Research Plan
Inclusive living for tea garden workers in Sylhet

Fig. 1

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Introduction

The existence of social inequality and minorities is a global phenomenon, which has historically resulted in the formation of segregated social structures. Such disparities are often associated with religious and historical factors.

A similar dynamic can be observed in Bangladesh, where there is a pronounced segregation between different communities and religions. The historical experience of religious minorities in Bangladesh has been characterised by discrimination and segregation. The largest religious minority in Bangladesh is the Hindu community, which represents 8.5 per cent of the total population.[1] With the partition of the Bengal province of India in 1905, the Hindu population became a minority in the predominantly Muslim eastern area. This demographic shift was met with considerable approval by the Muslim population, who perceived it as a political, social, and economic advancement that would benefit them. However, the Hindu population was subjected to particularly intense targeting during the Liberation War. This was due to the accusation of the secession, which resulted in a series of targeted executions, sexual violence and other human rights violations. Today, Hindus continue to be attacked, marginalised and discriminated against.[2] They often live isolated in remote rural settlements or segregated in urban colonies and are excluded from many areas of employment.[3]

An example of these excluded groups living apart from the wider population is the tea garden community. A total of approximately 360,000 labourers are employed in the gardens, since Bangladesh is a significant global exporter of tea, with a total of 164 tea gardens. Most of the tea is produced in four major districts: Sylhet, Moulvibazar, Habiganj and Chittagong.[4] This group is among the most impoverished and marginalised in the population, with the majority of them belonging to the Hindu community. [5]Most of the labourers originate from families who have been engaged in work in the tea gardens for multiple generations. During the colonial period, some labourers from impoverished communities in India migrated to Bangladesh to work in the tea gardens. The lack of access to employment, education, socio-cultural activities and government services experienced by tea garden communities in Bangladesh as a result of exclusion makes it challenging for individuals to leave these communities.[6]

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1 Minority Rights Group International, *Under threat*, 3,7
2 Minority Rights Group International, *Under threat*, 7
3 Minority Rights Group International, *Under threat*, 9
4 Md Nazrul Islam & Md Al-Amin, *Life behind leaves*, 571
5 Al-Amin et al., *Social Exclusion & Poverty,*21
6 Al-Amin et al., *Social Exclusion & Poverty*,21

Literature Review

The issue of the marginalised tea garden workers and the precarious working conditions has been the subject of study by numerous scholars and organisations. In addition, the history of marginalised communities in Bangladesh has been researched. The Minority Rights Group International[7] conducted a historical analysis of Bangladesh, examining the circumstances that led to the marginalisation of the Hindu community. However, the text does not focus on the tea garden community in particular. Nevertheless, it is possible to find information about the ancestors of the labourers and the reasons behind their migration to Bangladesh.

Given the deplorable working conditions and low income of tea garden workers, social organisations such as the International Labour Organization[8] have undertaken studies of the lives of these labourers with a view to suggesting potential reforms. The aforementioned organisations concentrate their efforts on a number of key areas, including working conditions, housing, health, child labour, education, religion and social relationships. The study provides a comprehensive overview of the current situation, with each topic receiving attention, although the depth of analysis is limited.

A comparable study was conducted by Md Nazrul Islam and Md Al-Amin[9], which offers a more comprehensive understanding of the living conditions and property ownership issues, as well as a detailed analysis of the various types of employment and their benefits for the labourers. The incorporation of quotations from tea garden workers provides insight into their concerns and needs. In the study of Md. Al-Amin, Md. Ismail Hossain & Syeda Sultana Parveen an in-depth analysis of social exclusion was conducted. The authors address the economic, social, political, and cultural exclusion of tea garden workers.

The aforementioned studies provide valuable information regarding the working conditions and social exclusion experienced by tea garden workers. Nevertheless, there is little insight into the living conditions. The studies make reference to the poor living conditions, complaints and needs of the labourers, but do not provide a detailed account. Furthermore, there is a lack of information regarding the living circumstances of temporary workers who do not have accommodation within the tea garden. Accordingly, this study will undertake a detailed examination of the current living situation of the temporary and permanent labourers from an architectural perspective, and will also seek to gather further information about the needs of each group.

7 Minority Rights Group International, *Under threat*
8 Al-Amin et al., *Social Exclusion & Poverty*
9 Md Nazrul Islam & Md Al-Amin, *Life behind leaves*

Problem Statement

Tea garden workers in Bangladesh live in poverty, earning just $1 a day, which is not enough to feed a family.[10] However, not all employees benefit equally, as they can be divided into two categories. The first category comprises permanent workers, who reside and work in the gardens throughout the year. The second category includes temporary workers, who are employed from March to October and represent the majority of the workforce. There are multiple benefits such as housing in the tea garden, bonuses, and weekly food rations that the permanent workers receive, while temporary workers are not entitled to these benefits. In addition, the wages of permanent workers are higher than those of temporary workers, which is why tea estates prefer to employ temporary workers.[11]

While the permanent workers are provided with accommodation in a designated neighbourhood within the tea garden, there is no housing allocated for the temporary workers and their families. This leads to the problem of employees having to find temporary accommodation nearby or having to travel long distances to work every day, which is not easy to reconcile, especially if you have a family.[12]

Free accommodation represents an essential resource for those in permanent employment, given that their income is often insufficient to cover housing costs. However, the quality of neighbourhoods often fails to meet the needs of their residents, because of the size, the lack of sanitation and access to drinking water.[13] The residential units are provided by the company and may not be adapted to the needs of the residents. It is not permitted to extend or add structures, even if the size of the family would require it.[14] Furthermore, the food provided is of inadequate quantity. Therefore, it is essential that the workers have sufficient outside space to grow vegetables and prepare meals.[15]

The lack of facilities in the neighbourhood, coupled with the inadequate connectivity of the Tea Garden housing to the city, has resulted in a situation of deprivation. The educational situation of the population is influenced by this factor. Studies have shown that 62% of the population of the tea garden are illiterate and only 8% have completed secondary education.[16] Children who grow up in this environment have the opportunity to attend primary school, but there is no secondary school in the tea gardens. Due to the lack of connectivity to the city, there are no alternative educational opportunities, which results in many children remaining uneducated and with limited prospects outside the gardens.[17]

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10 Md Nazrul Islam & Md Al-Amin,*Life behind leaves*, 583
11 Md Nazrul Islam & Md Al-Amin, *Life behind leaves*, 576
12 Ahmmed et al., *A Study Report*, 9
13 Ahmmed et al., *A Study Report*, 10
14 Md Nazrul Islam & Md Al-Amin, *Life behind leaves*, 579
15 Sah, *A house of cards*
16 Al-Amin et al., *Social Exclusion & Poverty*, 26
17 Md Nazrul Islam & Md Al-Amin, *Life behind leaves*, 581

Theoretical framework

The term ‚segregation' is used to describe the unequal spatial distribution of population groups, whereby a particular group may be concentrated in a specific area while appearing less frequently in other locations.[18] The issue of social exclusion is a global phenomenon that has become a concern for many countries.[19] The three principal forms of segregation are ethnic segregation, spatial segregation, and social segregation, which are inextricably linked.

In the historical development of numerous countries, social segregation has been a consequence of ethnic and spatial segregation. It is evident that the majority of segregated individuals are from socio-economically disadvantaged backgrounds or have a migration history. In numerous European countries, the United States or Bangladesh, the phenomenon can be traced back to the migrant workers and immigrants who required housing.In order to accommodate the migrant workers, for example, public housing estates were constructed in Europe or in the United States, as well as workers' camps in the tea gardens in Bangladesh.[20] [21] The locations of these accommodations are typically poorly served with regard to the availability of public facilities, transportation, and commercial establishments. The aforementioned developments resulted in the formation of neighbourhoods characterised by concentrated poverty and a high degree of racial and ethnic diversity. This has led to the creation of spatial segregation between the working class and the urban population.[22] In addition to the inadequate public facilities, there is a lack of accessibility to job opportunities and educational institutions.[23] The subsequent consequence of the isolation and ethnic segregation was the emergence of social segregation.

A significant number of countries are engaged in efforts to mitigate the effects of historical segregation and to foster integration of ethnic minorities and socio-economically disadvantaged groups. These initiatives are typically driven by policymakers, urban planners, and architects.[24] The two most prevalent strategies are as follows. One strategy is to restructure the existing disadvantaged neighbourhood by selective demolition and the addition of new developments aimed to attract middle- and high-income residents.[25] The second strategy is to construct new, mixed-income developments, as a considerable number of policymakers perceive inclusionary housing to be a potential solution to social exclusion.[26]

Nevertheless, a number of hypotheses have been put forth regarding the potential advantages of inclusionary housing for segregated impoverished communities to become more integrated. Conversely, there are also theoretical perspectives that posit potential

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18 Boschmann et al., *Mixed Neighbourhoods*, 135
19 Calavita and Mallach, *Inclusionary Housing in International Perspective*,5
20 Calavita and Mallach, *Inclusionary Housing in International Perspective*, 6
21 Md Nazrul Islam & Md Al-Amin,*Life behind leaves*, 578
22 Fuster-Farfán et al., *Social mix or social integration*
23 Calavita and Mallach, *Inclusionary Housing in International Perspective*, 6
24 Galster, *Neighbourhood Social Mix*, 19, 20
25 Galster, *Neighbourhood Social Mix*, 20
26 Calavita and Mallach, *Inclusionary Housing in International Perspective*, 12

reasons for the failure of such initiatives.[27]

One Theory is that policy responses to urban poverty should prioritise structural changes that enhance opportunities for disadvantaged communities, rather than focusing on individual behaviour alone.[28] Wilson puts forth the hypothesis that income mixing within a neighbourhood provides residents who previously resided in impoverished areas with the opportunity to observe and emulate the behaviours of their affluent neighbours. Furthermore, it may afford them the chance to gain access to the networks of relationships their higher-income neighbours are embedded in.[29]

Robert Sampson argues that neighbourhood effects "are not merely the reflection of individual characteristics [but] stem from social interactional and institutional processes that involve collective aspects of community."[30] Accordingly, in adopting a mixed-income approach, it is essential to consider not only the individual but also the development of a community.[31] In order to foster a community, it is recommended that three key targets be identified and emphasised. The initial objective should be the provision of services and assistance with a specific focus on the equalisation of opportunities and access. The second objective is to facilitate activities that encourage social interaction between individuals from different socioeconomic backgrounds. The final objective is to establish a neighbourhood environment, thereby enabling the natural process of effective community formation to occur.[32]

The formation of a community in a mixed-income neighbourhood may give rise to a number of issues as a result of the homophily phenomenon, whereby individuals are inclined to form social connections with those who are similar to themselves.[33] Homophilic tendencies may be based on a number of factors, including race, gender, education, income, age and beliefs.[34] The contact theory, however, maintains that intergroup contact can serve to mitigate prejudice and effect change in attitudes over time. Thomas Pettigrew posits that initially, cognitive processes, such as learning about the other group, result in a transformation of negative perceptions. Secondly, behavioural dynamics, including the repetition of new behaviours, can facilitate a change in attitudes towards the other group. Finally, the development of affective ties can occur through shared experiences and interactions, which can lead to a reduction in anxiety and the formation of friendships.[35]

The aforementioned theories demonstrate that the configuration of a neighbourhood and the design of its housing must be deliberately planned in order to facilitate the interaction of different social groups. The most crucial elements are the accessibility to the city and the provision of equal access, the availability of public spaces within the neighbourhood and the housing to facilitate the formation of a community.

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27 Chaskin and Joseph, *Integrating the Inner City*, 2015
28 Chaskin and Joseph, *Integrating the Inner City*, 26
29 Chaskin and Josep, *Integrating the Inner City*, 126
30 Sampson, *Great American City*, 47
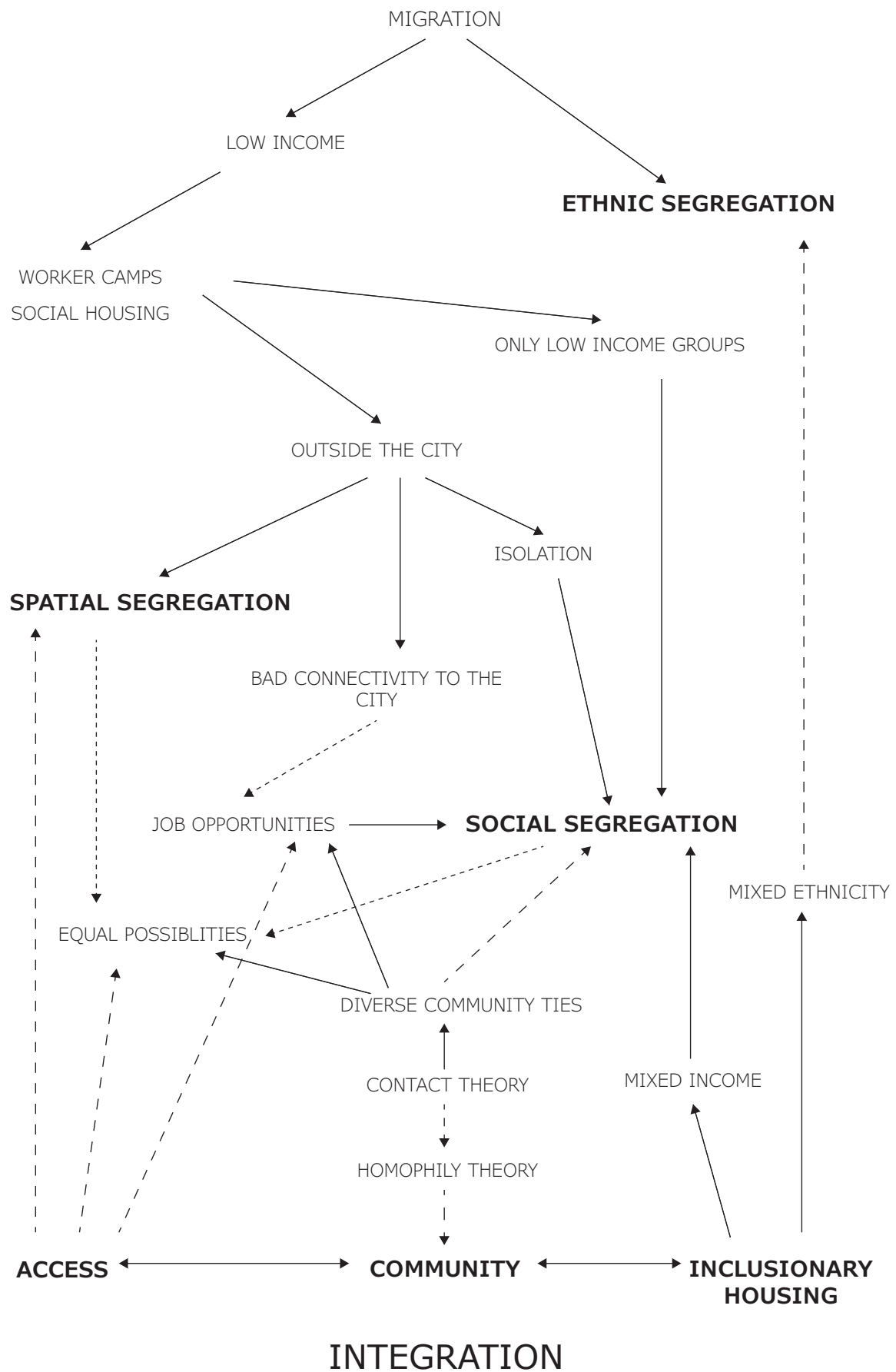31 Chaskin and Joseph, *Integrating the Inner City*, 28
32 Chaskin and Joseph, *Integrating the Inner City*, 110
33 Chaskin and Joseph, *Integrating the Inner City*, 126
34 Chaskin and Joseph, *Integrating the Inner City*, 127
35 Chaskin and Joseph, *Integrating the Inner City*, 127

SEGREGATION

MIGRATION

LOW INCOME

ETHNIC SEGREGATION

WORKER CAMPS
SOCIAL HOUSING

ONLY LOW INCOME GROUPS

OUTSIDE THE CITY

ISOLATION

SPATIAL SEGREGATION

BAD CONNECTIVITY TO THE
CITY

JOB OPPORTUNITIES

SOCIAL SEGREGATION

MIXED ETHNICITY

EQUAL POSSIBLITIES

DIVERSE COMMUNITY TIES

MIXED INCOME

CONTACT THEORY

HOMOPHILY THEORY

ACCESS

COMMUNITY

**INCLUSIONARY
HOUSING**

INTEGRATION

RESULTS IN ┈┈┈▶ DOES NOT
RESULT IN ─ ─ ▶ COUNTERACTS

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Research Question

The issues of social segregation between the tea garden workers and the wider community, the lack of adequate housing and the lack of connection to the city, and the housing disadvantages of the temporary workers lead me to the following question:

With rapid urbanisation in Sylhet, the city is gradually growing closer to the tea gardens. How can the living conditions and community ties between the segregated tea garden workers and the urban population in Sylhet be improved?

The research question can be broken down into three elements:
The segregated tea gardens of Sylhet are situated in the peri-urban area, forming a border between the city and the rural. As Sylhet undergoes rapid growth as a second-tier city, the city is gradually expanding towards and around the tea gardens. This raises the question of how the gardens can be integrated into the city, rather than excluded from it.

Secondly, tea garden workers can be classified into two distinct categories: those who are employed on a permanent basis and those who are employed on a temporary basis and therefore have different daily routes. What are the disparate socio-spatial dynamics in the tea gardens, and how do the patterns of temporary workers differ from those of permanent workers?

The final objective is to examine the possibility of reconfiguring these existing structures into improved workers' housing, taking into account what the specific needs of the different groups are and how connectivity to the city and the urban population can be facilitated.

Design Hypothesis

The proximity of the tea gardens in Sylhet to the city border presents an opportunity for the creation of an inclusive housing project for the permanent and temporary workers of the tea gardens, as well as for the city community. Such a project could serve to reduce the social segregation of the two communities. This implies that the various typologies within the neighbourhood must be compatible with one another and that the respective concepts must be tailored to the specific needs of each group. In order to accommodate the needs of temporary workers, a flexible concept must be developed that ensures the functionality of the spaces both during the season and outside of it. The aim of the project is to create a neighbourhood in which the quality of housing improves the living conditions and social integration of the tea garden workers of Sylhet.

RESEARCH QUESTION	With rapid urbanisation in Sylhet, the city is gradually growing closer to the tea gardens. How can the living conditions and community ties between the segregated tea garden workers and the urban population in Sylhet be improved?		
STRUCTURE	borader context segregation integration	specific context tea garden workers accommadation	specific context different needs of housing in the tea gardens
	↓	↓	↓
SUB QUESTIONS	How can the gardens be integrated into the city, rather than excluded from it?	What are the disparate socio-spatial dynamics in the tea gardens, and how do the patterns of temporary workers differ from those of permanent workers?	What are the specific needs of the different groups and how can a connectivity to the city and the urban population be facilitated?
	↓	↓	↓
RESEARCH AIM	Understanding what kind of patterns in the urban planning and housing cause the segregation between different social gorups and what approaches are there for integration.	Identifying patterns on neighbourhood, architectural and daily life scale in the tea garden accommadations.	Understanding of the tea garden workers' needs in their neighbourhood (permanent/temporary)?
RESEARCH METHOD	literature maps case studies	literature youtube videos social media images ethnographic research documentation (fieldwork)	youtube videos social media ethnographic research interviews surveys
METHOD OUTCOME	urban patterns neighbourhood patterns	graphic catalogue of the most significant elements at the neighbourhood, architectural and daily life scales graphic novel of the everyday life in the tea garden	catalogue of the different needs base for design

Goal/ Aim

The goal of this study is to understand how urban planning and housing patterns contribute to the segregation of social groups and to explore approaches for promoting integration. By examining the spatial, architectural, and daily life patterns within tea garden accommodations in Bangladesh, the research aims to identify factors that isolate these marginalized communities. The study focuses on both permanent and temporary tea garden workers, assessing their unique needs and living conditions within their neighborhoods. It seeks to understand how housing quality, spatial arrangements, and accessibility shape their experiences and opportunities. Ultimately, the study aims to inform strategies that can foster inclusive neighborhoods, enhance living conditions, and bridge divides between segregated groups and broader urban areas.

Methodology

For the study the tea gardens in the peri-urban area of Sylhet will be analyzed. The research will be parted in three sections, progressing from a broader context to a more specific one.

In order to gain a more comprehensive understanding of segregation, it is necessary to investigate the general principles that form the basis of this phenomenon. In order to gain insight into the formation of segregation and the role of its various components, a comprehensive examination of different patterns from across the globe will be undertaken. Given that segregation has been a persistent issue for decades, numerous strategies have been proposed by policymakers, urban planners, and architects to reduce its prevalence and promote integration. The analysis of these patterns will be conducted through the examination of relevant literature, case studies and cartographic representations. The results will be used to create a catalogue of patterns of factors that contribute to segregation and those that act as countervailing forces.

In order to undertake an analysis of the tea gardens in the peri-urban area of Sylhet, it is first necessary to identify which gardens are relevant to the study. The investigation can be divided into three categories: neighbourhood, architecture, and everyday life. Furthermore, the research will distinguish between the permanent and temporary workers. In order to gain insight into the formation of a tea garden worker's neighbourhood and the types of spaces that are required, an analysis of the patterns that emerge in the context of domestic spaces, outdoor spaces, social spaces and religious spaces will be conducted. The architecture will be analysed with regard to the construction, materialisation and dwelling layout of the workers' accommodation. Finally, the research will gain insight into the living conditions and spatial usage patterns of the workers on a daily basis.
In the first phase informations will be gathered through the use of images, videos, social media and Google Maps. Nevertheless, the information available online is severely limited. Consequently, the central investigation of these two subjects, in addition to the information related to the daily lives of the workers, will be conducted through ethnographic research
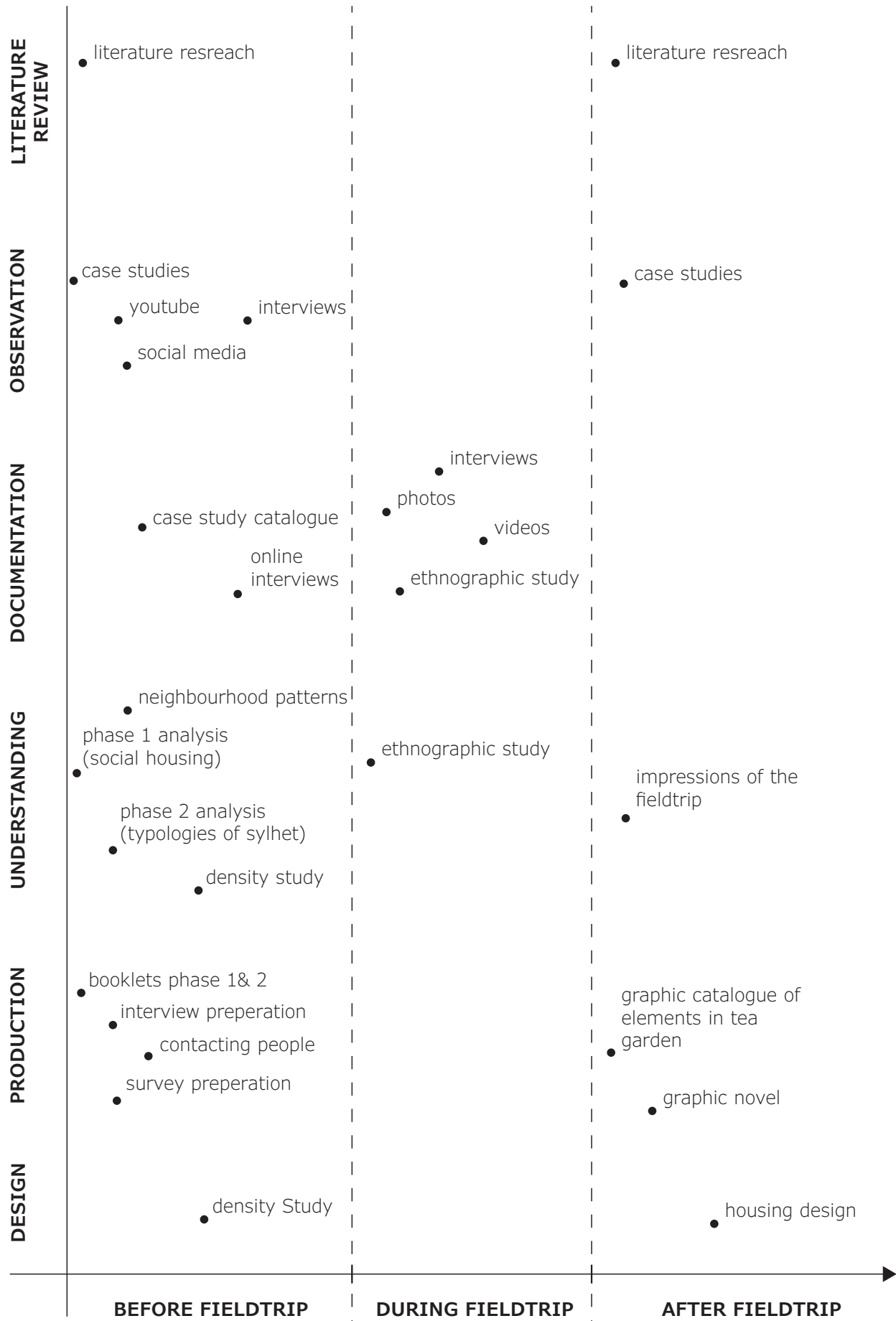
conducted on the field trip. The data will be documented through the use of video and photographic methods. The outcome is a graphic catalogue of the most significant elements at the neighbourhood, architectural and daily life scales. In addition, a graphic novel serves to narrate a story about the life of a resident of a tea garden neighbourhood.

In order to redesign and improve the tea garden workers' accommodation and neighbourhood, it is first necessary to gain an understanding of the workers' needs. This can be achieved through ethnographic research, which involves conducting interviews and surveys. The objective is to ascertain which spatial patterns should be retained and which additional spatial needs the workers have. The findings of this study will serve as the basis for the design of a housing solution for the workers employed in the tea garden.

Relevance

This research addresses the urgent issue of social inequality and segregation in Bangladesh, with a particular focus on the marginalised tea garden community. With the city moving closer to the tea gardens in the peri-urban area of Sylhet the spacial segregation decreases. By examining both permanent and temporary workers, the study draws attention to the significant disparities in living conditions, access to resources and social segregation that these groups experience. With the method of ethnographic research and the graphic documentation of it the current tea garden neighbourhoods will be understood from an architectural perspective. The study contributes to the broader discourse on inclusive urban and architectural approaches to enhance connections between tea garden workers and the urban community of Sylhet.

Time Plan

LITERATURE REVIEW

- literature resreach
- literature resreach

OBSERVATION

- case studies
- youtube
- interviews
- social media
- case studies

DOCUMENTATION

- interviews
- photos
- case study catalogue
- videos
- online interviews
- ethnographic study

UNDERSTANDING

- neighbourhood patterns
- phase 1 analysis (social housing)
- ethnographic study
- impressions of the fieldtrip
- phase 2 analysis (typologies of sylhet)
- density study

PRODUCTION

- booklets phase 1& 2
- interview preperation
- contacting people
- graphic catalogue of elements in tea garden
- survey preperation
- graphic novel

DESIGN

- density Study
- housing design

BEFORE FIELDTRIP | **DURING FIELDTRIP** | **AFTER FIELDTRIP**

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Illustration Credits

Fig. 1, *A tea garden labour line where tea garden workers live,* https://twocircles.
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