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Reflection paper

Short introduction into the project

Kathmandu is aching, its border neighborhoods stretching out, moving up to the rim of the valley. The city is soon reaching its limits for urban expansion, and perhaps it already has: most agricultural land has been replaced by urban settlements, and the city's population keeps surging. The architecture is changing rapidly and houses are being replaced one after another, every house a bit more slender and a bit taller than before¹. The turnover rate is so high that Kathmandu's streets feel like perpetual construction sites, tirelessly building and constructing and demolishing again. These changes seem to happen without a greater plan in sight, and many say the city is become worse, not better.

Perhaps these issues are just part of a city in development: a Kathmandu that is struggling with its growing pains and the inevitable effects of urban boom. But to move forward from these pains, a couple of things are crucial: *experimentation with alternative ways of building, closely working together with craftspeople and inhabitants, documenting and archiving the past architectures, and telling stories about a different city*: one that is not pestered by pollution, built smartly to house everyone safely, and one that can resist the earthquakes to come.

These four ideas are the starting point for the design phase: the People's Earthquake Museum of Kathmandu. This initiative was started after 2015 by a small community in Nepal, but has sadly been discontinued due to a lack of resources. The building aims to connect tradition with modernity: vernacular techniques with the modern needs of Kathmandu's residents. At the same time, the building, located inside the commercial block in Gongabu Bus Park, is giving space to exhibit stories about the earthquakes, architectures that have been lost, and to showcase ways of moving forward. With museum spaces, an archive and library, auditorium and workspaces, the building revolves around reflection, mitigation, and experimentation.

¹ Bhattarai-Upadhyay en Sengupta, 'Unsettling Modernity'.

Personal reflection on the research process

In my research plan I described in multitude the problems Kathmandu is facing with, as well as solutions and questions I have regarding those problems. These problem statements were: a consistent earthquake cycle; unsafe and uncomfortable housing; a monopolitan material market; abandonment of tradition and forgetting previous earthquakes. My research question at the time was:

How could a new mix of rural and urban Nepali architecture inspire the builders of Kathmandu to build earthquake-safer houses?

I was very ambitious in my approach towards this research, knowing that I probably would not be able to do everything. My methodology existed of 9 different mediums for conducting research, which I knew would be too many to execute. However, I gave myself these options because I felt like so much was still uncertain. I expected to arrive in Kathmandu and immediately gain a new, completely different perspective on my research. Being there is inspiring in a way that the faculty cannot compete with.

And it did happen: the first days after arriving, I completely re-evaluated my research plan: what was achievable, who did I have a chance of meeting, which methodology is a priority, and which ones an opportunity if given the time? I decided that the three interviews were crucial, as well as the visits + photography in both Kathmandu and places on the countryside. I planned to work unplanned: go with the flow of Kathmandu and keep my eyes open for people to meet, places to visit, and places to photograph. Looking back, I wish my approach towards the research was more calculated and planned. The uncertainties I faced in Nepal forced me to work unorganized, which can be a frustrating process at times.

It can be difficult to find and reach the right people in Kathmandu, since the entire culture works much more uncoordinated than the Dutch society does. Being on time is not a priority, as well as responding to emails within a polite amount of time. Nepal is a bureaucratic nightmare, so reaching out to municipalities is something I did not even want to try. The best way of getting information, is going to the streets and speaking with people I meet, I decided.

Quickly after arriving, the research question transformed into:

How could a new vernacular inspire new inhabitants of Kathmandu to build more consciously in terms of earthquake-safety and comfort?

This “new vernacular” would be a version of the traditional architecture that is adapted to modern needs. I decided to focus on earthquake-safety and comfort to give myself some limits to the questions I would ask, as well as pick the two topics I found the most fascinating.

Here follow a few of the difficulties I got faced with while being in Nepal:

Academic vs. practice knowledge

One of the things I have been most confused about in this research, was the complete disconnect between theoretical knowledge (literature), and the practice of building in Kathmandu. The people I spoke to on the street said things that were polar opposite to scientific research found online. For example: in many academic sources, as I extensively described in my paper ‘Sarakshit Ghar’ in 2023, the concrete houses of Kathmandu are not designed safely or comfortably. When speaking with people on the streets of the city, it was very hard to retrieve negatives about the concrete houses. According to the locals, the concrete houses were better than traditional housing in every aspect. Only in conversation with an architect did the negatives come out, but does that mean the truth lies with the architect?

These navigations in academic versus real-life knowledge have confused me a lot over the course of the research. Where did the truth lie? Moreover: the statistics from academic sources can portray a story of an unsafe city, but the residents’ own experience after the 2015 earthquake is a much stronger story. Everyone wants to live in a concrete house now, since they were newer, and therefore survived the earthquake. The existing bias of ‘concrete=safe’ only strengthened after 2015. ‘Is this house earthquake-safe’, is a very difficult question to answer, I found.

Lack of distance from the research

Next to that, I felt so overwhelmed in Kathmandu by the research, and the research being all around me: everything in the city made me think about the research and how to move forward. It was hard to have a distance from the project, but I also urgently needed the perspective that comes with distance. Even when walking in the city to get dinner, I would think about it. I only found this distance when I was back home in the Netherlands, and after a summer of letting it all sink in. It was at that time that I started writing the research essay to give order to the many thoughts floating around in my head. Moreover, I felt a need to connect Kathmandu's story to a greater one.

Language barriers

Thirdly, the fact that I do not speak Nepali did offer problems at some points. Many people in Nepal speak English, but those are often also the people with good education, jobs and houses in fancier neighborhoods. In my research, I felt like I had to speak with people with lesser education: those often living in cheaply built houses. My friends in Nepal have been super helpful in translating conversations with people that do not speak English, but things always get lost in translation. I felt uneasy telling my friends how to talk, and which questions to ask. Often they would hold conversations with people, and I would only hear afterwards what the conclusion of the talk was. They also felt uncomfortable sometimes to talk with strangers and asking questions unannounced. The culture in Nepal is very polite and people are often shy in talking with foreign people. All these things considered, I felt like a much deeper research could have been done by a Nepali student at the TU Delft, for example. I knew that this would be challenge for me beforehand, but I was hopeful it would not prove too difficult for me.

Moreover, the communication with people who do speak English did also not always go smoothly. The level of English of many people was good, but to convey a complex academic idea is another thing. I tried to formulate my research according to the person I spoke to, but that makes it very difficult to get the other on the same page. One of the things I learned is that it helps to make this visual: communicating by pointing to building elements, drawing and using props to show an idea.

These language barriers are also the reason why I was not able to do a 'material flow research' the way I wanted to. I tried to ask so many people where the materials come from, but this seemed not important to them at all. I think I could not make clear how important it was for me to trace the materials. Since I had to rely on their hospitality in answering my questions, I felt uneasy to push and demand answers.

Ethics

On the topic of ethics, there are a couple of points I want to address. From the start, I knew I needed to be careful in the theme of ethics since I will be conducting research in a country largely unfamiliar to me. This touches on anthropology for sure, but also on consent in conversations, clear communication and showing my intentions.

Some examples:

- When taking pictures in the city, if a person is clearly visible in the picture I always asked for consent to take the picture. If the consent was not clear, or their English not good enough to understand, I would immediately delete the picture or not take it.
 - In the video-interviews (that are not included in the text, but a part of my final presentation), I have had conversations with the interviewees beforehand, clearly indicating my intent to film them, and what the film might be used for. I also expressed their right to always step out of the project if they wished to. Rebika and Ganga also received gifts as a token of gratitude, not as a form of payment. My third interview was online, so it was not possible for me to hand a gift. The results will be communicated with them.
 - In each step of the research process, as well as the design process, I have informed my close friends in Nepal on my thoughts and actions. I asked them to clearly inform me if I would step over cultural boundaries. This is also the reason my project is not too much about the trauma and hurt that people deal with post-earthquake: I was told this topic is too sensitive for me to deal with as an outsider. I respected these comments and decided to not dive into this topic. This direct feedback from people I trust and that trust me, helped me tremendously in navigating myself in Nepal.
 - To each of the people I spoke with, I made it clear that my project is a small university research as a part of my graduation, NOT a large funded project that might come to realization.
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Design reflection

In the design, I have tried to make use of hand-drawing as much as possible. I have learned in my MSc 1 semester that this worked the best for me; I feel like I can think more clearly, and work better with scale than on a computer. The thickness of a pen simply dictates the level of detail you can add at that point in the design, so it helps me to not zoom-in too much when it's not necessary. Moreover, pen drawings are much faster to make, which allowed me to show multiple alternatives of facades, details, floor plans with every tutoring. This gave space for a much more interesting conversation with my tutors: we could discuss the different versions of the design and see which one worked best with my concept.

Looking back, I am happy to see that my design looks quite like the initial sketch I made for my P2, which can be seen in the end of this document. Because I have spent so much time in Nepal, also working there as an architect, travelling the country, photographing the architecture and doing research about it, I felt like I could make a lot of design decisions intuitively. Very quickly, I had a basic outline of the design and then it was a matter of defining the details, which was much harder. My tutors understood this about the design very well, and I am happy they got to aid me in defining the details. Often, design decisions were made through conversations with them.

Moreover, I was in touch a lot with my friends in Nepal, as well as my boss at the firm I worked for there. They really helped me in focusing my design, and making it 'more Nepali'.

On a personal level, I had to go through a couple of rough moments in the past semester, in my life outside of the studies. There were some weeks that I was barely able to study, or to produce drawings. It really taught me that you need to feel confident in life to be able to make confident design decisions in architecture.

Looking forward

When it comes to the future possibilities of the project, I believe the design proposal can offer help to the initiators of the People's Earthquake Museum-project. Images, and there for a certain story of a building, can work tremendously when convincing people in municipalities, investors and local communities. Perhaps they could make use of my project, but there is a clear boundary: it is their project to realize. As an architect, I can offer solutions and alternatives, but in the end, the project is theirs to

build, change and inhabit. I can give them a story of a building in Kathmandu that experiments with new building methods, but the story of a better city is one that they have to make for themselves.

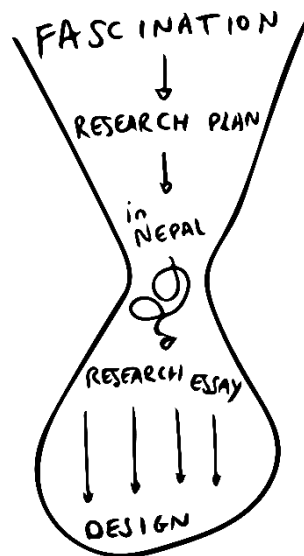
Moreover, the images I took in Nepal can be donated to the Nepal Architecture Archive at the end of my project. I think it to be highly essential for an archive to not just do historical work, but also to archive the current city. One day the current Kathmandu will lie in the past, and this phase of the city is just as essential as the times when only traditional architecture was present.

When it comes to academic transferability, the topic is a bit more difficult. Since my project has been so personal, and documented in various ways, it is hard for another person to pick it up and continue. I did not follow a standard academic-paper format that is made for accessibility and reproducibility. Future questions to be researched could be: How could the material flows in and into Nepal be analyzed and improved? What systemic changes need to happen in the building industry of Nepal to allow change? In which ways can Nepal be prepared for the next earthquake on an urban level, instead of an architectural one?

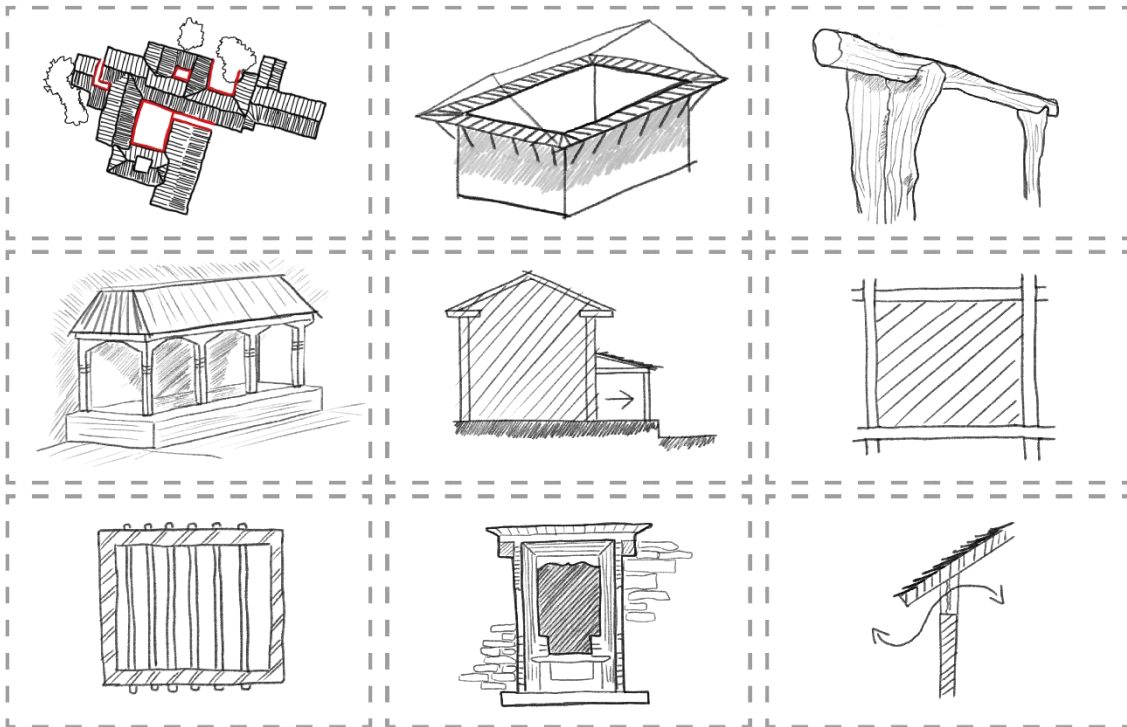
Conclusions

Overall, I am happy with my approach and the way I translated my research plan into the actual research. I started out with many plans and ideas, knowing not all of them would come to fruition. It gave me space to make mistakes and have a back-up plan. This method proved to be crucial in Nepal since it is so different from the culture I grew up in, as well as the language barriers. I knew I would face unexpected challenges and so I wanted to protect myself by still keeping some options open in terms of methodology and focus of the project. My problem statements are all still, in a more prominent or lesser way, included in my project. These are based on what I learned the first time I spent a couple of months in Nepal in 2023.

As seen in the diagram below, my own progress followed a sort of hourglass-process. I went from a very broad fascination towards a more tapered research plan. In Nepal, my research felt very compact: the only thing that mattered there were the actual streets and people of Kathmandu. Coming back, I had the chance to broaden my perspective again and write the research essay. The design is the sand that eventually trickles down to the bottom of the hourglass, based on all the steps above. From the research, four main design principles are taken, as well as a whole library of examples from architectures around Nepal.



Testaments to locality



Telling stories about a different city

Experimentation with alternative construction techniques	Working together with craftspeople and inhabitants	Documenting and archiving past architectures
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My research is all about vernacular architectures, earthquake-construction and the problems arising in a developing city. In that sense it very well related to my master track Architecture, as well as touching on some ideas of Urbanism and Building Technology.

Above, the several conclusions of both my research in Nepal as well as the essay can be seen. I have used these examples from Nepali architecture to formulate certain values that need to come back to the architecture of Kathmandu: public spaces that are covered from the sun/rain, facades that cool down easier at night, proper ventilation and streetlife.

When it comes to the academic and societal value of my project, I am a bit torn. On the one hand I could use my project as a motivator for the people I have met in Nepal, and they could use the design images and research as an example to restart the project. Besides that, I have not found a research yet that touches on all the topics I discussed in Nepal, written by an 'outsider'. There are graduation projects with a similar approach done by students in Kathmandu, but their designs are highly modern and striking, completely opposed to my ideas of fighting certain Western influences and mistakes in Kathmandu. I think my project shows another route that Kathmandu could take, but not *the* route it should take.

That takes me to my second point: within the scope of this graduation project, I took on themes that are too large to solve. This needs a very important reframing: my design proposals aims to experiment with *possible solutions*, not offer a final solution for the problems stated. I really saw this graduation project as a chance for me to learn as much as I can about vernacular architectures, sustainable materials and the issues of a city that is growing rapidly.

A one-year project like this will not solve the housing issues in Kathmandu, but this project purely offers a different story for the city, and I believe that story to be possible.

