and Standards. In: Grasseni, C. (ed.) *Skilled Visions: Between Apprenticeship and Standards.* Oxford: Berghahn. pp. 1-19.

Grasseni, C. (2012) Community Mapping as Auto-Ethno-Cartography. In: Pink, S. (ed.) *Advances in Visual Methodology*. London: SAGE, pp. 97 – 112.

Greenberg, M. (2014) The Disaster inside the Disaster: Hurricane Sandy and post-crisis redevelopment. *New Labor Forum*. 23 (1), 44–52. Available online: https://doi.org/10.1177/1095796013513239.

Grove, K. & Chandler, D. (2017) Introduction: resilience and the Anthropocene: the stakes of 'renaturalising' politics, *Resilience*. 5(2), 79-91, DOI: 10.1080/21693293.2016.1241476

Grove, K. & Pugh, J. (2015) Assemblage Thinking and Participatory Development: Potentiality, Ethics, Biopolitics. *Geography Compass.* 9(1),1-13.

Guggenheim, M. (2014) Disasters and Politics - Politics as Disasters. In: Tironi, M., Rodriguez-Giralt, I. & Guggenheim, M. (eds.) *Disasters and Politics: Materials, Experiments, Preparedness*. West Sussex: Wiley-Blackwell. pp. 1-16.

Gunderson, L. (2000) Ecological resilience – in theory and application. *Annual Review of Ecology and Systematics*. 31(1), 425–439. Available online: doi.org/10.1146/annurev.ecolsys.31.1.425.

Gunderson, L. & Holling, C.S. (2003) *Panarchy: Understanding Transformations In Human Natural Systems*. Washington DC, Island Press.

Hénaff, M. (1997) Of Stones, Angels and Humans: Michel Serres and the Global City. *SubStance,* 83, 59-80. doi:10.2307/3684696

Hensgen, T., Desouza, K.C. & Kraft, G.D. (2003) Games, signal detection, and processing in the context of crisis management. *Journal of Contingencies and Crisis Management*. 11(2), 67-77. Available online: doi.org/10.1111/1468-5973.1102003

Hewitt, K. (1998) Excluded perspectives in the social construction of disaster. In: Quarantelli, E. L. (eds.) *What Is a Disaster? Perspectives on the Question*. London and New York, Routledge, pp. 75-92.

Hilhorst, D. & Bankoff, G. (2004). Introduction: Mapping vulnerability. In: G. Bankoff., Frerks, G. and Hilhorst, D. (eds.) *Mapping vulnerability: Disasters, development and people* (pp. 1–9). London, Earthscan, pp. 1-9.

Holling, C. (1973) Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics*. 4(1). 1–23. Available online: doi/pdf/10.1146/annurev.es.04.110173.000245.

Hollis, S. (2014) Competing and Complimentary Discourses in Global Disaster Risk Management. *Risk, Hazards & Crisis in Public Policy.* 5(3), 342–63. Available online: doi.org/10.1002/rhc3.12063

Holloway, A. (2003) Disaster risk reduction in Southern Africa: Hot rhetoric, cold reality. *African Security Review*. 12(1), 1–12. Available online: http://dx.doi.org/10.1080/1024602 9.2003.9627568

Ingold, T. (2000) *Perception of the Environment: Essays in Livelihood, Dwelling and Skill* (1st ed.). New York: Routledge.

Ingold, T. (2000) *The Perception of the Environment Essays on livelihood, dwelling and skill.* Abingdon: Routledge.

Ingold, T. (2008) Bindings against Boundaries: Entanglements of Life in an Open World. *Environment and Planning A: Economy and Space.* 40(8), 1796 – 1810. Available online: https://doi.org/10.1068/a40156

Ingold, T. (2010) The textility of making. *Cambridge Journal of Economics*. Cambridge (UK). 34:1, 91-102.

Ingold, T. (2011) *Being Alive*. London: Routledge.

Ingold, T. (2013) Making growing Learning. *Belo Horizonta*, 29(3), 297-324. Available online: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-46982013000300013&lng=en&tlng=en

Ingold, T. (2014) That's enough about ethnography!. In: *HAU: Journal of Ethnographic Theory*, 4(1), 383-395.

Ingold, T. (2016) On human correspondence. *Journal of the Royal Anthropological Institute.* 23(1), 9–27.

Ingold, T. (2017) *Knowing from the inside: correspondences*. University of Aberdeen.

Ingold, T. and Hallam, E. (2007) Creativity and cultural improvisation: an introduction. In: Ingold, T. and Hallam, E. (eds.) *Creativity and cultural improvisation*. Oxford: Berg, 2007, pp. 3-4.

International Federation of Red Cross and Red Crescent Societies (IFRC). (1999), Vulnerability/ Capacity Analysis. Geneva: IFRC.

International Federation of Red Cross and Red Crescent Societies. (2014) World Disasters Report 2014—Focus on Culture and Risk. Available online: http://www.ifrc.org/world-disasters-report-2014 (last accessed on 16 June 2017).

International Journal of Mass Emergencies and Disasters, March 2003, Vol. 21, No. 1, pp. 91–107, Null ISDR (n.d.).(May 11, 2006), "Terminology: Basic terms of disaster risk reduction." Available online : http://www.unisdr.org/eng/library/lib-terminologyeng%20home.htm

Jigyasu, R. (2002) Reducing Disaster Vulnerability through Local Knowledge and Capacity. The Case of Earthquake Prone Rural Communities in India and Nepal. Unpublished PhD thesis, Department of Town and Regional Planning, Faculty of Architecture and Fine Art, Norwegian University of Science and Technology, Trondheim, Norway.

Kapoor, I. (2004) Hyper-self-reflexive development? Spivak on representing the Third World 'Other'. *Third World Quarterly*, 4:25, 627-47.

Keller, R. (2015) Fatal Isolation: The devastating Paris heat wave of 2003. Chicago: University of Chicago Press.

Kelman, I., Gaillard, J.C. & Mercer, J. (2015) Climate Change's Role in Disaster Risk Reduction's Future: Beyond Vulnerability and Resilience International Journal of Disaster Risk Science. 6(21). https://doi.org/10.1007/s13753-015-0038-5

Kelman, I. (2007) Hurricane Katrina disaster diplomacy. *Disasters*. 31(3), 288-309. https://doi.org/10.1111/j.1467-7717.2007.01010.x

Kesby, M. (2000) Participatory diagramming: deploying qualitative methods through an action research epistemology. *Area*. 32(4), 423-435. DOI: 10.1111/j.1475-4762.2000.tb00158.x

Khan, H. & Khan, A. (2008) Natural hazards and disaster management in Pakistan, Munich Personal RePEc Archive, viewed 7 February 2012, from http://mpra. ub.uni-muenchen.de/11052/1/MPRA_paper_11052.pdf

Kindon, S., Pain, R. & Kesby, M. (2007) Participatory Action Research: Origins, approaches and methods. In: Kesby, M. & Kindon, S. (eds.) *Participatory Action Research Approaches and Methods: Connecting People, Participation and Place.* Routledge, Abingdon, pp. 9-18.

King, I. F. (1993) *Christopher Alexander and Contemporary Architecture: a+u Architecture and Urbanism,* Special Issue: a+u Publishing.

Kitchin, R. (1994) Cognitive maps: What are they and why study them?. *Journal of Environmental Psychology*. 14(1), 1-19. https://doi.org/10.1016/S0272-4944(05)80194-X

Klein, N. (2007) The Shock Doctrine: The rise of disaster capitalism. New York, Metropolitan Books.

Kohn, W. (2002) The lost prophet of architecture. *Wilson Quarterly Summer* 26–34. Available online: http://archive.wilsonquarterly.com/sites/default/files/articles/WQ_VOL26_SU_2002_Article_03.pdf

Konoorayar, K. V. (2006) Disasters: Global Response to the Challenges. *AALCO Quarterly Bulletin*, 2(4): 359–84. Available online: https://ssrn.com/abstract=991085.

Kovach, M. (2009) *Indigenous Methodologies: Characteristics, Conversations and Contexts*. Toronto: U of Toronto.

Kreps, G. A. (1998) Disaster as Systemic Event and Social Catalyst. In: Quarantelli, E.L. (eds.) *What Is a Disaster? Perspectives on the Question*. London and New York, Routledge.

Kreps, G.A. (1983) The organization of disaster response: core competences and processes. *International Journal of Mass Emergencies and Disasters*.13, 439-65. Available online: http://www.ijmed.org/articles/526/download/

Kreps, G.A. (1984) *Disaster and the social order, Definition and taxonomy*, Department of Sociology, College of William and Mary, Williamsburg, VA, Mimeo.

Kreutzmann, H. (1993) Challenge and Response in the Karakoram. Socio-economic transformation in Hunza, Northern Areas, Pakistan, *Mountain Research and Development,* 13(1), 19-39. doi:10.2307/3673642

Kreutzmann, H. (1994) Habitat conditions and settlement processes in the Hindukush-Karakoram, *Petermanns Geographische Mitteilungen,* 138:6, 337-356. Available online: http://lib.icimod.org/record/11587

Kreutzmann, H. (2009) Transformations of high mountain pastoral strategies in the Pamirian Knot, *Nomadic Peoples*, 13(2), 102-123. Available online http://www.jstor.org/stable/43123853

Kroll-Smith, S. & Gunter, V.J. (1998) Legislators, interpreters, and disasters: The importance of how as well as what is a disaster. In: Quarantelli, E.L. (eds.) *What Is a Disaster? Perspectives on the Question*. London and New York, Routledge, pp. 179-196.

Latour, B. (1999) Circulating reference: sampling the soil in the Amazon forest. In: *Pandora's hope: essays on the reality of science studies*, Cambridge, Mass.: Harvard University Press. pp.24-79.

Latour, B. (2004) Whose Cosmos, Which Cosmopolitics? Comments on the Peace Terms of Ulrich Beck. *Common Knowledge,* 10(3), 450–62. Available online: http://dx.doi.org/10.1215/0961754X-10-3-450.

Latour, B. (2007) Turning Around Politics. A Note on Gerard de Vries' Paper. De Vries Social Study of Science. 103. Available online: http://www.bruno-latour.fr/sites/default/files/103-DE%20VRIES-SSofS-GB.pdf

Latour, B. (2010) An attempt at writing a "Compositionist Manifesto". *New*

Law, J. (2004) *After method: Mess in Social Science Research*. Abingdon: Routledge.

Lévi-Strauss, C. (2004). *The Savage Mind*. Oxford: Oxford University Press.

Levi, M. (1996) Social and unsocial capital: A review essay of Robert Putnam's Making democracy work. *Politics and Society*, 24 (1), 45-55. Available online: doi/pdf/10.1177/0032329296024001005.

Levine, C. (2014) *Forms: Whole, Rhythm, Hierarchy, Network*. New Jersey: Princeton University Press.

Lewis, J. (2007), Disaster management cycle vs disaster management rut. *Radix Digest*. 69(2).

Lewis, J., O'Keefe, P. & Westgate, K.N., (1976), A philosophy of planning, Occasional paper no 5, Bradford, Disaster Research Unit, University of Bradford.

Literary History, 41, 471-490. Available online: http://www.bruno-latour.fr/node/140

Luft, R. E. (2009) Beyond Disaster Exceptionalism: Social movement developments in New Orleans after Hurricane Katrina. *American Quarterly*. 61(3), 499–547. Available online: www.jstor.org/stable/pdf/27735005.pdf

Lynch, K. (1972) *What Time Is this Place?*. Cambridge: MIT Press.

MacKinnon, D. & Derickson, K. D. (2012) From Resilience to Resourcefulness: A critique of resilience policy and activism. *Progress in Human Geography*. 37(2), 253–270. Available online: doi.org/10.1177/0309132512454775.

Mansor, S., Abu Shariah, M., Billa, L., Setiawan, I. & Jabar, F. (2004) Spatial technology for natural risk management. *Disaster Prevention and Management: An International Journal*. 13(5), 364-373. Available online: doi.org/10.1108/09653560410568480.

Manyena, Bernard, O'Brien, Geoff, O'Keefe, Phil & Rose, Joanne. (2011) Disaster resilience: a bounce back or bounce forward ability? *Local Environment: The International Journal of Justice and Sustainability*. 16 (5), 417-424. Available online: doi.org/10.1080/13549839.2011.583049.

Marsh, G. & Buckle, P. (2001) Community: The concept of community in the risk and emergency management context. Australian Journal of Emergency Management 16: 5–7. Available online: https://search.informit.com.au/documentSummary;dn=368652743556652;res=IELHSS.

Massey, D. (2003) Imagining the Field. In: In: Pryke, M., Rose, G. & Whatmore, S. (eds.) *Using Social Theory, Thinking Through Research.* London: Sage, pp. 71-88.

Massey, D. (2005) *For Space*, London: SAGE.

Mavhura, E., Manyena, B. S., Collins, A. & Manatsa, D. (2013) Indigenous knowledge and resilience to floods in Muzarabani, Zimbabwe. *International Journal of Disaster Risk Reduction*. 5, 38-48. Available online: doi.org/10.1016/j.ijdrr.2013.07.001.

Mbembe, A. (2015) Decolonizing knowledge and the question of the archive. Available at: http://wiser.wits.ac.za/system/files/Achille%20Mbembe%20-%20Decolonizing%20Knowledge%20and%20the%20Question%20of%20the%20Archive.pdf

McEntire, D. A. (2001) Triggering Agents, Vulnerabilities and Disaster Reduction: Towards a Holistic Paradigm. *Disaster Prevention and Management: An International Journal*. 10(3), 189–96. Available online: doi.org/10.1108/09653560110395359.

McEntire, D. A., Fuller, C., Johnston, C. W. & Weber, R. (2002) A Comparison of Disaster Paradigms: The Search for a Holistic Policy Guide. Public Administration Review 62(3), 267–281. Available online: doi.org/10.1111/1540-6210.00178.

Miller, N. (2003) Hauntology and History in Jacques Derrida*'s Specters of Marx,* York University. Available online: http://www.nodo50.org/cubasigloXXI/taller/miller_100304.pdf.

Minkler, M. (2000) Using Participatory Action Research to Build Healthy Communities. *Public Health Reports*.115, 191–197. Available online: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1308710/

Mitchell, W.J.T. (2012) Image, Space, Revolution: The Arts of Occupation. *Critical Inquiry.*39(1), 8-32. Print. doi:10.1086/668048

Mohan, G. & Mohan, J. (2002) Placing social capital. *Progress in Human Geography*. 26(2), 191-210. Available online: doi.org/10.1191/0309132502ph364ra.

Mol, A. (2002) *The body Multiple: Ontology in Medical Practice*. Durham: Duke University Press.

Mol, A., & Law, J. (2004) Embodied Action, Enacted Bodies: the Example of Hypoglycaemia. *Body & Society*. 10(2–3), 43–62. https://doi.org/10.1177/1357034X04042932

National Research Council. (2006) Facing Hazards and Disasters: Understanding Human Dimensions. Washington DC, The National Academies Press.

Navaro-Yashin, Y. (2009) Melancholic Objects: Ruination and the Production of Anthropological Knowledge. *Journal of the Royal Anthropological Institute* (N.S.) 15, 1-18. https://doi.org/10.1111/j.1467-9655.2008.01527.x

Neal, D.M. (1997) Reconsidering the phases of disaster. *International Journal of Mass Emergencies and Disasters*.15 (2), 239-64. Available online: http://www.ijmed.org/articles/335/download/

Nelson, S. H. (2014) Resilience and the neoliberal counter-revolution: from ecologies of control to production of the common. *Resilience*. 2(1), 1–17. Available online: doi.org/10.1080/21693293.2014.872456.

Nicholl, C. (2011). *Traces Remain: Essays and Explorations*. London: Allen Lane.

Nixon, R. (2011) *Slow Violence and the Environmentalism of the Poor*. Cambridge, Mass.: Harvard University Press.

Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F. & Pfefferbaum, R. L. (2007) Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology* 41 (1-2), pp. 127–150. Available online: https://link.springer.com/article/10.1007/s10464-007-9156-6

Ogborn, M. (2005) Editorial: Atlantic geographies. *Social & Cultural Geography*, 6(3), 379–385. DOI: 10.1080/14649360500111261

Oliver-Smith, A. (1998) Global Changes and the Definition of Disaster. In: Quarantelli, E.L. (eds.) *What Is a Disaster? Perspectives on the Question*. London and New York, Routledge, pp. 197-216.

Oliver-Smith, A. & Hoffman, S. (2002), Theorizing Disasaters. Nature, Power, and Culture. In S. Hoffman & A. Oliver-Smith, eds. Catastrophe & Culture. The Anthropology of Disaster. Santa Fe: School of American Research Press, pp. 23–47.

Oliver-Smith, A. (2007) Successes and failures in post-disaster resettlement. *Disasters.* 15(1),12-23. https://doi.org/10.1111/j.1467-7717.1991.tb00423.x

Oliver-Smith, A. (2011) The Centrality of Culture in Post-Disaster Reconstruction. In Goldewijk, B.K., Freks, G. & Plas, E.V.D. (eds.) *Cultural Emergency in Conflict and Disaster.* Amsterdam: NAi Publishers, Prince Claus Fund. pp.224-333.

Oliver-Smith, A. & Hoffman, S. M. (1999) Anthropology and the angry earth: An Overview Introduction. In: Oliver-Smith, A. and Hoffman, S. M (eds.) *The Angry Earth: Disaster in Anthropological Perspective.* New York: Routledge.

Olshansky, R. B. (2006), Planning after Hurricane Katrina. *Journal of the American Planning Association*. 72 (2), 147–153. Available online: 10.1080/01944360608976735.

Olsson, L., Jerneck, A., Thoren, H., Persson, J. & O'Byrne, D. (2015) Why resilience is unappealing to social science: Theoretical and empirical investigations of the scientific use of resilience. *Science advances*. 1(4). Available online: doi http://www.dx.doi.org/10.1126/sciadv.1400217.

Oppenheimer, Michael (2008). A physical science perspective on disaster: Through the prism of global warming. *Social Research: An International Quarterly*. 75(3),659-668.

Papastephanou, M. (2011). Material Specters: International Conflicts, Disaster Management, and Educational Projects, *Educational Theory.* 61(1), 97-115. Available online: https://doi.org/10.1111/j.1741-5446.2011.00393.x

Paton, D. & Johnston, D. (2006) *Disaster resilience: an integrated approach*. Springfield: Charles C Thomas Publisher.

Pelling, M. (ed) (2003) *Natural Disasters and development in a globalizing world*. London: Routledge.

Pelling, M. & Dill, C. (2010) Disaster politics: tipping points for change in the adaptation of socio-political regimes. *Progress in Human Geography*. 34, 21-37.

Pendall, R., Foster, K. A. & Cowell, M. (2009) Resilience and regions: building understanding of the metaphor. *Cambridge Journal of Regions, Economy and Society.* 3 (1), 71–84. Available online: https://doi.org/10.1093/cjres/rsp028.

Perry, R.W. & Lindell, M.K. (2003) Preparedness for emergency response: guidelines for the emergency planning process. *Disasters*. 27(4), 336-50. Available online: doi.org/10.1111/j.0361-3666.2003.00237.x.

Philips, B. & Morrow, B. (2007) Social science research needs: Focus on vulnerable populations, forecasting, and warnings. *Natural Hazards Review*. *8*(3), 61–68. Available online: https://ascelibrary.org/doi/abs/10.1061/(ASCE)1527-6988(2007)8:3(61).

Pizzo, B. (2015) Problematizing Resilience: Implications for Planning Theory and Practice. *Cities*. 43, 133–40. Available online: doi.org/10.1016/j.cities.2014.11.015.

Potangaroa, R. & Kipa, M. (2011), RE: The Response to the February 2011 Earthquake in the Eastern Suburbs of Christchurch, Type to Lee, T.Y., April 28.

Povinelli, E. A. (2011) *Economies of Abandonment: Social Belonging and Endurance in Late Liberalism*. Durham, N.C.: Duke University Press.

Quarantelli, E. L. (2001) Statistical and conceptual problems in the study of disasters. *Disaster Prevention and Management An International Journal*, 10(5), 325-338, https://doi.org/10.1108/09653560110416175

Quarantelli, E. L. (1987) Disaster studies: An analysis of the social historical factors affecting the development of research in the area. *International Journal of Mass Emergencies and Disasters.* 5, 285-310. Available online: http://udspace.udel.edu/handle/19716/1335.

Quarantelli, E.L. (1970) The Community General Hospital: Its Immediate Problems in Disasters. *American Behavioral Scientist*. 13 (3), 380 – 391. Available online: https://journals.sagepub.com/doi/pdf/10.1177/000276427001300308

Quarantelli, E.L. (1998) Epilogue: Where we have been and where we might go. In: Quarantelli, E.L. (ed.) *What is a disaster? Perspectives on the question*. Routledge, London, pp. 234-273.

Quarantelli, E.L. & Dynes, R. R. (1977) Response to social crisis and disaster. *Annual Review of Sociology*. 3, 23-49.

Rachel Cooke, "The Interview: Iain Sinclair," The Observer, accessed 8 June 2018, Available online: http://www.guardian.co.uk/books/2009/feb/08/iain-sinclair-interview .

Raco, M. & Street, E. (2012) Resilience Planning, Economic Change and the Politics of Post-recession Development in London and Hong Kong. *Urban Studies*. 49(5), 1065–87. Available online: doi.org/10.1177/0042098011415716.

Reason, P. & Bradbury, H. (2008). Sage Handbook of Action *Research*: *Participative* inquiry and practice (2nd ed.). London: Sage.

Reid, J. (2012) The disastrous and politically debased subject of resilience. *Development Dialogue*. 58(1), 67–79. Available online: http://www.mcrg.ac.in/Development/draft_Symposium/Julian.pdf

Richardson, K. B. (2005) The phases of disaster as a relationship between structure and meaning: A narrative analysis of the 1947 Texas City explosion. *International Journal of Mass Emergencies and Disasters.* 23(3), 27–54. Available online: http://ijmed.org/articles/313/download/

Ride, A. & Bretherton, D. (2011) *Community resilience in natural disasters (1st ed.)*. New York, Palgrave Macmillan.

Robert, B. & Lajtha, C. (2002) A new approach to crisis management. *Journal of contingencies and crisis management*. *10*(4), 181-191. Available online: doi.org/10.1111/1468-5973.00195.

Roberts, L. (2018) Spatial Bricolage: Methodological Eclecticism and the Poetics of 'Making Do', *Humanities*, 7(2), 43. https://doi.org/10.3390/h7020043

Rodriguez-Giralt, I., Tirado, F. & Tironi, M. (2014) Disasters as Meshworks: Migratory Birds and the Enlivening of Donana's Toxic Spill. In: Rodriguez-Giralt, I. and Guggenheim, M. (eds.) Disasters and Politics: Materials, Experiments, and Preparedness. Wiley-Blackwell, pp. 38 – 60.

Rose, M. (2002). *Landscape and labyrinths*. Geoforum 33, pp. 455–67.

Rozario, K. (2005) Making Progress: Disaster narratives and the art of optimism in modern America. In: Vale, L. and Campanella, T. (eds.) *The Resilient City: How modern cities recover from disaster*. New York, Oxford University Press, pp. 27–54.

Rubin, C. B., Saperstein, M. D. & Barbee, D. G. (1985) Community recovery from a major natural disaster (Monograph No. 41). Boulder: University of Colorado, Program on Environment and Behavior, Institute of Behavioral Science. Available online: https://scholarcommons.usf.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1086&context=fmhi_pub

Russell, R. D. (2006) Social Capital: Dealing with Community Emergencies. *Homeland Security Affairs* 2, Article 5. Available online: https://calhoun.nps.edu/bitstream/handle/10945/25095/79.pdf?sequence=1&isAllowed=y.

Said, E. W. (1995) *Orientalism: Western Conceptions of the Orient*. London: Penguin.

Salazar, A. (2002), The crisis and modernity of housing disasters in developing countries: participatory housing and technology after the Marathwada (1993) earthquake. Paper presented at 2002 international conference on improving post-disaster reconstruction in developing countries. Montreal, 23–25 May. Available online: http://www.grif.umontreal.ca/pages/i-rec%20papers/alex.PDF

Salingaros, N. A. (2006). *A Theory of Architecture*, Umbau-Verlag, Solingen, Germany.

Salmon, P., Stanton, N., Jenkins, D. & Walker, G. (2011) Coordination during multi-agency emergency response: issues and solutions. *Disaster Prevention and Management: An International Journal*. 20 (2), 140-158. Available online: https://doi.org/10.1108/09653561111126085.

Saunders, W. (2002) Commentary: Ever more popular, ever more dogmatic: The sad sequel to Christopher Alexander's work. Architectural Record. 190(5), 93–96. Print.

Savransky, M. (2016) *The Adventure of Relevance: An Ethics of Social Inquiry.* Basingstoke & New York: Palgrave Macmillan.

Savransky, M., Wilkie, A. & Rosengarten, M. (2017). The Lure of Possible Futures: On Speculative Research, In: Savransky, M., Wilkie, A. & Rosengarten, M. (eds.) *Speculative Research: The Lure of Possible Futures*. Cornwall: TJ International Limited. pp. 7-8.

Shaw, R., Sharma, A. & Takeuchi, Y. (2009) Introduction: indigenous knowledge and disaster risk reduction. In: Shaw R., Sharma, A. and Takeuchi, Y. (eds.) *Indigenous knowledge and disaster risk reduction: from practice to policy*. New York, Nova Science, 1–13.

Simon, S. & Randalls, S. (2015) Geography, ontological politics and the resilient future. *Dialogues in Human Geography*. 6(1), 3–18. Available online: doi.org/10.1177/2043820615624047.

Simone, A. (2004) People as Infrastructure: Intersecting Fragments in Johannesburg. *Public Culture.* 16(3), 407-429. Duke University Press.

Simone, A. (2013) Urban Security and the 'tricks' of endurance. *Open Democracy*, 14th February. Available online: https://www.opendemocracy.net/opensecurity/abdou-maliq-simone/urban-security-and-tricks-of-endurance

Simone, A. (2016) City of Potentialities: An Introduction. *Theory Culture & Society*. 33(7-8), 5-29. doi: 10.1177/0263276416666915.

Simone, A. & Pieterse, E. (2017) *New Urban Worlds: Inhabiting Dissonant Times*. London, New York: Polity, pp. 62-63.

Simpson, D. M. (2002) Earthquake drills and simulations in community-based training and preparedness programmes. *Disasters*. 26 (1), 55-69. Available online: doi.org/10.1111/1467-7717.00191.

Slater, T. (2014) *The Resilience of Neoliberal Urbanism*. 28 www.opendemocarcy.net/opernsecurity/tom-slater/ resilience-ofneoliberal-urbanism.html.

Smith, G. P. & Wenger, D. (2005) Sustainable disaster recovery: operationalizing an existing agenda. In: Perry, R.W. and Quarantelli, E.L. (eds.) *What is a Disaster? New Answers to Old Questions, International Research Committee on Disasters*. Bloomington, Xlibris, pp. 234-257.

Socientize Consortium. (2013) Green paper on citizen science. Citizen Science for Europe. Towards a better society of empowered citizens and enhanced research. Brussels.

Sökefeld, M. (2014) Disaster and (im)mobility: Restoring mobility in Gojal after the Attabad landslide. *Ethnoscripts*. 16(1), 187-209. Available online: https://epub.ub.uni-muenchen.de/21344/1/soekefeld_21344.pdf

Spivak, G. (1988) *Can the subaltern speak?*. Basingstoke: Macmillan.

Stallings, R. (1997) Sociological Theories and Disaster Studies. Preliminary report. Paper no. 249. Disaster Research Center. Newark, University of Delawere.

Stallings, R. A. (1995) Promoting Risk: Constructing the Earthquake Threat. New York, Walter de Gruyter.

Stengers, I. (2005) Introductory Notes | ecology of practices, *Cultural Studies Review*. 11(1), 183 -196. Available online: https://doi.org/10.5130/csr.v11i1.3459

Stengers, I. (2005b) The cosmopolitical proposal. In: Latour, B. & Weibel, P. (eds.) *Making Things Public*. MIT Press. pp. 994-1003.

Stengers, I. (2008) Experimenting with refrains: subjectivity and the challenge of escaping modern dualism. *Subjectivity*. 1(22), 38-59. Available online: https://doi.org/10.1057/sub.2008.6

Stengers, I. (2010) *Cosmopolitics I.* (Trans.) Robert Bononno. Vol. 1. Minneapolis: University of Minnesota Press.

Stengers, I. (2011) *Cosmopolitics II.* (Trans.) Robert Bononno. Vol. 2. Minneapolis: University of Minnesota Press.

Stengers, I. (2015) *In Catastrophic Times: Resisting the Coming Barbarism*. Translated by A. Goffey. Ann Arbor: Open Humanities Press/meson press.

Stevens, M., Vitos, M., Altenbuchner, J., Conquest, G., Lewis J. & Haklay M. (2014) Taking participatory Citizen Science to extremes. *IEEE Pervasive Computing*.13, 20–29. Available online: 10.1109/MPRV.2014.37

Teyssot, G. (2013) *A Topology of Everyday Constellations*, Cambridge, Mass: MIT Press.

Thompson, R. (2005). Honouring the Oral Traditions of My Ancestors through Storytelling. In: Brown, L. & Strega, S. (eds.) *Research as Resistance: Critical, Indigenous and Anti-oppressive Approaches*. Toronto, ON: Canadian Scholars. pp. 237-254.

Tierney, K. J. (1998) The field turns fifty: Social change and the practice of disaster field work. Disaster Research Center. Preliminary Paper No. 273. Newark, University of Delaware.

Twigg, J. (2004) Disaster Risk Reduction: Mitigation and Preparedness in Development and Emergency Programming. Good Practice Review No 9. London, Humanitarian Practice Network.

UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific). Statistical yearbook for Asia and the Pacific (2012), Available online from: http://www.unescap.org/stat/data/syb2012/index.asp ; 2012

UNHCR (2004) Guiding Principles on Internal Displacement.

UNISDR (2015) This shift towards vulnerability as the core category for disaster preparedness planning is also reflected in the successor of the Hyogo-Framework, the "Sendai Framework for Disaster Risk Reduction 2015 -2030" which was adopted by the UN on March 18, 2015

UNISDR Terminology on Disaster Risk Reduction, United Nations International Strategy for Disaster Reduction (UNISDR), Geneva, Switzerland, May 2009

United Nations Office for Disaster Risk Reduction (UNISDR) Report (2016), Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction.

United Nations Office for Disaster Risk Reduction: Geneva, Switzerland, (2015), United Nations Office for Disaster Risk Reduction (UNISDR). Sendai Framework for Disaster Risk Reduction 2015–2030.

Walker, B., Holling, C. S., Carpenter, S. R. & Kinzig, A. (2004) Resilience, adaptability and transformability in social–ecological systems. *Ecology and Society*. 9 (2), 5. Available online: https://www.jstor.org/stable/26267673?seq=1#metadata_info_tab_contents.

Watson, M. (2014) Derrida, Stengers, Latour, and Subalternist Cosmopolitics. *Theory, Culture & Society*, 31(1), 75–98.

Wenger, D. E. (1978) Community response to disaster: Functional and structural alterations. Wenger, D.E., 1978. Community response to disaster: functional and structural alterations. *Disasters: Theory and research*. 17-47.

Whatmore, S. (2003) Generating Materials. In: Pryke, M., Rose, G. & Whatmore, S. (eds.) *Using Social Theory, Thinking Through Research.* London: Sage. pp. 89-104.

Wisner, B. (2016, August 31) Vulnerability as Concept, Model, Metric, and Tool. *Oxford Research Encyclopedia of Natural Hazard Science.* Retrieved 29 Nov. 2018, from http://oxfordre.com/naturalhazardscience/view/10.1093/acrefore/9780199389407.001.0001/acrefore-9780199389407-e-25.

Wisner, B. (2003) The Communities Do Science! Proactive and Contextual Assessment of Capability and Vulnerability in the Face of Hazards. In: Bankoff, G., Frerks, and T. Hilhorst (eds.) *Vulnerability: Disasters, Development and People*. London, Earthscan.

Wisner, B., Blaikie, P., Cannon, T. and Davis, I. (eds.) (2004) At Risk: natural hazards, people's vulnerability, and disasters. London, New York: Routledge.

Wisner, B., Gaillard, J.C. & Kelman, I. (2012) Framing disaster: Theories and stories seeking to understand hazards, vulnerability and risk. In: Wisner, B., Gaillard, J.C. & Kelman, I. (eds.) *The Routledge Handbook of Hazards and Disaster Risk Reduction*, London: Routledge, pp. 18-34.

Wright, E (2005) Rhetorical Spaces in Memorial Places: The Cemetery as a Rhetorical Memory Place/Space. *Rhetoric Society Quarterly*, 35(4), 51-81. Available online http://www.jstor.org/stable/40232609

Wylie, J. (2009) Landscape, Absence and the Geographies of Love. *Transactions of the Institute of British Geographers,* 34, 275–89. https://doi.org/10.1111/j.1475-5661.2009.00351.x

Zakour, M. J. & Gillespie, D. F. (2013) *Community Disaster Vulnerability: Theory, research, and practice*. New York: Springer Science.

Zechner, M. & Cobo-Guevara, P. (2018) Displacement as a shared problem. In: Cobo-Guevara, P., Zechner, M. & Herbst. M. (eds.) *Situating Ourselves in Displacement. Conditions, experiences and subjectivity across neoliberalism and precarity*. Lithuania: Minor Compositions. Online. Available online: http://www.joaap.org/press/situating_fnl.pdf

Appendices

i. NDMA Report 2010 Excerpt

ii. Altit Shelter Circuit Map

iii. Field Form, Aliabad

iv. Disaster Multiple Map

v. Timelines Map