From concrete to bamboo

A research on the reflection of Pakistan's political and social circumstances in Yasmeen Lari's architecture throughout her career.



Architectural History Thesis

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Abstract

This research gives an answer to the question question 'How is the switch in architectural language of Yasmeen Lari connected to the social and political context in Pakistan throughout her career?'. It explores three key themes: feminism, nationalism, and economic inequality. Lari's architectural humanitarian works, aimed at empowering women in rural communities and addressing economic disparities, align more with secular liberal feminism than modern Islamic feminism. Her initiatives promotes financial independence for women, diverging from the focus of modern Islamic feminism on the male caring for the women rather than equal gender rights. Lari's response to economic inequality involves providing marginalized communities with safe housing and income sources, aiming to foster financial independence and potentially mitigate future conflicts. Additionally, she contributes to Pakistani nationalism by incorporating traditional vernacular methodologies into her designs, thereby preserving national culture and uniting a divided nation. While nationalism didn't directly drive Lari's architectural shift, economic inequality played a significant role, alongside the potential influence of feminist ideals. Ultimately, Lari's transition to sustainable architecture is also motivated by the increasing natural disasters caused by global warming, an aspect which is not directly connected to the social and political conext of Pakistan.

Introduction

Yasmeen Lari was the first female architect of Pakistan, being unique in her focus on awareness of the public role and the social facets of architecture. After Lari graduated in 1964 on the Oxford School of Architecture, she opened her own firm in Pakistan named Lari Associats, Architects and Urban Designers. She started her career with designing British Brutalism architecture within projects for wealthy companies. This architectural language is expressed in her projects for wealthy companies where she designed buildings like the Pakistan oil state building (1990). During this time, she established the non-profit Heritage Foundation of Pakistan with her husband. She wanted to retrieve the deep rooted Pakistani culture and preserve the architectural heritage of Pakistan. She did studies on traditional building techniques and became one of the sixty women having made the most remarkable contributions to achieving UNESCO objectives. In 2000 she closed her firm. As Pakistan faced problems like natural disasters and socially and an economically disadvantaged population, she continued as an architect designing emergency architecture and committing to poor local populations. With projects like the Green Shelters Programme (2015), her focus laid on simple housing with local materials like mud, bamboo and lime. She set up programs to teach populations how to quickly rebuild after natural disasters. Thereby, she designed meeting places to enhance social resilience. Within these projects she attentively designed for women, recognizing their significant role in the rebuild of these communities. By designing low cost, zero carbon and zerowaste buildings while also focussing on social reconstruction and local economy revitalisation, she created dignity and hope for recovery for the poorest people of Pakistan (Berlingieri et. al., 2021).

Within her career she made a remarkable switch in her architectural language and values. In the beginning of her career she designed Brutalism architecture for wealthy clients, using a lot of concrete as a building material. Later on in her career, she designed zero-carbon and disaster-proof architecture for the poor population of Pakistan, using local resources as the building materials. This switch may be influenced by social and political circumstances, including the feminist movement. This switch it what drives the main question of this research: How is the switch in architectural language of Yasmeen Lari connected to the social and political context in Pakistan throughout her career?

The method for this research consists of a literature review and three case studies. The literature studies will sketch an image of the political and social context in Pakistan throughout the career of Yasmeen Lari, including the feminist movement. It will also give an introduction of some of her most important projects in her career, and the switch she made within these projects. The three case studies will dive deeper into three of Lari's projects that she designed from 2011 to 2019, being part of her sustainable and humanitarian work. These case studies include the Woman centre in Darja Khan (2011), the Green Shelters Programme (2015) and the Zero Carbo Cultural Centre in Makli (2018). This research will be a piece of politicised history as the possibility for Yasmeen Lari's political standpoint being connected to the reasoning for doing humanitarian work is being investigated. It would be interesting to ask Yasmeen Lari herself too. However, the possibility for an interview enriching this research is still unsure.

The books Yasmeen Lari: an Architect (Berlingieri, 2021) and Yasmeen Lari: Architecture for the Future (Fitz, 2023) offer general insights in the life and work of Yasmeen Lari and the switch in architectural language which she made. They also offer information about the case studies: The women centre (2011), The Green Shelters Programme (2015) and The Zero Carbon Cultural Centre (2018). Different reports from the Heritage Foundation of Pakistan, show even more

insights in the case studies. The essay History in Pakistan and the will to Architecture (Moffat, 2019) consists of four papers and tells us more about 'What, exactly, does 'the past' mean for Pakistan?'. These papers offer a clear view on the historical context of architecture in Pakistan, which forms a bridge to the social and political context of Pakistan.

The book 'Pakistan: Political and economic history since 1947' (Oman Nodan) offers a general overview of the social and political context. Still to come to a deeper understanding, a series of papers add specific contextual aspects which are relevant for this research. They also address a more recent context than the book does, touching the topics of feminism, Agrarian class struggle, Pakistan's elites and the peripheral nationalist movement. The papers 'Women's activism in Pakistan: Role of religious nationalism and feminist ideology among self-identified conservatives and liberals' (Anjum, 2020), 'Struggle and hope: Challenging gender violence in Pakistan' (Critelli, 2013) and 'Feminism in Pakistan: Dialogues between Pakistani Feminists' (Serez, 2017) will give more insights to feminism in Pakistan. This is relevant as it is an expressed topic in Lari's architecture. The paper 'The rise of peripheral nationalism in Pakistan and the Pashtun Tahafuz movement' (Ahmed, 2022) dives deeper into the strong presence of nationalist movements in Pakistan, in which it is relevant to investigate if Lari's way of designing may hold this nationalist attitude too. Lastly, 'Agrarian class struggle and state formation in post-colonial Pakistan, 1959–1974: Contingencies of Mazdoor Kisan Raj' (Ali, 2020) offers sights into Pakistan's landed elites and agrarian class, two contrasting parties which Yasmeen Lari has both worked for. This contrast in clients is part of the switch she made in her career.

To answer the question how the switch in architectural language of Yasmeen Lari is connected to the social and political context in Pakistan throughout her career chapter 1 will provide a deeper understanding of this so called switch. Lari's brutalism architecture as well as her sustainable and humanitarian work and her main motivation for these works will be discussed. Following up in chapter 1, the social and political circumstances in Pakistan form 1970 to 2019 will be specified.

Chapter 2 consists of three case studies on Yasmeen Lari's sustainable and humanitarian work. Lari's Woman centre, Green Shelters Programme and Zero Carbon Cultural Centre will be chronologically discussed. To answer the research question each of these case studies will be connected to the social and political circumstances, discussed in chapter 1. As all these works have an positive impact on the Pakistan's society and the global environment, their connection to its political context is interesting. Lari's attitude towards this context, possibly reflected in these works, is one to be takes lessons from today.

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Chapter 1: The switch and its political context

1.1 Yasmeen Lari's Brutalism architecture and her motivation (1965-2000)

When Yasmeen Lari started her studies in de United Kingdom (1956), Pakistan just became independent from being a British Colony. During her studies, the Modernist and Brutalist movement was very upcoming. This architectural language explored the use of concrete and prefabricated steel structures. After finishing her studies, Lari came back to Pakistan and soon started her own firm: Lari Associates. The influence of these European movements are very much shown in her works at that time (Berlingieri, 2021). 'Le Corbusier was our god' she stated (Fitz, 2023, p. 33). Coming back with the knowledge she acquired in the United Kingdom, there was a big contrast with life in Pakistan. She came back as the only female architect in a country with a lot of political, social and economic evolution, natural disasters and hot climate conditions. But her good understanding of this new context enabled her make a large contribution the Pakistani Architectural world (Berlingieri, 2021). Starting her career, as a member of Pakistan's Elite, she had the privilege of having access to numerous esteemed commissions. When designing these works she used the brutalist architectural language which she learned in the United Kingdom. (Thomas, 2022). Lari worked on large residential buildings in which her Brutalism architectural language is shown. For example the Naval housing in Karachi (from 1969 to 1970), a collective housing project for the middle class, and the Angoori Bagh Social Housing in Lahore (1975) (Fitz, p. 44, p. 39). The Naval housing used local building methods and cerated spaces for communities to come together. Her designs are more compact than the usual mega structures in the crowded cities she committed to addressing social issues which became prominent in her designs (Berlingieri, 2021). The Angoori Bagh Social Housing was originally meant for marginalized communities which could attend a large public presentation. There were several thousand attendants and Lari was there to answer the questions of the women attending. In the end, unfortunately, none of these marginalized women ended up living in the project, which yet were handed out to middle class families (Fitz p. 39). During her Brutalist period, she also designed the Finance Trade Centre in Karachi from 1982 to 1989. For this project she worked together with Eva Vecseum, an Hungarian Canadian architect of that time. They used a smart strategy of passive cooling using wind catcher, which were also used in traditional houses in the city Thatta, in the province of Sindh (Thomas, 2022). Another final example of Yasmeen Lari's Brutalist language is the headquarters of Pakistan State Oil (1984-1991). The first steel and glass building with such a size had never been built before in Pakistan. The design represents the future vision of growth and resource-intensity (Fitz, p. 55).

During the 1980s, Lari tackled challenging climate conditions and avoided post-colonial influences while seeking a new architectural language for Pakistan. Lari resisted the trend of "Instant Islamic" architecture, characterized by superficial Islamic elements added to Westernstyle buildings. She focused on reducing the density of buildings in the district, which was overcrowded due to issues like lack of water and sewage pipes, and electricity shortages. She designed buildings with fewer floors, providing gardens or patios, and involving the residents in decision-making. Even though she got big projects like building the Taj Mahal and a natural gas station, Lari was critical of how architecture sometimes favored the rich and harmed the environment (Berlingieri, 2021).

'I must confess to you, finally, that I am under severe attack by the Development Authority and planners in Karachi for this project. They continue to be convinced that the land is too valuable to build anything but high rise apartments and other prestigious buildings on it. But I feel the poor people who have lived there for twenty-five or thirty years have their rights, too – certainly more of a claim than some developer whose only interest is to make the most profit out of it. To me, it is a moral question' – Yasmeen Lari, n.d. (Berlingieri, 2021)

After retiring, she continued her work with the Heritage Foundation, promoting architecture that is more sustainable and respects the vulnerable inhabitants of Pakistan.

1.2 Yasmeen Lari's sustainable and humanitarian work and her motivation (2000-)

In 1980, Yasmeen Lari founded the Haritage Foundation of Pakistan with her husband Suhail Zaheer Lari. (Thomas, 2022) Suhail Zaheer studied philosophy, political science and economics at Oxford University (Fitz, p. 33). During this time, Lari was still making brutalist architecture, but got increasingly know with Pakistan's historical culture and vernacular architecture. This is shown in the Finance trade centre in Karachi, where wind catchers inspired by vernacular methodologies are applied (Thomas, 2022). With the Haritage Foundation she developed plans to safeguard the historic architecture of Pakistan. Lari delved into the traditional architecture of historical location such as Thatta, the medieval capital of Sindh, utilizing her husband photographic documentation of these buildings and other vernacular structures. She utilized this material to write publications on this subject and spearhead diverse projects. (Thomas, 2022) Parallel to closing her firm in 2000, Lari decided to unlearn the western architectural approach. She calls it the 'rebirth' in her architectural career. Her last project was for a commercial client, the Amro Bank. While designing the project, her decisions were questioned and they wanted her to design an architectural style which she didn't aspire: a Western View of instant Islamic architecture (Berlingieri, 2021). In an interview by Helen Thomas (2022) Yasmeen lari stated that the problem with the architectural practice is that you are so isolated from the reality of a country. Architects mostly are so occupied with working for corporates and other clients, that they never get the chance to work with people. As she 'never sat on the street before in her life', her heritage work with the Heritage Foundation of Pakistan showed her that she could work together and come close to people (Thomas, 2022).

'Time becomes a device with which to rethink and redefine our needs – only then can we create something new, different and appropriate to our culture, so the past becomes the home of the future, defining a position that sees in the past an image that is not immobile but a 'sign' and a 'cause' of future things which are, in this way, anticipated, foreseen, foretold, predicted, proclaimed beforehand' - Yasmeen Lari (n.d.) (Coradi, 2021)

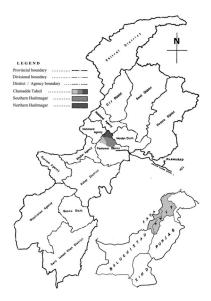
Pakistan, as a country vulnerable to natural disasters, delt with the immense flooding of 2010. The river Indus is the life force of Pakistan, irrigating all acres of cultivable land and providing nutrition for a population that deals with hunger. But at the same time, it also holds the biggest threat of destructive power over this same land and population. In 2010, the enormous flooding drowned 160.000 km2 of Pakistan, one fifth of its entire land surface. The flooding had a remarkable large scale. Schools, homes, road, Health centres and agriculture were demolished. Countless people, crops, fields, cattle and livestock were drowned. The Pakistan's National Disaster Management (NDMA) concluded that over 17,6 million people became victim of this disaster, which is even more than the Kasmir earthquake in 2005 (Moukala, 2018). These drastic events is where Yasmeen Lari's humanitarian involvement started (Berlingieri, 2021).

Lari's focus on social issues and her great understanding of Pakistan's context already became clear in the first stages of her career. These themes are more excessively expressed in her more current works. One of Lari's main points was to prove that culture will allow the poorest populations of Pakistan of self-emancipation from poverty. Her goal was to educate these people, especially women, out of their poverty and thus to save lives. From this moment on she did a lot of humanitarian projects including the Green Women's Centre (2011), the Green Shelters programme (2015) and Zero Carbon Cultural Centre (2018) (Berlingieri, 2021).

1.3 Social and political circumstances in Pakistan from 1970 to 2019

The Colonial past of Pakistan did not only left it's traces in the country's architectural language, but did also plant roots for the political system that followed. The colonial system allowed local Elites the rule in the different districts of Pakistan, leading to a big diversion between them. When Pakistan got independent, and got an own ruling state, these Elites still remained their power (Ali, 2020). Raja Ahmed (2020) also states that Pakistan, as a postcolonial state, has diverse ethnic groups. The lack of a central government, during the British rule, provided space for different ethnic groups to claim themselves. These peripheral movements never really created a strong national identity. Nationalism is seen as a driving force of a nation. It is considered a political movement that constructs, protects an emancipated the population. The rise of peripheral nationalism in Pakistan is caused by economic, social and political aspects. The choice for a divided power system leaded to political instability of Pakistan (Ahmed, 2020).

In January 2014, there was a big conflict between tenants and a wealthy landowner in the district in north-western Pakistan. This wasn't unusual because there had been many land conflicts between farmers and landowners in the area. This landlord-tenant conflict goes back to a big movement that started in 1970 led by a group called the Mazdoor Kisan Party. They stood up against some new laws that favoured rich landowners and wanted to make things fairer for farmers. In the district Hashtnagar, they actually managed to change the law so that landowners had to sell their land for less money and couldn't kick farmers off the land anymore. But this isn't just a the tenants struggling with landowners. This conflict also had an influence on the government and society. Normally, people think that the government is controlled by rich landowners, but in this case, the government actually favoured the tenants. In Pakistan, there is an hostile conflict between peasants/tenants and landlords. The peasant movement, founded in 1970, is leaded by the Mazdoor Kisan Party. The party was active in the North-West Frontier Province (NWFP). The reason that this movement 'erupted' is because of the limited land reforms in that time and the increase of capitalism ruling agriculture. This increase of capitalism is shown in the establishment of new agricultural technologies (Ali, 2020).



Map of North-West Frontier Province (NWFP) and Federally Administered Tribal Agencies (FATA), Pakistan (Ali, 2020)

Feminism in Pakistan

Feminism in Pakistani Culture is strongly connected to the overall political circumstances in Pakistan. These circumstances include two political camps, secularism and Islamization of law and society. These camps have been competing with each other since Pakistan's independence in 1947. This hostility also leaded to two different feminist groups, secular liberal feminism and modern Islamic feminism, having the same competing relationship. The secular feminist support the principle of men and women having equal rights. Modern Islamic feminism want men to meet their responsibilities towards women and assure women are being educated about their rights, which doesn't mean necessarily equal rights. They strive for a proper treatment of women withing a Muslim society. Secular feminism wants a separation between religion and state, in other words looking at the Islam as problem for women. This division discourages the social change for feminism in general (Serez, 2017).

Anjum (2018) also states that, after interviewing 20 women from 23 tot 48 years old, there are very divergent looks on feminism and de role of women in Pakistan. This is divided in two contrary groups. One group is described as connecting nationalism to feminism, while the other group distances nationalism from feminism. Women from liberal organizations, mainly feminists, focused on involving women in public affairs, opposing religious fundamentalism. On the other hand, many self-described conservative nationalist women advocate for women's engagement in private spheres. Liberal participants often criticized Pakistan's culture with male superiority. Pakistan's feminist movement is thus shaped by their religious beliefs, contrasting with liberal beliefs, and their divergent interpretation of feminism and nationalism in Pakistani society (Anjum, 2018).

Chapter 2: Case studies on Lari's humanitarian work

2.1. The Green Women's Centre, Darya Khan Sheikh (2011)

The Green Women's centre is located in Darya Khan Sheikh and is fully constructed with Bamboo. The building fungates as both a meeting place and a shared learning place for women. Lari's motivation to design this building is to acknowledge the importance of women in communities, especially in their participation in achieving a zero- carbon future (Fitz, 2023, p. 135). Lari saw the need for the women's centre as the only social events women were allowed were weddings and funerals (Fitz, 2023, p. 135). The role of women originally regard looking after cattle and working in the fields harvesting crops. Despite their effort they generate no income with this work and it disables them from going to school. In the rural communities 90% of the female population didn't attend school. This Subsequently, this leads to high illiteracy rates, especially when it comes to women (Haritage Foundation Pakistan, 2012).



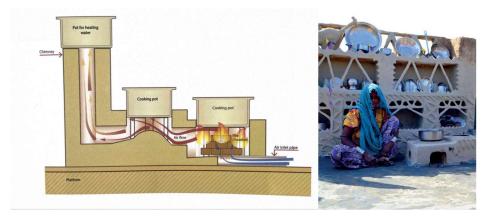
Yasmeen Lari in front of the women's centre she designed, built to survive floods (Wainwright, 2020).

The Green Women's Centre offers a safe place for women of the village and fungates as an gathering and training centre. (Heritage Foundation Pakistan, 2012). With a building as such there is opportunity for collective action in a safe shelter (Fitz, 2023, p. 135). The project is built on stilts to protect them for them for floodings, recognising their importance within the communities. These lifted structures are made of prefabricated bamboo modules. This concept is applied to several other communal buildings, including schools too. This safe and zero carbon- architecture offers space for people to store their needs, goods and small animals when floodings take place. Knowledge how to further develop building methods for disaster-resistant and sustainable architecture is shared in these buildings. (Fitz, 2023, p. 108, 109). Women come assemble on the first floor of the building for discussion and work. The first floor offers shading for the open ground floor, which creates the coolest space of the village. This space is used as a classroom for children. (Heritage Foundation Pakistan, 2012).

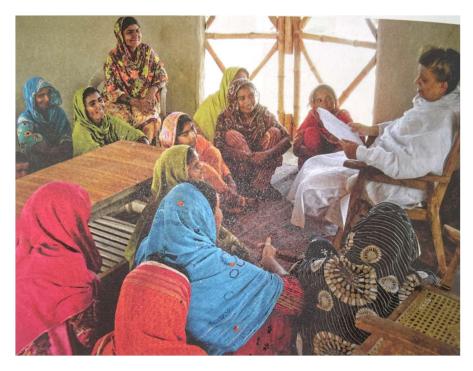
The building thus offers space for women to women to apply their full potential and take their important role in communities. A great example of their important role is that they are experts of clay stove ovens called *Laravan Pakoswiss Chulahs*. The smokeless Pakistan Chulah's, deisgned by Lari, are not just normal mobile ovens. These smart ovens, painted in bright colours, can firstly be self-built and secondly are way more hygienic, safe and stable (Berlingierie, 2021, p. 20). They are lifted upon a platform to protect them from floodings. The Laravan Pakoswiss

Chulah's are highly insulated, due to the closed structure with lime-mud, which allows the wood to be fully burnt. This saves 50-70% of firewood compared to the traditional ovens. This has the advantage of preventing deforestion, which is a big cause for the enormous floodings in Pakistan. Besides this, it saves money on costs for fuel which is a big advantage since these people which are the poorest of Pakistan. (Moukala, 2018). There is no exposure to smoke or fire, which causes a lot of accidents (Fitz, 2023, p. 130). The construction of 600 stoves could prevent annually 3,5 million deaths of women and children (Heritage Foundation Pakistan, 2018). The women, being the ones with all the knowledge about the use and construction of these ovens, subsequently teach others how to build the Chulah's for themselves. (Berlingierie, 2021, p. 20). These women, called 'Chulah Adhis' which means Stove Sisters, gained their knowledge from training from Pakistan's Heritage Foundation (Fitz, 2023, p. 130). As the Chulah Adhis also learn others about hygiene in the when preparing food, they have an essential protective and safety role in these communities. (Berlingierie, 2021, p. 20).

The Green Women's Centre thus is essential for communities for women's important knowledge on safe cooking, hygiene and Chulah construction to be shared. Besides this, the building is provided with sewing machines. This enables women to be successful in making handmade crafts, which lead to women becoming an earning member of their household (Heritage foundation Pakistan, 2012). Besides this, Yasmeen Lari let women have an important role in the construction of modular shelters, which also contributes to enabling women to develop their economic independence. Women can share their knowledge further in the Green Women's centre, thus women emancipation can continue (Berlingierie, 2021, p. 44). Journalist Zofeen Ibrahim reported that the women in the Village claim that the Women's Centre is the best thing that happened to them after the floods. They never had their own place and never were able the assemble the way they can do now. They appreciate to listen to each other's problems and look for solutions together. It is notable that a building as such, changes women's attitudes (Heritage Foundation Pakistan, 2012). Lari herself also says she has not met a single woman who was not willing to do whatever it takes to improve her life (Fitz, 2023, p. 135). The local women even set up a committee which organises the Women's centre and ensures that it stays maintained (Heritage Foundation Pakistan, 2012). The engagement of women in disaster affected communities turned out to be very advantageous, at an unimaginable level for the conservative society of Pakistan where women are often set apart (Moukala, 2018). Berlingierie (2021) even claims that women take a leading role in local communities.



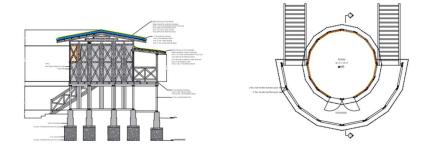
The Pakistan smokeless Chulah (Fitz, 2021, p. 131)



A women gathering with Yasmeen Lari in the Green Women's Centre, 2011 (Fitz, p. 136)

Connection to political and social cirucmstances

Yasmeen Lari, being the first female architect of Pakistan herself, addresses and acknowledges the important role of women in her architectural works. By this activist attitude she contributes to the feminist movement which, at first glance, belongs more secular liberal feminism movement than the modern Islamic feminism. She pleas that all women have the rights for safe housing, education opportunities and an income. This standpoint may not fully align with the standpoint of modern Islamic feminism. Islamic feminist want women to be treated properly men, but a proper treatment doesn't necessary mean more rights. They would agree to women receiving safe environments, but educating them practices to make them financially independent from men doesn't align their standpoint. In the Green Women's Centre, women meet to teach each other, instead of men teaching women. The share of knowledge, which encourages local economy revitalization and future zero-carbon and safe housing, doesn't seem to be related to religion. (Serez, 2017). Furthermore, Lari's designs acknowledge cultural history and context, but the current issue of fighting poverty and creating resistance against environmental disasters are main topics which stand apart from religion. (Berlingierie, 2021).



Section and plan of the Green Women's Centre (Heritage foundation of Pakistan, 2018)

2.2. Green Shelters Programme

Pakistan as an economic unstable country suffering from a lot of natural disasters, has an enormous need for safe and affordable housing. This need cannot be met by common housing programmes, Lari states. Common building materials, which Lari used in big housing projects before are concrete and cement. However, these materials non-affordable for most of Pakistan's population and are moreover not sustainable. Pakistan as a country vulnerable for disasters caused by climate change, having large poor population which suffer the most, thus needs sustainable buildings that don't aggravate this issue. Yasmeen Lari took this challenge, and developed low cost self-construction methods for zero-carbon shelters in areas with high risk of earthquakes and floodings. (Fitz, p. 122). The target of the project, still conducted today, is to build 7 villages in Tando Allahyar, Thatta and Mirpur Khas ans 8 villages in Makli. These zero carbon affordable, basic facilities for marginalized communities like the mendicants at Makli's world heritage site. The main mission of the programme is to encourage impoverished households to cultivate an entrepreneurial mindset, aiming to improve their quality of life by shifting away from dependency to a culture of self-reliance. (Heritage Foundation Pakistan, 2028).

Lari Octagreen (LOG)

The Green Shelters Programme consists of Lari's Octragreen (LOG) shelters. These are octagonal shaped shelters which can be built in a very short time due to its simplicity, yet strength, and the use of local materials; mud, lime and bamboo. The areas which are the most vulnerable for floodings, are the area surrounded by large rivers, which also makes them the areas with a huge resource of lime and clay. This clay can be used for the production of sundried mud budbrick's for the lifted foundation of the shelters. And lime can be used for stability purposes. Bamboo also grows in the area and as it is a fast growing yet strong material it is ideal for construction in flood areas. Another advantage of these materials is that the communities, especially women, in these areas are able to process the material into bricks, giving them an opportunity to have an income. With Concrete this is not the case. (Fitz, p. 122, p. 123).

These housing units are constructed with prefabricated bamboo panels with cross bracing. With these bolted-together modules, a strong octagonal form with a great internal stability is constructed. The walls have a matting infill which are finished with mud plaster by local women. This concept is tested in flooding and earthquake areas and proved to be Distaster Risk Deduction-compliant (DDR) (Heritage Foundation Pakistan, 2018). Women are trained in the slaking and application of lime which makes provides the shelters with insulation and waterproofing. In doing so, they implement their creativity by making individual designs on the surfaces, almost looking like an artwork (Moukala, 2018). This creates pride and ownership. (Heritage Foundation Pakistan, 2018). Just like the walls, the roofs are constructed with bamboo, covered with straw mats (Fitz, p. 126, p. 127). These conical roofs with a circular floor-plan took inspiration from the traditional vernacular style of domestic buildings in Pakistan. However, this contemporary version is way stronger to be resilient for earthquakes (Moukala, 2018).

The LOG shelters, together with eco-toilets and water hand pumps, are provided by the Heritage Foundation of Pakistan to marginalized households. However, this is not completely a gift. These households must execute one month of voluntary work for the community's well-being and a better environment (Heritage Foundation Pakistan, 2018).



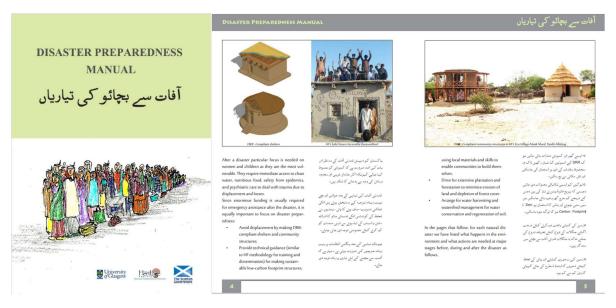
Lari's Octagreen shelter, LOG (Fitz, 2021 p. 134)



The pre fabrication of the bamboo modules, 2022, (Fitz, 127)

Disaster Preparedness Manual

Lari's motives were not only to create disaster proof and inexpensive housing, but also to 'restore dignity and recover group identity' and 'reconstruct socialization'. Yasmeen Lari thus developed the 'Disaster preparedness manual'. This approachable manual helps local communities to learn methods on how to react on environmental disasters and how to build safe, simple and modular shelters which can easily be rebuild in case of destruction. Besides this written instruction, she also gave lectures, workshops and organized volunteer groups. Her green shelter is active until this date. (Berlingierie, 2021, p. 12).



Disaster preparedness manual, by Yasmeen Lari

Relationship to political and social context

By educating the local communities how to construct desaster resilient homes, not only safe shelter is provided, but it also generate financial independence of poor communities living in the area of the Makli Nacropolis. Pakistan's political system leading to class differences causes a large part of Pakistan being unemployed and poor. (Ali, 2020). Subsequently this makes a large part of Pakistan be vulnurable for natural distasters. The green shelter program is a direct response to this social and political context.

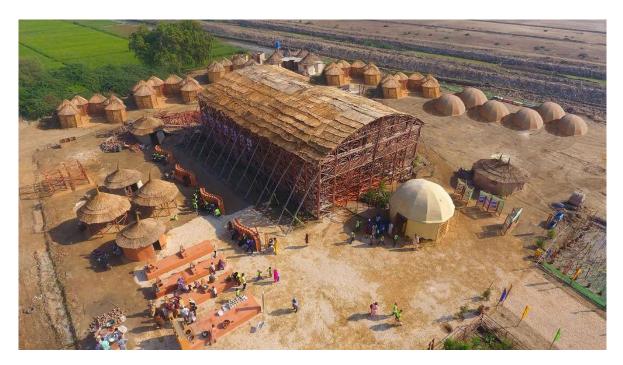
2.3. Zero Carbon Cultural Centre, Makli (2018)

The Zero Carbon Cultural Centre in Makli is a multifunctional facility for an event venue, experimental field, training site and production facility. (Fitz, 2023, p. 110, 111). The sites contains a central hall which is surrounded by one room shelters, prototypes of the earlier mentioned Chulahs, igloos and water pumps. The central hall constructed with prefabricated bamboo modules, just like the Green Women's Centre and Lari's Octagreen Shelters. The bamboo modules have decorative patterns, precisely pushed to the limits of its technical capabilities (Berlingierie, 2021, p. 46). The modular construction allows the twenty seven meters long and eighteen meters wide building to be constructed without columns (Fitz, 2023, p. 110, 111). This wooden structure refers to the Pakistans historical vernacular building methodologies as wooden superstructures also were found in the Makli Acropolis, a world heritage site, laying close to the site of the Zero Carbon Cultural Centre (Moukala, 2018).

The hall forms the place for production, events and training. Workshops for everyone, including illiterates, about zero carbon architecture and experiments with cooking areas and eco toilets are conducted (Fitz, 2023, p. 110, 111). There are bamboo construction trainings and digital dealing programs for children and Women. Trainings are held for Barefoot Entrepreneur programs to generate a trained workforce to provide construction guidance at a small fee to grantees. The Zero Carbon Cultural Centre holds an elevated stage for public gatherings, specially for women and children. Women have an easy access at this location to crafts workshops and livelihood trainings for women (Heritage Foundation of Pakistan, 2018). In 2019, the INTBAU Pakistan International Conference and Workshops was held at the Zero Carbon Cultural Centre, which attracted multiple delegates from all over the world (Berlingierie, 2021, p. 46).

The site of the Zero Carbon Cultural centre doesn't only operate as a place of trainings and workshops. The place is also the production site for de modular prefabricated bamboo panels used for the, among other things, LOG Shelters. Limiting this production on one location poffers several benefit. When doing so, Bamboo supplies can be examined to make sure that only the best quality of bamboo is used for the production of de modules. In addition the lays next to the Makli Acropolis, the centre of the mendicant communities. By locating the production site closely, it provides opportunity for income of artisans of these communities. The location is also favorable for easy access by all inhabitants from the surrounding villages in the area. Lastly, it assures transparency and continuous training to the local community as they are able to watch production. (Heritage Foundation of Pakistan, 2018).

This work really shows that Lari didn't only make zero-carbon, low cost and zero waste architecture with local resources, but also set up a whole system of opportunities of communities to spread this knowledge. Teaching both practical and theoretical skills are considered in this. (Fitz, 2023, p. 110, 111).



Zero Carbon Cultural Cnetre, Makli (Fitz, p. 110)





Workshops and knowledge sharing at the Zero Carbon Cultural Centre (Fitz, p.111)

Relationship to political and social context

Since the existence of the large gap between classes in Pakistan, this system lets communities be more independent and have an own local economy, making them less dependent from local elites. This may avoid landlord-tenant conflicts in the future. Furthermore, the communities around the Zero Carbon Cultural centre, which were dependent before on begging for money, now have the opportunity to gain knowledge practices to creates income with. For example, women gather in the central hall of the Zero Carbon Cultural Centre, to make ceramic tiles which are subsequently used in other projects of Yasmeen Lari (Moukala, 2018). The important role of the women is also in this project acknowledged.

Conclusion

To answer to the question 'How is the switch in architectural language of Yasmeen Lari connected to the social and political context in Pakistan throughout her career?' is divided in three political subjects: feminism, nationalism and economic inequality. When it comes to feminism, there is a strong connection to Yasmeen Lari's architectural humanitarian works. She designed buildings that empower the role of women in rural communities in order to improve their financial independence. Her activist attitude supports the feminist movement, leaning more towards secular liberal feminism than modern Islamic feminism. She advocates for all women to have safe housing, education, and income opportunities. This does not align with modern Islamic feminism, which focuses only on man caring for women rather than fully equal rights. While Islamic feminists support safe environments for women, they don't emphasize women's practices for financial independence. At the Green Women's Centre women teach educate other towards financial independence, regardless of religion, promoting local economy growth and sustainable housing. (Serez, 2017).

Economic inequality is the negative consequences of an political and economic unstable country, on which Lari's architecture responds in a sense that it forms a solution for the Pakistan's poor population. The lack of one stable government, in combination with the dominant power of land-owning elites, leaves tenants in impoverished situations. The peasant movement, called Mazdoor Kisan, stood up against the rights of tenants against rich landowners and the capitalism of agriculture. This capitalism left tenants with no source of income making them dependant on begging for money. Yasmeen Lari set up whole programs that not only provides these tenant communities to have, besides safe and low cost housing, a source of income. This way these communities become financially independent from local elites, which may even prevent conflicts in the future (ali, 2020).

Nationalism is a topic Lari contributed to, with her architectural works. Pakistan, has power system that still shows traces from the time period where it was still British owned colony. This leads to different nationalist movements divided over its districts. This division creates to political and social instability (Ahmed, 2020). Yasmeen Lari, as an architect with a focus of cultural heritage, implemented traditional vernacular methodologies in designing architecture. This was already seen in her Brutalist years, but is mainly appears in her humanitarian work, where she builds a system of marginalized people having a source of income by creating vernacular constructions and methodologies. By educating these communities about their own country's cultural heritage, the poor populations learn about their own culture. A form of knowledge which have been faded away, in a literal sense, by floodings and earthquakes. (Fitz, 2023). After reconstructing housing facilities with these methodologies, Pakistan's national culture becomes visible again, through the built environment. Nevertheless in an improved and contemporary form (Moukala, 2018). This way, Yasmeen Lari, contributes with her architecture to the nationalist movement in a way that it concerns the whole country of Pakistan, instead of it being divided.

In conclusion, each of these three themes in the social and political context of Pakistan are in a way connected to the architectural language of Yasmeen Lari. Nevertheless, some factor had more impact on the switch in her architectural language than others. Nationalism is a topic which didn't really catalyse the switch itself, as where economic inequality was one of the main reasons for her switch to humanitarian work. Feminism is a topic which is more expressed in Lari's humanitarian work, may also drove Lari from switching from Brutalism to humanitarian work. A possible reasoning for this is that there was still a lot of room for improvement,

concerning equal rights, which is a big part of the solution for more resilient communities and buildings. However, one of the biggest reason for Yasmeen Lari to switch to sustainable architecture is the increase of disasters, which is an event caused by global warming, not directly by the social and political context of Pakistan.

Discussion

In the case continuing this research, there could be more academic sources conducted on the case studies. It appeared to be easy to find online information about Yasmeen Lari's projects, partly because of the many publications available at the website of the Heritage Foundation of Pakistan. Nevertheless, academic papers talk more about Yasmeen lari's overall work and principles, and don't dive deep into the details of her projects. Another topic which would be interesting to giving this thesis more depth is investigating Yasmeen Lari's personal reasons for switching to humanitarian work. As she was herself part of the Pakistani Elites (Thomas, 2022), she had no personal concern for doing humanitarian work. If assuming that she did not earn a lot of money with these projects, her main reasons for dedicating such a big part of her career to this act, could be more highlighted. These reasons may be an inspiration for all architects worldwide. Her design principles could be implemented in other countries facing similar challenges.

Reflection

I found this topic of researched very interesting. It is inspiring to see how architecture is not just a subject you learn in education, but also acquires knowledge of culture and working with people. Lari studied on brutalist architecture and ending up doing humanitarian work is a great example of this. When designing a project in the future social and political context must be taken in consideration, as Lari proves that her design values were largely impacted by this. Besides this, she didn't only design architecture, but she designed whole social structures so that the purpose of the architecture stays maintained, which I find smart and inspiring. She looks at architecture as part of the past, the current and the future of both the physical as social context.

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