



Reflection Report

Building Resilience with Vernacular Practice, Along Jhelum, Kashmir.

Annam Irfan | 14.06.2022

Answering the research question

How can vernacular practices of River Jhelum guide adaptive spatial planning for a flood resilient Srinagar in Kashmir?

This can be achieved by guiding the vernacular water practices towards sustainability with a collaborative model of governance learning through experimentation. Hybrid solutions that combine the science of resilience in terms of resilience principles should be merged with practical vernacular tools to operationalize a shift towards better social ecological resilience.

The planning regulation inclined to strict conservation laws, whilst still necessary, should make room for dialogue and buffer spaces should be flexible to accommodate diverse economies.

Diversification of River in terms of purpose it serves to the local and city population could ensure resilient water ecosystems. In this case Urban Farming practices are combined with residential and commercial use.

Lastly resettlement should be the last option as separating livelihoods from their centuries of habitat would lose on principle of adaptation, social memory, but if it must be done then a rebuilding of similar socio-ecological bonds must be ensured by the government.

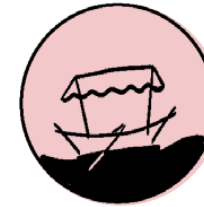
The findings of the research proposal have been summarized in a Manifesto of principles to guide projects on similar investigation lines.

Thus the two main lines of inquiry, 'Vernacular Water Conflicts' and 'Planning gap' can be resolved through a network form of governance that follows principles of adaptive spatial planning to achieve socio-ecological resilience with vernacular.

A set of general principles derived from pilot design and city resilience vision can be summarized and direct similar projects to build resilience with vernacular.



MANIFESTO | BUILDING RESILIENCE WITH VERNACULAR PRACTICE



1 Vernacular Water based Livelihoods should be geared towards sustainability

- Locate traditional hydro-social networks in Land use master-plan.
- Revive nature based solutions that could serve as tools to transition to sustainability.



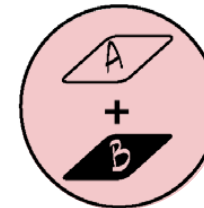
2 Wetland Conservation Plans should make room for uncertainty

Mapping resilience scored on robustness and flexibility in design as well as water governance.



3 Incentivize diversification of river and lakefronts

Allow for heterogeneous composition in land use and even flexible land use policies.



4 Combine Urban agriculture practices with commercial and residential uses

Intensify value of land with other uses to work against mono-cultures.



5 Resettlement of water based livelihoods Compensated with advocate led rebuilding

Planners with community advocate re imagine the role of vernacular practices in newly resettled habitats.

Academic Reflection

Overview

The thesis investigation began with exploring the water conflicts in the wake of climate crisis. Here as the conceptual framework summarizes at the heart of the research question was the goal to bridge the planning and vernacular gaps around water governance. In a practical world these render as terms wetland encroacher and Dal Lake dwellers, the boatmen community that resides and earns its livelihoods from the Jhelum waters.

The thesis borrowed ideas from the theoretical field of adaptive spatial planning to resilience. It looked at water governance in wake of climate crisis by referring to water Ethics and the role of socio-ecological evolutionary resilience'. (Davoudi 2013) It uses these ideas to define lenses to identify key challenges and stakeholder roles and assist in designing the strategy toolkit that can be used to increase adaptive capacity both socially and spatially.

In a social realm resilience of local networks and planning bodies is achieved through network governance of immediate actors around wetlands and middle grounds with planning authorities for collaboration. It tries to address the planning gap through an advocacy planning approach while combining principles of adaptive spatial planning.

Spatially it renders as a modular set of design on a local level that makes room for flexibility while having a rigid structure in this case it was the Haenji Jhelum Loop in tourism, commerce and transport that becomes the main backbone to build on with adaptation tools.

What the thesis adds to the theoretical concepts of resilience and adaptive spatial planning is addressing the gap between planning and vernacular for these concepts to trickle down to the most immediate stakeholders of wetlands. It attempts at engaging them in the discussion suggesting their practices are often nature based and can be part of discussions to resilience to inform the planning authorities before policy making around lake or water conversation laws. Currently the approach is the opposite, an planning models for resilience are first developed by academia and planners and

then the vernacular needs to adjust its practices to it. This thesis highlights the need on leaning on the knowledge and social resourcefulness of vernacular water cultures in developing models of resilience early in our studies.

A critique on the Method used

At the analysis stage I was open to gathering information that would require re-editing and changing the research questions. The fieldwork revealed the challenges tangibly in terms of abandoned heritage at core due to the political conflict and its impact on the riverfront. I often found myself diverging off and broadening the scope of thesis and was duly reminded by my mentors of the key concepts to focus on. After the analysis stage, much editing, and refining Initially, I aimed at designing for all four case study sites selected for analysis but for the scope of this thesis, I had to narrow down to one pilot site and its relationship with the city. The analysis was summarized in a strategy toolkit with principles for building resilience with vernacular both in terms of design and process.

From the theoretical body of research considered I used certain practitioners tools for resilience specifically the 'Socio-Ecological System and Disturbances Threshold Model' to organize the data collected and create a resilience framework for design. This helped form a narrative and connect the dots after fieldwork to link data back to the theoretical lens before moving towards design.

The design first conceptualized city vision themes of resilience and further detailed them on a Neighborhood Pilot. The upscaling process on other site locations was to reflect on findings from the pilot. This design and strategy step was iterative and moving between the scales. As a final product of design a Resilience manifesto was produced for guidance towards similar projects on the thesis investigation.

A design assessment to test the resilience for the design scheme I realized that there are many other uncertainties apart from encroachment of floodplain or climate change induced flooding like Infra structure Technology shifts, changing livelihoods. These were briefly touched with design but need more

elaboration. Lastly, I realized that using a scenario based approach with three key uncertainties early to be resilient to would have been a more insightful and an efficient during analysis and design.

Alternative Approaches

These could have been a scenario-based approach or testing a theory out but the approach I took was more expanding on existing resilience principles and basing a socio-ecological model specific to site. With the manifesto and stress test in the end it suggest ways inform the theoretical spheres of adaptive spatial planning and resilience.

Where can the scheme be transferred to?

The thesis scheme can be transferred to sites with a strong vernacular water culture that has a informal, centuries evolved culture around water that sees a dilemma with the strictly planned regulation led approach. These could be authoritarian regimes with a strict top down planning that have a populace tied to the wetlands for centuries. I would project this onto similar Indus basin cities in India and Pakistan given the similarities in water culture and planning models. Cities with water conflicts due to being at a shared basin or other geo-political factors could also look at how a middle ground between top down planning and bottom up approaches

The thesis conceptually began by considering the geo-political situation of the Indus basin shared between two countries often in conflict. So these border states that suffer locally from International disputes and planning methods aimed at strict preservation are the key sites for transferability of design.

In the book Lo-Tek, Design by radical Indigenism, Watson discusses how places in the Global South could rely on indigenous approaches to adapting with climate change. These solutions are low cost and nature based as opposed to the hard technology and infrastructure that might be necessary for increasing resilience. The societies that have found frugal ways to live with changing tide of nature are the best suited for the thesis' approach.

Floods and landslides kill 10 in northeast India after heavy rain

By Reuters and Esha Mitra, CNN
Updated 05:50 GMT (13:50 HKT) May 20, 2022



Train coaches toppled over after mudslides triggered by heavy rains at the New Hahong railway station in Assam, India, on May 16.

The case of Assam - Brahmaputra basin.

Transferability of design to border states with a strong vernacular water culture that have faced the effects of climate crisis.

Image Source: <https://edition.cnn.com/2022/05/18/india/assam-india-rain-flooding-intl-hnk/index.html>



Assam Heritage Shrine

<https://www.re-thinkingthefuture.com/rtf-fresh-perspectives/a1342-the-heritage-architecture-of-assam/>

Performance of Spatial Planning

The current system is very top-down with the center having ultimate authority over a public good: water. A need for a network of non-statutory bodies to govern the realm can be achieved by using spatial planning to function as an equalizer. The aim would be to give representation to the voiceless – Nature and marginalized communities.

The study touches upon academic fields of Conservation Architecture and Wetland Management against Climate Adaptation. It highlights the value of participatory planning, or as the author terms its Advocacy planning, in bridging the gap between planning and informal practices. So relevant trajectory to explore is to further research on the vernacular practices and bridging the gap with planning principles to achieve resilience with

- Vernacular Resilience and Planning gap
- Advocacy and Adaptive Spatial Planning

The research touched on trying to merge these spheres by finding a middle ground at a local scale. It would be insightful for further research trajectory to trace its impacts on the regional basin scale shared by two countries.

The manifesto and stress test are an addition to the theoretical discussions as practical tools to employ for adaptive spatial planning. The intersection of advocacy and adaptive spatial planning with vernacular low tech practices that could be nature based and geared towards sustainability was the contribution of my work.

The project was also developed to inform the Srinagar Master Plan 2035, on resilience tools so it would be a critique on the current planning document with suggestions on improvement from inclusive planning practices with vernacular.

Limitations of Research:

As I reflect on the thesis journey the importance of regularly revising a project pitch surfaces. The challenges to address were spread out to various spheres of transport, tourism, ecology, planning and design and giving an in depth study while looking at the inter relationships between these spheres meant simplifying certain variable. Like sticking to the issue of Haenji at Jhelum and not touching Dal Lake that is their main site.

While the project highlights the importance of collaboration, it is ironic that such work often happens as a product of one person's mind. I testify that practical field visits where I heard narratives forged by the locals and planners added a much-needed layer to the project with insights from ground realities and shaping the thesis scope.

The proposal is to be viewed as a suggestion for approaches to resilience in the wake of climate adaptation and the effects of geo-political conflict due to water tensions. For this reason design was kept at conceptual stage to be elaborated in detail in reality only after stakeholder workshops and interaction. The lack of follow up interviews with the design proposal would also affect the quality of the work.

Data accessibility and trust in the context of a highly militarized territory posed specific challenges related to transparency and reliability. Data in this context is often used to set narratives that are controlled by the authorities in power. One way in which the author tackled these challenges was to read between the lines in interviews with officials have informal conversations with both the locals and planners after the interviews.

4.2 Ethical Reflection

The limitations of cross border politics and resultant complexities of a disputed terrain could render the proposals too ambitious or Utopian for the real world. Hence the thesis conceptually paints what a sustainable model would look like for a local riverfront and lake in an urbanized settlement of the Jhelum basin. The ethical barriers that did arise during the project were:

Inherent Bias toward the oppressed in authoritative, high surveillance poorly democratic states. This resulted in looking at the after-effects of conflict on the built environment and not dealing too much with the governance and political issues. The author is aware of this limitation to digress from key political and social challenges and hopes the project can emphasize the relationships between conflict and the socio-ecological relationship with water, River Jhelum.

Sense of fear and distrust from the local community whose voices have been marginalized by the ones in power. From the field, visit attempts were made to protect the identities of professionals and locals spoken to in interviews and photographs. I was mindful to keep the tone of the thesis suggestive towards a shift in resilience oriented planning that comes from an advocate led approach.