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PATHO-POLITICS

unpacking multi-scalar entanglements of capital, contagion and
containment across the uneven geographies of Mumbai during
the COVID-19 pandemic.

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ABSTRACT

Embedded within an urban political ecology framework, this thesis investigates the intricate entanglements between capital, contagion, and containment, appropriating the COVID-19 pandemic as the nexus of analysis. Initially deemed as the great equaliser, the autopsy of the pandemic unearthed entrenched inequalities and polyvalent forms of violence that have been inflicted upon the populations at the margins within the global urban condition. Contextualising this claim within the unevenly fractured landscapes of Mumbai, the research employs a longitudinal studies approach revealing how legacies of historical colonialism during the Bubonic plague epidemic of 1896 and contemporary neo-liberal capitalism during the COVID-19 pandemic intersect with processes of urbanisation, exacerbating socio-economic polarisation.

Adopting a multi-scalar approach, this thesis explores the implications of the global neo-liberal regime on the spread of infectious diseases, urban governance, and public health measures that cascade across macro, meso, and micro scales. At the Planetary scale, the thesis unpacks the field conditions of pandemic causality. The research examines the biopolitical and necropolitical dimensions of state power in Mumbai at the territorial scale, revealing systemic inequalities of how dispensable bodies are contained, controlled, and violated. Mobilising situated testimonies at the corporeal scale, the research sheds light on the precarious living conditions during the initial lockdown of 2020, amplifying voices of the subaltern bodies positioned in alterity.

The study reveals the intricate interplay of economic, political, infrastructural, and social systems that remain hidden in the aetiology of disease and shape the experience of being colonised by the pathogenic microbiome. The study contributes to the domain of interdisciplinary urban studies by offering a nuanced understanding of the complex and cyclical dependencies between urbanisation processes, capital accumulation regimes, and health, underscoring the need for building more resilient and equitable cities in the wake of impending future health crises.

ABSRAKT

Eingebettet in den Rahmen einer politischen Stadtökologie untersucht diese Arbeit die komplizierten Verflechtungen zwischen Kapital, Ansteckung und Eindämmung, wobei die COVID-19-Pandemie als Nexus der Analyse herangezogen wird. Die Autopsie der Pandemie, die zunächst als großer Gleichmacher galt, offenbarte tief verwurzelte Ungleichheiten und vielschichtige Formen der Gewalt, die der Bevölkerung am Rande der globalen neoliberalen städtischen Verhältnisse zugefügt wurden. Indem sie diese Behauptung in den ungleichmäßig zerklüfteten Landschaften von Mumbai kontextualisiert, wendet die Studie einen Ansatz der Längsschnittforschung an, der aufzeigt, wie sich die Hinterlassenschaften des historischen Kolonialismus während der Beulenpestepidemie von 1896 und des zeitgenössischen neoliberalen Kapitalismus während der COVID-19-Pandemie mit Urbanisierungsprozessen überschneiden und die sozioökonomische Polarisierung verstärken.

Mit einem multiskalaren Ansatz werden in dieser Arbeit die Auswirkungen des globalen neoliberalen Regimes auf die Ausbreitung von Infektionskrankheiten, die städtische Verwaltung und die Maßnahmen im Bereich der öffentlichen Gesundheit untersucht, die auf der Makro-, Meso- und Mikroebene wirken. Auf planetarischer Ebene werden in dieser Arbeit die Bedingungen für die Entstehung von Pandemien untersucht. Die Forschung untersucht die biopolitischen und nekropolitischen Dimensionen staatlicher Macht in Mumbai auf regionaler Ebene und deckt systemische Ungleichheiten auf, wie entbehrliche Körper eingedämmt, kontrolliert und geschändet werden. Durch die Mobilisierung situierter Zeugnisse auf der körperlichen Ebene beleuchtet die Studie die prekären Lebensbedingungen während der anfänglichen Abriegelung im Jahr 2020 und verstärkt die Stimmen der subalternen Körper, die sich in der Alterität befinden.

Die Studie enthüllt das komplizierte Zusammenspiel wirtschaftlicher, politischer, infrastruktureller und sozialer Systeme, die in der Ätiologie von Krankheiten verborgen bleiben und die Erfahrung, von pathogenen Mikrobiom kolonisiert zu sein, rückgängig machen. Die Studie leistet einen Beitrag zum Bereich der interdisziplinären Stadtforschung, indem sie ein differenziertes Verständnis der komplexen zyklischen Abhängigkeiten zwischen Urbanisierungsprozessen, Kapitalakkumulationsregimen und Gesundheit bietet und die Notwendigkeit unterstreicht, angesichts drohender künftiger Gesundheitskrisen widerstandsfähigere und gerechtere Städte zu schaffen.

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LIST OF ABBREVIATIONS

BMC - Bombay Municipal Corporation
BCIT - Bombay City Improvement Trust
COVID-19 - Corona Virus Disease 2019
EID - Emergent Infectious Diseases
HIV - Human Immunodeficiency Virus
HT - Hindustan Times
IT - India Today
MCGM - Municipal Corporation of Greater Mumbai
MMR - Mumbai Metropolitan Region
PHEIC - Public Health Emergency of International Concern
SARS - severe acute respiratory syndrome
TOI - Times of India
UDRI - Urban Development Research Institute

"Contagious diseases do not cause social breakdown; they merely reveal the ways in which society is already broken."

—Bould (2020, para 27)

INTRODUCTION

On the 6th of May, 2023, the World Health Organisation (WHO) announced an end to the COVID-19 global health emergency, marking a significant step towards a return to pre-pandemic normalcy (Ghebreyesus, 2023). Masks have disappeared, and sanitising stations lay abandoned. Workplaces that had shifted to an on-line modality have also slowly returned to their on-site routines. What has been left behind are the half-torn vestigial symbols of social distancing and healthcare guidelines, smeared across the urban fabric, reminiscent of a fractured time in our recent past. Even though populations worldwide have forgotten the bleak time in our collective history, the pandemic warrants a closer reflection on the systemic and structural drivers that caused such a catastrophic event. Exposing the hidden vulnerabilities and inequalities enmeshed within our immediate urban environments, the field conditions during the pandemic have challenged us to re-evaluate the contemporary urban condition.

The first cases of the flu-like infectious respiratory disease, COVID-19, surfaced in Wuhan, China, in December 2019. Swiftly transgressing nation-state boundaries, the virus infiltrated several countries, coercing the WHO into declaring the outbreak a Public Health Emergency of International Concern (PHEIC) on the 30th of January 2020 (Ghebreyesus, 2020). Over the next month, the Virus had infected a reported 100,000 more humans, spreading like wildfire across the planet, producing mass panic and conditions of uncertainty. On the 11th of March 2020, COVID-19 was officially declared a pandemic (Ghebreyesus, 2020).

Colonising humans as vectors of contagion, the SARS-Cov-2 relentlessly spread through the rhizomatically interconnected networks of commodity and capital across urban agglomerations, where dense populations and complex socio-infrastructure conditions made these landscapes particularly conducive to disease proliferation and transmission. When the rumours of a new and highly infectious virus surfaced across the world, I was in London at the time, pursuing my master's in Architectural History at the Bartlett School of Architecture, University College London. The reverse migration and mass exodus of people to their native countries and towns was a planetary condition at the time, moulded by the uncertainties provoked by the virus.

I landed in India in an environment devoid of any stringent COVID-19-related checks or regulations. As more information surfaced, the invisible threat of the virus had created precarious living conditions worldwide, stemming from an atmosphere of fear. I kept visiting the local government hospital daily, hoping to get myself tested, only to be sent back due to a lack of testing kits. I was in the medical facility when the first instance of COVID-19 was formally documented in Vadodara. In the preliminary days of my return, the absence of governmental oversight permitted me to move about without constraints. Unanticipatedly, I received a phone call from a governmental representative notifying me of a forthcoming domicile evaluation due to my recent travel history. When the officials arrived, a group of three individuals wearing N95 masks and gloves informed me that I had to be on house arrest for the next 14 days. As they were leaving, they marked the back of my hand (fig 1.a.) with electoral indelible ink, drawing a large “Q” along with my arrival date, March 13, 2020.



fig 1.a. Marking the quarantined body. Author's hand.

Q.

Quarantined.

Potential Threat.

Asian countries like China, Japan, and South Korea adopted technologically advanced approaches, utilising QR code-based tracking systems to monitor and manage the spread of COVID-19 (Yang, 2022). In contrast, India was the only country that physically marked individuals suspected of being asymptomatic carriers of the virus. The Indian administration's strategy regarding mobility and transnational movement evolved as time advanced. Stamps were made for specific states and big cities like Mumbai, saying, "proud to protect Mumbaikars, Home Quarantined" (fig 1.b), along with the date of arrival to the country (The Hindu, 2020). During my house arrest, I would receive daily calls inquiring about my health and verifying my adherence to the quarantine regulations. Subsequently, realising that I had been exposed to my family, the entire house had been sealed for one month, with signage glued on the main door to

inform people of the potential threat (fig 1.c.). Home became the critical site of containment. The abrupt responses by the government at the time felt crude and blunt, especially since I had no symptoms at the time. Fortunately, I lived in a gated community, in a home where I had my own room, and where quarantine was possible. The societal ties were robust, and the community supported all our essential and medical needs.

On the 19th of March, a few days after the concealment of my home, India's right-wing neo-liberal Prime Minister, Sri Narendra Modi, announced a 7 am to 9 pm "Janata Curfew" - a Curfew of the masses to be held on the 22nd of March. The curfew was introduced as a measure to control the spread of COVID-19, but it ultimately served as a glimpse into what would follow (Basu, 2020). Two days later, on the eve of March 24, Prime Minister Modi appeared on digital and television screens all across India announcing a country-wide lockdown for a period of 3 weeks, till April 14, which subsequently got extended till May 18. The abrupt declaration of a country-wide lockdown conjured widespread chaos and panic. This propelled a mass exodus of millions of migrant workers who, in the hope of escaping the lockdown, took to the roads (fig 1.d.), trying to flee cities and stream towards home, much like the scenes of the 1947 partition (Menezes, 2020). Some succeeded, but many succumbed to brutal deaths, not because of the biological disease but due to the unplanned and blunt governmental reaction to the pandemic. Most were sent back or forcibly contained, stuck in a half-life of peril and uncertainty. After many weeks of inaction, the people were abruptly served with a few hours of notice, few hours to one of the strictest lockdowns across the globe.

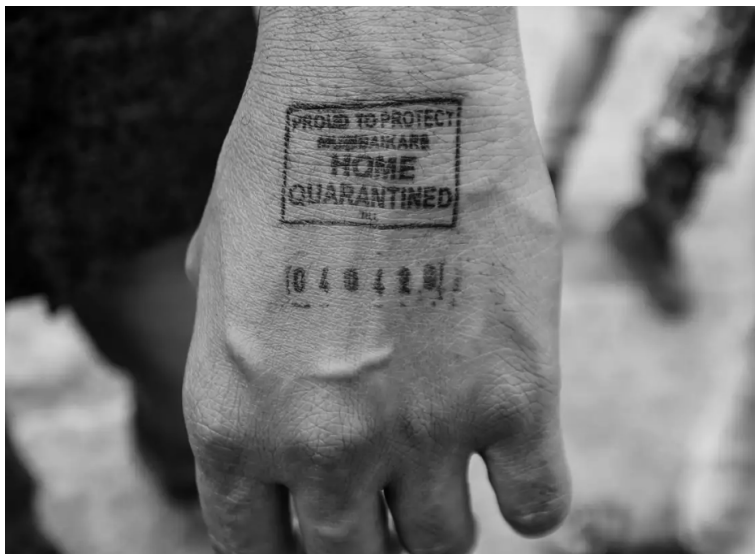


fig 1.b. Stamp for home quarantine in Mumbai.



fig 1.c. House seal poster, Gujarat.



fig 1.d. Comparative photographs of the 1947 partition and the night before the lockdown.

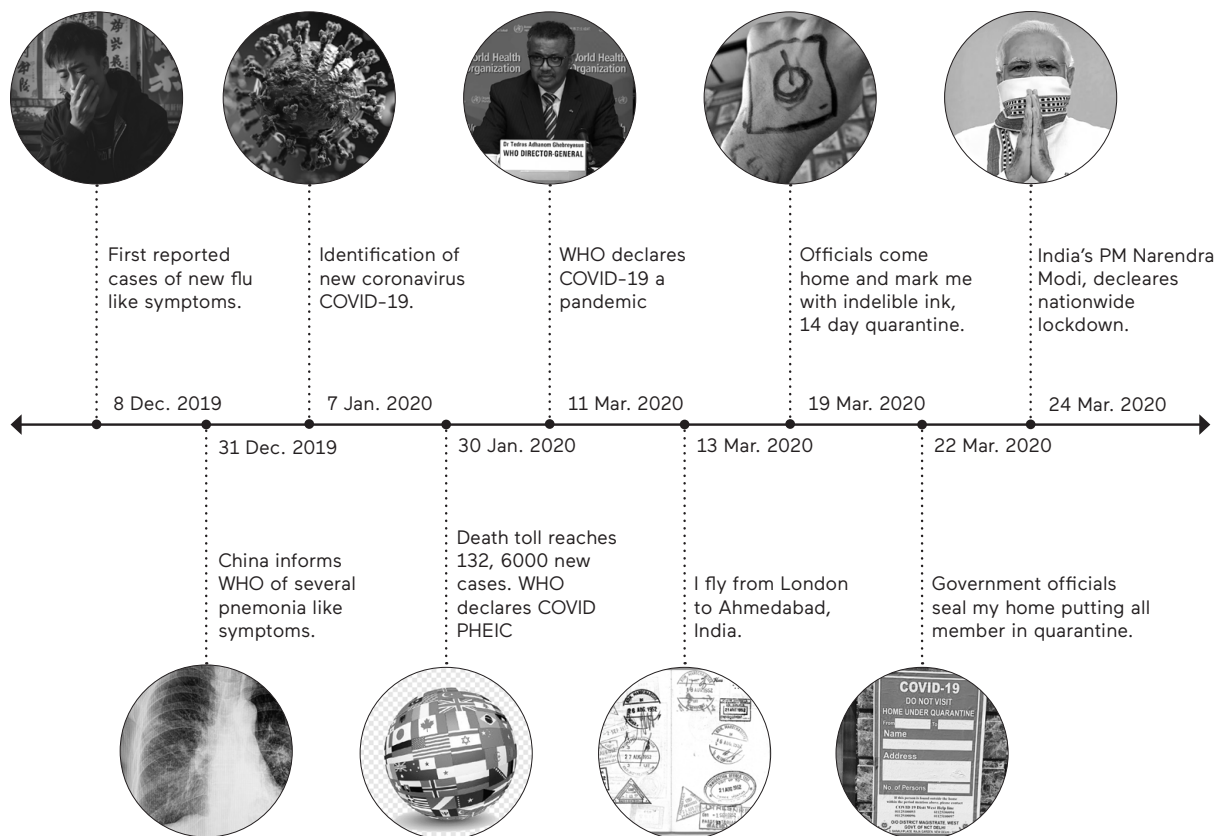


fig. 1.e. A visual and linear timeline of the events that lead to the lockdown in India. The images have been accumulated from various sources. Some are AI generated, some are clicked by the author and some have been accessed from the internet.

The events of the emergence of the disease, the very swift dissemination of the virus across globalised city networks unbound by nation-state boundaries, the violently blunt and unplanned response by the state of a stringent countrywide lockdown, and the lived experience of that containment triggered a myriad of questions that spanned from the bodily scale to the planetary. These cascading events have been foundational to formulating the inquiries guiding this dissertation.

1.1 Research Question:

These events pertaining to the Pandemic can be categorised into three related, yet conceptually distinct categories at macro, meso and micro scales. These lend structure to the research while also buttressing the formulation of the questions that I will attempt to unpack through this study:

Macro Scale: Origins of the Pandemic

As mentioned earlier, it is now an established consensus that the first cases of COVID-19 were found in Wuhan, China. Retracing the geographical genealogy of the virus is an essential aspect of understanding how the disease emerged, aiding in calibrating an appropriate medical response. *However, what were the field conditions that precipitated the disease to emerge? What underlying systemic factors contributed to the emergence and global spread of the COVID-19 pandemic?*

Meso Scale: State Response to the Pandemic

The disease in isolation was a biological and bodily crisis. However, the pandemic induced a public health crisis, transgressing the corporeal, and revealing existing fault lines within the contemporary stratified society. The pandemic created paradoxical conditions: in a global neo-liberal order where there is a diminution of the agency and power of the state, the state suddenly had to take back agency, where questions of welfare and economy got entangled in complex configurations (Bhattacharya et al., 2020). Situating this within the Indian context, *what specific forms of power were activated by the right-wing neo-liberal state to contain the spread of the virus?*

Micro Scale: Experiencing the Pandemic

Through the corporeal lens, barring mutational and geographical variations, the disease had a similar impact in terms of the symptoms it produced amongst infected individuals. Common symptoms included fever, chills, cough, sore throat, fatigue, body ache, and shortness of breath. The experience of the symptoms was relatively common. However the experience of the pandemic involves a kaleidoscopic understanding of positionality and the role of context. Social, economic and infrastructural politics play an essential role in shaping the pandemic's experience. Grounding the thesis at the bodily scale, *how was the pandemic experienced by the populations across the unevenly fractured landscapes¹ of Mumbai?*

To summarise, the macro, meso, and micro level inquiries attempt to answer why the pandemic emerged, what the state response was, and how it was experienced, respectively, taking a journey from **structural causalities to lived realities**. These questions shall be explored in varying depth and detail, constructing a comprehensive understanding of the events revolving around the pandemic. A significant portion of the thesis focuses on the meso and micro-scale inquiries, considerably focusing on the experiential aspects of the pandemic.

1.2 Research Gap

The unfolding multi-scalar crises unleashed by the coronavirus pandemic have prompted a proliferation of social science scholarship on the intersection of spatial epidemiology, geometries of power, and urbanisation. (see, e.g. Lussault, 2021; Sparke & Anguelov, 2020; Sparke & Williams, 2022). While there has been significant production of research across various disciplines connected to the social, geographic, health and urban sciences to demystify the changing impact of the COVID-19 pandemic, several crucial gaps remain:

Lack of a Relational Multiscalar Analysis Approach. Contemporary research on the COVID-19 pandemic has often isolated the domain of its study to particular aspects, like biological characteristics, health care or its socio-economic impacts. Such an isolated approach to research is "ill-equipped to deal with the complex spatialities and temporalities" (Williamson,

1. The thesis appropriates the use of the term landscapes for several reasons. Firstly it has been appropriated to refer to the physical characteristics of places, shaped by various socio-cultural and political processes (Cosgrove & Daniels, 2013) Secondly, the term allows for a fluctuating and relational reading of territories, formed by dynamic interactions between human and non-human actors, that is of particular importance for the purposes of this thesis. Finally, being simultaneously cultural and natural, the term 'landscape' operates as a metaphor for the complex and superimposed layers of societal structures, temporal histories and the urban built concretized at specific places. These layerings are visible in the "infrastructural (dis)connections and changing nature–society interactions that are associated with urban expansion." (Connolly et al., 2021, p. 250)

2015, p. 17) that the pandemic produced. There is a dearth of studies that try to construct a multi-scalar narrative and provide a cohesive understanding of the pandemic's structural drivers, state response, and ground realities.

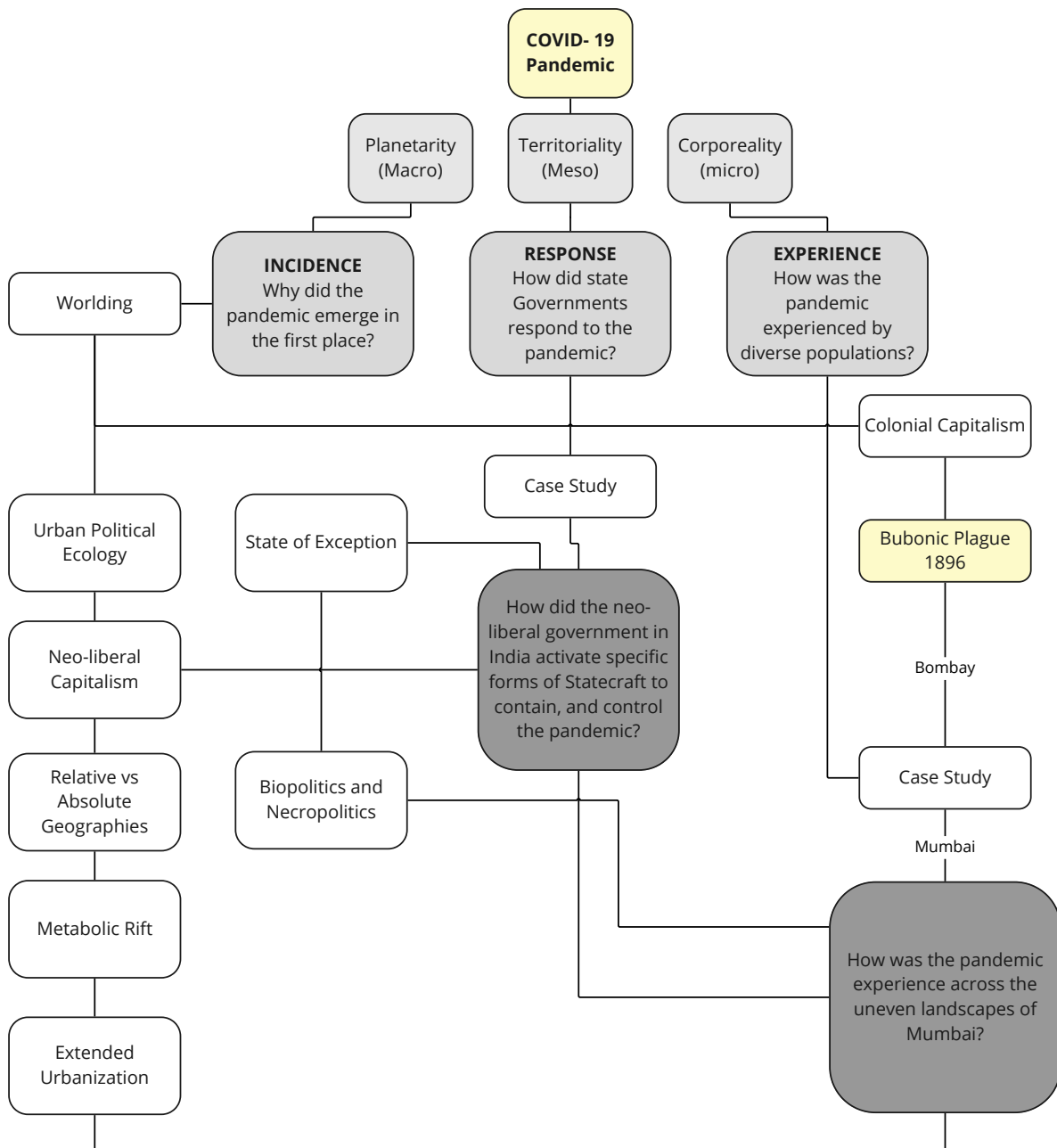
Path Dependency and Urban Vulnerability. Urban agglomerations, with their suffocating densities and complex infrastructures, have been categorically inflicted by the COVID-19 Pandemic. However, limited research focuses on the determinant factors of urban vulnerabilities, such as quality of housing stock, access to essential services, social stratification and income polarity. The lived experiences of different populations during the pandemic, particularly in diverse living conditions and densely populated urban areas, are underrepresented in current research. Along with this, as the movement was curbed during the lockdown, researchers were not able to visit the sites of containment in person. Documenting the experiences and the spaces in which the marginalised populations experienced the lockdown has not been appropriated as a research method. This gap is particularly pronounced within global-south cities like Mumbai, where longitudinal studies may reveal path-dependent inequities from its colonial legacy that have played a crucial role in shaping the pandemic experience.

Re-examination of State Response. Even though there is substantial literature present on the strategies and public health measures activated by the state, the Pandemic warrants a more nuanced analysis of public response while framing the argument within the rise of right-wing neo-liberal governance. A more critical approach towards effectiveness, intentions and consequences of the strategies may reveal an activation of specific forms of biopolitics and necropolitics within the Indian context that remains under-explored.

Representing the Underrepresented. During the pandemic, we were surrounded by news on how cities, especially global cities like New York, Milan, London, Mumbai, and Tokyo, were reporting very high death rates due to the healthcare systems unable to cope with the overwhelming number of cases and were facing the brunt of the pandemic. But when cities are positioned as reductive homogeneous entities, it masks the surface realities of differential suffering. Understanding how various socio-political, infrastructural and economic factors shaped the experiences of populations and responses to the pandemic is crucial for developing inclusive and effective public health policies.

1.3 Problem Statement

There is a lack of integrated, multi-scalar analysis of the COVID-19 pandemic's emergence, government response, and lived experiences within the urban context of Mumbai. This gap masks the structural drivers of pandemic causality and makes invisible the struggles and deathly experiences of the marginalised bodies present within global financial capitals, especially within the global south. This thesis aims to fill this gap by thoroughly examining the pandemic across macro, meso, and micro scales, focusing on Mumbai as a case study. By addressing this research gap, the study seeks to contribute to the field of urban studies, offering insights that can address structural vulnerabilities and inequities while enhancing the resilience of urban environments in the face of future pandemics.



Structural framework highlighting the research questions and key theories employed by the research. The diagram repeats throughout the length of the document, guiding the reader through seemingly disparate fragments of information that fit together to construct a holistic image of the thesis' intentions and outcomes.

1.4 THESIS STRUCTURE :

Framing the structure, this section summarises what the following chapters of the thesis entail. Structured into several chapters, each section addresses a specific aspect of the research, and attempts to answer the gaps previously outlined. Each chapter builds upon the previous one, within a non-linear epistemological framework, contributing to a comprehensive understanding of the COVID-19 pandemic in the context of Mumbai. The **Introduction** describes the events that triggered the rationale for the study. Outlining the research gap, it signifies the need for this study while clarifying the research questions I intend to answer.

The **Literature Review** evaluates the existing literature on pandemics, zoonotic diseases, and their complex entanglements with the urban realm. This section also scans scholarship on the response to the pandemic and the experiences of diverse populations. Responding to the relational multiscalar approach, the chapter is divided into two sections:

The first section, **WORLDING: Origins of the Pandemic**, focuses more on the Macro Scale of pandemic emergence, constructing a theoretical framework at a planetary scale, within which the thesis is located. Situated at the crossroads of planetary urbanisation and the emergence of new infectious diseases, this section engages in a worlding exercise to frame the systemic and structural causalities of the COVID-19 pandemic. Although brief, this section synthesises perspectives from critical thinkers whose scholarship contributes significantly to the urban political ecology framework, addressing the macro-level question of pandemic emergence. Assimilating these theories under the Marxian concept of the Metabolic Rift (Foster, 1999), I emphasise that neoliberal capitalism has particularly inflicted violent, disruptive and unevenly distributed consequences on people of colour, working-class individuals and racialised populations, bringing into discussion the territories of the global south.

The second section, **GROUNDING: State Response and Lived Experience**, narrows down on the meso and micro-scale inquiries, reviewing the public health responses at the nation-state level and their empirical repercussions. Contextualising the abrupt lockdown during the first wave of the pandemic and its disruptive and unevenly distributed consequences on underprivileged populations in India, this section unpacks the implementation of biopolitical (Foucault, 1973) and necropolitical power (Mbembe, 2006) by the populist right-wing neoliberal government, engendering a state of exception (Agamben, 2003). The section also scans literature that documents the variegated pandemic experiences of populations within the city. Hence, the literature review operates as a space for developing and defining a multi-scalar **theoretical framework**. This acts as a scaffolding that appends the construction of a multi-faceted understanding of the COVID-19 Pandemic.

Research Methodology and Methods section clarifies the operationalisation of specific ontological and epistemological frameworks to situate the thesis. In continuation, the section justifies the employment of various methods for the thesis, such as situated testimony, archival research, multi-modal media analysis, longitudinal document analysis, online surveys, and qualitative interviews. This section also highlights how primary and secondary data has been accumulated.

Through a longitudinal study approach, the **Case Study** section excavates the impact and experience of the Colonial response to the Bubonic Plague Epidemic of 1896 in Bombay. Uncovering path-dependencies and legacies of the vestigial colonial past, this section makes connections to the realities of the urban fabric of Mumbai today. Finally, elucidating how Mumbai is a unique and critical site of analysis, the **Case Selection** section lends relevance to the choice of the case study.

The **Findings and Discussion** section focuses on the COVID-19 pandemic in the context of Mumbai. Extracting a set of thematics from the situated testimonies of in-person interviews conducted by the Author, this section unpacks the study and documentation of five slum and

chawl house typologies in the B ward of Mumbai, shedding light on the experiences of the marginalised populations. Coding the data assimilated from the online survey, the section reveals stark experiential polarity of socio-economically divergent populations, while categorising the information into specific themes. Every theme crafted is fed by a myriad of primary and secondary data sources, offering a cohesive and holistic understanding of the pandemic experience.

The **Conclusion** section first reflects back on the findings from macro meso and micro-scale analysis, while making trans-scalar connections. Appropriating Mumbai as a case reflecting a ubiquitous condition within global cities, the section connects the theoretical framing at the macro scale with the lived experiences at the micro scale. The section reiterates the key findings while highlighting its limitations. Finally, while providing some recommendations, the research raises future research directions that may be addressed in the future.

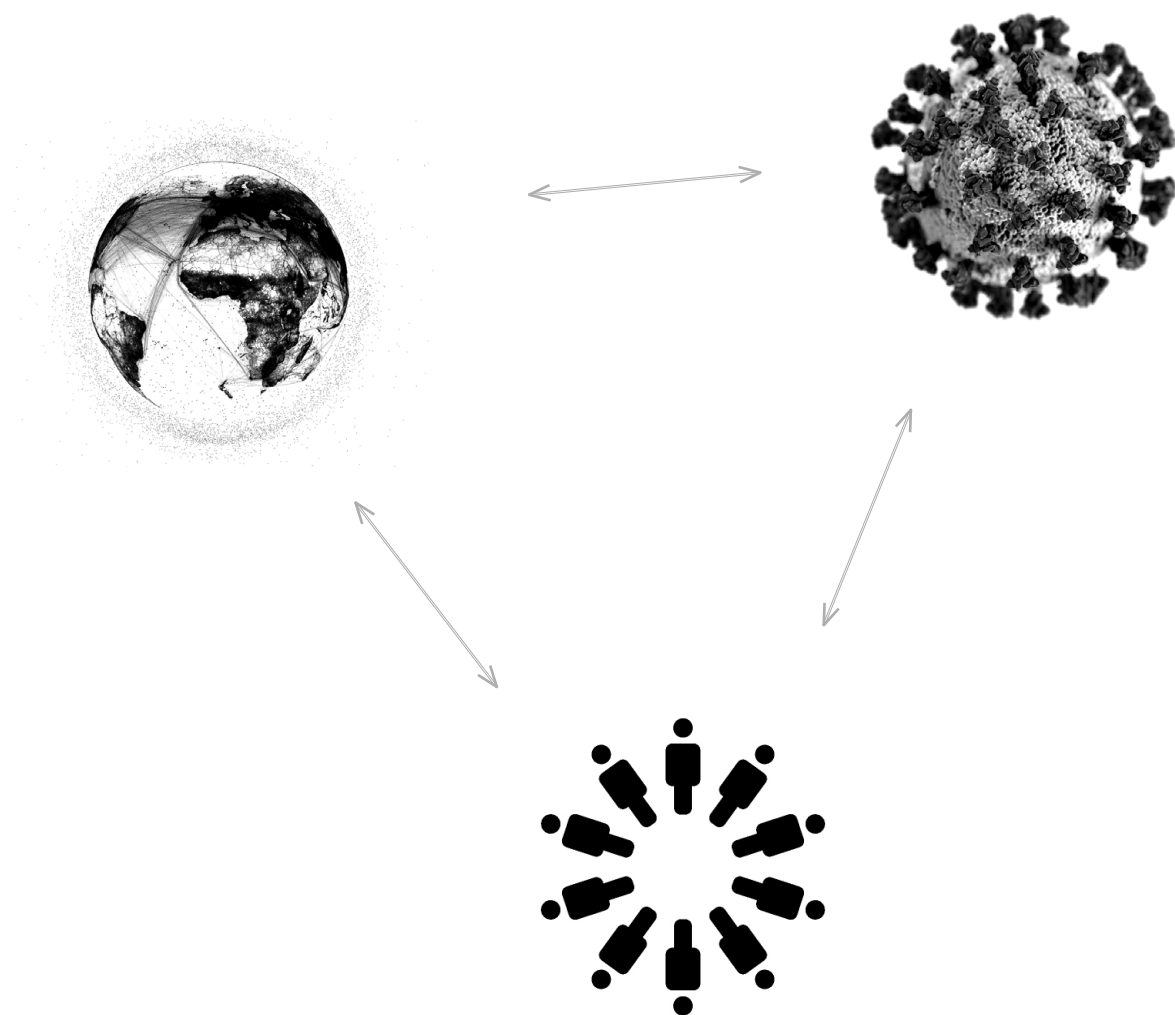
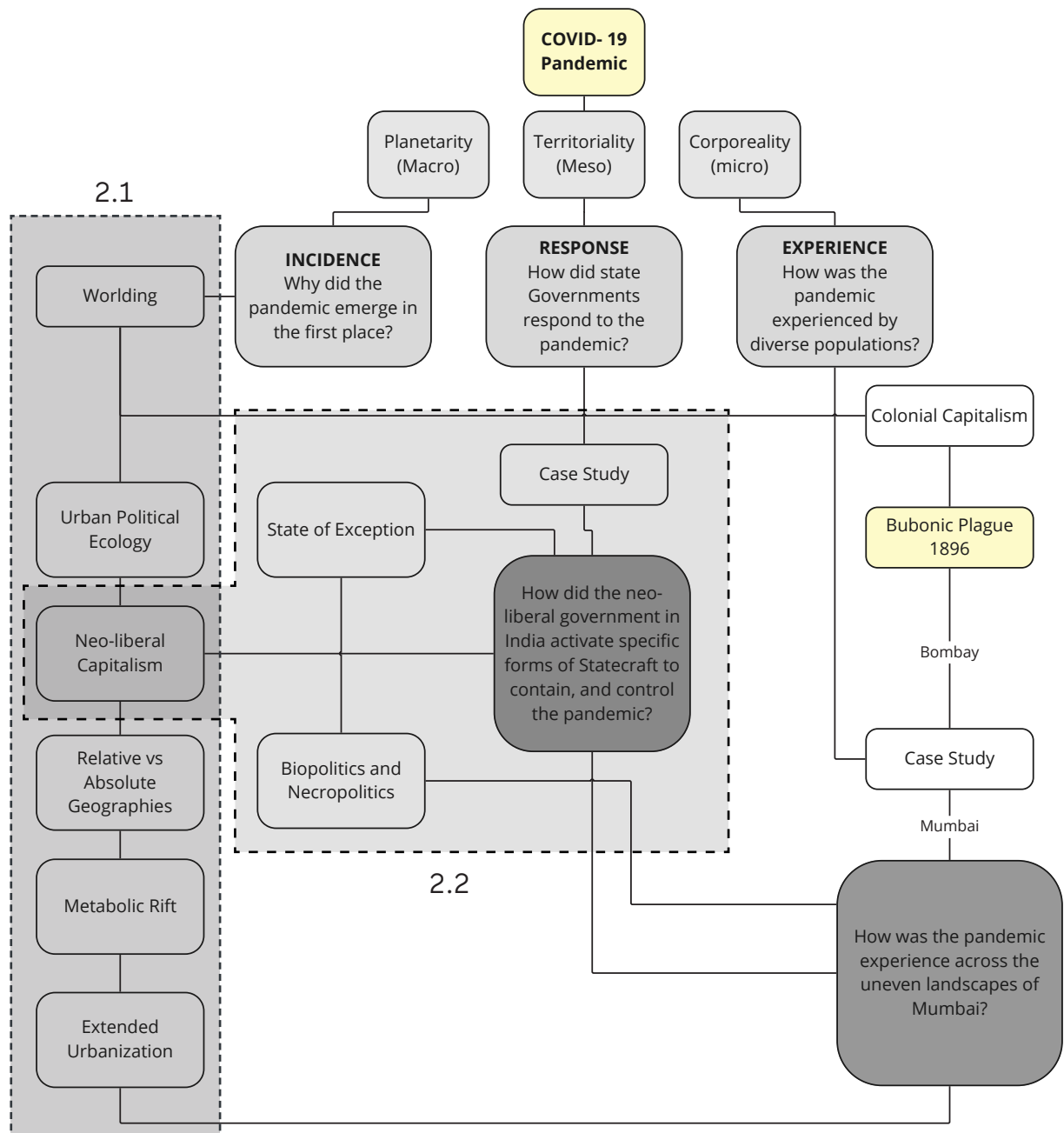


fig 1.f. Intricate trans-scalar entanglements spanning microbiological to planetary scales.

2. LITERATURE REVIEW



Structural Framework for the thesis. Sections that are highlighted get addressed in the coming section.

2.1 WORLDING: Origins of the Pandemic

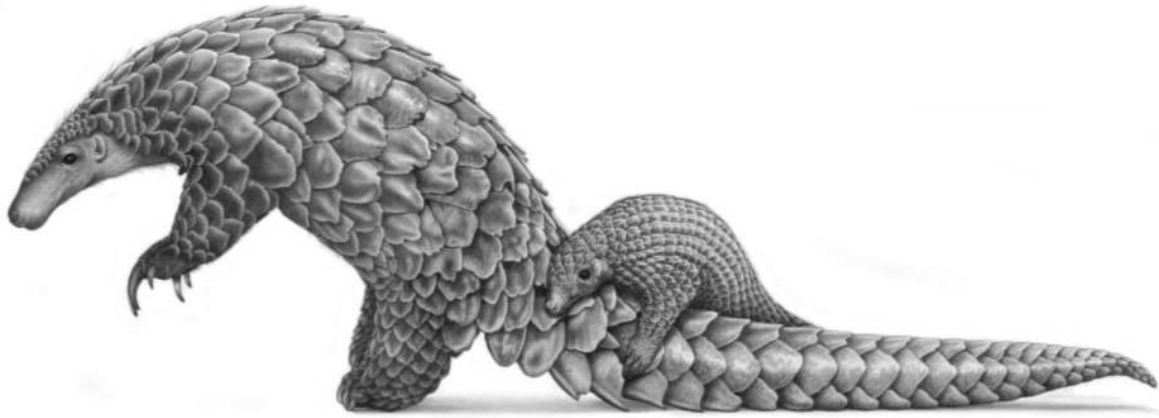


fig 2.a. Image of a Chinese Pangolin.

The pangolin is a quadruped brought forth alive and perfectly formed. ... The pangolin has scales.... The pangolin can roll itself into a ball, like the hedge hog, and present the points of its scales to the enemy, which effectually defend it. [Its] shells, so large, so thick, so pointed, repel every assault: the tiger, the panther, the hyena, vainly attempt it by treading on it. ... It chiefly keeps in the most obscure parts of the forest. (Francis Fitzgerald, 1797, p. 160)

This is an urban studies thesis. One might wonder why an 18th-century excerpt of the physical description of a pangolin makes its way here. One might think that the pangolin is not an essential part of their life or is inconsequential in how we define the contemporary urban condition. It may be worth rethinking that worldview. The pangolin, local to the geographies of Africa and Asia, has become one of the most trafficked animals on the planet (Heinrich et al., 2016). The scales derived from these creatures are utilized in the formulation of traditional Chinese medicines, and their flesh is esteemed by many as a gourmet delicacy. Occasionally, they traverse marketplaces that also feature the commercial transactions of various other fauna, including civet cats, serpents, giraffes, deer, otters, wolves, and turtles. This is where the story begins.

Somewhere in South Asia, in one of the wet markets of Wuhan, China, a coronavirus found in Bats jumped to a Pangolin (Zhang et al., 2020). At a particular instance, a new transmission event occurred when the virus jumped from the pangolin to the human, either through accidental close proximity or improper modes of consumption (Rees, 2020). Horseshoe bats, pangolins, and humans: This series is feasible due to the close biological relatedness of these organisms. The cellular structures of one exhibit sufficient similarity to those of the other, thereby facilitating the transfer of the virus, a phenomenon that Rees (2020) describes as a *cellular continuum* resulting from common ancestry.

We are not as explicitly human as we think we are. Within and on the surface of the human body there are trillions of microbes, that are 10 times the number of human cells (Ackerman, 2012). Through this lens, the human as an individual construct collapses, giving rise to the *Holobiont*, "a bio-molecular network composed of the host plus its associated microbes" (Bordenstein & Theis, 2015, p. 1). When this bio-molecular composition is disrupted due to the presence of a pathogenic coloniser, it propels disorders that take the form of a disease. When this spreads across enough host bodies, it may lead to systemic alterations that can be felt at the scales of the planetary. Through a bio-epidemiological lens, the virus possibly jumped from the bat to the pangolin to the Human. However, through a socio-economic etiological lens, what field conditions allowed such a cellular continuum to exist? Pandemics have happened before, as well. What was different? *What underlying systemic factors contributed to the emergence and global spread of the COVID-19 pandemic?*

2.1.1 Metabolic Rifts and the Ecological Crisis

The conceptualisation of the holobiont as an integral component of the natural continuum signifies a scholarly renaissance of the traditionally philosophical and theological perspectives. For an extensive duration throughout history, humans have existed within a divinely ordained nature-cosmos, constituting a part within a larger whole (Rees, 2020). Countering this narrative, Hobbes (1651), in his magnum opus *Leviathan*, proposed a far-reaching proposition: the emergence of the *Age of Man*. He argued that through rationality and reason, humans differentiated themselves from the *state of nature* (Hobbes, 1651), a state of constant injustice, conflict, competition and violence. He defined nature as a terrain of wilderness and chaos, where savagery was ever-present. Through the *social contract* (Hampton, 1988), humans concentrated into complex societies, creating institutional hierarchies, infrastructural agglomerations, and specific forms of labour division, distancing themselves from the perils of nature. Individuals collectively agreed to surrender certain freedoms to a sovereign authority in exchange for security and order (Hobbes, 1651). Complex societies agglomerated in the form of cities that became sites of control, organisation, and accumulation. They were interpreted as delineated entities separated from the untamed environment, with clear thresholds, interacting with an outside to serve specific consumption needs (Mumford, 1956). *Nature and wilderness*, then, were situated as an externalised site of extraction, reinforcing the human vs nature dialectic through city/non-city and urban/rural binaries, accounting for a *dualist reading* of city-making processes (Brenner et al., 2015).

This dualistic conception influenced many thinkers in the late 18th and 19th century. Butressing these readings, Feuerbach (1873), in his seminal work *the essence of Religion*, presumed an *ahistorical reading of Nature*, where Nature in its purity was pre-social, eternal and uncorrupted by the cultural dynamics of human societies. However, Marx (1894), in his incomplete manuscript, volume III of *Das Kapital*, contended this conception of Feuerbach by bringing in the concept of *historical nature*. When facing a cherry tree from his window, what Feuerbach (1873) believed to be a 'sensuous object from the natural realm' was in reality moved to Europe by trade networks very recently, and only through these capital relations was he able to sense it. By lending historicity to the natural realm, Marx unveiled the mediation of nature by the dynamics of anthropogenic processes. Hence, instead of thinking of nature as outside of society, ahistorical, and eternal, Marx proposed a *historical reading* of nature, a history that is intermeshed with the dynamics of society and cities. Marx (1894) framed this relationship

between society and nature through the lens of *socio-ecological metabolism* (Ekers et al., 2018), examining how the interactions between bio-physical and socio-political spheres shape flows of matter (Haberl et al., 2011). According to Marx (1981), social-ecological metabolism refers to the dynamic and "interdependent processes of material exchange and regulatory actions that link human society with non-human nature" (p. 949), suggesting that human activities fundamentally alter and are altered by the natural world. Hence, breaking free from the dualist reading of the urban-rural binary, the urban ecology framework proposes a move away from an object-oriented ontology of urbanisation towards a dialectical and processual ontology, where cities and city-making processes co-evolve with larger earth systems.

These socio-ecological dependencies that act back on each other are intricately intertwined and reciprocal, yet rarely equitable, and have been fractured irredeemably to some extent by the processes of capitalist accumulation. Capitalism, as a structural system, aspires to construct a reality where everything is dematerialised and reflective of capital, where all components of both human and non-human nature are rendered effectively interchangeable (Moore, 2015). Marx (1894), in his critique of the capitalist mode of production, identifies that capital property relations "provoke an irreparable rift in the interdependent processes of social metabolism (*stoffwechsel*) prescribed by the nature of laws of life itself" (p. 949), highlighting its ecological crisis tendencies, that Foster (1999) later termed as the **Metabolic Rift**. Andreas Malm (2018), in his essay *in defence of the metabolic rift*, elucidates,

Nature consists of biophysical processes and cycles. So does society: human bodies must engage in metabolic exchanges with nonhuman nature. That need not be particularly harmful to any of the parties. Over the course of history, however, the relations through which humans have organized their Stoffwechsel might be fractured and forcibly rearranged, so that they not only harm the people disadvantaged by this change, but also, at the very same time, disturb the processes and cycles of nature. A metabolic rift has opened up. (para. 1)

Finding its roots in the industrialisation and urbanisation processes that emerged during the 19th century, the destructive dynamics of the metabolic rift find its most virulent form in the contemporary neo-liberal regime of social and capital relations. The technologies of plantations and mechanised production that appropriated terrains of wilderness and hinterlands that have continued since the expansion of the colonial empires (Haraway, 2015) have paved a road map to a triple crisis currently looming over the preservation of life, i.e. climate (earth systems), biodiversity (non-human life) and health (human life) (Gandy, 2023). The COVID-19 pandemic then emerges as an outcome of the imbalances of earth systems and non-human life acting upon humans propelled by patterns of accelerated urbanisation, ecological imbalances, uneven development and socio-economic inequalities (Sharifi et al., 2021). **The COVID-19 pandemic emerges as an outcome of cascading metabolic rifts.**

2.1.2 Extended Urbanisation and Zoonotic Transitions

Since the early 1980s, the rapid acceleration of globalisation, increased air and sea connectivity, free-market economy, and deregulation have consolidated the global regime of capitalist accumulation that has concretised in the form of massive urban agglomerations. Fundamentally driven through profit maximisation, sustaining capital relations within these agglomerations

needs an ever-growing supply of raw materials and resource commodities. This has led to the expansion of the urban realm, impacting territories beyond the spatial domains of the “City”, extending into uncharted geographies and constructing new territorial morphologies. Conceptualised as Extended Urbanization, these hyper-extractive and expansive processes (Schmid et al., 2023) rupture the strict boundaries of the city, and traverse the geographies of the non-urban, tapping into forests and the realm of the deep wilderness for resource accumulation (fig 2.b). The *Hinterlands of the Capitalocene* (Brenner & Katsikis, 2020) that support urban have emerged as an outcome of this extended urbanisation (Schmid et al., 2023), forming complex and amorphous center-periphery relationships while significantly contributing to the economic and ecological functioning of urban centres.

The contemporary conceptions of extended urbanisation rendered by Brenner and Schmid (2015) present ripe field conditions that construct pathways for global pandemics to emerge (Connolly et al., 2021). The full spectrum of non-city geographies interacts with the bounded city, conceiving more-than-human political ecologies that "contribute to and result from agglomeration processes under capitalism" (Brenner & Ghosh, 2022, p. 868). These field conditions engender new circuits of multispecies, animal-to-animal disease transmission in which pathogens are dislodged from non-human hosts in “wild” or “remote” forest environments and projected into zones of hinterland industrialisation and associated circuits of capital (fig 2.b.) (Kaup, 2021). Such zones are deeply embedded within capital’s metabolic relays, thus "highly vulnerable to pathogen transmission" (Brenner & Ghosh, 2022, p. 869). Industrial farms, feedlots, slaughterhouses, and meat-processing facilities situated at the urban-wilderness thresholds become vulnerable sites for viral mutations and zoonotic jumps. (Wallace, 2020). The circuits of production and consumption extensively overlap with the circuits of zoonotic spillover and transmission, making way for new infectious diseases to emerge. As mentioned before, the COVID-19 pandemic is not the only pandemic experienced by humans. The advent of complex societies also brought the possibility of the proliferation of diseases that have appropriated anthropogenic networks as conduits for swift dissemination. According to Gandy (2023), we can delineate at least three zoonotic transitions in human history.

In the first phase, associated with early human settlements, animal domestication, and the expansion of trade routes, we see the spread of zoonotic diseases such as plague, rabies, and tuberculosis. A second phase is associated with the growth of industrial cities and subsequent improvements in nutrition, public health, and other fields. However, it needs to be contextualised in a broader context marked by the development of global capitalism, indigenous dispossession, and the colonial dynamics of global environmental change. The spread of cholera, for example, was closely related to European colonialism and the environmental conditions experienced in fast-growing cities. Moreover, in recent decades, a third phase has been marked by the increasing prevalence of new and emerging diseases in response to agro-industrial intensification, extensive privatisation under neo-liberalism, climate change, proliferating zoonotic contact zones, unprecedented degrees of global mobility, mass displacement, the growing resistance of many diseases to existing treatments or control measures, and the persistence of extreme poverty and inequality. (Gandy, 2023, pp. 2531-2532)

COVID-19 is emblematic of the third phase of zoonotic transitions.

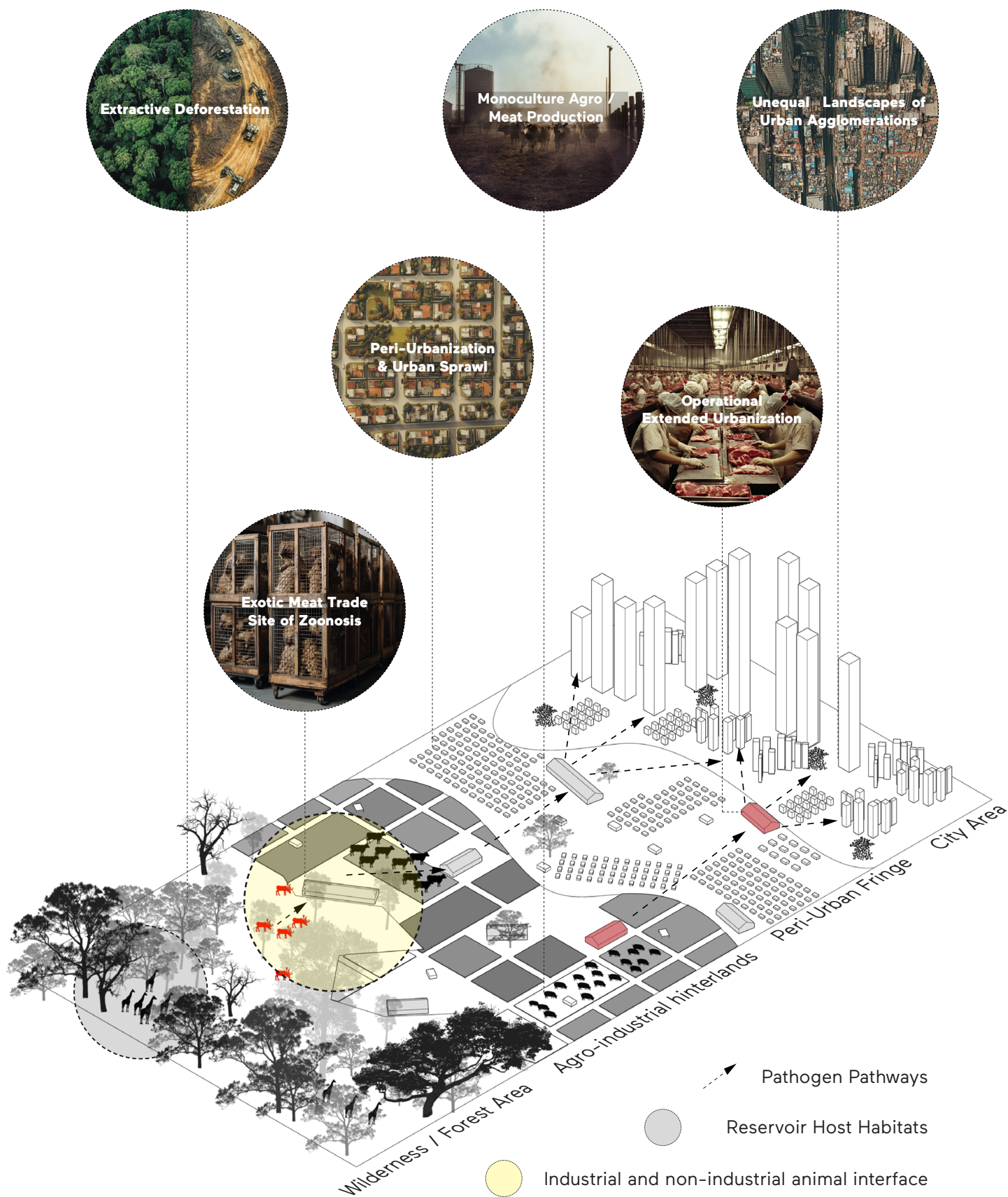


fig 2.b. An urban political ecology of zoonotic pathogenic jumps. Image made by the author on Rhino 3D and Photoshop. Inspired from concepts of Brenner & Ghosh (2022)

2.1.3 Relational Geographies in the Age of Pandemics

Numerous scholars within the domain of eco-health, some receiving partial financial support from multi-national corporations like Colgate-Palmolive and Johnson & Johnson, who are positioned at the forefront of agribusiness-induced deforestation and resource extraction, assimilated a comprehensive global map (fig 2.c.) derived from prior outbreaks dating back to the 1940s, highlighting potential regions for the emergence of new pathogens in the future (Wallace, 2020). The darker the colour on the map, the higher chances of a novel disease to surface in those geographies. However, in confusing such 'absolute geographies' (Wallace et al., 2020), the map that showed EID hotspots in the lesser developed parts of the world, missed a critical point. The emphasis on outbreak regions neglected the interconnectedness among global economic agents that influence the patterns of epidemiological occurrences. The search for the origins of the disease often overlooks the underlying structural factors that accelerate its transmission (Gandy, 2023). The big financial investors have propelled major changes in land use and have had a detrimental impact on the territories of investment, which generally tend to be in the geographies of the Global South. In recent history, zoonotic spillover events have emerged where transnational capital was invested in monoculture plantation agriculture, concentrated animal production, large scale mining landscapes, "and urban infrastructures predicated upon the continued erosion of rural livelihoods" (Liebman et al., 2020, p. 332).

Advocates of neo-liberal accumulation point towards the neutrality of capital and how the market organises itself on its own, disregarding the long duree of postcolonial infliction. Through the logics of the international spatial division of labour (Massey, 1995), capital has found its way to historically colonised sites, where the land and labour are cheap and exploitable. Private multinational conglomerates, institutional investors, state-owned enterprises, hedge funds and agribusiness companies have accelerated the purchase of forest and farmlands, driven speculation on land prices, and propelled the consolidation of "domestic food production while exporting the output to the global market at grave costs to smallholders and the environment alike" (Wallace et al., 2015, p. 70). As an outcome of these kinds of development and production mechanisms, transnational capital within the neo-liberal regime "has been driving disease emergence in the underdeveloped parts of the globe" (Wallace et al., 2015, p. 70). The act of delineating relational geographies, conversely, instantaneously transforms New York, London, and Hong Kong, which are pivotal epicentres of global capital, into three of the most significant hotspots of pathogenic concern globally (Wallace, 2020).

The description of the pangolin illustrated at the beginning of this section concludes with the line, "*It chiefly keeps in the most obscure parts of the forest*" (Fitzgerald, 1797, p. 160). The geographies where the wilderness remains untouched have become obsolete, with the synthesised proximity of humans, and wild and commercially harvested animals under the "*commodity regimes* molded by the spatio-organisational dimensions of globalised capital" (Gandy, 2023, p. 2533), creating sites for zoonotic spillovers. In the case of the pangolin, as the map suggests, over 58% of the global consumption is outside of the native African and Asian countries (fig 2.d.), which prompts a different reading through a relative geographies lens. The biological dimensions of disease are inextricably entangled with the economic, social and political dimensions of the global order. In the case of COVID-19, even though the site of the zoonotic jump can be traced back to Wuhan, a more nuanced analysis of causal drivers within an urban political ecology framework may provoke a more informed reading of the origins of the pandemic.

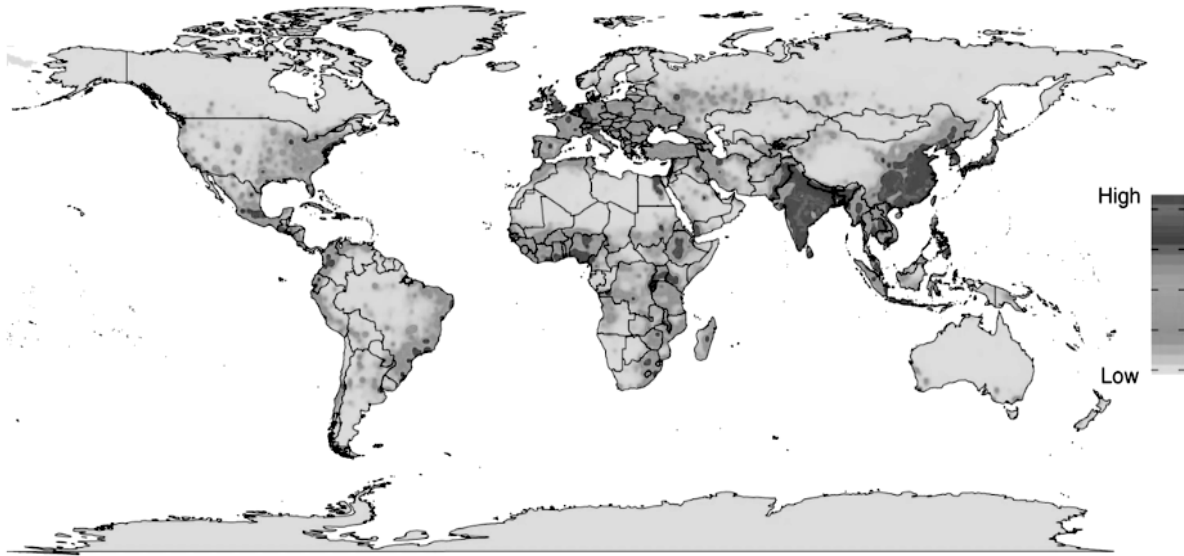


Figure 2.c. Relative risk distribution of zoonotic emergent infectious disease events. Original Source: Allen et al., 2017. Image reworked by author. The risk zones according to this are mostly in India, China, Indonesia and parts of Africa.

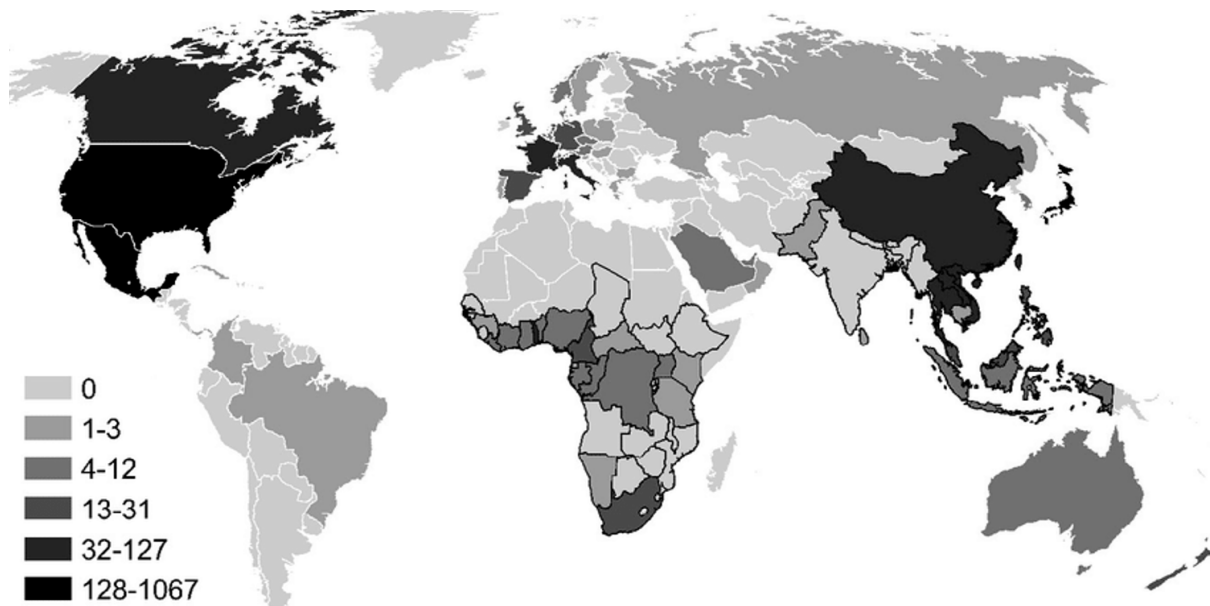


Fig. 2.d. Pangolin trade map, as reported by CITES. Trade has been documented "between 74 countries from 1977 to 2014. of which over half of the countries (58.11%) are outside the native African and Asian range states (thick black country borders) of all eight species". (Heinrich et al., 2016, p. 245). Image reworked by the author.

When these two maps are collated, it illustrates that sites of production and the sites of emergence of new diseases usually fall in the territories of Global South. However the sites of consumption according to the pangolin trade also fall equally if not more, within the territories of the Global North. This is an outcome of perpetual globalisation and networked commodity circuits, along with path dependent extraction processes which that have made the sites in the Global South more vulnerable.

The age of the Urban has also been the age of the Pandemics. We are living in a world plagued by plagues. Animal-human viral spillover characterises the major viral diseases of the previous 50 years—HIV, Ebola, H1N1, Zika, and Nipah, among others. Avian flu, swine flu and SARS are the new diseases of the twenty-first century. According to a recent estimate, most of the diseases inflicting humans are of zoonotic origin (Gandy, 2021). For example, far beyond its known occurrences, the monkey pox virus rapidly spread across 70 countries, forcing the World Health Organization to declare a public health emergency of international concern, even before the COVID-19 pandemic had been controlled (Gandy, 2023). They are all diseases of globalisation, diseases of modernity. The COVID-19 pandemic surfaced at the first of potentially many pandemics to come of the avowedly Urban Age.

As observed above, the networked circuits of commodity and capital underscore the interconnected nature of biological and economic systems that have facilitated the emergence of the COVID-19 pandemic. The interplay of global capitalism, ecological disruptions, and extended urbanisation created ripe conditions for zoonotic spillovers, making the pandemic not just a biological event but a complex societal phenomenon. While traceable to the wet markets in Wuhan, the virus's origins are deeply enmeshed with broader structural drivers that have reshaped human and environmental interactions. As we transition to examining governmental responses to the pandemic, it becomes essential to contextualise these responses within the larger framework of the political and economic landscapes that have influenced both the spread of the virus and the strategies employed to contain it. This shift may allow us to understand how nation-states, particularly within the context of neo-liberal policies, navigated the complex terrain of public health, economy, and social welfare during an unprecedented global crisis.

2.2 GROUNDING: State Response and Lived Experience

As mentioned above, the origins of the COVID-19 pandemic are intricately linked to the economic and ecological imbalances driven by global capitalist extraction and extended urbanisation processes within the neo-liberal world order. However, this world order does not merely impact the emergence dynamics of the virus and the pandemic. As a political and economic ideology, the regime of neo-liberalism has also informed a brand of neo-liberal governance that has pushed forward market-oriented reform policies, and critically informed the state and institutional response to the pandemic. (Ganti, 2014). A strong belief in the efficiency of free markets, the elimination of price controls, deregulation, and lowering trade barriers primarily through privatisation and austerity have been staunchly promoted to reduce the role of state agencies in the economy.

Described as a “thought virus,” the pro-market neo-liberal ideas have *infected* policies and practices worldwide (Beck, 2000). Building on the metaphor, Peck (2013) describes the infectious spread of market sovereignty as a virus that evolves as it moves through the politico-economic bloodstream, constantly mutating into context-contingent hybrids. “New forms of roll-over neo-liberalism emerged across contexts worldwide, even under avowedly anti-globalist and anti-liberal leaders like Trump, Bolsonaro and Johnson, who advanced neo-liberal tax cuts and corporate deregulation even as they pursued policies of border-building and ultra-nationalism” (Sparke and Williams, 2019, p. 18). As David Harvey and other critical geographers have made lucid, “the parasitical and context-specific placement of neo-liberalism has always been related to its uneven evolution as a political, legal and ideological framework for global capitalism” (Sparke and Williams, 2021, p. 19).

As it evolves in its context-specific forms, neo-liberalism has "structured precariousness through a complex process of extraction, public deficit, and decay of public infrastructure" (Jagannathan & Rai, 2022, p. 429), taking over power and agency from the state. The COVID-19 crisis became a brutal episode that revealed neo-liberal transformations in governance, international relations as well as of health systems and biopolitics, as renowned researchers of urban political economy have unpacked before (Sparke & Williams, 2021). It also created a planetary conjunction, putting on display the myriad forms of responses from various nation-states worldwide, informed by national political dynamics that "generate significantly different contexts for processes of struggle and subjectivisation" (Arruzza & Mometti, 2020, para. 7) against the omnipresent canvas of the global crisis.

The crisis was unusual in the way that it created unique field conditions, where "the imperatives of life and life-making interfaced radically with the free market imperatives of profit-making" (Dale & Bhattacharya, 2020, para. 7). As material flow networks are critical in the stability of international and nation-state economies, containing the virus meant temporarily rerouting and recalibrating these networks. Such recalibrations severely disrupted macro-level infrastructures underpinning "sustained linkages and ongoing exchanges among non-state actors based across national borders while re-emphasising the predominance of nation-states in the organisation of societies and social life" (See Hu et al., 2022; Vertovec, 2009). Within a pre-pandemic worldview of an active miniaturisation of the state power, the state abruptly had to take back agency, propelling a crisis-based state interventionism. "Because the crisis induced by the coronavirus was a public health crisis, questions of 'economy' and 'welfare' were thrust together in an unprecedented manner" (Dale & Bhattacharya, 2020, para. 7), temporarily altering the state's relationship with capital.

2.2.1 Crisis Keynesianism vs. Neo-liberal Resilience

The virus exposed how the dynamics between the market and the state are constantly in flux as capital struggled to reproduce itself and made unstable alliances with the state (Neilson et al., 2019). As major sectors of industry were temporarily shut in the interests of public health, nation-states hastily retreated into a ill-planned Keynesian tendencies, as they tend to do when there is an economic crisis. Rising from the ashes of economic liberalism and the great depression, Keynesianism was a macroeconomic theory where the government actively intervened to manage economic cycles (Hall, 1989). The sovereign state delineated its parameters upon the emergent configurations: state-controlled monopolies, financial regulations, and coordinated national strategies—and the constrained reserves of savings from which the augmentation of welfare, or the mechanisms of social reproduction, could be financed (Bhattacharya et al., 2020). Overthrowing the classical and neo-liberal idiom of the "absence of the state's hand" in the economy, some scholars (see Roy, 2020; Nirmani, 2021; Saad-Filho, 2020) read the increasingly pronounced role of statecraft during the early onset of the pandemic as an opportunity to rethink and potentially reshape the world we inhabit. Roy (2020) argued that the crisis had halted capitalism and exposed its flaws, allowing for a moment of reflection on societal values and priorities.

Even though there was some merit to those claims, the 'virus' of neo-liberalism is constantly mutating and not easy to eradicate from the bloodstream of legacy state institutions. Global supply chains, despite undergoing significant reductions, remain intricately interconnected, as finance has become increasingly globalised. Neo-liberal principles, characterised by

the preeminence of corporate entities and the exaltation of market mechanisms, are firmly embedded within the structural framework of authority, prevalent in both liberal Britain and interventionist China (Bhattacharya et al., 2020). Although Keynesian-style interventions had been activated on a massive scale, these were temporary crisis management tactics, also called COVID-Keynesianism (Wood et al., 2023). Even though we saw governments like that of the US commanding multi-national giants like GM to shift production to ventilators or the Indian government ordering the Serum Institute to produce vaccines in India, the world did not observe the revival of the state-capital union of the 1930s (Bhattacharya et al., 2020). Political actors quickly constructed narratives around the sustainability of government spending and inflation risks, advocating for a return to prudent fiscal policies while bailing out large corporations, surfacing a deep-rooted commitment to neo-liberal principles.

The lack of homogeneous responses across national contexts was also informed by the path dependencies of historical processes that play a role in the forms of urban governance mechanisms that surfaced during the pandemic. The strict emergency measures of lockdowns and travel restrictions were not the immediate responses of many governments. Rather than an immediate imposition of liberty suspensions, countries like Sweden, the United Kingdom, and the United States practised urban governance that relied heavily upon the principles of individual responsibility, a tenet of capitalist normality (Arruzza & Mometti, 2020). "In the United States, Trump refused to declare a federal shelter-in-place order and insisted on granting" (Arruzza & Mometti, 2020, para. 10) decentralised autonomy and flexibility in deciding what measures to adopt. Far-right leaders like Bolsonaro stuck to the denialist positions, calling it the 'little flu' that had been overestimated to harm the Brazilian economy (Greer et al., 2021). Only through incessant pressure from healthcare experts, a refusal to work by the working class populations and fear of an impending collapse of the healthcare system due to decades of austerity cuts and privatisation policies did governments start to impose stricter lockdowns. Indeed, the assertion that capitalist nations possess a predominant interest in confining individuals to their residences is rather peculiar and is empirically contradicted by the multitude of efforts aimed at conceptualising a rapid reversion to a semblance of normalcy that would facilitate individuals returning to their employment and engaging in consumption activities (Arruzza & Mometti, 2020). The smooth functioning of the economy took precedence over the sustained continuation of a regulated lockdown. Wendy Brown, taking a cue from Foucauldian biopolitics, calls this a critical aspect of the neo-liberal state of the contemporary period (Brown, 2015).

2.2.2 Welfare and Repression: State Interventionism

The section above elucidated the state's relationship to capital and neo-liberal market forces, and the temporary disruption that occurred through the resurgence of state agency during the emergent phase of the pandemic. However, within this resurgence of state interventionism, a dyad of welfare and repressive functions emerges, revealing the state's relation to its citizens (Bhattacharya et al., 2020). At a juncture when numerous countries were implementing various iterations of neo-Keynesian policies to avert economic disintegration and societal turmoil, the pandemic also served as a catalyst for certain authoritarian-leaning administrations to further consolidate authority within the executive branch, as evidenced in nations such as Israel, Hungary, or India (Greer et al., 2021). National and local governments across the globe activated multiscale institutional power in attempts to contain the spread of the virus. Sharp and blunt responses like lockdowns and hyper-surveillance that led to police brutality and violence problematised the question of power dynamics between the market and the state while

revealing the repressive functions of the state.

Bhattacharya et al. (2020) elucidate the intricately interconnected yet paradoxical relationship between the welfare and repressive mechanisms of capitalist states. In contrast to the sovereignties observed in previous class societies, capitalist states have consistently administered social welfare to sustain and constrain the material security of “their” populations. They continually establish and shape, on a quotidian basis, the institutions responsible for the social reproduction of the workforce. These institutions concurrently take responsibilities related to the education and healthcare of citizens while also implementing surveillance, labelling, and policing measures. Historically noted, capital has effectively exerted its discipline over the biological cycles of birth, ageing, and death; however, its relationship to the processes of life-making is characterised by a reluctant dependency (Berlant, 2007). This system relies on a healthy, able-bodied workforce yet exhibits hesitance towards allocating resources to institutions dedicated to life-making. The COVID-19 pandemic has illuminated the capital’s reliance on its labour force. Whereas, under conditions of liberal normality, the welfare and repressive domains are frequently perceived as distinct, during the crisis, they were intermingled in unprecedented manners, thereby engendering conditions indicative of a state of exception. "A state’s sovereignty is linked to exceptional measures, which are justified by citing the critically emerging crisis, as the state of exception operates" (Agamben, 2005 as cited in Jagannathan & Rai, 2022, p. 434) on the threshold of politics and law. During the pandemic, security forces were commanded onto the streets as agents of welfare. Law enforcement agencies were called upon as public health protectors, and propagators of physical distancing. States justified intensified surveillance as a public safety measure.

The universal application of lockdown as a welfare strategy must also be analysed with a more critical lens. As Sparke et al. (2022) elucidate in the case of COVID-19, the co-pathogenic interactions between the COVID-19 virus and the situated and localised mutations of the neo-liberal virus perpetuated disproportionate health insecurities. The lockdown was treated as a unique and new phenomenon in the Global North. In the Global South, researchers and urban practitioners pointed to the "different realities shaping urban life that made a clear line between before, during, and after the pandemic more challenging to determine" (Ali et al., 2022, p. 5). The blatant imitation of lockdown policies from countries with potent social security and robust healthcare infrastructures was ill-placed and resulted in a catastrophic impact on specific sections of society (Peralta-Santos et al., 2021). The Global South does not explicitly hint towards physical geography but rather a condition of polarization and path-dependent disenfranchisement of marginalised populations that may be present in any part of the world. Conclusively, "the accounts of neo-liberalism’s pathologies across geographical contexts point to the socio-economic pathogenesis of ill-health outcomes through the systemic violence of structural adjustment, with disproportionate burdens mapped onto social gradients of widening economic inequalities and disappearing welfare provision" (Sparke & Williams, 2021, p. 18).

Countries with robust healthcare and social policies that responded in a timely manner ended up with relatively favourable outcomes without the use of excessive force. From the availability of hospital beds, ventilators, and vaccines to even access to basic amenities like food and water, the pandemic surfaced systemic inequalities that exist within global hierarchies. Many countries reacted hastily with stringent measures without proper contingencies in place, which

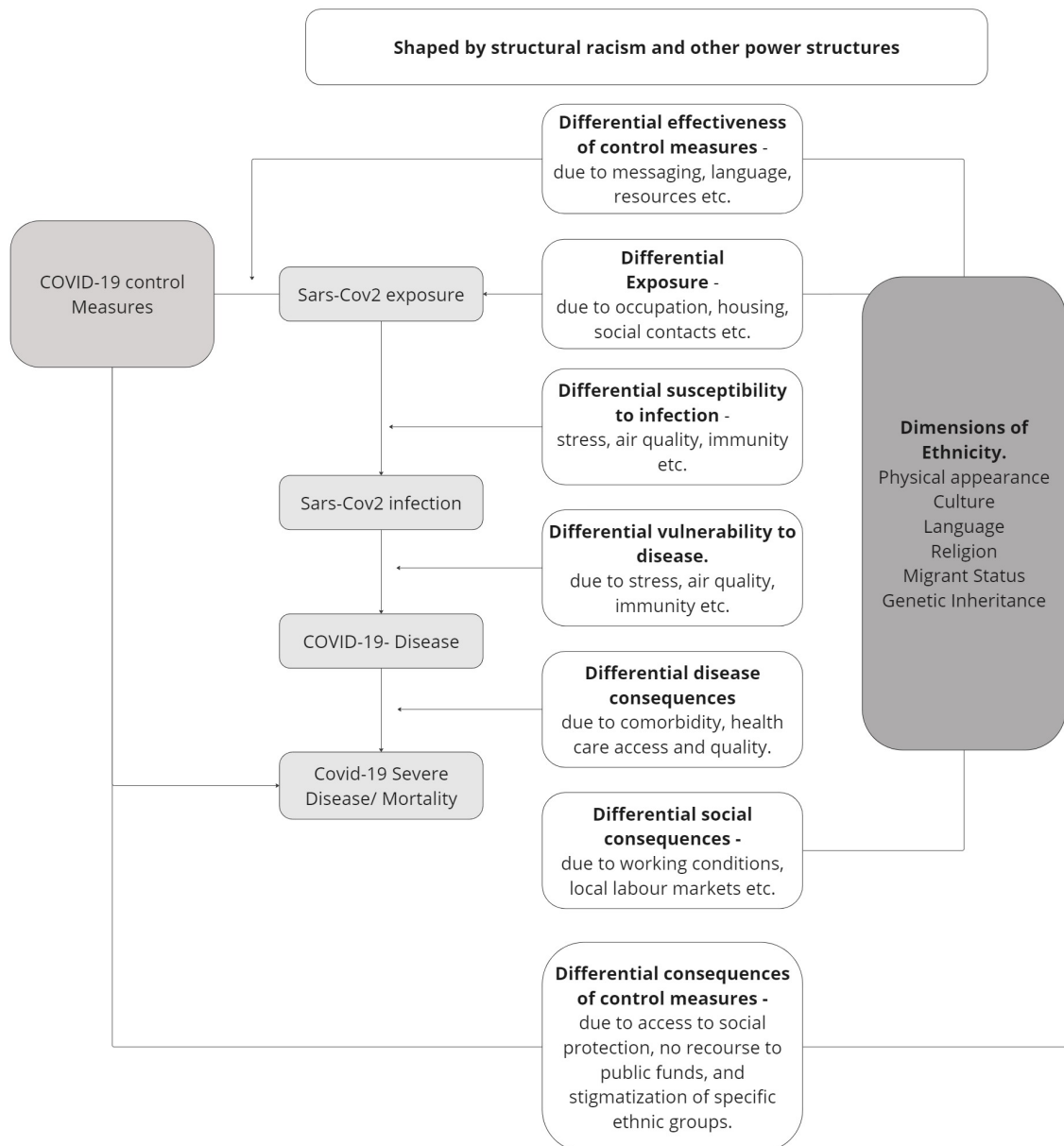


fig 2.e. The diagram is adapted from Diderichsen et al. (2019). Remade by the author. The diagram unpacks various mechanisms and power relations that lead to ethnic and other social inequalities. In the case of India, instead of racial drivers, that are caste based and religion based drivers. The Muslim population particularly was ostracised during the pandemic, along with the untouchable class who are at the bottom of the Hindu caste hierarchy.

led to the rise in death tolls (Peralta-Santos et al., 2021). Even in global north territories, class and race essentialism deemed some bodies ‘naturally’ disposed to risk and premature death. Even in the United Kingdom, the first deaths in doctors all belonged to ethnic minorities, and also healthcare workers of colour had far less PPE kits for them (Warnes & Battershill, 2023) While workers were applauded for their sacrifices, they were actually being sacrificed (Salvage et al., 2020). The pandemic saw the operationalisation of race to make certain environmental conditions seem natural and unchangeable, when in fact they were a result of human decisions and actions, borne out of social, economic, and historical inequity (fig 2.e.). "The “naturalness” of the virus occludes underlying structural conditions of neo-liberal disinvestment in public health in which racial discrimination is exacerbated" (Leibman et al., 2020, p. 333).

2.2.3 Lockdown : Hidden Violence

The use of lockdowns has always been controversial, as it raises political, economic, social, and ethical issues. Historically as well, it has been perceived as intrusive and has frequently violated the rights of disenfranchised groups (Tognotti, 2013). Neo-liberal capitalism "structured a hellish form of life before COVID-19, and its shuddering and reactionary encounter with biological obstacles" (Leibman et al., 2020, p. 334) unleashed new forms of suffering. The market rule joined forces with the biological virus in diverse ways, causing increased mortality, morbidity and suffering (Sparke et al., 2022). Disasters are constantly cascading and complex, and tend to harm those most vulnerable, while exposing the hotspots of systemic injustice (Frisina Doetter et al., 2021) – those who had been forgotten or taken for granted when times were good. A quick scan across the globe reveals how inequality persists and results in uneven chances of surviving the virus. For example, Black populations were 62% more likely to die of covid than their white counterparts in Brazil (Santos et al., 2021). Normalising death while passing homophobic remarks, Even after the death of 163,000 people, on November 10, Bolsonaro (2020) said, "I am sorry for the dead, I am sorry. We are all going to die one day; everyone here will die. There is no point in running away from it, running away from reality. You need to stop being a country of pussies" (Sousa, 2020, para. 1).

"The structural pathogenesis of neo-liberalism thereby intersects and co-evolves with other forms of structural violence, such as systemic racism, colonialism, classism, casteism and sexism" (Sparke et al., 2022, p. 19). This has led to an intensified exposure of marginalised, often racialised segments of metropolitan populations to resurgent public health risks, which surfaced during the pandemic unlike ever before in history at such a planetary scale (Brenner & Ghosh, 2022, p. 870). The study conducted by The Oxford Covid-19 Government Response Tracker (OxCGRT) to collect information on policy measures to tackle COVID-19 over the years 2020, 2021, and 2022 surfaced the polarised responses to the pandemic (Hale et al., 2022). OxCGRT developed a nine-metric system to calculate the harshness of the imposed lockdown. Operationalised as the Stringency index, they used school closures, workplace closures, cancellation of public events, restrictions on public gatherings, closures of public transport, stay-at-home requirements, public information campaigns, restrictions on internal movements, and international travel controls as parameters for the assessment of policy response (Agyapon-ntra & McSharry, 2023)

The data revealed that countries like India and Pakistan had imposed one of the harshest lockdowns during the first wave of the COVID pandemic. On a scale of one to hundred, 100 being the harshest lockdown, Pakistan scored a 96, while India's March 25 lockdown assimilated a score of 100 (Hindustan Times, 2020). The lockdown in India had immediate and profound effects on the economy and daily life and became a very critical case in understanding the impact of state interventionism in its relation to its citizens across the country. The lockdown was coupled with the activation of particular forms of state power, which took its most violent forms in the polarised geographies of urban centres within the country. These strategies, rooted in the complex interplay of welfare and repression, were deeply influenced by the country's socio-political landscape, marked by entrenched caste hierarchies, systemic inequalities, and a history of colonial governance.

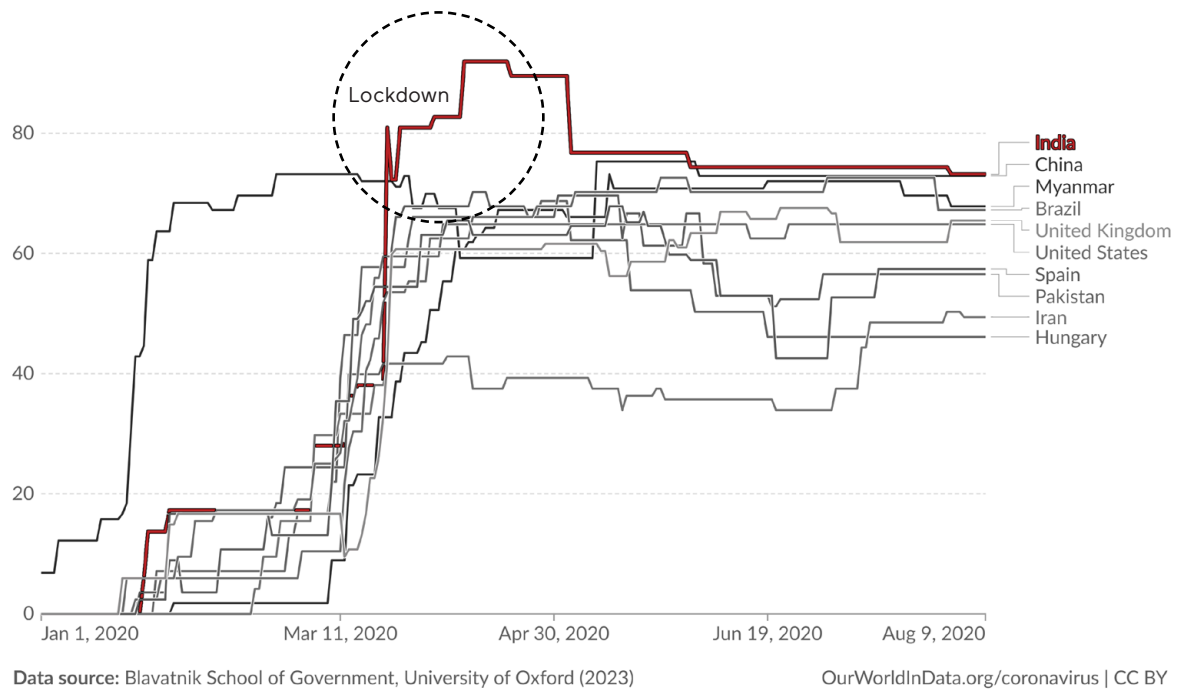


fig 2.f. Stringency index of the lockdown. Redone by the author. India reflects the sharpest spike during the first lockdown. Source: Blavatnik School of Government, University of Oxford (2023)

2.2.4 India: A State of Exception

As mentioned above, in comparison to countries like the USA and the UK, in the initial phase of the global pandemic, India observed one of the strictest lockdowns in the world. Under the Disaster Management Act 2005, Prime Minister Modi implemented the world's largest lockdown, initially for a duration of 21 days (Roman et al., 2020), grounding all international and domestic flights, and interstate and intrastate travel, triggering a demobilisation crisis. "In a country where interstate migration is ubiquitous and migrant workers make up the majority of the workforce, the implementation of the national lockdown left millions of migrant workers stranded in different parts of the nation with no means of transportation to reach to their hometowns" (Venkata-Subramani & Roman, 2020, p. 744). As a result, workers started walking over hundreds of kilometres on foot, deprived of adequate water and food supplies to get to their families. Amidst these strict lockdowns, the brutal news of a goods train running over 16 migrant workers resting on the railway tracks surfaced (BBC, 2020). Only left with the testimonies of personal belongings, chappals and uneaten chapatis, the COVID-19 pandemic and the consequent state response revealed the overlapping planes of multifaceted violence inflicted on the marginalised and critically disenfranchised populations by the current neo-authoritarian government under the reign of Narendra Modi.

A specific mutation of neo-liberalism in the context of India has been observed under Modi regime. Characterised as 'Optical Neo-liberalism,' this form emphasises a narrative of economic growth and development while implementing policies that favour significant capital interests, creating an image of India as an attractive investment destination (Joshi & & Berlinerblau, 2021). Under the guise of initiatives like Make in India and Atma-Nirbhar Bharat (self-reliant India), along with the establishment of NITI Aayog to replace the planning commission, the

state has pursued policies that signal a shift towards a more market-oriented governance model (Patnaik, 2023). Reflecting a political economy shaped by the coalition of private capital and big corporate houses with politicians and bureaucrats, at the expense of social redistribution and the labour class, these alliances have grown at accelerated speeds, furthering a primarily growth and private-entrepreneurship driven development model (Jaffrelot, 2015). Activating supply-side economic policies of deregulation, tax cuts and free trade has produced staggering economic performances for some, masking economic polarisation and big business hegemony. This has led to the production of uneven geographies of development, that got severely highlighted during the pandemic.

In the context of India, the COVID-19 pandemic ripped through the societal fault lines across unequal landscapes created by the context contingent brand of neo-liberalism. The neoliberal policies operated simultaneously in multiple planes, shaping the retreat of the state, marketisation of healthcare, increasing unemployment, precariousness and social exclusion (Jagannathan et al., 2022). The vast public health literature points repeatedly to how these intersecting planes come together "to cause diminished health outcomes and ramifying syndemic effects" (Sparke & Williams, 2021, p. 19). When Narendra Modi (2020) announced the blanket lockdown, he affirmed to the masses, "I want to tell you all that nobody is alone in this. All of us are together in this" (Nair, 2020, para. 5). But, in the "shadow of the new mainstream urbanist mantra of we are all in this together" lay the danger of the dissolution of the urban fabric itself" (Ali et al, 2023, p. 2). Even though the lockdown was ubiquitous, the unequal field conditions imposed selective harm on specific populations.

The brutal lockdown represented a reality steeped in radical inequality and capitalist exploitation that found ways to reproduce and strengthen itself during the pandemic regime (Lorenzini, 2020). Hierarchies were inevitably constructed, reflecting the mechanisms of stratified power. "Even when the lockdown was put in place with the ostensible purpose of limiting death, its socio-economic impacts were felt most acutely by those members of societies most vulnerable to everyday pressures, contributing equally as factors for death" (Howard, 2022, p. 4). Drawing from Agamben(2008), one can look at India's nationwide lockdown as the production of a 'state of exception', in which migrants and the economically impoverished ended up at the bottom of social hierarchies. For the government, their lives lay at the threshold between value and non-value, and violence and law. Agamben (2008) asserts that "Every state decides which life is 'devoid of value' and hence blurs the line between the decision on life and death to an extent that can quickly turn democracy into despotism" (Ghosh A., 2021, p. 8),.

Activating a state of exception, the lockdown seized away fundamental constitutional rights while practising the (un)ethics of exposure; the most vulnerable populations were exposed to exclusion and subordination. The Lockdown operated as a condition of liminality, with the government trying to delay the inevitable exposure of its systemic failures. The liminal stage (that in-between phase that transforms and readies individuals for a new experience) was ineffective for India's marginalised; and a privilege and an escape point for urban India's upper and middle classes (Chakraborty, 2020). As excessive force, surveillance and brutality were normalised within the state of exception; the state activated violent forms of biopolitics and necropolitics as repressive organs under the guise of the welfare state.

2.2.5 Biopolitics and Necropolitics: State Power and the Pandemic

The analytical framework of biopolitics and necropolitics, conceptualised by Foucault (1977) and Mbembe (2003) respectively, has significantly contributed to unpack the state response to the pandemic. The bifurcated paradigms of biopolitics and necropolitics have augmented the comprehension of state mechanisms of power, which ostensibly regulate and promote life while ensuring the health and productivity of populations. While the intentions on the surface were preservation and safety, these forms of power relegated the disenfranchised masses to precarious living conditions and bestowed upon them the designation of “living-dead” (Mbembe, 2019). Amidst the COVID-19 pandemic, socioeconomic inequality under the class relations of capital directly contributed to biological - and, therefore, biopolitical inequality. Defining biopolitics as “the basic biological features of the human species that become the object of a political strategy” (Swatie & Mehra, 2022, p. 2), Foucault (1977) looks at the dawn of biopower as a supplement to the controlling mechanisms of legacy state institutions. The inherent imbrication of populist biopolitics and neo-liberal governmentality in the Indian context has “brought illness and death disproportionately to communities already deprived and dispossessed by market forces” (Sparke & Williams, 2021, p. 19). Constructing an absolutist biopolitical regime ignored differentiated vulnerabilities that automatically subjugated bodies that are deemed unworthy within the imposition of a one-size-fits-all approach (Schubert, 2022). The state extended its capillaries of control through the institutions of law and order. It is through “class hierarchy and the field of visibility that the police order enacted its ability and right to expose certain segments of society to extreme violence and death, perhaps even reducing them to bare life” (Howard, 2022, p. 3).

The work of Michel Foucault around biopolitics has been extensively appropriated to comment upon the COVID-19 crisis (see Demitri, 2020; Kakoliris, 2021; Singh, 2020; Van den Berge, 2019). An epidemic or pandemic can serve as a significant moment for biopolitical analysis. Under the guise of communal safeguarding, the regulation and violation of bodies is validated, and both tangible and perceived health demarcations are established. The discourses surrounding the privatisation of care, the underlying principles of the disposability of human existence, the surveillance of particular bodies, as well as classism, casteism, and racism, are articulated with considerable effectiveness within the context of biopolitical governance. Nevertheless, all forms of biopolitics transition into necropolitics when systems of inequality dictate which individuals are deemed vulnerable (Diniz & Carino, 2020). Conceptualised by the Cameroonian postcolonial author Achille Mbembe (2003), necropolitics operates as “the ultimate expression of sovereignty, residing in the power and capacity to dictate who may live and who must die” (Howard, 2022, p. 10). Predicating life on the death of the marginalised *other*, necropolitics assumes that certain lives are more valuable than others.

According to Mbembe (2003), necropolitics encompasses more than merely the sovereign prerogative to enact lethal force, which alludes to Foucault's (1977) concept of *droit de glaive* or the sovereign right to kill; it also includes the authority to subject individuals, including the citizens of a state, to the peril of death. This domain of power consists of the imposition of social and civil death, the capacity to enslave individuals, as well as various forms of enacted political violence (De Jesus, 2020). In his framework, social death is not merely about the physical cessation of life but rather a form of living death, where individuals are kept alive yet deprived of the conditions that define a dignified existence. This state is often imposed

on marginalised groups, such as racial minorities or those deemed expendable by the state, who are subjected to systemic violence and exclusion. The political dynamics of necropolitics illustrate how these groups are governed through mechanisms that prioritise their potential for death over their capacity for life.

Even more than the pathogenic microbe itself, bodies positioned in power were more dangerous, who had the power to "dictate who breathes and who suffocates and thus put the nation's economy above human lives" (Malsom and Tripura, 2021, p. 120). Expanding further, Tonel (2020) observed that from the lens of health and well-being, the activation of certain protocols "can be read as a death policy. Such a policy, who lives and who dies, is especially effective in regions where the state is politically, socially, and economically ineffective" (Malsom and Tripura, 2021, p. 120). "Necropolitics emerges in the denial of healthcare and access to tools, enabling people to protect themselves from diseases, masking the incompetencies of the bodies in power" (Jagannathan & Rai, 2021, p. 429). The carefree attitude of the political authorities and the puppet-like Healthcare ecosystem led to the marginalisation of the poor and the downtrodden, as they were denied access to the public health facilities, resulting in maximum casualties coming from this demographic. It is such a disbalanced order of things - the aforesaid necropolitical vulnerability - which mocks the so-called equality we all must experience in a thing as certain as death - bolstering the socio economic and political discrepancies. (Jagannathan & Rai, 2021). "The equality we all experience in death is negated by the socioeconomic and political inequality that we experience in life through the necropolitical function of vulnerability" (Howard, 2022, p.4). The pandemic exposed the systemic coupling of social disparities and radical violence. Slow forms of killing emerge within the scaffolding of structural racism (casteism and islamophobia in the current Indian political climate), *making live turn into letting die*, which perpetuates as a permutation of necropolitics.

2.2.6 Urban Marginality: Infrastructure, Insecurity and Alienation

These violent forms of biopolitics and necropolitics become the most visible in urban centres, where stark socio-economic polarity is an everyday reality. Reports by UN-Habitat also reflected how the quick dissemination of the virus was located in metropolitan areas (Ayeb-Karlsson et al., 2021). "As of May 2020, the four megacities in India; Delhi, Mumbai, Chennai and Kolkata, comprised 40% of the total cases in the country" (Raju et al., 2021, p.2). Even though theorised above that COVID was an outcome of extended urbanisation, metropolitan cities were more vulnerable, and faced the harsher end of the crisis. Metropolitan centres are also sites of stark differential socio-economic realities. A vast majority of the population in cities is employed within the informal economy, which was hit brutally by the neoliberal states' necropolitical response. The state actively engaged in acts of violence by sanctioning programs that destroy marginalised lives because the people were not deemed to be adequately citizen (Mbembe, 2003). Migrant workers were particularly vulnerable as they were trapped in low-pay, low-skill, secondary market segments, which were likely to cause insecurity, harm and overarching alienation (Agar & Manolchev, 2020).

The cascading forms of violence were also induced by the field conditions in which they experienced the pandemic. Even historically, urban spaces, housing and infrastructure have shaped the ecology and evolution of zoonotic diseases while bearing further risk to its inhabitants in the Indian context. The dilemma surrounding the dichotomy between individual isolation

and reliance on communal support was further exacerbated by the challenges associated with individual quarantine and isolation within economically marginalised segments of the population. Major metropolitan areas such as Mumbai and Delhi encompass a significant number of informal settlements that remain unrecorded in official statistics. The United Nations Human Settlements Programme has underscored how informal housing markets intensify health vulnerabilities, posing risks of widespread displacement and facilitating the propagation of disease as the urban poor experience a loss of their livelihoods. The informal market networks have often been celebrated by neo-liberal planners as "the urban poor's own entrepreneurial solution to corrupt market states, accelerating unfavourable disease outcomes, especially in countries such as India where they are not adequately integrated into public health planning" (Sparke & Williams, 2022, p. 20). The individuals residing in these informal settlements are not ostracised from the broader societal framework. Instead, they are abandoned to navigate their circumstances independently, excluded from governmental safeguards pertaining to services, sanitation, healthcare, and access to communal areas (Bhan et al., 2020) while concurrently facing heightened violence and being stigmatised as the promoters of disease and environmental degradation.

As illustrated in the entire section, overlapping planes of marginality come together, causing selective harm to the most marginalised within a global order of neo-liberal capitalist accumulation. From the emergence dynamics of the disease, to the institutional response to the experience of the pandemic, the role of capital has been highly pronounced. The myriad of abstract theories concretise together, shaping fractured ground realities, informed not just by the contemporary conditions but also by path dependencies from the colonial past. The urban agglomerations are where these diverse yet inherently connected planes juxtapose and emerge as sites where the necropolitical death worlds for the marginalised manifest. Paradoxically, the ubiquitous inequality within these agglomerations masks the inflicted violence, almost to the point of invisibility, creating untraceable social and civil deaths. Together, these frameworks elucidate the profound impacts of neo-liberal state policies on health and human rights, revealing a governance model that has often failed to protect its most vulnerable populations, thereby perpetuating cycles of violence and marginalisation. Through the longitudinal case study of Mumbai, this thesis will attempt to ground the complexities of navigating biopolitical governance and necropolitical neglect within a densely populated and economically diverse metropolis. By focusing on Mumbai, this research underscores how specific urban contexts can illuminate broader patterns of inequality and state response, offering a more nuanced understanding of how global frameworks manifest in localised settings.

3. RESEARCH METHODOLOGY AND METHODS

3.1 Research Methodology

This research appropriates a critical trans-scalar approach positioned within the ontology of post-colonialism and critical realism. The paradigm of critical realism believes in the presence of an objective reality independent of human cognition, yet our comprehension of this reality is perpetually mediated through social constructs and subjective interpretations. In the context of this dissertation, this perspective facilitates the examination of how path-dependent structural inequalities unveil more profound realities regarding the repercussions of neoliberal policies during the COVID-19 pandemic. This methodology explores tangible phenomena such as disparities in healthcare accessibility and economic volatility while acknowledging that our understanding is intrinsically constrained and shaped by social contexts.

Buttressing this ontological position, this research also mobilises an interpretivist epistemology, that focuses on producing subjective knowledges that are influenced by a spectrum of meanings and view points and contribute to social development. This methodology reveals the subjective significances and interpretations individuals ascribe to their experiences, particularly about how neoliberal policies have influenced their lives pre-, during and after the pandemic. By emphasising participants' perspectives, interpretivism facilitates a sophisticated examination of lived experiences and the ramifications of systemic alterations on marginalised communities. Critical and interpretivist paradigms can work alongside one another to acknowledge systemic processes that shape people's realities and experiences, and shed light on how situated knowledge is produced and informed by their cultural contexts, past experiences, and beliefs.

3.2 Research Methods

This section outlines the diverse research methodologies employed to unpack the multiscalar and cross-sectional inquiries revolving around the complex entanglements of capital, contagion and containment within the context of the COVID-19 pandemic. The earlier section of *Worlding: Origins of the Pandemic* contextualises the thesis within a globalised neoliberal order of extended urbanisation, performing an epistemological and ontological grounding of the systemic drivers of pandemic causality. This involved a discourse analysis and literature scan of scholars who have produced knowledge around these thematics. Zooming into the context of India, the thesis examines the *pandemic imaginary* to unmask how neoliberal societies conceptualise and respond to the threat of zoonotic diseases, activating bio and necropolitics shaping the socio-political dimensions of the coronavirus disease. Grounding this research in the context of Mumbai, the thesis performs a longitudinal analysis to unveil the role of disease in shaping the urban fabric of Bombay, which has had path-dependent effects on the experience of the COVID-19 Pandemic. Mobilising a mixed-methods strategy, the research employs different forms of analysis contingent on the scale of inquiry. This multi-faceted approach allows us to locate incidents within their broader historical and political contexts and connect microphysical details to larger structures and systems.

3.2.1 Longitudinal Study: Document, Policy and Archival Analysis

To obtain broader statistical data on Mumbai, explicitly focusing on GIS-based data, I visited the Urban Development Research Institute (UDRI), which aided me in narrowing down the scope of where I would conduct more detailed research. The institute also gave me access

to historical maps of Mumbai and base map information to plot my findings. To research the response of the British Empire to the bubonic plague of 1896, I also visited the Mumbai Asiatic Society, where the official records of the plague are still kept. I was not allowed to scan or take pictures. However, I was able to take notes, getting a first-hand look at the policy response and the documentation of experiences during the Bubonic Plague Epidemic. These forms of cross-sectional studies, across short and long durations, reveal valuable insights that have informed the inferences of this thesis. I also use online articles, journal entries, scientific and peer-reviewed papers, and newspaper clippings as secondary data to inform my findings.

3.2.2 Social Media Analysis

The pandemic and the lockdown restricted everybody to their domestic realm, making the digital media platforms a critical space for the dissemination of public health strategies and sharing collective experience. Media analysis reveals what stories were told and what narratives were built, but sometimes also sheds light on what stories were hidden. The government agencies in India, the prime minister and the local municipal corporations appropriated social media sites like Instagram, Facebook and Twitter (X) to engage with the citizens in the digital realm. In the context of Mumbai, the @mybmc page on X posted multiple tweets everyday, with daily statistics, changes in rules and policy, updated containment zones, stories of hope, and all the excellent work done by the municipal corporation. Social media was also a site where stories of resistance surfaced against stringent policing and surveillance, as well as countered misinformation and tracked public discourse, making it a vital source to analyse.

3.2.3 Scanning Geographies: A pan-Mumbai Questionnaire Survey

At the micro-scale, I began with a pan-Mumbai survey to get an overview of the lockdown situation and document people's experiences during the pandemic (fig 3.a). Using my networks across Mumbai, I collected 144 responses to the survey questionnaire that focused on parameters like house typologies, income disruption, access to infrastructure and healthcare, and access to basic services. However, because I could only access familial associations, there was a big gap in the demographic represented. The survey was only answered by people who had access to the Google form and were comfortable using their mobile phones and technology. To counter this, I also distributed printed versions of the same survey questionnaire amongst different neighbourhoods within Ward B in Mumbai to get a more diverse user sample, keeping the questions the same while translating them into local languages of Hindi and Marathi.

Thematics	Sections
General	Age, Gender, Marriage Status, Location in Mumbai.
Migration Background and Income	Number of years in Mumbai, Reason for Migration, Occupation, loss of income and debt.
Living Conditions	Type of housing, type of rental contract, cost of living, and access to basic services. Occupant density.
Health and Well being	Access to healthcare, medication, mental health issues, sealing of house and declaration of containment zone.
Mobility and Impact on everyday life	Access to public space, reverse migration, domestic life
Social Support and Response Satisfaction	Government assistance, Community Support, the impact of lockdown.

Table.1 This table gives a window into the type of questions formulated for the online questionnaire.

3.2.4 Lived Experiences: A Qualitative Study

The outcomes of the semi-structured survey surface key insights supplementing theoretical studies conducted under similar light, but still were not conclusive due to the biases and restrictions mentioned above, and in many ways excluded the demographic affected by the lockdown the most. The responses of migrant workers, daily wage workers, and other vulnerable groups like street vendors, house helpers, and taxi drivers, who contribute to the informal economy, were not well documented in the survey results. When I distributed the printed forms, many residents were hesitant to fill them out or were ill-equipped to fill them out due to literacy issues. However, spending time in the chawls and making conversation allowed them to open up and hold informal chats regarding their experiences. These conversations shed a much more nuanced light on the lived experiences of people during the lockdown. "‘Lived experience’ has its roots in qualitative phenomenological research and is a concept that has come to the fore in social policy analysis to highlight the importance of subjective experiences in informing empirical enquiries" (Duvendack & Sonne, 2021, p. 40).

These forms of Narrative methodologies offer an opportunity to unravel the temporal unfolding of human lives and outline how time is situated at the intersection of the personal and political crises heralded by contemporary events (Claney et al., 2012; Gabriel, 2000). Along with the conversations I had across various chawls and a couple of slums in Ward B, another revelation hit me. Every cab ride I took was a journey with someone who was potentially in Mumbai during lockdown and also served the informal/ gig economy, working in uncertain and unstable conditions. Even though not everyone lived in Ward B, it gave me a better understanding of the conditions across Mumbai. I took 16 cab rides, from which 13 cab drivers were in Mumbai during the lockdown. Every cab ride ended up being an hour-long unstructured interview, unveiling unique and uneasy stories of struggle, resistance and sometimes joy during the lockdown (The red pins highlight the destinations of my taxi rides. fig 3.a.). These interviews supplemented the survey questionnaire, appropriating oral histories as a medium of discourse production.

3.2.5 Situated Testimony: LiDAR Scans

The spaces in which people were contained become integral artefacts to understanding the experience of the lockdown. Although representative sketches, measured drawings, oral descriptions, photos and videos are essential modes of documenting these spaces, they fall short of capturing the everyday arrangements and practices, social negotiations and scalar implications of these intimate spatialities. Situated testimony, a tool of documentation operationalised by the research group "Forensic Architecture, uses 3D models of the scenes and environments in which traumatic events occurred that aid in interviewing and gathering testimony from the witnesses" (Weizmann, 2017). Appropriating LiDAR scanning as a technology to capture these nuances becomes a key component in documenting people's living conditions. Even though this documentation has taken place four years after the lockdown, the taut and cramped spaces and the assimilation of daily use essentials and objects reveal a cross-section of life that would have been even more unforgiving during the pandemic. Taking LiDAR scans of slum houses, corridor spaces, shared communal toilets, and chawls while crude, paints a raw and tangible picture of the intersection of space and everyday life. The LiDAR scans conducted have been localised to Ward B, illustrating a comparable vision of the experience of the two pandemics.

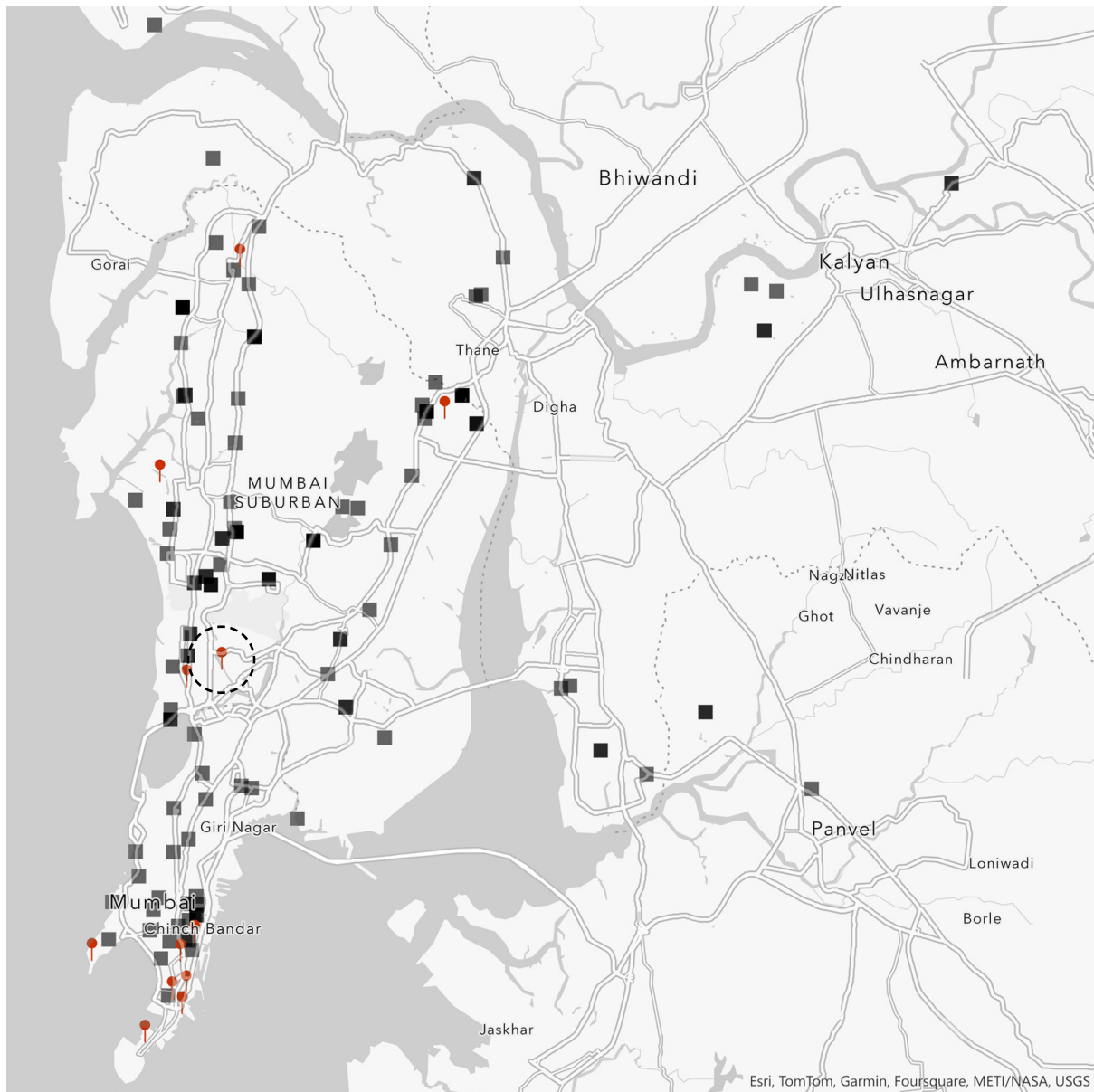


fig 3.a. The map reflects the locations of the pan-Mumbai survey conducted by the author. The black squares are the sites of the where the respondents were from. Some squares look more opaque than others as there are multiple respondents from the same pin-code. The red pins are the sites where i went during my field work and used taxi-cabs as my mode of transport. These were journeys where I had long interviews with the taxi drivers who shared their experiences during the pandemic. The dotted circle was my starting point for the journeys as i was living there with my relatives.

3.3 Research Positionality, Challenges and Limitations.

The production of knowledge is neither universal nor neutral but is influenced by the alluviation of previous experiences that inadvertently produce specific biases (Rose, 1997). Hence, reflecting upon the privilege and prejudice that positionality brings within research becomes very critical. My position as an upper-middle-class, South Asian male researcher has categorically informed how I have been able to gather data for this research and also, in ways, informed how I have interpreted the data. Being a researcher from India and having deep ties across Mumbai has been crucial in getting a more comprehensive understanding of

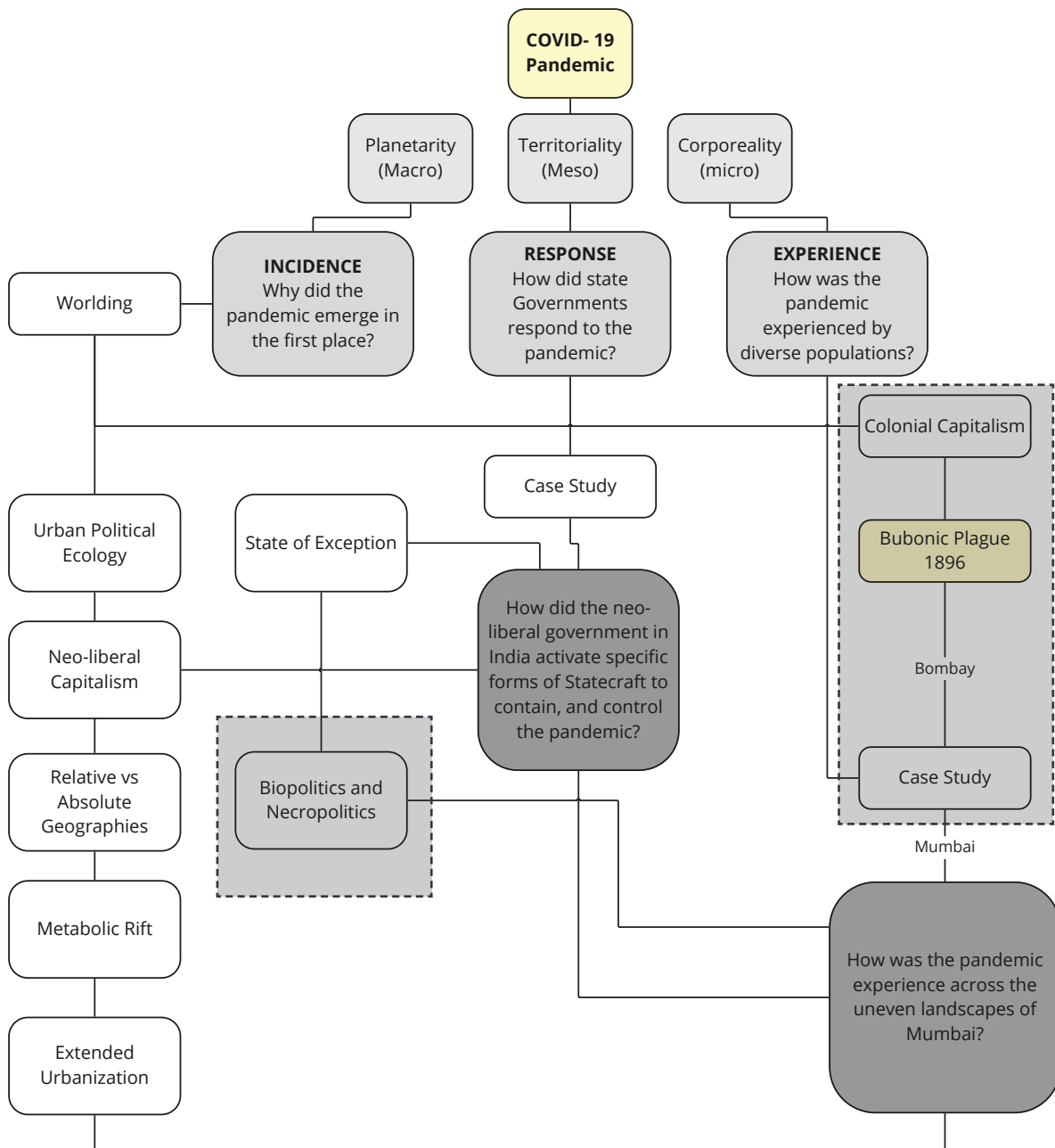
the context of the research, but it also came with its challenges. As a Male researcher, having one-to-one conversations with female participants was difficult. I gathered a few qualitative interviews with female participants, but most of the demographic remained male. Even after clarifying multiple times about the academic setting and anonymity of the interview process, many people were reluctant to participate for an interview. People felt a lot more comfortable talking in groups than having conversations individually, without the presence of recording devices and note-taking. This led to my insights being the outcome of rigorous note-taking after the conversation had ended, making it harder to quote specific interviewees and instead focusing on the crux of the discussions.

Part of my research also aspired to construct a more informed image of the governmental response through interviews with municipal officers and legislators in charge of everyday decision-making during the pandemic. I visited the epidemiology cell of the B Ward in Mumbai, where I conducted field-based qualitative interviews and performed LiDAR scans. After visiting the cell for three days straight with no success, I was informed that I would have to request all details, which might take months and need much bureaucratic approval. I received communication that they cannot provide any official statement regarding the enactment of policies during the lockdown. I also waited to meet the medical officer in charge at the time, but she was unavailable to meet. Hence, the majority of my conclusions regarding governmental responses are an outcome of secondary analysis of policy documents and media analysis where the data was published. Initially, I also emailed several NGOs and independent researchers who were active during the lockdown and have done significant research in the context of Mumbai. I did get some data from these sources, but I have left out the community engagement aspects of welfare from the categories below due to the limitations of the thesis.

The context of Mumbai also surfaces the complexities of assimilating the findings. A lot of the statistical data found is specific to the legislative and governance boundaries of Mumbai and does not accurately represent the populations that contribute to the everyday functioning of the city. According to a study conducted by the Rosett geography department (2006), an average of three million people commute inside the legal boundaries of Mumbai but live in the extended regions around Mumbai. Populations come from regions beyond the Mumbai Metropolitan Region (MMR), working within the informal and gig economies, travelling over two to three hours for work. Hence, the raw statistical data regarding these landscapes frames an incomplete image of the struggles of people who are connected to the landscapes of Mumbai.

In conclusion, operating through conventional modes of research needs to be recalibrated, especially within the context of cities in the Global South. Homogenous methods of data collection, recording evidence, and getting access to bureaucratic transparency all function very differently within the global south territories. Appropriating diverse modalities of analysis and constructing knowledge through a heterodox approach offers a more nuanced understanding of the complex context of Mumbai. Before this thesis unpacks the COVID-19 crisis, the research delves into a longitudinal study of the intersection of disease and urbanisation in the context of Mumbai. Appropriating the Bubonic Plague Epidemic of Bombay of 1896 as an object of analysis, the section sheds light on the responses of the colonial state that have had an impact on shaping the built fabric of Mumbai, which has, in turn, shaped the experience of the COVID-19 Pandemic.

4. PATH DEPENDENT PATHOLOGIES: BOMBAY



Structural Framework for the thesis. Sections that are highlighted get addressed in the following section.

4. PATH DEPENDENT PATHOLOGIES

4.1 Urbanisation, Disease, and Colonial Legacies

Since the advent of complex human societies, humans have shared symbiotic, commensal, and pathogenic relationships with the Microbiome. Based on our understanding of the microbiome, we as a society have responded within a myriad of social, cultural, political and infrastructural domains that have shaped our material and non-material realities. One could go as far back as 420 BC when the first pandemic on record emerged in Athens, Greece (Pinault, 1986). Since then, our communal and institutional responses to pandemics have constantly evolved based on various factors, initially with our limited understanding of disease. The earliest conceptions of diseases were framed as an act of god, generating a theological response in the form of magic, rituals, altars and temples to appease gods (Kaufmann, 1968; Dodds, 2015). A rational and responsive approach developed as we observed signifiers to identify disease. For example, in the 14th century, ships arriving in European ports were required to be docked for 40 days to curb the spread of plague, giving rise to the term 'quarantine' (Citron et al., 2004) and also introducing new typologies of architecture like the lazarettos or quarantine hospitals in Italy (Manaugh et al., 2021). With the evolution in medical practices and a slowly developing technoscientific rationale, the response to disease and pandemics also took a symptomatic approach. The medical theories of the time evolved further, diagnosing 'polluted environments', 'noxious vapours' and unhygienic conditions as primary drivers of disease (Davies, 2022; Snowden, 1995; 2019), also known as the filth theory of disease or Miasma Theory, which had a very crucial impact in shaping the contemporary city.

The turn of the 19th century saw the rise of urban centres due to the advent of industrialisation, which led to mass migrations to city centres. The working proletariat class swarmed around the coal-powered mechanised industries, living in poorly built houses. These industries produced pollution and waste, which, along with overcrowded dwellings, created deplorable and unsanitary living conditions (Engels, 1845). Engels (1845), in his seminal work, *The Condition of the working class in England*, documented the living conditions and observed that "*the dwellings of the workers in the worst portions of the cities, together with the other conditions of life of this class, engender numerous diseases*" (p. 44). Infectious diseases like Cholera, Tuberculosis, and Typhoid were rampant, with a dire need for public health reform. The disease stricken, filthy, congested and foul smelling city type of operates at the point of inception for a linear historical account of the development of technologically charged urban development and transformation across Europe at the time (Gandy, 2004).

There were piecemeal responses to countering the issues surfaced by the processes of industrialisation in the form of improved sanitation and ventilation. These were localised and emerged through a community consensus. The response to the Cholera pandemic of the mid-19th century, through the prevailing scientific understanding rooted in filth theory, prompted significant urban infrastructural changes at the city scale across Europe (Frank, 2024; Snowden, 1995; Gandy, 2004). Prominent examples in Europe included London, Lyon, Marseille, Paris and Naples, where a myriad of reconstruction projects were sanctioned to support the growing urban economy. Snowden (2015) provides another reading of how the reconstruction and Haussmannization of Paris were also partly a response to the proliferation of disease. These changes, including the development of urban sanitation and city retrofitting,

reinforced the agency of state power while serving the interests of the rising *industrial bourgeoisie* (Gandy, 2006). This distinctive shift within the socio-spatial arrangement, driven by advances in epidemiology, microbiology, and “new forms of techno-managerial expertise in urban governance”, gave rise to what Gandy (2005) called the *Bacteriological city*. However, the benefits of the bacteriological city were more readily accessible to the population, primarily located in the metropolitan core of Europe and North America. However, in cities like Mumbai, undergoing similar rapid expansion and urbanisation under colonial rule, the responses were insufficient, as they were developed as sites of extraction. Gandy, (2005) explains,

“The emerging bacteriological city was a technical adjunct to capitalist urbanisation, yet its full realisation was in conflict with the marginal status of the colonial city so that moralistic and “neo-miasmatic” discourses persisted in preference to any universalist response to the modernisation of urban infrastructure (p. 18).”

The Manchester Doctrine that had foundations in not offering much financial support to the development of cities, meant that the engineering and technologically based resolution of ill health and insalubrious urban conditions would never be activated (Aderibigbe, 1959). Even though there were consistent debates amongst the colonial elite for the upgradation of the sanitation system in 19th century Bombay, it never materialised (Gandy, 2006). Bombay's exponential financial growth triggered an inflow of thousands of migrants that resulted in immense overcrowding (Gandy, 2006). The massive inflow of people and the lack of infrastructure to support it, resulted in deplorable environmental conditions, that sparked an outbreak of Bubonic plague in 1896 that spanned over 15 years, causing immense socio-economic polarisation and rampant death (Arnold, 1986). The colonial response to the epidemic ended up having long-term consequences that shaped the built fabric of the city, the legacy of which continues to have an impact on the structure of the contemporary metropolis of Mumbai.

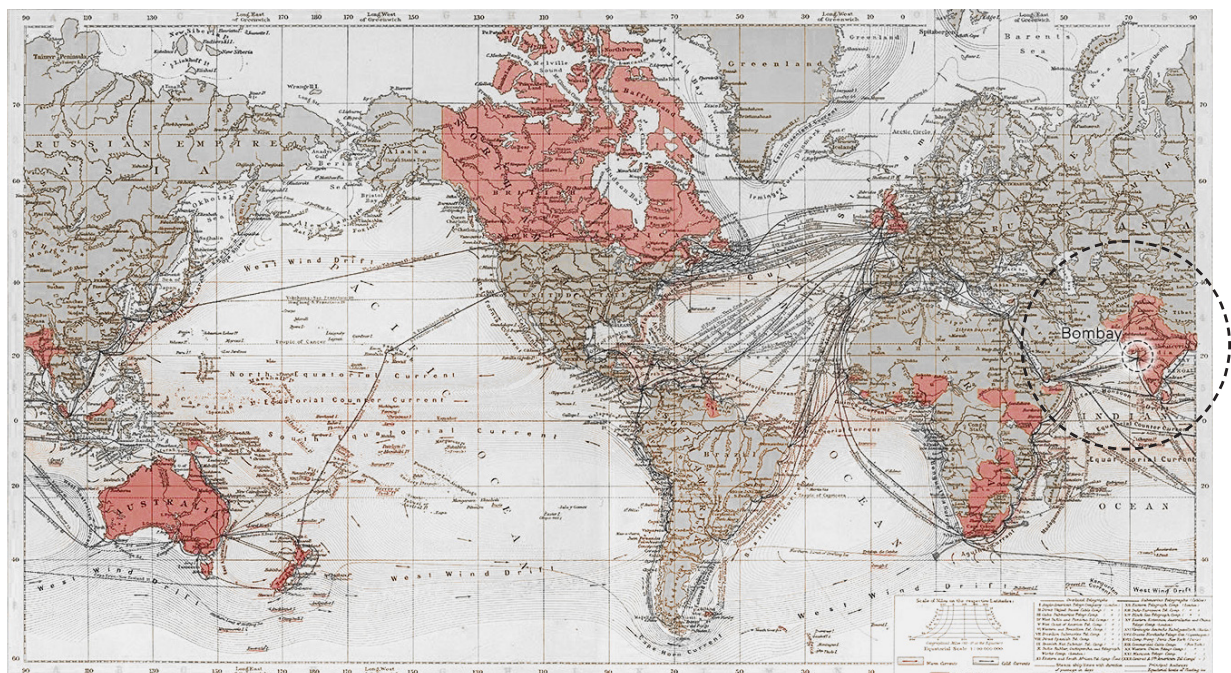


fig 4.a. Locating Bombay within circuits of commodity of the British Empire, 1895. The red highlights the colonised territories during the end of the 20th century.

4.2 The Rise of Dual Bombay: Industrialisation and Urban Disparity

A humble archipelago of seven islands inhabited by indigenous fishing communities during the 17th century, Bombay developed into an irreplaceable cog within the production networks of the British Empire, earning the title of “Urbs Prima in Indis” (Woods, 2014) or the most important city of India. Amidst the cotton boom stimulated by the closure of Southern Confederate ports during the United States Civil War, the Indian textile industry took hold with the rise of Bombay as a significant manufacturing port city (Klein, 1986). Stimulated by its possession of the only natural deep-water harbour on India's Arabian Sea coast and the advent of railroads, the city cemented its position amongst international and Indian trade routes in a globally expanding networked commerce, stitched by the forces of empire (fig 4.a.) (Klein, 1986). Bombay's development produced consequences similar to those experienced in the industrial cities across the modern world during the nineteenth century. The proliferation of large textile factories, small-scale industrial units, and the connected commercial magnetism brought in swathes of job-hungry migrants, rendering rapid demographic growth and concomitant urban expansion.

Along with being the epicentre of India's industrial textile production that attracted the proletariat class, Bombay became the cosmopolitan abode of select wealthy Indian merchants, industrialists and professionals, developing into a polarised urban agglomeration. Their affluence and industrialising activities distinguished them from a neo-feudal comprador class, cooperating with the British in exploiting natives for marginal profits (Klein, 1986). The prevalence of laissez-faire thinking within the ruling class, did not leave room for concerns like overcrowding, economic polarity or sprawling disease (Spodek, 2013). In theory, laissez-faire economics would eventually resolve economic problems to the extent that resolution is possible (Klein, 1986). The urban environment of Bombay was not considered as a critical resource to be nurtured, protected and carefully planned for the decades to come (Spodek, 2013). Instead, it was viewed as a resource for development and disposable as a market commodity.

This wealth found concrete representation in the production of a complex modern city of splendid buildings, parks and palaces, impressive libraries, and administration buildings. However, this elegant metropolis also birthed an underbelly of overcrowded and poorly constructed slums and chawls, clustered together, and ravaged by pests like flies and rats, that aided the proliferation of disease (Klein, 1986). According to documented statistics, close to 37 percent of Bombay's people lived on less than 4 percent of the island's 22 miles (Craddock, 1995). The lack of good urban transport resulted in the immense overcrowding of the city's central wards (fig 4.b.). Bombay's commercial growth did not improve the ordinary populace's quality of existence or material conditions. Rather, the growth led to extensive population growth, that fed the growing environmental degradation and urban density (Klein, 1986). Indeed, during the last quarter of the 19th century, there emerged in colonial Bombay what Craddock (1995) called a *metonymy between place and disease*. In the past, health officers like Turner (1885) had repeatedly emphasised the importance of urgent improvement in the city's civic infrastructure. However, sanitary reforms were never on a high priority within the intentions of the colonial state during the late nineteenth century. Such proposals were a tacit acknowledgement of the culpability of colonial policies in perpetuating the abysmal sanitary conditions within the city, leading to the epidemic of the Bubonic Plague.

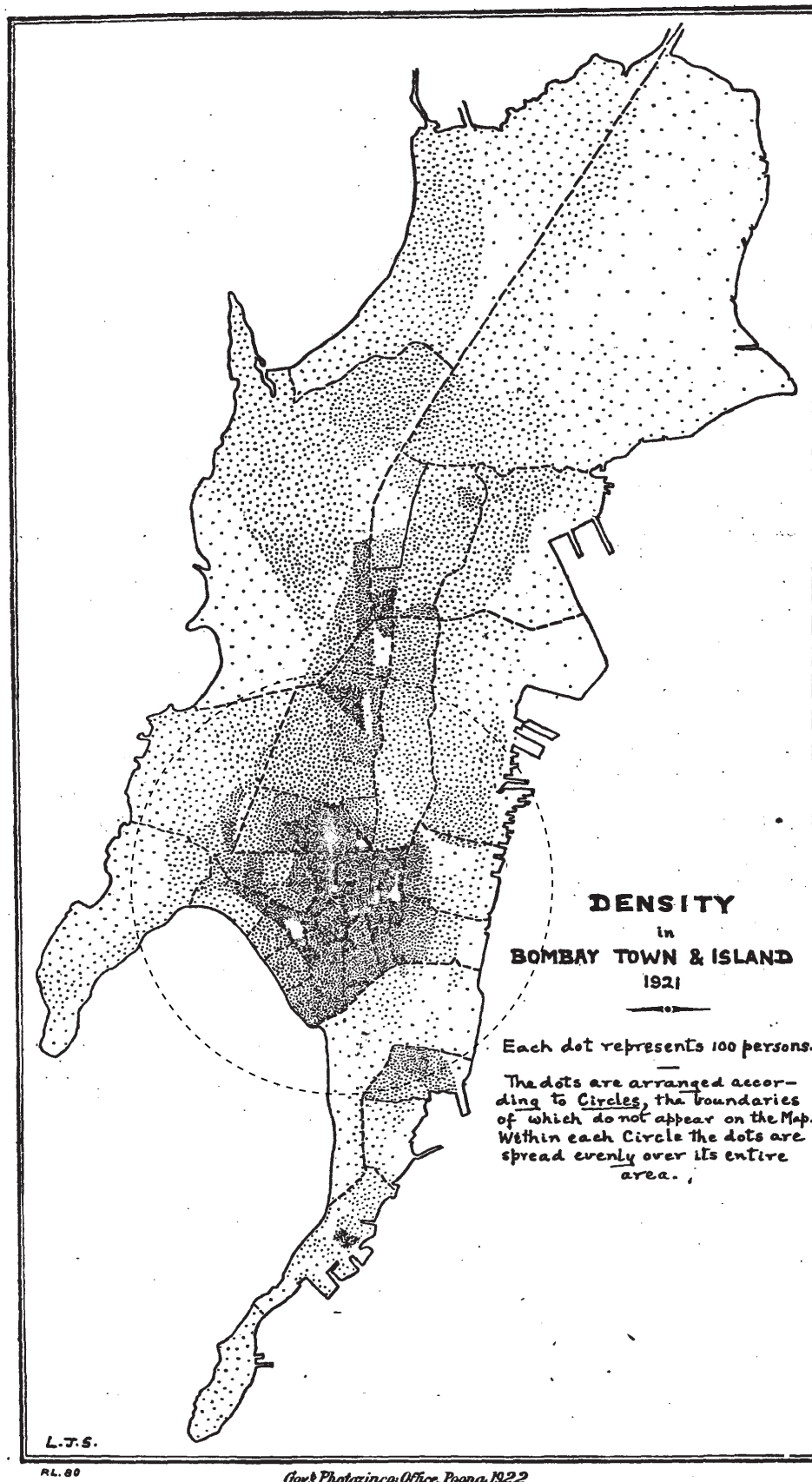


fig 4.b. Population density in Bombay, 1921. The circle shows the density of population in the current wad B and C, neighbouring the port. Migrant workers came in large numbers to work in the shipping and textile industry that was proliferating in this area.



fig 4.c. Flushing engine cleansing infected houses, Bombay, Captain C Moss, 1897.

4.3 Bombay and the Bubonic Plague

Emerging in the fall of 1896, the first case of bubonic plague was confirmed in Bombay, that most likely made its way through rats on board a vessel from Hong Kong, gripping the city for almost two decades and causing over 184,000 deaths (Sarkar, 2014). Though we now know that the disease spread through the bite of infected fleas, at the onset of the epidemic, the aetiology of the disease was broadly not understood by the authorities. At the time, the world of microbiology and epidemiology was split regarding how diseases spread. The contagionist theory held that the human body was the primary carrier of disease, the predecessor to the modern accepted conception of germ theory. On the other hand, the localist theory framed the causal mechanisms of disease proliferation to place based sanitary conditions, having its roots in the theory of miasma. (Klein, 1986). The rapid spread of disease and the consequently rising death toll created mass panic amongst the working class. The fear of death mobilised reverse mass migrations, causing almost half of the city's population to flee and threatening a collapse of the textile industry. Motivated by the significant threats that the epidemic posed to the imperial economic structure, the British government promptly birthed new legislation - specifically, the Epidemic Diseases Act of February 1897 - which conferred upon the authorities nearly unrestricted authority to implement measures necessary to combat the spread of the disease throughout the entirety of India (Klein, 1986). In Bombay, the enactment of this legislation resulted in the establishment of a Plague Committee endowed with the power to override the Municipal Corporation of the city in all issues pertaining to the plague.

Since there was little recognition as yet that the presence of rat fleas determined the incidence of the disease in a locality, sanitary conditions were seen as the causality of infection. The Committee continued and intensified the sanitary programme of highly intrusive plague measures involving house-to-house inspections, compulsory disinfection, and forced patient removal (Kidambi, 2005). Not guided by any uniform or scientific theory of disease, the sanitary measures consisted of 'exclusive' interventions such as isolation and targeted disinfection that points towards a colonial activation of bio-politics. The aforementioned sanitary policies were, to put it differently, guided by no singular epistemological comprehension of the plague; instead, they sought to mitigate the disease through any available means. (Evans, 2018). Thus, the relentless destruction and sanitisation of the miasmatically plague infected dwellings remained the course of action under the anti-plague campaign in Bombay, buttressed by the policy based power offered by the Epidemic Diseases Act to the empire (Kidambi, 2016, p. 68).

4.4 Colonial Urban Planning : Bombay City Improvement Trust (BCIT)

Even after germ theory was slowly being accepted in medical circles, the localist theory remained active in the practice of administrators, mainly because of the resistance to measures targeting the body. For example, in March 1898, an attempt to force the hospitalisation of a weaver's daughter led to a violent riot, which led to the killing of two British soldiers (Caru, 2013). As a response, Bombay City Improvement Trust (BCIT) was established as an instrument of a return to control: superseding the corporation and arrogating resources to itself, particularly land and taking control of specific areas and domains of the urban realm, giving them considerable power (Klein, 1986). Abandoning the most drastic measures of a direct attack on the colonial body, they reinforced the operations concerning the built environment, which still had a broader consensus from most of the population. This ad hoc organisation, under the guise of the health crisis, had larger aims of reclaiming land for future expansion of the city to endow Bombay with the image of a grand and bustling metropolis (Kidambi, 2004; Klein, 1986; Caru, 2013).

Tasked with operations like the evacuation and deemolition of slums, along with the development of selective areas deemed ambiguously important, the BCIT opened new directions of development towards the seafront, along with the proposing some sanitary housing for the proletariat class. Along with this the BCIT was also responsible for developing brown field sites, that were under the direct jurisdiction of the governing bodies at the time. The epidemic propelled a new trajectory in the infrastructural growth of the urban elite. Moving away from the landscapes of the epidemic, the bourgeoisie moved to the northern suburbs, which were still farmlands and sparsely populated. By March 1898, approximately 45,000 individuals had established residency in the northern region of the peninsula or on the adjacent island of Salsette (Klein, 1986). At the end of its massive expropriation campaigns, the trust had control over two-ninths of the city's land, maintaining the control of the colonial powers on land (Klein, 1986). Essentially, the BCIT undertook the project of an organised restructuring and expansion of the city, cost of which was unequally paid by the poor and the marginalised (fig 4.d.).

The trust's operations, with the exception of a few buildings constructed to rehouse the displaced, exclusively benefited the most affluent, primarily through the processes of land speculation. Its operational framework, primarily, was predicated on the collaboration between state intervention and entrepreneurial initiative, which, whilst addressing the authorities' apprehension regarding profitability, afforded them substantial oversight over the construction

of edifices. Through the process of expropriation, the Trust obtained the requisite land to actualise its developmental endeavours. However, once the road was laid out, the leases of the plots not used by the public roads were awarded to the highest bidder through an auction system (Turner, 1920). Private contractors were thus in charge of construction, provided they subscribed to precise specifications established by BCIT concerning the form and size of the constructions, the species of trees to be planted along the roads, the presence of a courtyard, and the slope of the roof, amongst others. The ramifications of this operational methodology resulted in a significant escalation in land prices, ultimately benefiting the affluent class, who alone possessed the financial capacity to bear such expenses and, consequently, were designated new residential and recreational areas. The architectural criteria established, therefore, facilitated the development of upscale neighbourhoods protected by arcades, thereby relegating the working class increasingly to the margins.

At the time of its creation, the trust was also tasked with creating large-scale housing for fifty thousand adults over ten years. (BCIT, 1900). Nevertheless, the restoration of societal order and the resurgence of a plentiful labour force, which had been displaced from rural areas as a consequence of famine, rapidly rendered the deficits previously committed to workers' housing less imperative. (Kidambi, 2005). As early as 1902, the trust regressed back to the market logic, announcing restrictions on constructing only commercial buildings that may act as prototypes to be followed by the private sector (Caru, 2013). Instead of the comprehensive discourse being developed around housing standards and living conditions like in England, the administrators in Bombay were content with small improvements to building typologies, while reducing the sizes of dwellings to house individual migrants, to make most use of rentable space, propelling profit maximisation. The ambition never went beyond housing the most number of people at the lowest cost (Caru, 2013).

4.5 Social Darwinism and Urban Health

Landlords were handsomely compensated for expropriating their insalubrious buildings; those who owned cheap housing took advantage of the influx of recently expelled migrant populations to surge rent prices, propelling the growth of green residential and leisure spaces for the new affluent urban bourgeoisie. The trust's poor and questionable implementation of operations aimed at eradicating areas that were declared unsanitary did not come from an informed techno-scientific rationale. Instead, class biases and xenophobia played a significant role in brewing a specific form of social Darwinism (Halliday, 1971), aggrandising violence against the working class. This eradication and demolition of the built environment in certain areas led to the displacement of nearly 64,000 people, where the trust was not legally obligated to rehabilitate the displaced. Rather than making live, the colonial government practised the necropolitical tenet of letting die. Out of those that were displaced, only 20% were provided with housing, with the rest having to rush into already overcrowded localities, thereby perpetuating existing conditions, which were constantly denounced as sources of epidemic danger. The population pressure induced by job-seeking migrants crowding an unplanned city allowed considerable profits "to be reaped in real estate and provided the stimulus for ravaging the natural environment and transforming much of Bombay" (Klein, 1986, p. 729) into a megapolis of slums and chawls.

As highlighted by Klein (1986), the rise of gross urban national product, was connected to declining standards of living, environmental degradation, and increased mortality rates. The working class did not share the expanding profits, were not served effectively by public health measures, and were highly exposed and vulnerable to disease. Bombay's increased death rate in the early twentieth century, from the plague and other diseases, was primarily the result of societal agency, but not nature's caprice (Klein, 1986). Death was class-oriented and struck very much in proportion to status and earning power. The prosperous living on Malabar Hill or in other elite residential areas were less exposed to contagion, contaminated food and water, and conditions that bred insect vectors of contagion. The elite were able to meet basic family needs and accumulate a significant surplus, while ordinary workers barely managed to get by. In contrast, the large number of coolies, sweepers, porters, and other unskilled laborers with dependents faced a clear shortfall below even minimal subsistence levels. They endured severe overcrowding, malnutrition, and various other forms of deprivation, which contributed to increased disease-related deaths, especially as living conditions deteriorated (Klein, 1986). (Klein, 1986). As Prashant Kidambi (2004) rightly elucidates,

The city's modernisation had resulted in 'two Bombays': the one inhabited by a cosmopolitan elite that nestled in the fashionable western enclaves of the city, the other 'full of chawls, crowded, insanitary, ill-ventilated slums, and filthy lanes, stables and godowns, a city in which a vast proletariat was penned together and savaged together by disease (p. 36).

The intricate relationships between disease, water, and urban built environment show that while the idea of the "bacteriological city" could work as an abstract model for the functioning of modern cities, it does not completely align with urban realities due to the political and economic strains which are inherent in capitalist urbanization processes (Gandy, 2006, p.22). The imperial rule hoped the market would bring modernity and a semblance of equitable development. The flawed and disruptive dynamics of modernisation and urban development masked the divergences of income and quality of life. Laissez-faire economics and Indian culture combined to favour social Darwinism that perpetuated significant inequalities of wealth and class and also the experience of life and death. "Bombay's plague mortality rates were twenty times higher than in non-Indian locales with similar plague ecologies because of the impact of development in increasing environmental risk, abetted by material deprivation among Bombay's ordinary populace" (Klein, 1986, p. 751).

Hence, Bombay becomes a poignant example of the rapidly growing cities of the Global South where the dilapidated or never-completed infrastructure systems of the bacteriological era created perpetual conditions of vulnerability and resulted in an unequal distribution of resources, with the disenfranchised lacking in essential sanitary and housing infrastructure. The COVID-19 crisis saw eerie similarities to the Bubonic plague epidemic, as the findings below reveal. The similarly violent and brutal response of legacy state institutions, along with disparate experiential outcomes driven by classist and casteist biases, reveal the path dependencies of mutating capitalist regimes, making Mumbai a uniquely important case study to analyse the COVID-19 pandemic within the Urban age.

5. CASE SELECTION: MUMBAI

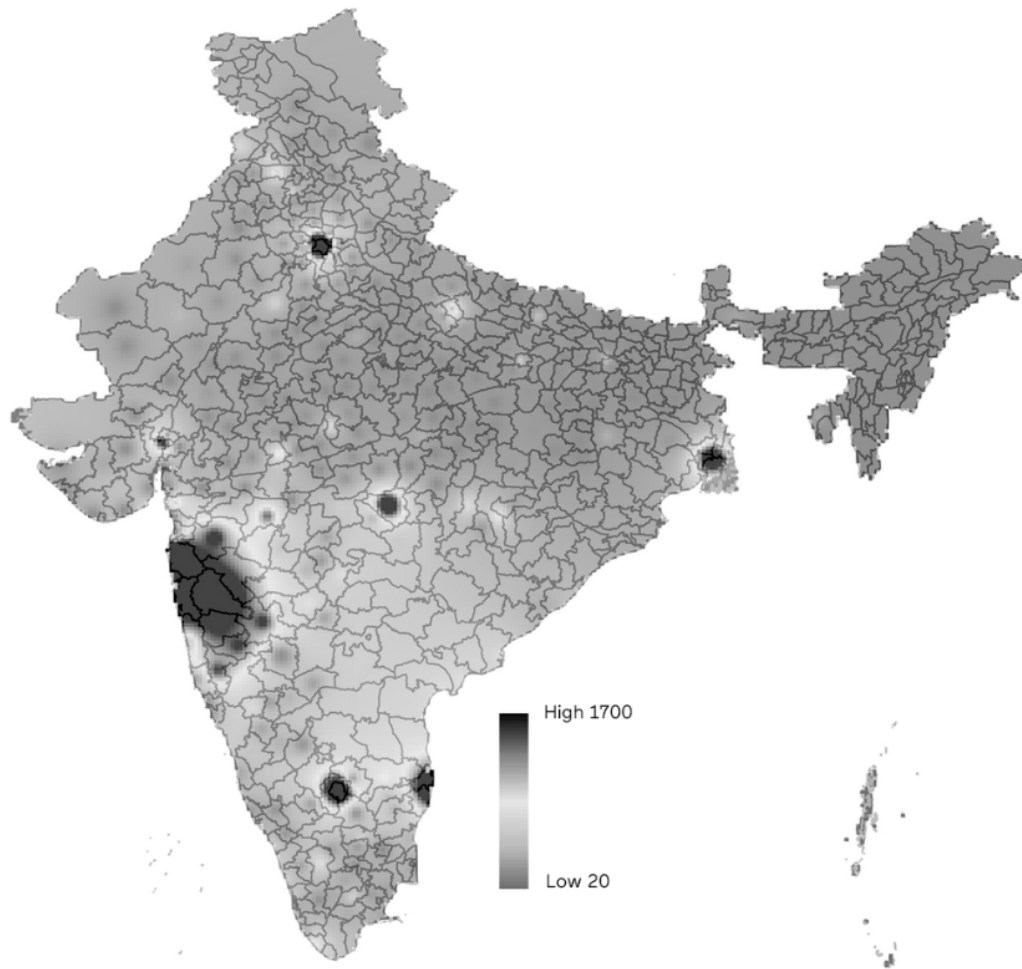


fig 5.a. Geographical distribution of COVID-19 deaths across India (Roy et al., 2021). Image reworked by the author. The largest dark cluster is the cumulative Mumbai - Pune Metropolitan region.(MMR)

India was among the countries most severely hit by the Pandemic, recording over 45 million cases, second only to the USA as of 13th April 2024 (WHO, 2024). If factors like testing frequency and under-reporting are accounted for, the numbers may have been much higher. Within India, Maharashtra was the worst affected territory, earning the distinction of having almost one-third of the COVID-19 infections in the country (Mukherjee, 2020). The state also recorded 28.6 percent of the countrywide fatalities due to COVID-19's first wave of the pandemic (Shil & Tandale, 2022). In terms of the territorial geography of the spread and impact of the pandemic, the prevalence seemed to be disproportionately concentrated in a few states and larger cities (fig 5.a.). The metropolitan regions of Mumbai and Pune emerged as hotspots for the transmission of COVID-19, with about 50 percent of the cases in Maharashtra emerging from the MMR. Mumbai witnessed the most significant number of cases and deaths among all the cities in India, with 41986 positive cases and 1368 deaths as of 02 June 2020 (Mukherjee, 2020). The Greater Mumbai area occupies only 0.015 percent of the landmass of India but contributed to over 20 percent of the SARS-CoV-2 cases in India (Mukherjee, 2020), with the infections exponentially rising over 375 times within 50 days of the lockdown.

The reasons for selecting the Metropolitan Region of Mumbai for this study are multifold. Through a historical lens, Mumbai (formerly Bombay) was one of the few metropolitan agglomerations in India that has very closely observed multiple pandemics across the past 150 years under the imperial rule of the British empire. From the Bubonic Plague of 1896, the Spanish flu or the Bombay fever of 1918, to the recurring cholera epidemic, the city has faced the brunt of various epidemics and pandemics. The colonial vestiges of these pandemics are still observable within the urban fabric of the city in the form of building codes and administrative policy, revealing unique insights and informing the experience of the COVID-19 pandemic as described above (Section 4.3).

By all means, the pandemic was a planetary-scale crisis, appropriating the networked circuits of capital as networks of disease transmission. Having links to major economic regions and being highly integrated into the world economy, Mumbai is the only alpha world city in India according to the Globalization and World Cities Research Network (GaWC, 2024) rankings. In economic and territorial terms, Mumbai is closely connected with all major middle Eastern and European markets, and the far East. Mumbai also receives one of the highest footfalls in terms of air traffic. As the foremost affluent metropolis in India and the twelfth wealthiest city globally, the financial nucleus of India represents a fraction exceeding 6.16% of the national economy, contributing 10 percent to industrial employment, 30 percent to income tax revenues, 45 percent to entertainment tax income, 60 percent to customs duty revenue, 20 percent to central excise tax income, 40 percent to international trade, 100 percent of stock market assets, and an amount of rupees 1,60,000 crore (approximately US\$20 billion) in corporate taxation to the Indian economic landscape. (NITI Ayog, 2023)

However, these statistics obscure the starkly polarised realities of Mumbai. As described above (section 4.2), the extreme inequality that existed in Bombay during the colonial rule is still very present within post-colonial Mumbai. "The Greater Mumbai region, which comprises Mumbai City and suburban areas, occupies only 483 km² but houses an estimated population of 12.8 million" (Mukherjee, 2020, p. 168), making it one of the densest cities in the world - almost twice as dense as New York. "Almost 55.3 per cent of Mumbai's 12 Million inhabitants live in informal settlements on 16% of the city's land, close to 7 million people" (Mukhija, 2017, p. 1), earning the status of having one of the largest populations of slum dwellers in the world. The spatial clustering also reflects the income divide that exists within Mumbai. "The distribution of monthly household income shows that 25 per cent of the households in Mumbai have income that is less than INR 12,500 (approx. 135 euros), a median monthly income of INR 20,000 (approx. 215 euros), and only nine per cent have income over INR 60,000 (approx. 640 euros) per month" (Annez et al., 2010, p. 44). The legacy of colonial state power, links to global circuits of capital, suffocating densities of people and the built environment, and stark economic polarity make Mumbai a pivotal case study in understanding the dynamics of the COVID-19 pandemic.

As described above (Section 4.2), the processes of migration have played an essential role in the proliferation of chawls and slums in Mumbai. The possibility of employment in the rising cotton mills attracted a significant number of migrants, who settled near the mills in poorly constructed housing on account of the poor transport infrastructure at the time. As seen earlier, the activation of biopolitics and necropolitics by the colonial state during the Bubonic Plague

only shifted the geographies of inequality farther away from the older city without mitigating the structural inequalities that created the fractured conditions in the first place. This created new sites where slums and chawls emerged, retaining the stark inequalities across the geographies of Bombay. The decline of Mumbai's textile industry post-independence has marked a significant transition towards a post-industrial economy, operating as a global hub for banking, finance and entertainment, creating diverse opportunities for employment and Economic growth. This attracts an increasing number of migrants who end up servicing the burgeoning financial sector and the thriving Hindi film industry, working within the gig economy.



fig 5.b. A cross-section of the uneven landscapes of Mumbai. A. luxury skyscraper housing. B. Parsi community housing. C. work sheds and small income factories. D. slum Housing. E. cemetery.

The migrants form a considerable percentage of the total population, accounting for over 43 per cent within the MMR (2011). Even though over half the migrants are only from Maharashtra, states like Gujarat, Uttar Pradesh, and Bihar also contribute significantly to the working class of Mumbai (Chhopia, 2019), shaping the city's socio-economic landscape. The duality of housing with such a large population is a massive challenge, even for the wealthiest municipality in Asia. Having the most expensive real estate costs in the country, migrants find it extremely difficult to find a place to live that they can afford, and end up living in slums and chawls. Large urban agglomerations within India, exemplified by Mumbai, encompass a substantial number of informal settlements that are not formally recognised. From a socio-spatial perspective, the urban fabric is inherently intertwined with and often reliant upon informal structures. These densely populated informal settlements are predominantly self-constructed by their inhabitants. Their proliferation can be attributed to the state's inability to establish sufficient infrastructure,

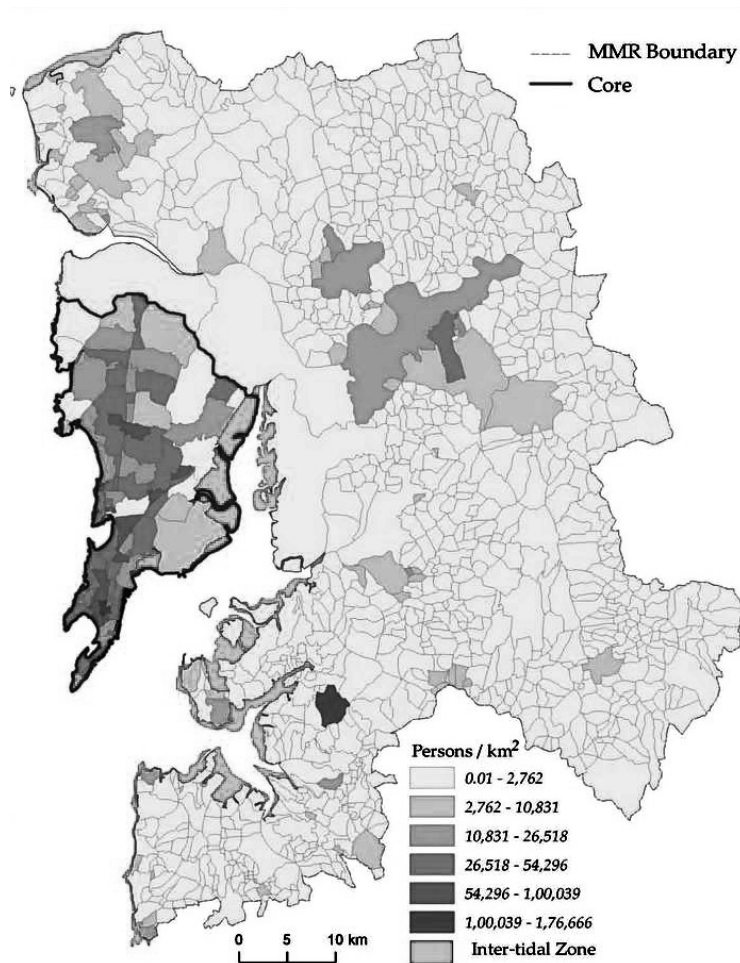
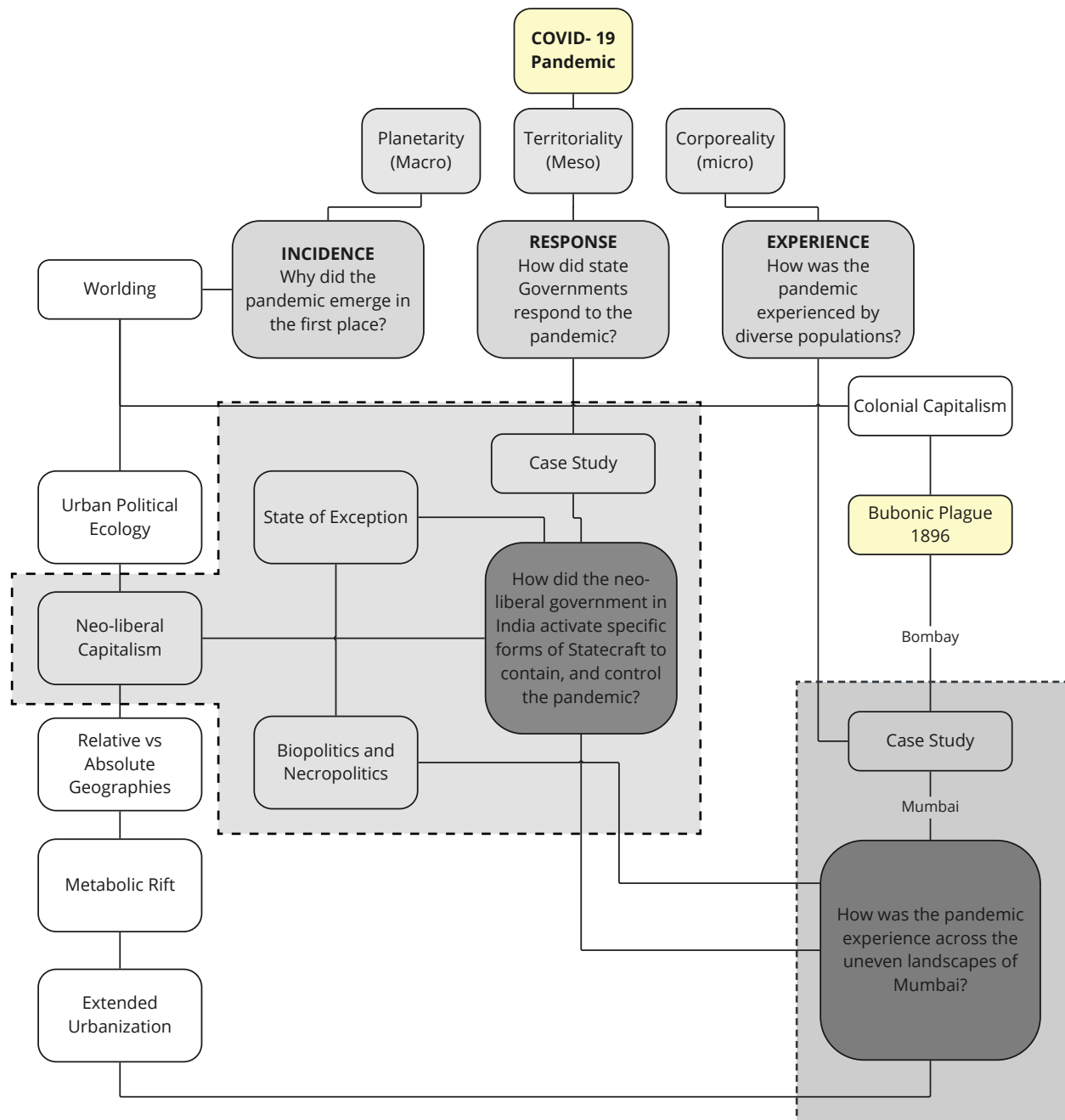


fig 5.c. Map representing the geographical and political boundaries of Mumbai city core and Mumbai Metropolitan Region (MMR).

health care systems, sanitation facilities, and adequate living conditions, among other essential necessities, for the economically marginalised segments of the populace. The individuals residing in these informal settlements are not ostracised from the broader citizenry. Instead, they are relegated to a state of self-sufficiency, excluded from the protective services offered by the state, including sanitation, healthcare, access to public amenities, and related provisions (Bhan et al., 2020).

Thus, Mumbai epitomises a dichotomy characterised by the bourgeois residences situated within opulent high-rise edifices, autonomous bungalows located in the Malabar Hill precinct, and a concentration of financial and technological enterprises housed in skyscrapers within the commercial sectors, all sustained by a substantial proletariat residing in the marginalised regions of Mumbai, particularly in slums and chawls (fig 5.b.). Notwithstanding their provision of inexpensive labour to the metropolis and its inhabitants, the slums of Mumbai are predominantly regarded as unsightly dark spots. Their overcrowded conditions and restricted, unsanitary environments contribute to the perception of these areas as vectors of illness. Building upon the historical context of the disenfranchisement stemming from the 1896 plague, the COVID-19 pandemic has exacerbated the pre-existing social stigmatisation faced by individuals inhabiting such locales. Consequently, these informal settlements and the residents therein emerge as critical domains for investigation to elucidate the ramifications and lived experiences associated with the COVID-19 pandemic.

6. FINDINGS AND DISCUSSION



Structural Framework for the thesis.

6. FINDINGS AND DISCUSSION

The swift rise in COVID-19 cases forced the Indian government to deploy hasty and ill-prepared measures such as social distancing, travel bans, and police surveillance, along with enforcing lockdowns across national, territorial and city scales overnight. Even though the decision to go under complete lockdown was applauded by several health agencies internationally, the hidden experiences that have surfaced gradually reveal catastrophic implications for territories like Mumbai, a city that experiences extreme income polarity, with a significant proportion of its population living in poverty. "The pandemic and the ensuing lockdown prompted political, social, and economic precarity" (Chakraborty, 2021, p. 3), profoundly affecting the lives of populations at the bottom of the socio-economic stratification system. This section presents the research findings, organised into eight thematic domains, addressing the critical aspects of the pandemic response and its experiential impact on the populations across Mumbai. Each domain operationalises myriad data sources and research methods to comprehensively frame the pandemic experience. The findings also narrow down on subjective experiences, giving a voice to the populations who have been invisibilised within the pandemic narrative. Through this framing, the findings and the following discussions aim to reveal the entangled interplay between processes of capital accumulation, urbanisation and state power that furthers social inequality in the wake of a global health crisis.

6.1 Lockdown and Surveillance: The Policed State

The first confirmed cases of COVID-19 in Maharashtra were documented on March 9, 2020, where a couple that returned from Dubai to Pune tested positive. (IT, 2020). On March 11, two people in Mumbai who were linked to the Pune couple also tested positive (Mint, 2020). In line with the central government's protocol, on March 22, the chief minister of Maharashtra announced that Section 144 would be enforced across the state, banning public gatherings (Mumbai Mirror, 2020). This order came into effect on March 23, putting the state into lockdown. Consequently, he announced that the borders of all the districts would be closed, and a strict curfew would be implemented statewide. The government of Maharashtra suspended customary legal frameworks and civil liberties to address the pandemic emergency during the crisis, activating what Agamben (2003) described as the *state of exception*.

Specifically in the case of Mumbai, along with the lockdown, strict implementation of social distancing was instituted as one of the first responses to the pandemic. Coupled with this, Mumbai also saw the revival of the Epidemic Diseases Act of 1897, the colonial relic from the British imperialist period, that provided special containment powers to the state to curb the spread of disease as described previously (refer section 4.3). To enact social distancing, the Bombay Municipal Corporation (BMC) initiated the delineation of pitches, positioned at a distance of one meter apart, in proximity to grocery establishments, as well as fruit and vegetable retailers, altering the relationship of populations with their immediate urban fabric (Deshpande A., 2020). For a decentralised and localised response to the pandemic, the Municipal Corporation of Greater Mumbai (MGCM) devolved its central war room structure, creating 24 peripheral control rooms in all 24 wards of the city. On April 1, the Mumbai Police operationalised an extensive surveillance network comprising 5,000 CCTV cameras in conjunction with drones to monitor various city sectors and ensure adherence to lockdown regulations (Deshpande T., 2020). Drones were also deployed in the densely populated regions of Thane district within the

Mumbai Metropolitan Region (MMR), specifically in areas such as Mumbra and Bhiwandi, for aerial surveillance and the transmission of audio messages and warnings (Badgeri et al., 2020). These landscapes of Mumbai, brimming with slum typology housing, saw the activation of such technocratic forms of biopolitical control. On April 8, Mumbai became the first Indian city to mandate wearing face masks in public venues (Ray, 2020). Subsequently, the state government deployed the State Reserve Police Force to the city to facilitate more stringent enforcement of the lockdown measures (Businessline, 2020).

Analogous to the stringent regulatory strategies employed by the colonial administration during the bubonic plague epidemic in 1986, law enforcement agencies during the COVID-19 pandemic were afforded similar autonomy to implement any methods considered appropriate to restrict the movement of contagion through the demobilisation of the population. Stories of extreme police brutality surfaced across the country but were most prominent within urban centres, especially in Mumbai (fig 6.a). Police, as the agents of the State, "treated any breach of lockdown norms as a criminal act and seldom tried to understand the contingencies and extenuating circumstances that compelled the populace to violate lockdown norms" (Jagannathan & Rai, 2021, p. 435). From monetary fines and racial slurs to corporeal punishments, law enforcement agencies mobilised all forms of control mechanisms (fig 6.b). In Maharashtra alone, by early July 2020, when the lockdown was still in effect, police had collected over ten crore rupees (over 1 million Euros) from lockdown violators (Yadav, 2020). However, the aggressive disciplinary measures in the initial months of the lockdown were largely normalised by the society, influenced by notions of national well-being and the deep-seated paranoia around the outbreak of the viral disease (Khan, 2020).



fig 6.a. Images depicting police brutality during the pandemic. As one can observe the person being beaten is out only to get groceries and daily supplies. However, he might have been out during the unprescribed time slot, which is why he faced physical violence.



fig 6.b. Images depicting police brutality during the pandemic. Being violently abused for not wearing masks, the police, who are just wearing handkerchiefs themselves, act through the agency offered by the hegemonic state.

This normalisation resulted from the Foucauldian tenet of biopolitical *discipline*, deeply embedded into the masses through the circulation of consistent (mis)information and fear. This helped create *docile bodies* (Foucault, 1977), shaped and controlled by various disciplinary mechanisms within society, making them compliant and useful to the state and its institutions. Through the narrative of fear and the threat of death, populations were coerced into obeying the *security pact* (Foucault, 2003), where individuals conceded considerable constraints on their civil liberties when the government asserted that such actions were imperative to mitigate pressing dangers to societal stability. The survey conducted for this research reflects this acceptance of disciplinary control and the use of excessive force within the state of exception (Agamben, 2008), suspending their rights to assist the state. When asked how satisfied the people were with the governmental action of going under immediate lockdown, over 85% of the respondents approved the decision (Chart 1). Quoting one of the respondents

“I do not think the government could have done much about containment. They were unprepared, and the size of our population was not helpful. I feel like everyone did the best they could in terms of handling the situation, and nothing could have been done differently. Obviously, if you think in hindsight, a lot could have been differently executed, but at the time, when this pandemic blindsided us, everyone was acting on instinct. There were no protocols in place, and the government had to make split-second decisions for countless factors that had to be executed on the second-largest scale in the world within a day or two. It was pretty commendable.”

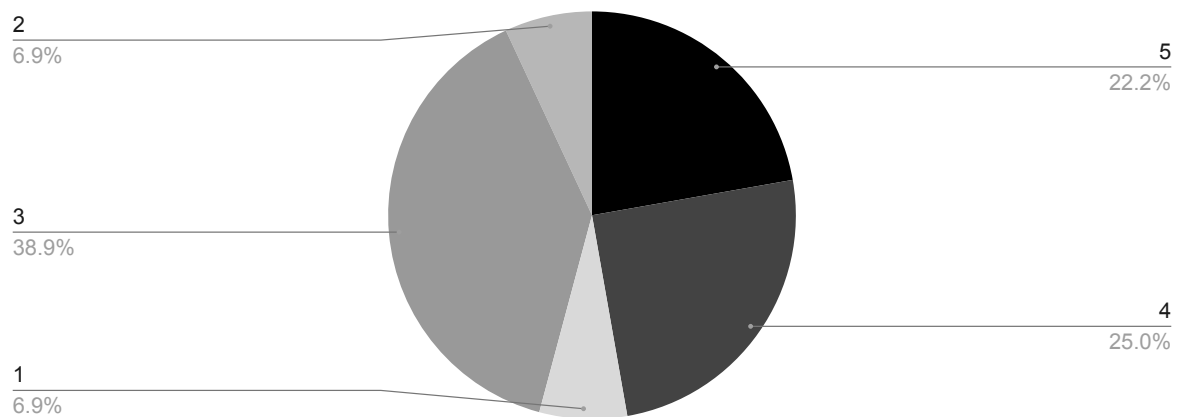


Chart 1. This is a graphical representation of the survey questionnaire How satisfied are you with the government's response to the pandemic of going under lockdown? (1-5 scale, 1 being very dissatisfied and 5 being very satisfied). As one can observe most of the responses cross the satisfied threshold.

Even after recognising the flaws in the response, the respondents felt that the government did a commendable job. Only 13.8% of the respondents were unsatisfied with the decision to go under such abrupt lockdown. As most respondents belonged to middle and upper-class financial backgrounds or better, they were better positioned and protected from the violence of the policed state. Police brutality and strict surveillance disproportionately impacted the marginalised populations. Historical prejudice, subaltern positionality, and lack of accountability of the state all played a role in the experience of multi-modal violence and discrimination. The one-day *janata curfew* proposed by the state on March 22 turned into a 21-day lockdown with no prior warning, leaving thousands of migrant workers stranded in different parts of the city. Significant economic activities came to a standstill, major construction works paused, and sources of income started to dry up. As the majority of the migrant workers were employed in daily wage work, a significant section of Mumbai was pushed into precarious living situations under the guise of welfare and protection. One of the taxi drivers who was interviewed, shared his housing situation:

"We rent beds by shifts. Not the entire room, but individual beds. I work from morning to evening. So I get to use the bed from evening to morning. Somebody else uses the same bed while I am at work. It is cheaper and affordable. However, during carona (the colloquial for COVID-19), this was not possible."

Stuck in dense and deplorable living conditions without any possibility to self-isolate, the stringent lockdown gave rise to the condition of the *living dead* (Der Derian, 2021). This status resulted from a biopolitical and necropolitical form of governance that decided who got to live and who was left to die. With no savings or access to state welfare protection, this form of hegemonic governance did not account for discriminatory factors such as caste, class, and gender and was detrimental towards *othered* bodies. Ideally designed to foster life, health, and productivity, these mechanisms marginalised specific populations, making their existence akin to being neither fully alive in the societal sense nor dead for the protection of certain sections of society.

6.2 Movement as Unlawful Resistance

Even though there was a staunch attempt to produce *docile bodies*, it was not met without resistance. Since the announcement of the lockdown, the central government had already extended the lockdown four times, continuing it for 68 days (Rawal, 2020). The *living dead* took up protests as a means of resistance to make their *invisible* bodies seen. Their living conditions were so brutal that they chose to break lockdown protocol and put their lives in danger, than be stuck within the suffocating densities of their home in the city. In a specific instance, thousands of migrant workers stranded in different parts of Mumbai converged on the Bandra Railway station to protest against the extension of the coronavirus lockdown and demanded to be allowed to return to their villages, but in vain (fig 6.c.). The continuation of a stringent countrywide lockdown for almost two and a half months forced some people to mobilise towards their homes unlawfully. "Scenes of desperate migrant workers, particularly daily-wage earners, fleeing cities on foot to return to their villages filled television screens and newspapers for most of April" (Inamdar, 2020, para. 8). During the lockdown, the government permitted inter-state and intra-state movement of vehicles carrying essential supplies. To travel to their hometowns migrant workers were forced to use these modes of transportation, in fuel tankers and even cement concrete mixers, putting their lives in further danger to hide from the coercive gaze of the state. (Sengupta & Jha, 2020).

"Locking down everything and restricting any movement out of the house without proper government-provided assistance in place was worse than being thrown in jails for rigorous imprisonment, for some people. At least they would receive food, water, and shelter. Many people in Mumbai are homeless and don't have a roof over their heads. Where would they go?"



fig. 6.c. Thousands of migrant workers wait at Bandra West railway station, defying lockdown protocol while requesting to be able to go to their hometowns after the announcement of the national lock down by prime minister Narendra Modi, in Mumbai, April 14, 2020.

The migrant workers defied the lockdown for survival. However, the law enforcement actors deemed the migrants as unlawful, essentially marking them for death or severe marginalisation. At first, movement was prohibited entirely, "and those who desperately attempted to walk hundreds of kilometres to their homes were detained, attacked, and humiliated in various ways for 'breaking the curfew'" (Ghosh J.,2020, p. 528). The law enforcement agencies came up

with arbitrary punishments to humiliate and subjugate parts of the population. In a particular instance, the police asked 10 people who did not adhere to lockdown protocol to write 'I did not follow the rules of lockdown. I am very sorry' 500 times and submit the paper (Frayer, 2020). The violence furthered when the government enforced curfews from 7 pm to 7 am, curbing all forms of movement (India Today, 2020). This meant that the migrant workers who had already left on foot to make it to their hometowns had to walk in the scorching heat of the Indian summer. In comparison, "special evacuation flights were arranged for Indian citizens stranded abroad, who are typically among the better off" (Ghosh J., 2020, p. 528), surfacing another example of classist unequal treatment that came from controls on mobility and the subsequent provision of transport to migrants. One of the taxi drivers I interviewed explained the challenges he faced while navigating back to his hometown in UP.

"I left Mumbai during the lockdown only. My savings were getting washed, and there were many cases. The fear of being taken away to a quarantine centre due to carona was a lot, so we decided to return to our home village. We had decided to try to escape in the middle of the night. We had no papers, so we were prepared to bribe the police or even make a run for it if needed. We first tried to exit from the Mulund border, but we were unsuccessful. The next day, we tried to leave from Dahisar, and luckily, we could exit. We were stopped right outside Indore in Madhya Pradesh. One of us was stopped by the police, and the others just sped away. When we reached our hometown, there were very few cases. The village people were scared of us that we would spread it further and make them sick. So we had to be isolated separately."

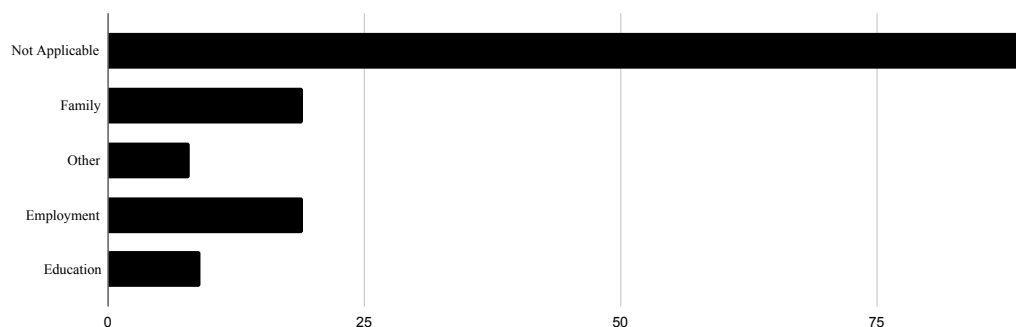


Chart 2. Chart representing reason for migration. Over 61 percent of the respondents were born and brought up in Mumbai.

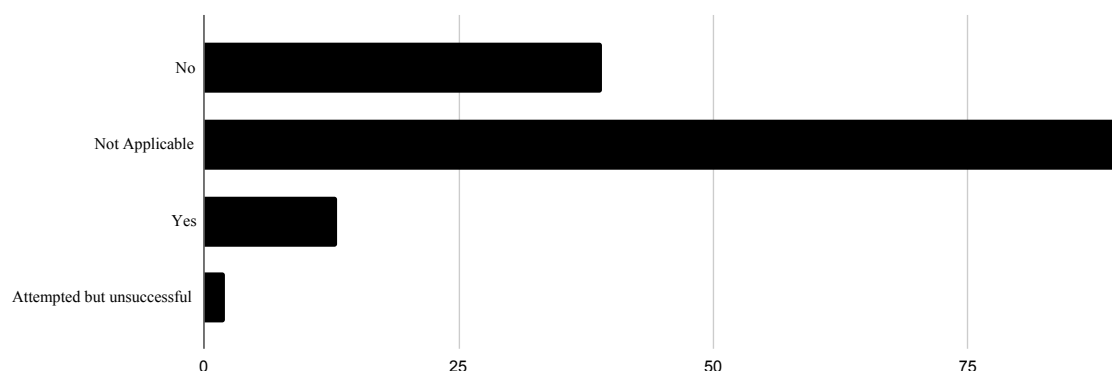


Chart 3. Chart representing the response to the question : Did you attempt to return to your hometown during the lockdown? Were you successful? As one can observe, majority of the people did not have to leave the city as they were locals.

The experiences of death and precarity during the pandemic indicate how “violence is not confined to exclusion and expulsion; it is also ingrained in patterns and processes that differentiate and hierarchise how subjects are made and included in spaces of citizenship, labour markets, and social cooperation” (Mezzadra & Neilson, 2015). Only 10% of the respondents to the online survey had to travel back to their hometowns. They were either locals or had the means to sustain themselves in the city, even when the economy was hit hard (Chart 2,3). In contrast, migrant workers were forced to take dangerous actions, defying strict lockdown regulations simply to survive, before the government eventually arranged a limited number of buses and Shramik trains to transport them back to their hometowns from the cities where they had been stranded. When these trains were finally organized, many destitute workers were required to pay full ticket prices (Ghosh J., 2020). The conditions during these journeys were often dire, with extended delays and extreme heat, and passengers were left without food or water (India Today, 2020). This added to distress, ill-health, and the spread of COVID-19 infections to far-flung and less-developed parts of the country. Reports suggest that over 150 inter-state migrants had died in various accidents since the lockdown, and about 80 of them died onboard *Shramik* special trains due to reasons ranging from COVID-19 and various comorbidities to hunger and exhaustion (Sharma, 2020). Even when they returned to their home states, they faced the resurgence of caste based discrimination. The chief minister of the state of Uttar Pradesh, Yogi Adityanath too suggested that lower caste migrant workers returning to his state were carriers of COVID-19 (Ganguly, 2020). At the onset of the pandemic, thinkers like Jean-Luc Nancy (2021) declared the coronavirus to be a universal equaliser, affecting us collectively as a “communovirus” that “(brought) us together to make a common stand” (Chakraborty, 2020, p. 332). However, as we can see, there was nothing common about the experience of the virus.



fig. 6.d. The umbrella application of the lock down with the strict protocol of social distancing was a privilege in the context of Mumbai. For the average migrant worker, slum and chawl dweller, this was next to impossible. Even to get back home, one had to expose themselves to the potential threat of disease, and police brutality, at the same time.

6.3 Zoning Violence

People who could leave and make it to their hometowns left. But others who were stuck in the city were exposed to biopolitical and necropolitical forms of governance. This was also reflected in the identification of containment zones within the city. Apart from the subjugation and control of bodies, the state also structured mobility and access to public space within the city. As cases in the city increased multifold, the MGCM activated the process of marking containment zones. According to the Union Health Ministry, a containment zone is characterised as a spatial area wherein a considerable quantity of confirmed instances of coronavirus disease are detected. Stringent movement prohibitions were instituted in such locales to inhibit the dissemination of the virus (Deshpande S., 2020). These zones were established by geographically delineating a 3-km radius from the domicile of the confirmed case. Initially, the BMC encompassed singular edifices, but subsequently, entire localities were designated, employing easy demarcations such as thoroughfares, drainage systems, and public squares to secure the zones (Deshpande S., 2020). Zones could be made of a few buildings with cases, a square, or an area that was easy to lock in. Restrictions were removed if no case was found in 28 days (Deshpande S., 2020).



fig 6.e. The demarcation of a micro-containment zone. A 3km radius around a containment zone was sealed off during the first lockdown, curbing all kinds of movement and sometimes even access to basic services.

On May 29, 2020, 7,79,740 households and 35,93,384 people in Mumbai were under containment zones (Deshpande S., 2020). The locations of the containment zones reflect a very specific biopolitics in play. Of the 684 containment zones in the city as of May 30, 659 were in slums or chawls (Deshpande S., 2020). As there were no specifications about how many cases were required to declare an area a containment zone, a large outbreak could be any number, based on the possibilities of risk as understood by the governing institutions in a particular area. Even though the COVID-19 pandemic had no direct links to hygiene conditions, the slums and chawls were targeted under the guise of preventive protection (fig 6.f.). Blamed for the rising

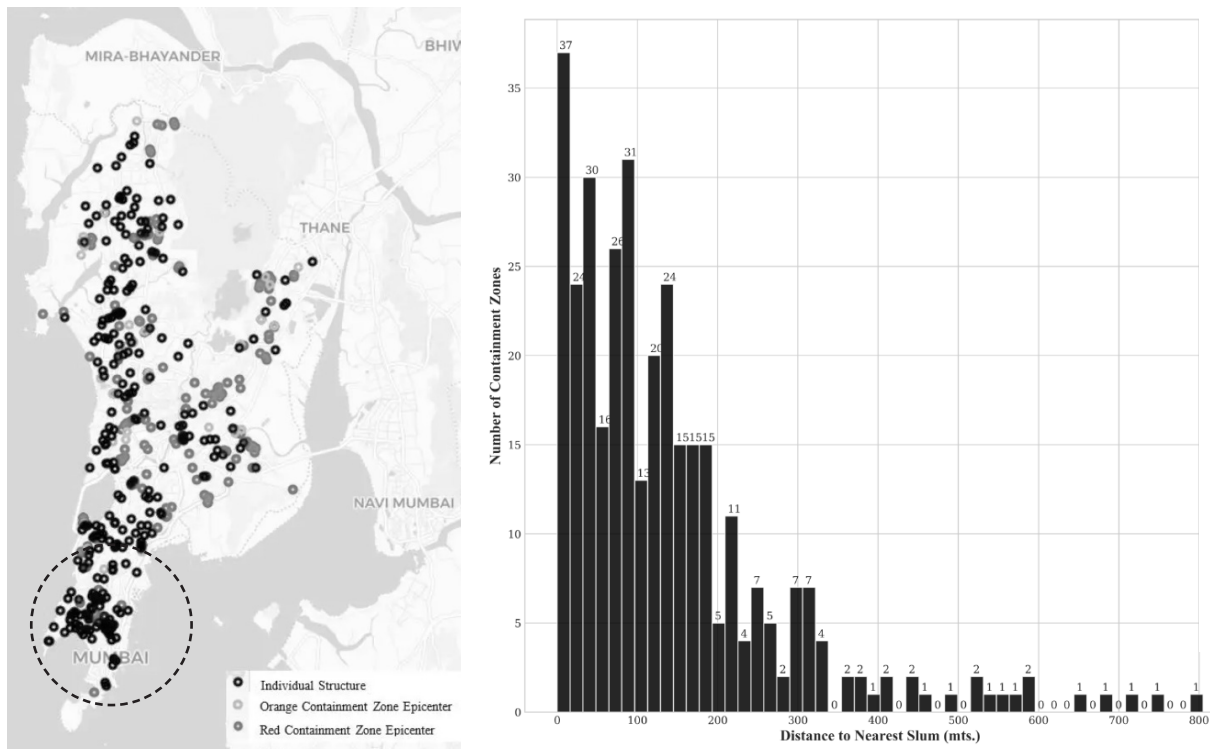


fig 6.f. The illustration to the left shows the containment zones and the sealed buildings during lockdown. The illustration to the right collates the distance to the nearest slum with the number of containment zones. As one can see, most containment zones are within 300 metres of a slum. The dotted circle on the bottom left shows the immense clustering of containment zones within ward B and C, where the sites of closer inquiry are located.

numbers, authorities pinned responsibility for outbreaks on migrant populations living in slums and chawls and their so-called “dirty” cultural practices, resembling the colonial approach during the Bubonic Plague Epidemic of 1897. Hence, the revival of colonial-era laws and the aggressive enforcement of lockdown norms highlighted how the state resorted to authoritarian measures, often at the expense of civil liberties and human rights violations. This biopolitical strategy, rooted in fear and discipline, not only perpetuated social and spatial injustices but also normalised the use of state violence and surveillance in the name of collective safety. Hence, The COVID-19 pandemic exemplifies a paradox where a disease that primarily spread across the world through networks of capital disproportionately affected the disenfranchised.

6.4. Socio-Spatial Dynamics of Dwelling: Situated Testimonies

This section unpacks the diverse socio-spatial dynamics of dwelling during the pandemic lockdown through a framework of situated testimonies by documenting housing units in the B-ward of Mumbai (fig 6.g.). Identifying five sites, this section sheds light on the lived experiences of populations during lockdown within these spaces. Interviewing and Documenting the lives of people who lived in these spaces brings to light the multispectral forms of violence that certain segments of society have endured. The sites chosen are very close in terms of geographical proximity, that they would be within a containment zone demarcation. The stories reveal themes that have broader implications, which are explored in the sections that follow. Four of the five houses fall under the chawl house typology, while the remaining one is a slum house type.



fig 6.g. The map made by the author, zooms into Ward - B of Mumbai, and highlights the 5 housing units documented through LiDAR scanning. As one can observe that are is close proximity to each other.

The experience of the lockdown in Mumbai was unequally harsh, significantly because of the socio-spatial morphology of the city. It is one of the most densely packed cities in the world, boasting a population density of 31,700 people per sq. kilometre (TOI, 2018). But this density is not evenly spread. At present, approximately 52.5% of Mumbai's population lives on less than 9% of the city's land, primarily in areas designated as slums (Lueker et al., 2020). According to the 2011 census, 42% of Mumbai residents reside in slum areas. When other lower-income housing like mhada and chawl housing is included, up to 57% of families live in one-room homes (Lewis, 2020). In comparison, over 95% of the survey respondents lived in apartments and bungalows, which may hint towards why the respondents were more satisfied with the state's response to the pandemic, as space is directly relational to financial stability in the context of Mumbai, which inherently impacts the pandemic experience. With such suffocating densities, slums and chawls tend to have many people sharing much smaller houses, further complicating the possibility of isolation in economically disadvantaged sections of society. Close to 70% of the online survey respondents lived in households with less than four people (chart 3). Along with this, only 6% of the respondents who got COVID-19 were not able to self-isolate in their homes. In contrast, the slums and chawls I visited revealed a much higher number of people sharing smaller spaces, with no possibilities of quarantine or self-isolation, probing a closer analysis of their lived experiences.

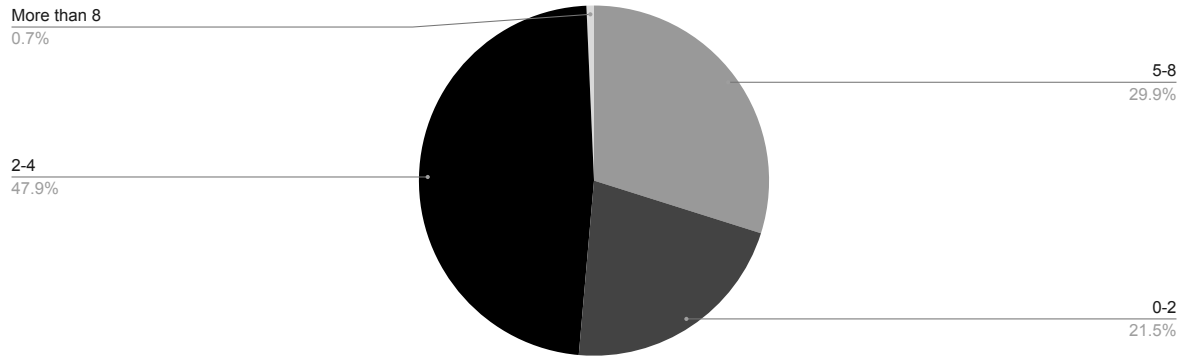


Chart 4. Documenting number of people in one household.

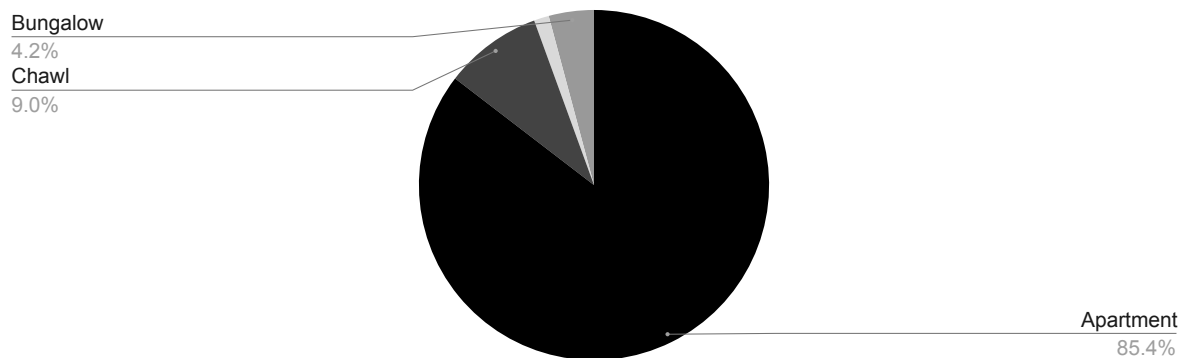


Chart 5. Documenting housing typology

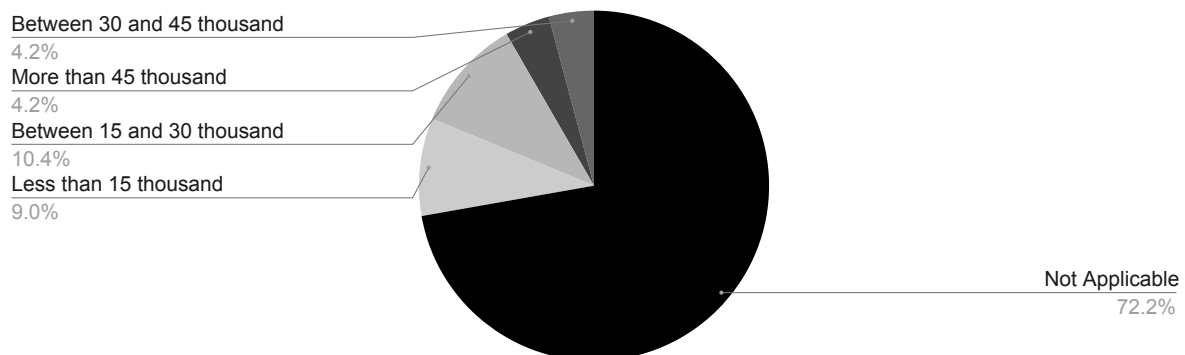


Chart 6. Most respondents were either home owners or could afford high rents.

Rooted in Bombay's colonial past, the chawl typology is a type of residential building similar to a tenement. Typically substandard housing, chawls are predominantly correlated with destitution and poverty. Chawls were initially constructed in the early 1700s as dwellings for labourers in the industrial sector (Sanyal, 2018). As the British Empire controlled land distribution, the land was unequally divided between the bourgeoisie and the proletariat. The British elites lived in luxurious bungalows, forcing the working class to crowd in deplorable living conditions. With the proliferation of the textile industry, chawls sprung up to accommodate the workforce. Chawls are usually 5 floors in height, with approximately eight and sixteen units on every level, with each dwelling referred to as a *kholi* (room). A common staircore serves the edifice and provides access to an elongated corridor that traverses the length of each level. Usually built around a courtyard, chawls tend to appropriate these spaces for light, ventilation and also as public space. Similar to the chawls, the slum house typology also emerged in Mumbai as

a response to the industrial revolution that propelled rapid urbanisation, as rural populations migrated to urban centers for work. This influx of new city dwellers led to housing shortages, resulting in the formation of modern slums as people sought whatever shelter they could find (Si-Prince, 2024, para.3). The modern-day slums have emerged as an outcome of the rise of the service economy and the real estate boom of Mumbai over the past 50 years. Materially, they are makeshift dwellings constructed with scavenged materials like corrugated metal sheets, plastic, cardboard, and bamboo, that are hastily built and provide minimal protection against weather conditions. The slum house typology in contrast is chawls less formalised and many times not recognised by the state as legal constructions. The challenges that such house typologies face, built on the boundaries of informality, are highly complex within Mumbai's varied social contexts and demand a closer analysis in the wake of a health crisis.



fig 6.i. AI image constructed on a text prompt base image generator called mid-journey. This is the outcome of the collective imagination based on the images on the internet of how a chawl would look like. AI prompt: Interior of an old chawl in Mumbai.

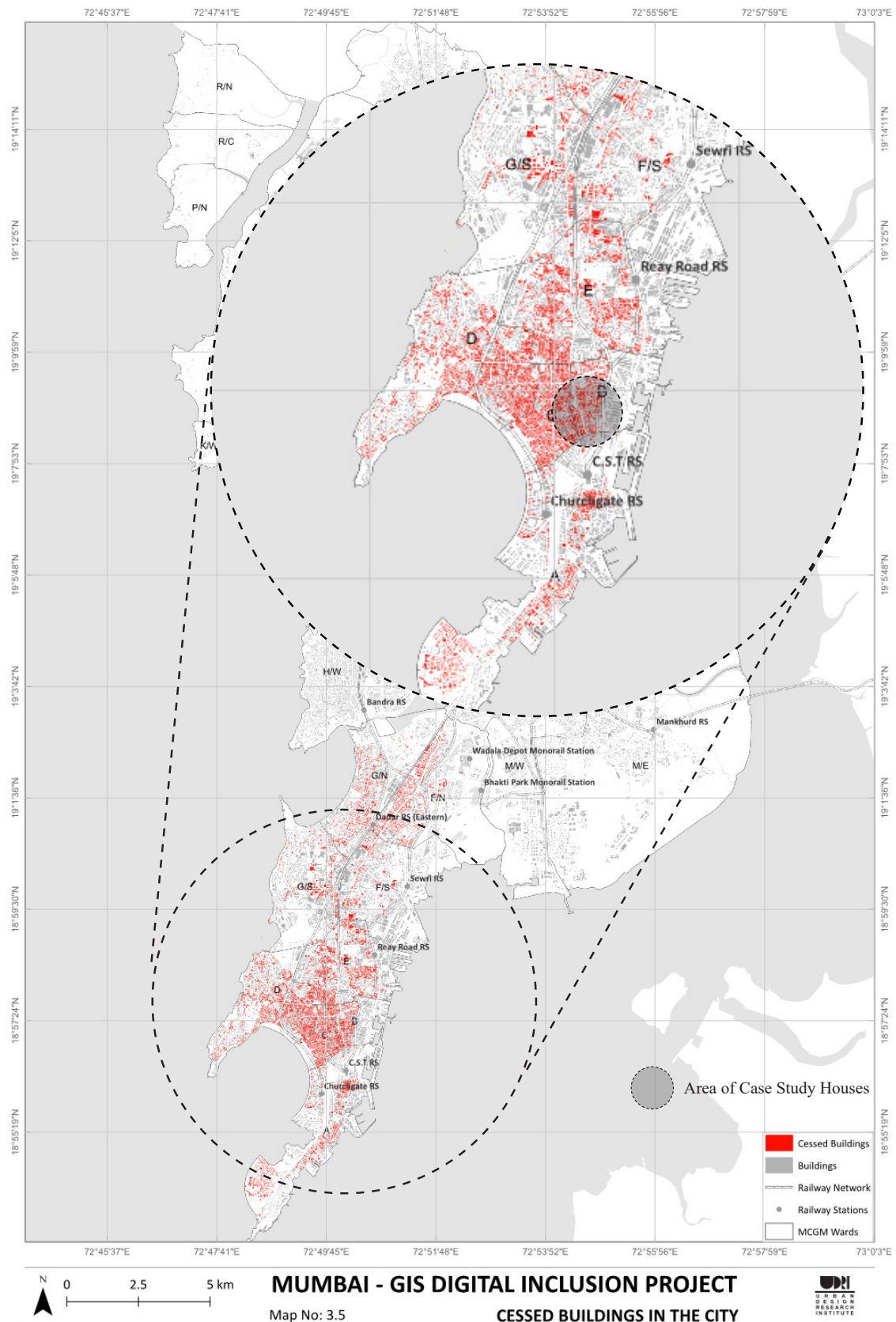


fig 6.h. Map documenting the cessed buildings in Mumbai. Zooming into the older districts of Mumbai, one can see a proliferation of cessed typologies in zone B, where the houses that have been documented are located.

6.4.1 Slum house



fig 6.j. Aerial and street level view of the entrance to the slum unit.

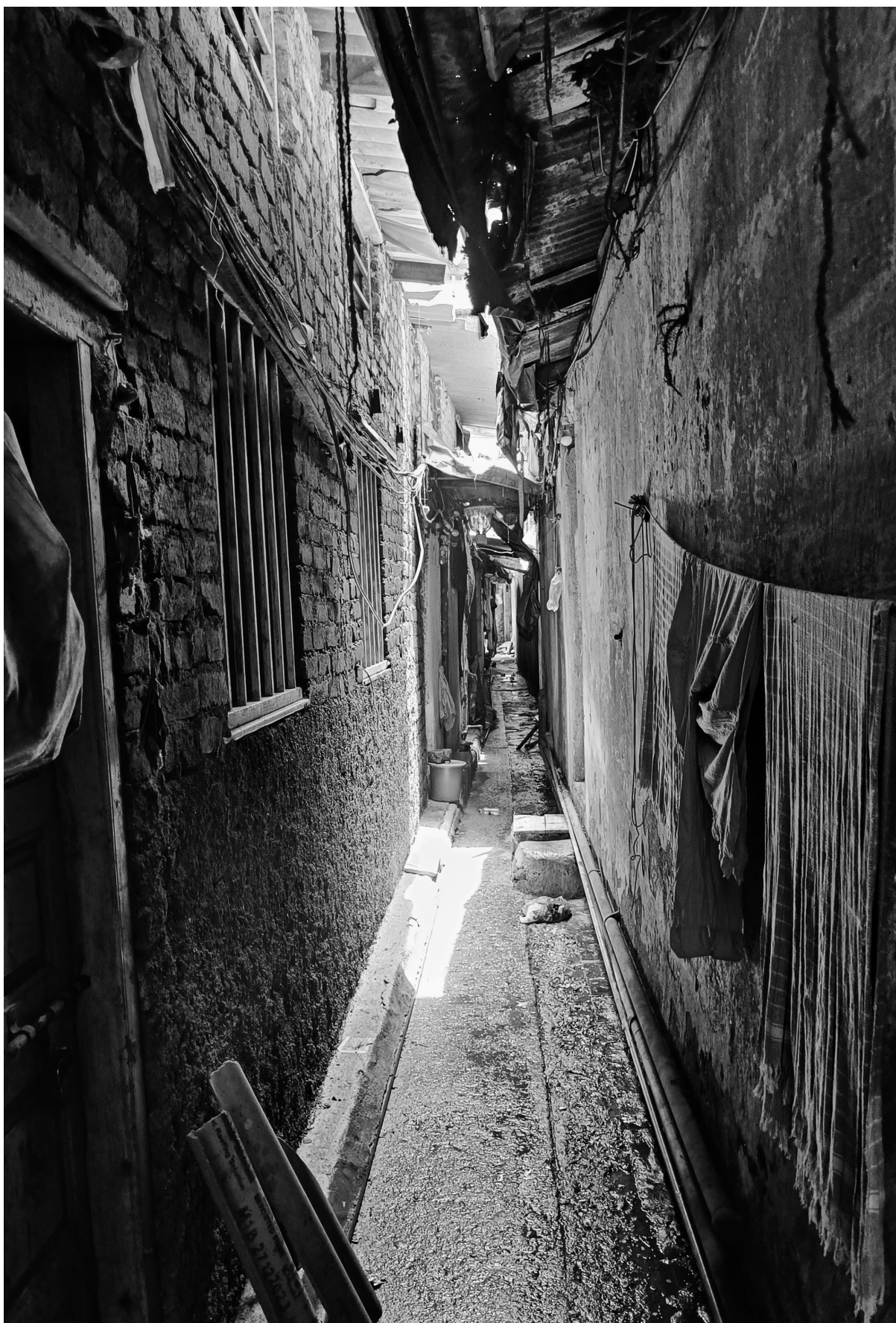


fig 6.k. Entrance passageway to the slum settlement. One can see the open pipes running next to the wall to the right.

Located near the Masjidbunder local train station, the slum settlement was well hidden between two commercial blocks, accessible by a very narrow alleyway covered with a plastic tarp (fig 6.k.). Built with rough brick walls and a tin-sheet roof, the house was less than 6.5 square meters in area, within which I met my interviewee, Sadhna (name changed), who was sitting with her five-year-old kid. The house had a small mezzanine loft built within it, that slightly increased the usable surface area, that was specifically used for storage. They would keep beds and excess items above, bringing them down whenever needed. They also had constructed a tiny bathroom connected to the open sewage line next to the slum. Paying a monthly rent of 4000 rupees (44 Euros), Sadhna lived here with her three children, husband and mother-in-law during the pandemic. The slum house was illegally constructed but now has been recognised by the state as an informal settlement.



fig 6.l. Perspective section of the slum house. A. House entrance, the only opening in the entire house. B. door to the bathing area inside the house. No WC services. C. water storage. No direct Water Supply, water is filled once a day from a near by tap. D. the loft acts as an extended space for storage, increasing usable surface area. E is the kitchen area.

The experience of the pandemic in such suffocatingly cramped spaces presents extreme challenges. With no fan or even a window in the unit, the entrance door acted as the only physical opening, negating any possibility for air circulation and ventilation. This also meant no access to direct sunlight within the house. The humidity and heat of Mumbai during the summer months made it very difficult for people to stay indoors, which was legally enforced during the pandemic. Recollecting the environmental challenges faced during the pandemic, she describes how the challenges of heat and humidity were replaced by incessant flooding, as the site of the slum is in a depression from the surrounding areas. With no gutters or sewage system connected to the unit, there was no potential way to get rid of the water.

Financially, the family also struggled a lot and was still recovering from other repercussions. As soon as the lockdown was announced, she immediately lost her job as a cleaner and cook in a nearby apartment complex. Domestic work almost always operates within the informal sector, with no job security or protection laws in place. When the lockdown was eased, she was called back but was subjected to bodily sanitisation. She was sprayed with disinfectant fluid every day because of concerns that she would bring the disease to the homes of her employers.



fig 6.m. Internal elevation of the slum unit. Measuring less than 6 square metre, the tiny unit houses 6 people. Picture of the late DR BR Ambedkar, a social rights activist who wrote the Constitution of India and fought against caste based oppression.

Looked down by the hegemonic gaze, she faced social stigmatisation owing to her positionality. The chemicals triggered allergic reactions on her skin, which forced her to stop working, and she is now a full-time homemaker. Her husband is deaf and mute and can only find employment in the hard labour sector. He used to work for Mr. Ilyaz, who was paying half the salary during the months of the lockdown.

One's identity and positionality within a stratified society play a crucial role in shaping everyday experiences that get further complicated during a crisis. In one of the corners of the house, one can see a photograph of Dr. BR Ambedkar, a important leader in India's struggle for independence, who wrote the Constitution of India and also belonged to the Dalit/Untouchable class within the caste system. Belonging to the Dalit community, the family had faced discrimination from the police in the form of verbal violence. When asked, she mentioned that neither she nor her family members got COVID and never got tested for it. Nevertheless, there was strict policing of these lanes, facing biopolitical segregation and caste-based ostracism. To buy specific things, like sanitary pads, they had to go through connected hidden alleyways to be invisible to the police. She goes on to describe the fear:

“We are small people; we have to follow the rules. The police would keep patrolling the streets. We could only leave to get basic things and what they considered essential. If found out of our home, they would scream at us and also make us hold our ears and make us squat 25 times and apologise for breaking the lockdown.”

At times, access to basic needs like food and water were also a challenge. As there was no formal connection to a water supply system in the municipality, the family used to get water from a nearby tap, standing in line and filling buckets. They would then fill a big container in their home (fig 6.m.), which would have to suffice for the day. However, sometimes, this was not possible during the pandemic, and they had to rely on help from neighbours. Along with the immediate community, the employers also came to the rescue. Even though Mr. Ilyaz was paying only half the salary, he ensured all his employees would have access to food in the form of grains and pulses, ensuring that they survived the lockdown.

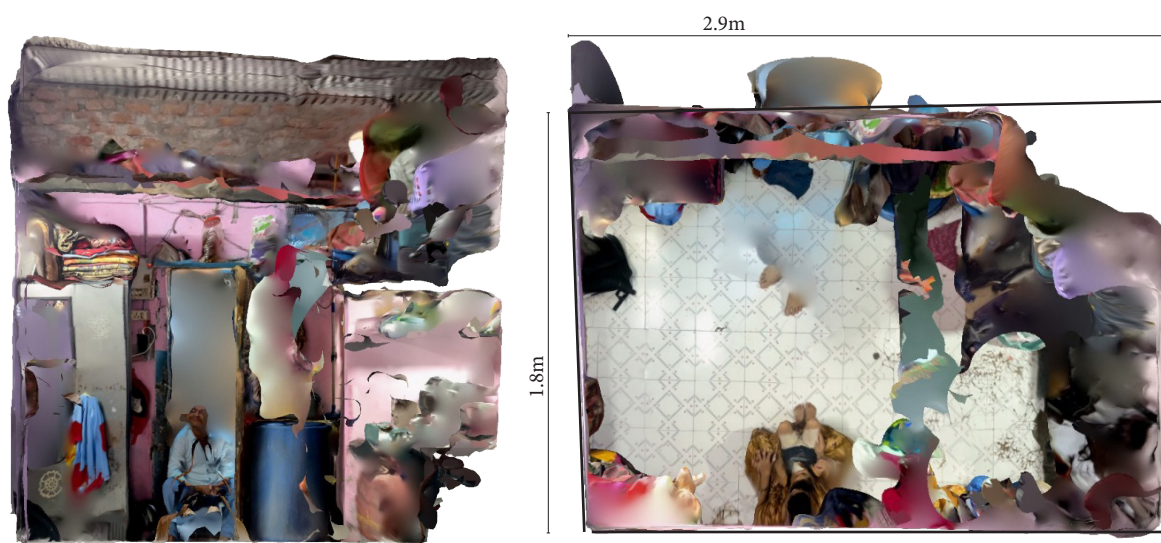


fig 6.n. Internal elevation and plan demarcating the size of the house.

6.4.2 Bombay City Improvement Trust (BCIT) Chawl



fig 6.o. Aerial and Street level view of the Entrance to BIT chawl.

Built according to the building codes highlighted by the Bombay City Improvement Trust (BCIT) in 1903, this chawl was a direct outcome of the 1896 Bubonic plague. The case surfaced a unique configuration where three individual living units shared a semi-public space that overlooked the courtyard of the chawl. The size of individual units varied between 13 and 18 square meters. The shared space had one bathroom and the WC that were common between eleven people, along with individual kitchen setups. Everyone had their separate gas stove range and utensils within the same space. I was allowed to use LiDAR to scan two of the three houses and also interview the residents. A lady and her three daughters occupied the third house, and she did not feel comfortable having the interview.

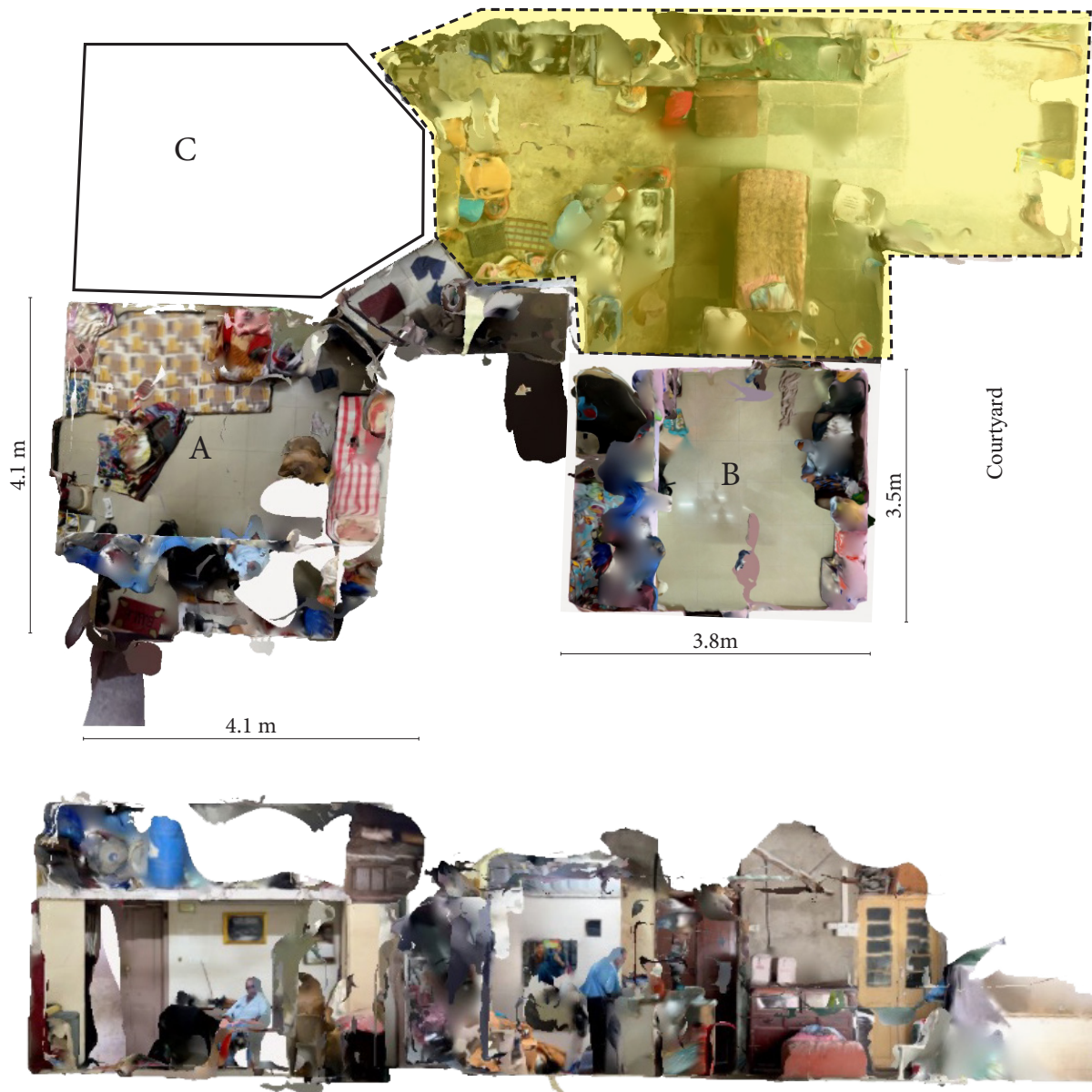


fig 6.p. BIT chawl. Built according to the standards demarcated by British planning commission, the chawl has a unique spatial sharing configuration where there is a big common shared space (marked in yellow). As one can observe there is a loft space in every unit, that is appropriated as a multi-functional space. Unit A was occupied by two retired men. Unit B had four people living there, a couple and their two kids.



fig 6.q. Isometric views of the BIT chawl revealing the complex configurations of communal living. The scans give a unique perspective in imagining the life during lockdown.

The interviews conducted here were unique, as eleven people from neighbouring houses joined in the conversation, almost transfiguring the interview into a focus group about the experiences of the lockdown and the pandemic. Reluctant to talk alone, the group felt a lot more comfortable operating under a layer of anonymity. Almost 90 per cent of them followed Islam as their religion, which made them cautious about commenting on the current right-wing Hindu nationalist government. All of the eleven people were men who were retired and could afford to live here as the rents were as low as 60 rupees a month (<1 euro) under the regulated cap of the *Pagdi* system. Introduced in the pre-independence era, the *Pagdi* system operated outside the need for a rental agreement as a co-ownership model, where the tenant would pay a lump sum amount for a very long lease and receive rent receipts as an acknowledgement every month. Across the room, there was almost unanimous discontentment with the harsh and abrupt response of the government through the lockdown. The resident of the house described the initial days of the lockdown:

“They used to treat us like we were dirty. Government workers would come wearing PPP suits and spray disinfectants on all public spaces within the building, such as corridors, staircases, and front doors. They would fumigate the entire building every 15 days like we were carrying all the disease.”

There may be some bias towards the current government, but there was also consensus that there were more stringent forms of surveillance that were active here in this neighbourhood compared to other parts of the city. For Muslim minorities, "the lived realities of biopolitical citizenship under the current governance have been devoid of political participation, social responsibility, rights, and pride in shared belonging" (Chakraborty, 2021, p. 336). The time during the lockdown overlapped with the pious festival of Ramzan, which was from 24 April to 24 May 2020. The practices also got hindered, but praying was allowed in much smaller batches. Nevertheless, the community was blamed for the rise in cases during the festival, with hashtags of “corona jihad” and “corona terrorism” circulating. (Chakraborty, 2021). Rather than trust in the government, there was a strong sense of safety and trust within the community. Most of them were born and raised here; hence, they had deep ties to the neighbourhood. They also knew the police, which allowed them to navigate the surveillance better. One of the neighbours prompted jokingly how they bribe the police officials with cigarettes and alcohol for them to be able to move through the barriers. Government assistance was next to minimal, and it was the communal ties that allowed them to survive the lockdown. The tenant in unit B of the chawl, was also a daily wage worker for Mr. Ilyaz who took to me to this chawl. Describing his relationship with Mr. Ilyaz:

“I have no complaints with Mr. Ilyaz for losing my job. I understand it was a difficult time. But even in those times he did not leave us hanging. He first paid us half salaries even when he was earning nothing, and then he also made sure that we had food and water to survive. I do not work with him anymore but we will always remain connected.”

The community in the chawl collectively bought food supplies and groceries or were helped out by friends and family who lived in the vicinity. The muslim community, othered throughout the country by the in-power government, ended up creating grounded networks and strong social ties that allowed them to better mobilise resources and support, enhancing their resilience against the crisis.

6.4.3 Anant Bhuvan I

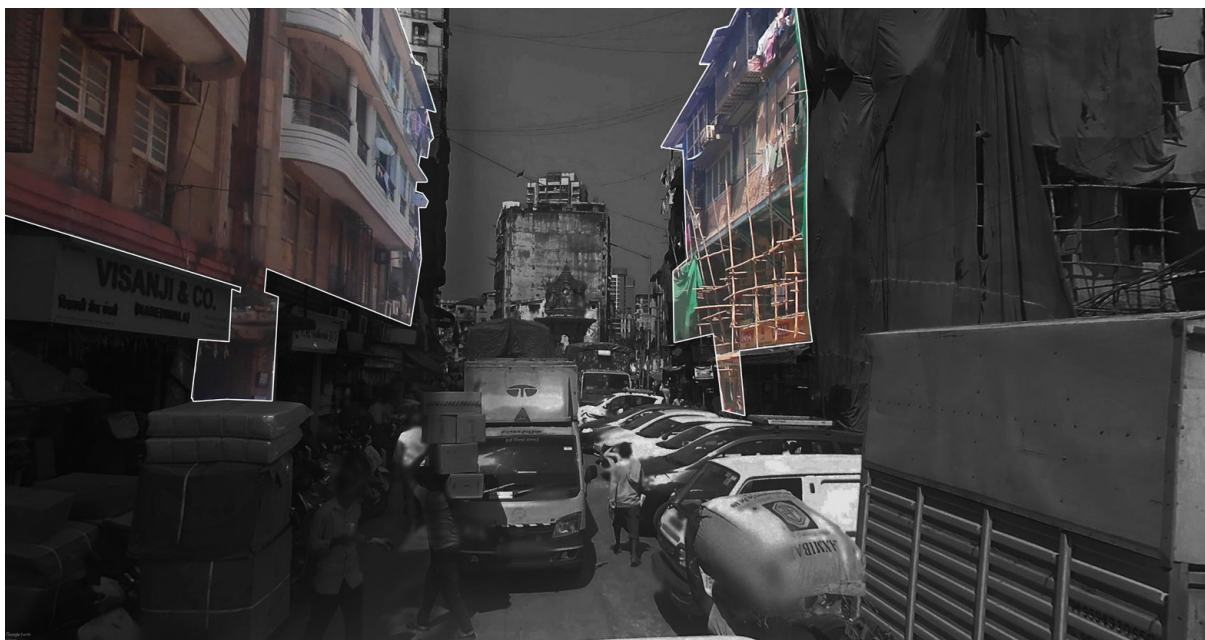


fig 6.r. Aerial and street level view of the entrance to Anant Niwas and Anant Bhuvan I & II.

Built in 1906 by a private developer explicitly catering to the Kutchi Jain Community (the same community that I belong to), Anant Bhuvan is one of the oldest chawls in the neighbourhood. Deemed as a cessid building, (fig 6.t.) the chawl is in a dilapidated state and not disabled compliant, and has been through several calls for redevelopment over the years. Similar to the other chawls, there are wide corridor spaces and shared bathrooms, with small individual units of approximately 20 square meters area. I interviewed a couple who have been living there for almost 45 years. Chimanlal was born and brought up here, and his wife moved in after they got married. His brothers also live right next door, with the entire floor being occupied just by him and his immediate relatives. This allowed them to utilise the entire floor space, with house essentials flowing into the corridor spaces. They run a communal spice business on the ground floor of the same chawl, earning well. When asked about the lockdown, Chimanlal felt very staunchly that the lockdown was an excellent decision by the government. Detailing his opinions:

“The Government of India did a great job. People were mostly quite cooperative. We would have never survived without these. Yes, some people suffer, but some have to pay the price for others. And the government was correct in being so strict. Muslims always love breaking the rules. They all live in crowded situations and spread the virus. If not for Modi, we would have been in deep trouble.”

The couple did get COVID almost at the end of the lockdown. At the time, every case would get reported to the Department of Epidemiology of that ward, and the officials would call on the registered number to check up on the patient. Even though, the couple seemed very satisfied with the actions of the government, there was deep mistrust in the healthcare infrastructure of the country. When asked about their health during the infection, they expanded on their choice to not opt for receiving treatment at a government hospital:

“Modi did everything that he could, but the health infrastructure is in shambles. My wife has diabetes and requires medical care. The government offered to shift my wife to the public hospital in the locality. However, we were completely against the idea. We only opted for privatised healthcare, where services are good. In India, you can get great service if you pay well. We were charged a lot of money, but she was well taken care of. The images that surface of public hospitals are horrifying. Nothing works. Everyone says that once you go to a public hospital, you never come back; we could not risk it. Even if there were fewer private beds available, we were ready to wait rather than go to a public hospital.”



fig 6.s. As one would observe, the independent units are so tiny that there is no room for functional division of space.

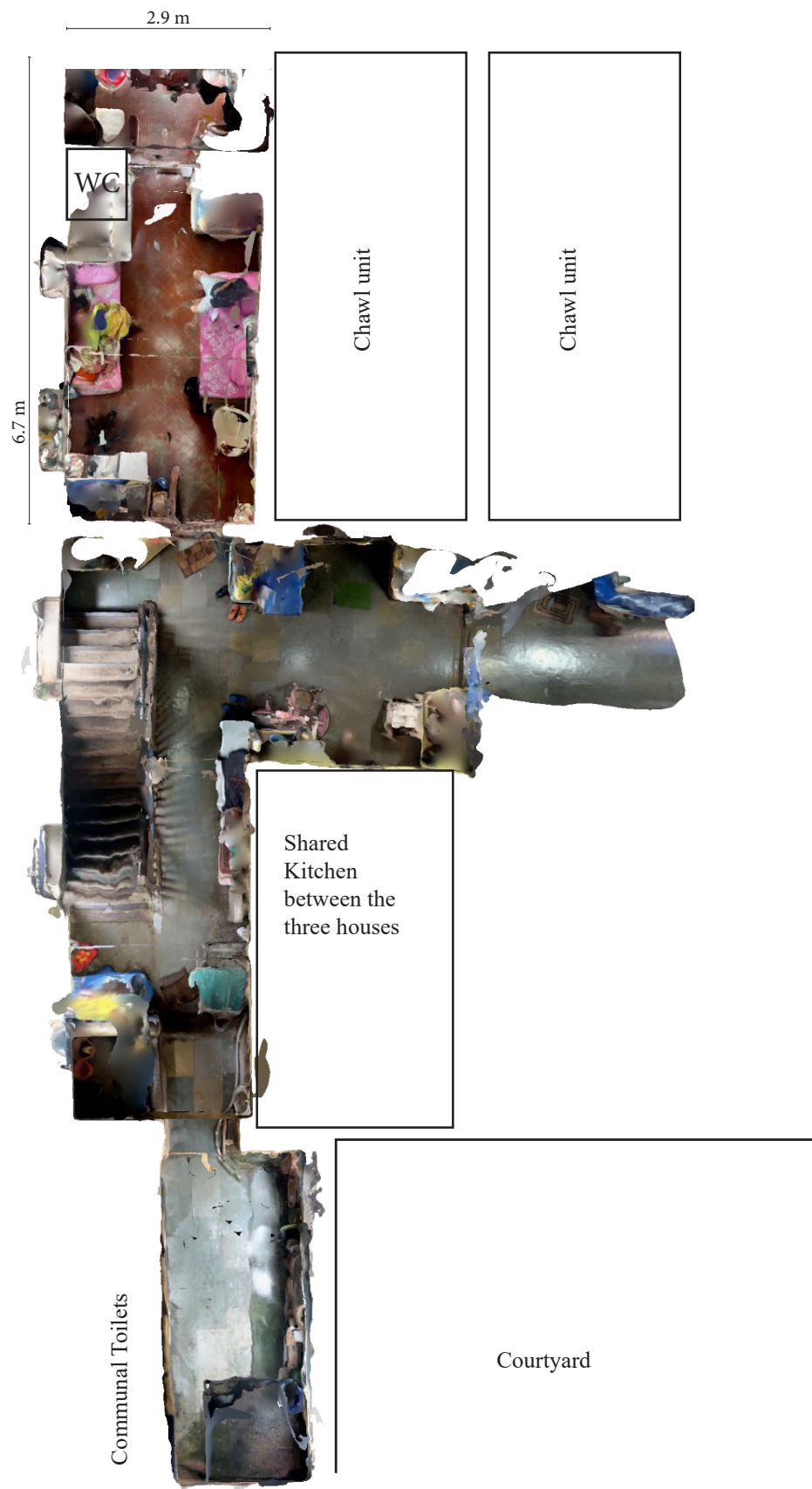


fig 6.t. Anant Bhuvan 1. The kitchen space is shared between 3 homes of the three brothers. The entire floor belongs to the family, hence the public spaces are also appropriated as private spaces. The corridor space is what acts as the living room for the 3 families. When any other family member got COVID later, they would use one of the units as an isolation booth.

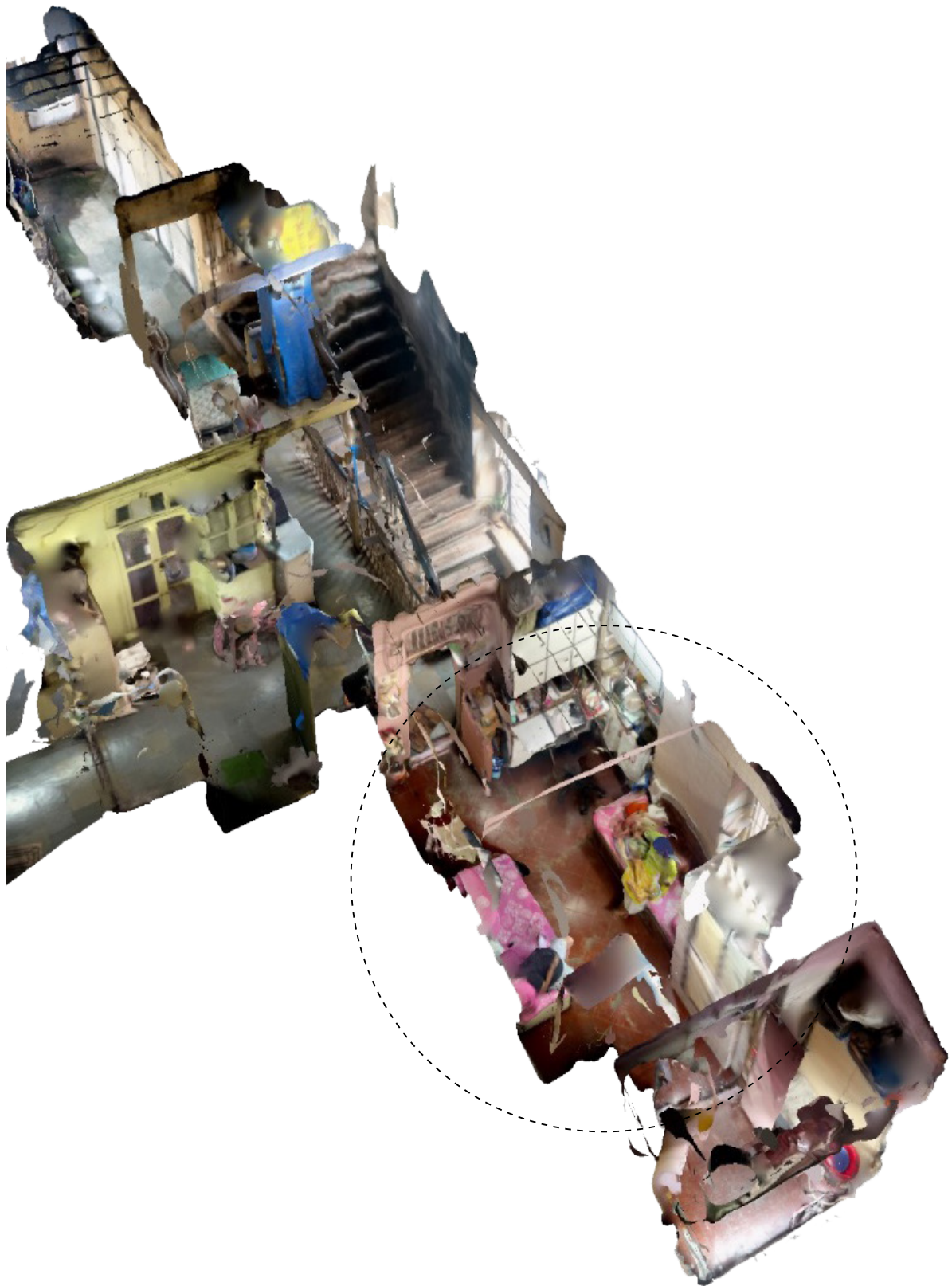


fig. 6.u. There is no space to have a double bed, as the initial intention of these chawls was for male migrant workers to live here alone, away from family. Male migrants would share a home, and eat in communal kitchens at the factories.

6.4.4 Anant Bhuvan II

This chawl was built in the 1950s as an extension of the older Anant Bhuvan, which was only meant for the Kutchi community. Over time, the community's population has dwindled, forcing the original tenants to allow people from other communities to occupy these spaces. Also, as part of the *pagdi* system, the original tenants have to pay very little rent and can charge higher rent by subletting the place, reaping the profits from the difference. One of the journeys that I took in a taxi cab was with a 25-year-old man who lived with his extended family in this chawl. Migrating from Bihar in 2018, he has worked multiple odd jobs. Suraj Kumar Sharma moved to the city and moved in with his two uncles and their families, who all live together in this house.

This chawl did not have common toilets; instead, there was a built-in bathroom with a partitioned Indian WC. There are two bedrooms, one living room, and a sizable kitchen. The house is shared by 15 people, paying a combined rent of 6500 rupees (approx. 70 euros). The men and women in the family sleep in separate rooms as there is no other form of division possible. During the lockdown, if someone had to be isolated, they would raise boxes and suitcases between the rooms to create a flimsy partition. When asked about his income, Suraj shared that he earned around 30,000 rupees (approx. 330 euros) monthly as a cab driver, half of which he sends back to his parents in Bihar. He had lost his job during the pandemic as the taxi business was shut entirely. After losing his job, and with no means of earning a living, he jokingly shared that he also dabbled in gambling as a way of earning money. It was also his way of finding some form of entertainment during the turbulent times. He later got a job working as a Milkman, which came under essential services jobs. He got a special mobility pass that allowed him to traverse the streets without being fined or being subjected to violence. Suraj narrated his experiences with police brutality during the lockdown:

"The lockdown was particularly harsh on young men like me. The house used to get really hot at night, so we would try to sleep on the streets sometimes. The police kept strict surveillance, and if we didn't follow the rules, we were also hit people with sticks. I myself was hit two times."

For daily essentials, they did not get a lot of support from the government. The significant portion of the COVID lockdown was endured by the populations through communal support. He mentioned that some politicians came and donated some grains and groceries, but that was very symbolic and only to get pictures clicked for media posts, pointing towards vote bank politics. The politicians would visit only the main streets where there was most visibility. He also mentioned how a lot of the neighbourhood also suffered from the rise in the price of daily essentials due to hoarding.

"Suddenly the price of rice, dal and wheat increased twice or thrice to cost, if not for the community, we would not have been able to afford it. The government tried to put a cap on these things, but the sellers did not follow."

One can observe how the accumulation of capital intensifies in certain ways during a crisis. When the lockdown slowly started to get less intense he decided to get back home to his family in Bihar. When the workers trains started, he was able to get a spot, and was appreciative of the government's efforts to bring him home.



fig 6.v. The scans show the chawl house of Anant Bhuvan II. The women and the men sleep in separate rooms due to lack of space. The kitchen areas is large which is also used for sleeping by the men. There is an inbuilt bathroom with WC. The arrow helps in the orientation of the isometric view.

6.4.5 Anant Niwas

Built in the 1930s, the Anant Niwas Chawl is my maternal ancestral home, where my mother was born and raised. Located opposite Anant Bhuvan, the chawl sits on a commercial spice market. It belonged to my great-grandfather, who moved to Bombay as a cotton merchant for the East India Company and a surveyor for the same cotton textile factories that brought mass migration, as mentioned above (section 4.2). There is no one currently occupying the house, but my cousin was living here it during the lockdown. Built to the norms prescribed by the Bombay City Improvement Trust (BCIT), this chawl was meant for the middle and upper classes and is larger than the other houses documented in this study.

My brother moved to Mumbai for his job at Tata Consultancy Services (TCS), part of India's largest multinational business group. Even though these were not the most comfortable living conditions, he chose to live here due to its proximity to his workplace in South Mumbai. His experience of the lockdown was quite different compared to the other houses documented here. Already living in isolation, he experienced a different set of issues not driven by economic instability or lack of space. As a post-graduate civil engineer with a construction management degree, he was well-placed in the company and earning well. He also kept receiving his complete salary even during the lockdown as the company slowly transitioned to online work.

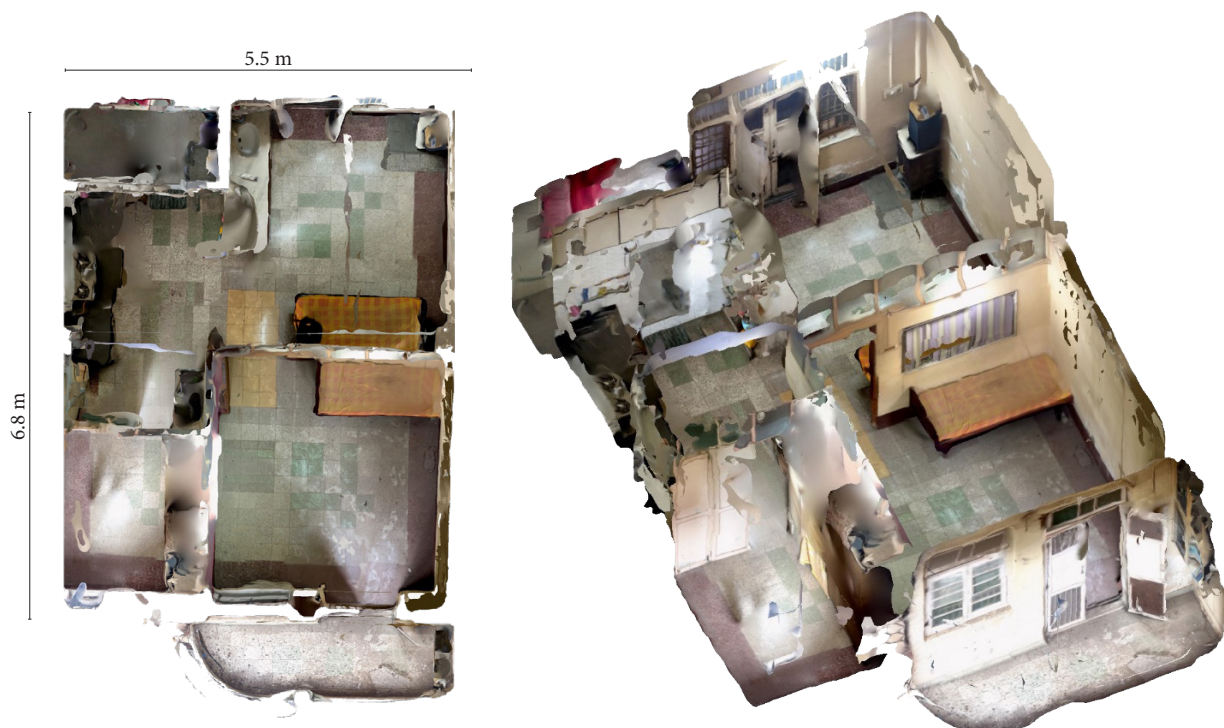


fig. 6.w. Layout of our ancestral home, where my brother was living. The balcony overlooks the street from where you can see the urban everyday. There is a bathing area within the house but no WC.

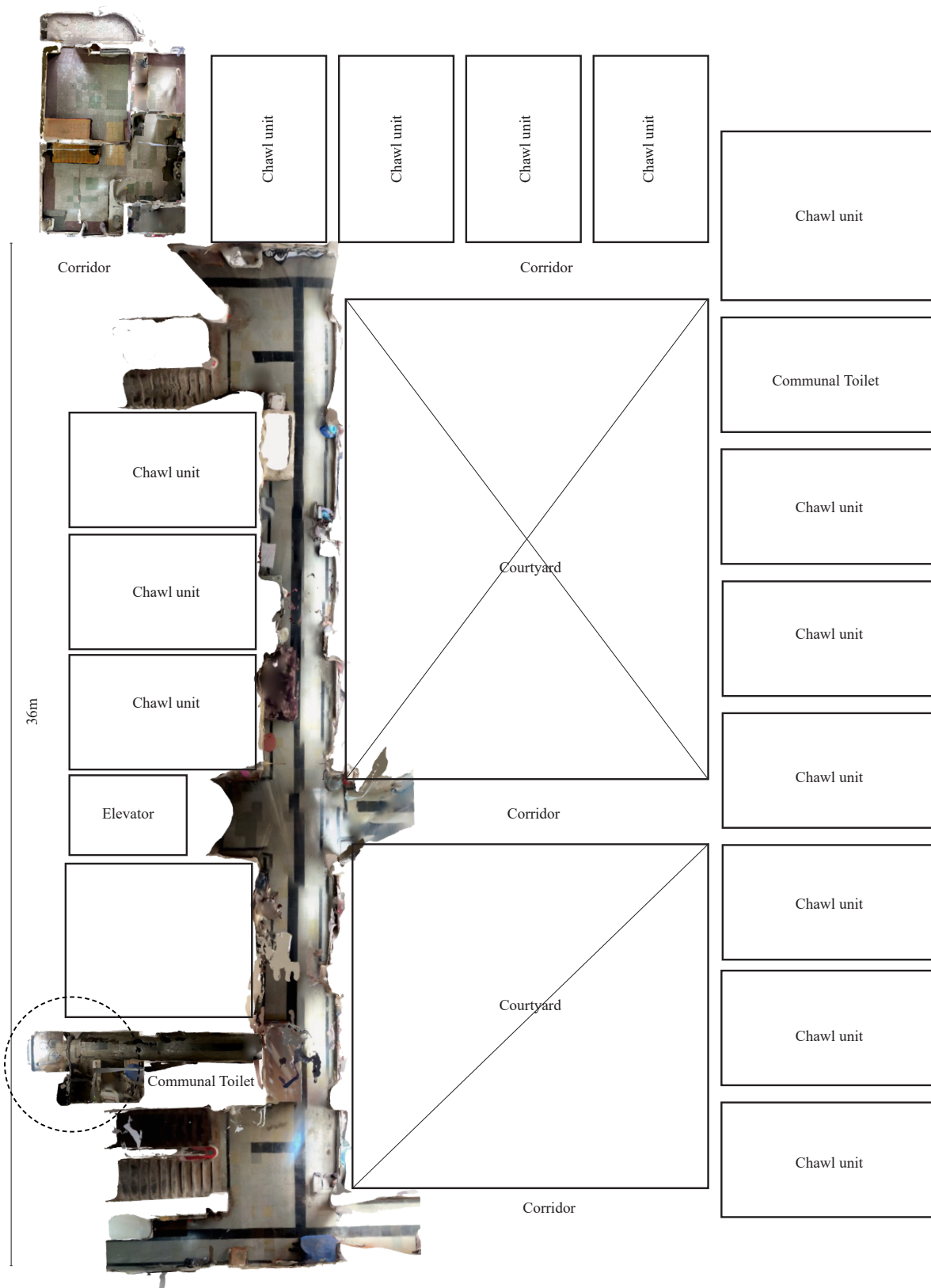


fig 6.x. Layout of Anant Niwas. The chawl has two courtyards that bring in light, and three sets of communal toilets (two visible in the diagram). The corridors are quite wide over two metres, making it almost an extended living space. The drawings are not to scale.



fig 6.y. Plan and sectional perspective of the communal washroom. One can see the communal water storage (A), the WC (B) and the common bathing area at (C).

His experiences were shaped more from the lens of social alienation and isolation. For daily essentials, he was permitted to leave the apartment once a week, the only change in his physical environment. Once the lockdown eased up, he started utilising home delivery services from online supermarket chains like Big Basket and Reliance Mart, which further reduced his interactions. His social isolation manifested in mental distress. Remembering his time during the lockdown:

“The spice market below had never been empty before. The chaos would go on forever, even at night. It gave me comfort to know that there's always someone nearby. But suddenly, I felt alone. The noise, the chaos, everything went away.”

The chawl has wide corridor spaces, measuring close to 2.5 meters wide, that almost act like the communal living room (fig 6.x.). The spaces used to be occupied by the women of the family, the homemakers and grandmas talking and working there till evening. But the lockdown had put those social activities on a pause. Everyone was crammed into their tiny little homes. What he would instead hear now would be quarrels and noises emerging from his neighbours' houses. He would overhear verbal and physical abuse exacerbated by the lockdown, percolating out from the fractured domestic spaces echoing in his silenced surroundings. These incidents had a profound impact on him, making him want to leave as soon as possible. He was finally able to go back after five months of the lockdown.

As one can observe, the situated testimonies of people living in similar geographical locations brought to light very different narratives about their time in the lockdown. Some were satisfied with the pandemic response, as they were comfortable within their socio-economic positionality. Others experienced exacerbated conditions of social alienation, invisibilisation, police brutality, stratified violence, and biopolitical and necropolitical subjugation. But, what the interviews surfaced as a common thread was the infiltration and superimposition of neo-liberal governance mechanisms acting upon existing inequalities. From the interviews, emerged the thematics of privatisation and marketised healthcare, (lack of) governmental welfare "from above", employment and economic stability, and stratified violence.



fig.6.z. The figure shows the 5 documented houses at the same scale. House A is the slum house which is smallest, where 6 people lived (Three adults and Three kids below the age of 8). B is the BIT chawl where 3 houses are connected to a communal shared space, with a total of 10 people combined using it. C is Anant Niwas with only 1 occupant. D is Anant Bhuvan 2 with 15 people living in it. Finally E is Anant Bhuvan 1 with six people sharing the floor. The study shows documents the disproportionate spatial division, that critically impacts the experience of the pandemic.

6.5 Healthcare Infrastructure and Privatisation

The widespread privatisation of public services during "the last four decades of global neo-liberal restructuring has fractured the unevenly implemented techno-modernist ambition of comprehensive urban biopolitical management" (Brenner & Ghosh, 2022, p. 870). The pandemic revealed the structural fault lines within a global surge in privatised healthcare systems, unveiling the dwindling welfare state, especially within the global south. Policies privileging the marketisation of healthcare, such as the turn towards insurance-led healthcare delivery, did not account for people experiencing poverty and prevented them from receiving medical treatment during the pandemic (Dhara, 2020). Specifically in the context of India, the unavailability of hospital beds, ventilators and the legacy of historical neglect towards government hospitals manifested into field conditions of uneven access to acceptable healthcare services. Although India's constitution deems health as a human right, the government's expenditure on health, roughly 1.28% of gross domestic product, remains lower than the healthcare spending of many other countries (Chetterjee, 2020). Even "the finance minister's announcement of the *Atmanirbhar Abhiyan* or the self-reliant India campaign came with little stimulus for the government health sector" (Roy B., 2021, p. 294).

The healthcare crisis in India is multifold. Given the gargantuan population, India lacks medical facilities and health professionals. According to the WHO statistics on the concentration of medical practitioners (per 10,000 inhabitants), the majority of developing subregions, specifically South Asia, Africa, and Southeast Asian nations, possess fewer than ten doctors per 10,000 individuals (Gauttam et al., 2021). According to an online publication, India faces a shortage of roughly 600,000 doctors and 2 million nurses in primary care (Economic Times, 2019). Presently, India only has 8.57 doctors per 10,000 population, a doctor/patient ratio that is less than the prescribed limit of 1:1000 by the WHO (Gauttam et al., 2021), revealing governmental disinvestment and neglect in moulding healthcare personnel that were required to cater to the crisis.

Additionally, the rolling back of direct provisioning of healthcare by the state, the shift towards the neo-liberal laissez-faire market logic of the politics of healthcare, and the decades of neglect towards government hospital infrastructure have transferred the agency of public health to private entities. Harvey (2007) argues that neo-liberal discourses of choice and enterprise compel individuals to view themselves as self-made subjects, shifting the responsibility for healthcare and self-preservation onto the individual, while the state inflicts structural violence on subordinate groups under the guise of promoting self-reliance. The statistics of private vs public hospitals and hospital beds highlight the stronghold of the neo-liberal turn.

During the pandemic, there was a disproportionately stark difference in the availability of private vs public healthcare in India. The ratio of private to public hospitals was nearly 2:1, with around 43,487 private hospitals compared to 25,778 public ones. This is despite the fact that about 85.9% of rural residents and 80.9% of urban dwellers in India lacked health insurance (Sundararaman, 2017). Furthermore, for every 1,000 people, government hospitals had 0.51 beds and 0.025 ICU beds, while private hospitals offered 0.85 beds and 0.04 ICU beds per 1,000 people (Gauttam et al., 2021, p. 6). Comparing state-wise data on coronavirus cases and public health facilities showed the glaring inequality in private vs public infrastructure of hospitals in Maharashtra (Table 2). According to WHO's COVID-19 report, 5 % of the total

cases needed ventilator support, and around 15 % of total tested positive cases needed hospital care (WHO, 2020). Thus, "approximately 95,497 COVID-19-infected cases in Maharashtra needed ventilators, while the number of available ventilators was 5793, of which 4507 were in the private hospital" (Gauttam et al., 2021, p. 6).

State	Number of Hospitals		No. of Hospital Beds		Number of ICU Beds		Number of Ventilators	
	Public Sector	Private Sector	Public Sector	Private Sector	Public Sector	Private Sector	Public Sector	Private Sector
Maharashtra	711	2492	51446	180293	2572	9015	1286	4507

Table 2. The table documents the infrastructural disparity between the services offered by public vs private sector within the healthcare domain. The data clearly points towards a marketisation of the sector. (Roy B.,2021)

Initially, private hospitals refused to admit patients infected with COVID-19. "Later, when private hospitals began accepting COVID-19 patients, they extorted exorbitant amounts of money from patients for providing isolation and emergency services" (Jag, exploiting the pandemic to advance the subjectivity of the consumer-patient. In Mumbai, apart from the fees of the treatment, the hospitals were charging 1 lakh rupees (>1000 euros) for equipment like N95 masks and PPE kits (Paliwal, 2020). The statistical outcomes from the pan-Mumbai survey support the claim of the marketisation of healthcare. Of the 144 online responses, only 9.7% of the responses pointed towards using public health services. Almost 73% of the individuals opted for privatised healthcare (Chart 7.). Of the many in-person interviews I conducted during the taxi rides and the chawls I spent time in, most people who could afford it also opted for private health care services.

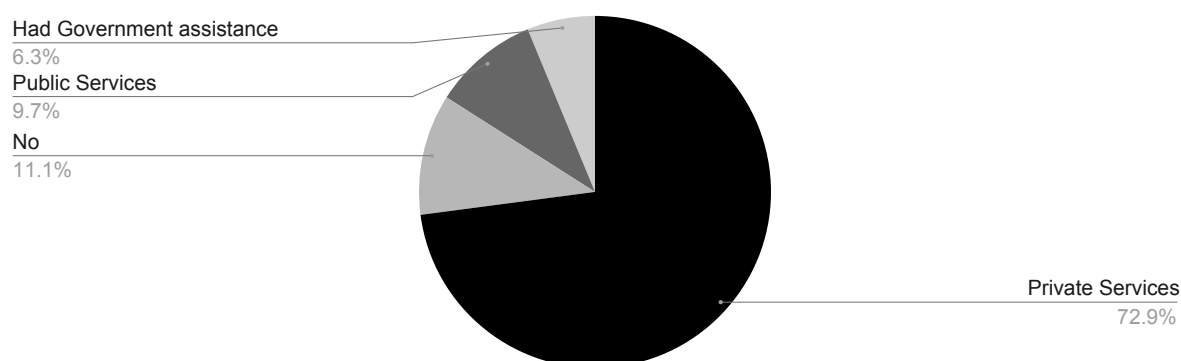


Chart 7. Reflecting the modality of healthcare access. The survey points towards a shift towards privatised healthcare.

The majority of the people who did fill out the survey could afford care and had access to private healthcare services. Only 2 of the 144 online respondents stayed in a quarantine facility (chart 9.). Of the people who were interviewed in person, four of them were forced into living in a quarantine facility. As isolation was not possible in the cramped chawl spaces, they were coercively taken to nearby quarantine facilities. Recollecting his experience, one of the taxi drivers described his experience of living in a quarantine centre:

"When I used to live in Kandivali, I was found positive for the COVID-19 and an ambulance along with the police came to take me to a quarantine hospital. There were about 75 other COVID patients in the ward. We shared three toilets amongst us. Nobody talked to me, and no one really attended any of the patients. The noise levels were really high because of which nobody could rest properly. The staff and ward boys would scream across that ward and each other and on patients as well. The monitor next to my bed was not functional but kept beeping. The toilets were dirty and you would not even be allowed to go without permission."

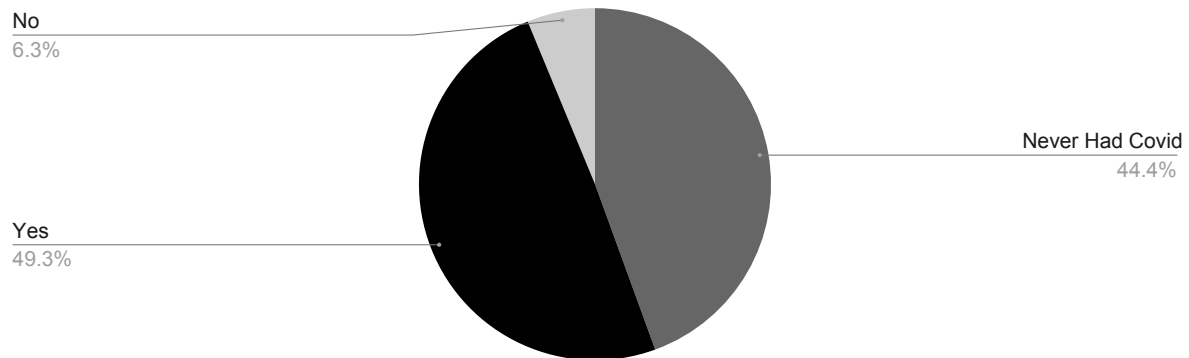


Chart 8. Count of "were you able to self isolate inside your own home if you got COVID ?" Only 6 percent of the total respondents couldnot self isolate in their own home.

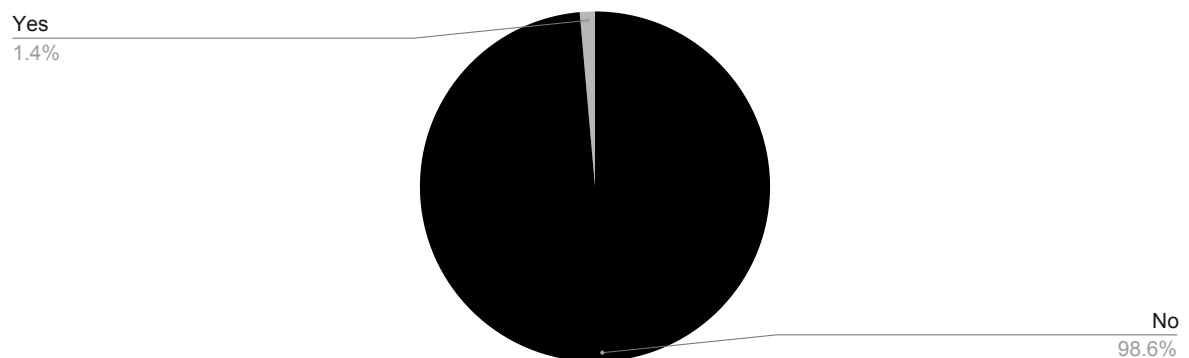


Chart 9. Only 2 people of the respondents who had covid had to visit to quarantine station, rest were able to self-isolate either at home or at a medical facility. Pointing towards a spatial privilege, within the context of Mumbai.

The extensive documentation of the unhygienic conditions, dirty toilets, insufficient food and poor medical infrastructure at these quarantine centres (Pathak & Frayer, 2020), along with the behaviour of the staff with impunity with patients, points towards the treatment of marginalised as *dispensable bodies* (Foucault, 1977). Public hospitals became sites of violence and contempt against the marginalised and vulnerable, where the staff operated as the enactors of state power. Withdrawing from the notions of care, the state slowly shut down, and care became privatised, subject to the logic of market capitalism. The lack of care points towards a specific activation of necropolitics (Mbembe, 2003), where the elite were protected through privatised health care, and the working class were treated as disposable bodies, left to die in precarious conditions.

6.6 Employment and Economic Stability

The pandemic led to the largest global crisis since the Great Depression, with 95% of countries experiencing a significant economic downturn worldwide (Gopinath, 2020). However, this economic crisis, when unpacked more closely, reveals the unequal impact on populations across similar geographical localities. It is estimated that the pandemic and the associated economic recession have pushed an additional 97 million people into extreme poverty in 2020, resulting in the first increase in global poverty in nearly twenty-five years (World Bank, 2020). On the flip side, while pushing a million into poverty, the pandemic also spawned a new billionaire every thirty hours (Oxfam, 2022). The crisis affected various socio-economic groups differently, intensifying disparities and pushing the marginalised into further precarity.

About 90% of India's economy is serviced by workers in the informal sector who have no legal contract or job security (Agarwal, 2020). The lockdown and the suspension of public transportation services by the Modi administration, along with shutting down all economic activities, left thousands of migrant labourers in major Indian metropolises without a means to livelihood (Chakraborty, 2020). Statistically, the lockdown caused a massive spike in unemployment numbers, with 122 million Indians losing their jobs in April alone, four times the US unemployment rate (CMIE, 2021). India's unemployment rate was at a record high of 27.1%, according to the Centre for Monitoring the Indian Economy (CMIE) (Inamdar, 2020). A detailed examination of CMIE's data highlights the crushing effect the lockdown has had on India's organised economy as well. Of the 122 million who have lost their jobs, 91.3 million were vendors, small traders and labourers (Inamdar, 2020). According to a survey conducted by the Domestic Workers Sector Skill Council (DWSSC) in April 2020, 85% of domestic workers across Indian cities claimed to have not receive a salary during the lockdown period, including about 30% who had inadequate finances to survive the lockdown (Pandit, 2020). But a relatively significant number of salaried workers - 17.8 million - and self-employed people - 18.2 million - had also lost their means of income (Inamdar, 2020). The online survey I conducted also reflected similar outcomes, with a significant percentage of respondents facing income losses while having to use their savings (Chart 10).

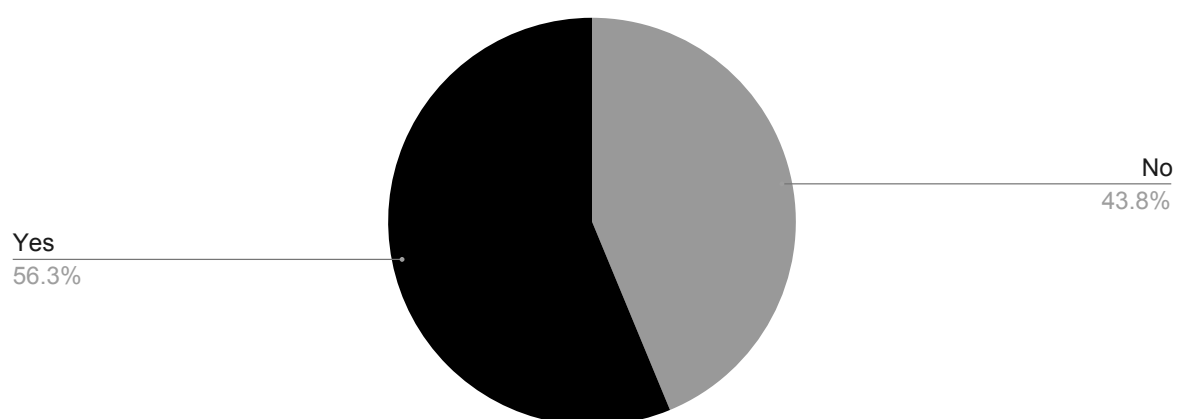


Chart 10. Count of "how many people had to use their savings during lockdown?"

However, the impact within the organised sector has been unequal as well. The pandemic accelerated the digital revolution, where highly skilled jobs that could be performed remotely shifted online. High-income professionals could switch to remote work, maintaining financial stability. In contrast, low-income workers, particularly in manual and service-oriented jobs,

did not have this option. High-income roles often come with greater job security and benefits, such as paid leave and health insurance, which provided a buffer against the economic shocks caused by the pandemic. Recognising privilege, one of the survey respondents described his time during the pandemic:

"While many people suffered in the pandemic, and I too got COVID a couple of times, not to mention was very stressed about my elderly parents, I feel like the lockdown was a time of peace and rejuvenation. I lost 10 kgs as my lifestyle was automatically healthier with no outside food, alcohol and more household active work. I could read much more, write, and connect with friends through video, where we would play games and pass the time. My work doubled as I'm a copywriter, and everyone needed a digital presence with a website and social media. All in all, I think for a certain privileged section of society, the lockdown was a better time than it was for others."

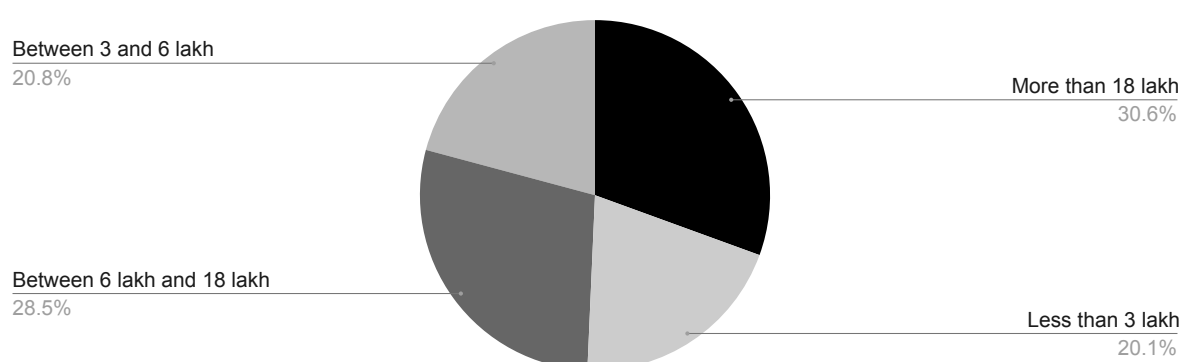


Chart 11. Chart representing annual income. Close to 60 percent are middle class or above.

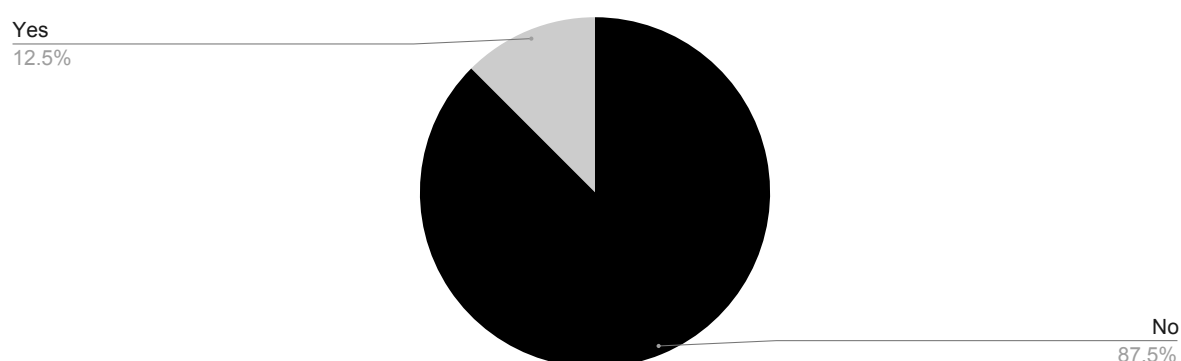


Chart 12. Chart representing how many people lost their jobs during the pandemic lockdown.

Even though some people had to tap into their savings, the upper middle class was able to come out of the pandemic much more swiftly, and rather unscathed. A large percentage of the survey respondents were educated and well-to-do and, hence, could take advantage of the digital shift during the pandemic. Only 12.5% of the respondents lost their jobs, which is less than half compared to the population employed within the informal economy (Chart 12). Limited access to digital tools and the internet for lower-income groups hindered their ability to adapt to new economic realities, exacerbating income disparities. One of the taxi drivers used to work for a stock brokerage company before the pandemic. Due to the lack of access to digital tools, he was forced to leave a job in the organised sector. Another taxi driver had taken a loan of six lacs to pay for the taxi he owned and had to sell it off as he had no means of paying his EMI.

The crisis also intensified the polarisation between different sectors of the economy, with agriculture and low-value services suffering more than the 'modern' industry and services sector. The corporeal trauma of migrant workers overlapping with the exponential rise in wealth of a small percentage of people in India reveals the destructive and profit-making facet of the neo-liberal capitalist project (Boltanski, 2012). Within the private sector, economic polarisation was evident as a few crony capitalists benefited immensely during the economic crisis while many other businesses stagnated or declined. The wealth of a relatively small number of super-rich individuals skyrocketed by an estimated 35 per cent during the pandemic. The number of Indian billionaires increased from 102 to 140 in 2020 (The Hindu, 2021). The profits of listed companies increased by 58 per cent, with the most favoured companies showing even more significant gains, even as overall corporate sales declined. The majority of medium and small enterprises struggled and often failed. Such capital has extensive and deep networks among the political leadership and the bureaucracy and is, therefore, able to influence policies in its favour, no matter the contemporary reality. The crisis made lucid that neo-liberal financial globalisation is incompatible with democracy and welfare, essentially because it undermines the living standards of the bulk of the people and takes up unstable forms to keep growing, even at the cost of human lives.

6.7 Access to Services: Governmental Welfare Initiatives

The relationship between welfare and repressive functions of capital states is simultaneously dialectical, imbricated and contradictory. Unlike those in previous class societies, capitalist states "manage social welfare to maintain and constrain the material security of 'their' populations. They establish and shape, on a day-to-day basis, institutions of social reproduction of the workforce" (Bhattacharya & Dale, 2020, para. 7). These have simultaneously included tasks of educating and keeping its citizens healthy as well as labelling, policing, and surveilling them. As Bhattacharya and Dale (2020) elucidate, "'Welfare from above' includes the investments in social reproduction that capital and states are forced to grant in their own interests. Here is where capital's reluctant dependence on social reproduction is revealed" (para. 12).

However, to even receive welfare, the populace first needs to be recognised as citizens. Civil society, as Chatterjee (2006) unpacks, may be restricted to a specific section of culturally equipped citizens who can navigate the socio-political frameworks established by the state. The paradox that emerges is that the state cannot exist by excluding populations that live in illegal settlements or occupations that sometimes violate the law, as they are integral for the capital regime to operate and grow. As migrant workers and illegal squatters "cannot be ignored by the state, they are dealt with not as citizens but as a segment of the population whose welfare it is obligated to look after as targets of policies" (Ghosh A., 2021, p. 8). The pandemic highlighted significant flaws in the governmental welfare initiatives, particularly in their ability to reach India's poorest and most vulnerable populations, inadvertently surfacing a necropolitical approach. The emphasis on self-reliance, social distancing and the stern lockdown measures mimicked from the global north, operated under the assumption that all citizens had access to basic amenities like food, water, soap, shelter, livelihood, and healthcare. Sujata (Name Changed), who lived in the slum house documented earlier, described her precarious access to water supply time during the pandemic:

"Usually, during the carona (colloquial for COVID-19 disease) days, the water would reach us timely. However, there were a few days the water didnt arrive. And we have no direct water line, we couldn't even go out during curfew hours even if there was no water. We had to rely on neighbours and our community to help us out."

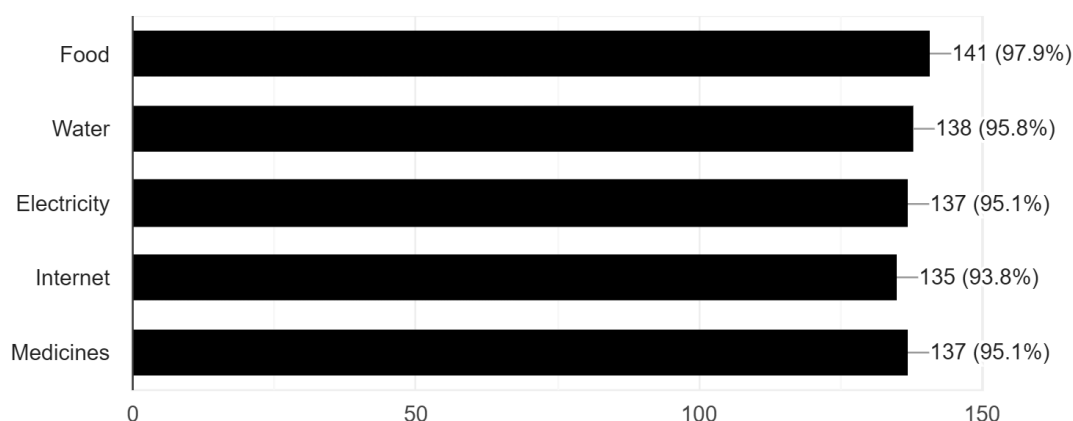


Chart 13. Chart representing how many people had access to basic services. People living in slums and dilapidated chawls did not always have access to these services.

At the beginning of the first lockdown, the government announced an array of economic measures to support the Indian economy, focused at helping the different sectors of the economy struggling under the impact of the pandemic. The ₹1.7 trillion COVID-19 package (approx. 19 Billion Euros) announced on 26 March by the Union Health ministry was a cash transfer programme for people with low incomes (Alexander, 2020). Around 200 million female *Jan Dhan* (people's fund) account holders were promised ₹500 per month from April to June 2020 (., 2020). Along with this, Rs.1000 in cash to the poor migrant workers and free food grains for ration card holders were promised under the National Food Security Act (Alexander, 2020). But, these benefits are predicated on the inclusion of all citizens within the systems. People who do not hold a ration card or Jan Dhan account could not receive the benefits of these safety nets. During the BIT chawl interviews, one of the respondents validated this claim. When asked about governmental aid he responded:

"No Municipal Corporation official has come to help us or provide any subsistence. We have all only managed through help from the community. I am retired. I am not registered with any such schemes. I don't understand the details. I just take help from my neighbours."

According to the study conducted by Somanchi (2021), "around 53% of the poor and 61% of rural women did not have a Jan Dhan account needed to get the cash benefit" (Alexander, 2020, para.2). One of the respondents, Suraj, who lives in Anant Bhuvan, shed more light on this subject:

"My father and two sisters live on their own in my village near Prayagraj. My mother isn't alive anymore, and my sisters are young. I had moved to the city to earn money so I could send it back home. They aren't registered to any yojana or scheme. My father is illiterate and

cannot read or write. We got his Aadhar Card made, but because there were spelling mistakes, it has remained unrecognised. The Jan Dhan is only for women so he could not use it. With the lockdown, the money dried up and i couldn't send money back home. If not for our neighbours and the community around them, it would have been difficult."

What this revealed was that the gender based eligibility for financial welfare schemes othered a large section of the marginalised during a crisis (Alexander, 2020). The majority of the migrant workers in city centres are men and they were excluded from the scheme. On the contrary, operating from a privileged position, the majority of the respondents, close to 48%, didn't need any form of government aid (Chart 14). When collated with the annual income, over 90% of the respondents belonged to the over 600,000 (approx. 6500 Euros) per year earning bracket. Hence, government relief measures, though implemented, often did not reach the most vulnerable effectively. Issues like bureaucratic delays, lack of documentation, and inadequate support left many low-income families struggling. In conclusion, the COVID-19 pandemic has exposed the inherent contradictions within the welfare mechanisms of the Indian state, revealing how welfare policies are often inaccessible to the most vulnerable populations. While the government implemented relief measures to support those affected by the crisis, significant gaps in coverage and bureaucratic hurdles left many without essential aid. The experiences of individuals like Sujata and Suraj illustrate the systemic barriers marginalised communities face, highlighting a necropolitical approach that prioritises certain citizens while neglecting others.

6.8. Stratified Violence: Impact on Marginalised Groups

The pandemic, in many unique ways, "brought to light the socio-economic, cultural, and political predicaments of populations who were and are subalternised, invisibilised, and subjected to necropolitical praxes based on gender, caste, class, colour, and religion in India" (Chakraborty, 2020, p.16). Forced out of labour after the lockdown, India's daily wage earners and labourers were driven to the 'edge of life' (Mbembe, 2003) by hunger, poverty, and incessant contagion-driven social stigmatisations (Chakraborty, 2020). The transmission of the virus from the rich to the poor in India turns on its head conventional imaginings of domestic workers as carriers of disease and sources of pollution. Nevertheless, the idea of "domestic workers as both symbolically and literally polluting" (Cox, 2016; Douglas, 2003, para.11) is an enduring one, as many discovered during the pandemic crisis.

While conducting fieldwork in Mumbai, I interviewed one of the house helps working at my relative's home. She lived in a nearby slum in Bandra East. Domestic help is one of the most common employment sectors for lower caste women in India. Domestic work is always precarious, with no safety nets for the workers, and it is filled with uncertainty. Narrating the time during the pandemic, she shed light on the processes of invisibilisation that exist in stratified societies that were exacerbated during the pandemic.

"When carona began, many places I worked for suddenly stopped calling me. Very few people still kept paying me. As the lockdown started to loosen a little bit, people slowly started calling me back. Initially, I was hesitant and there were rumours about how carona is spread very much in the high-rise towers and that I will bring sickness to the community if I went to work. I had no money left and had no option but to work. Apart from that, some of my employers were

older women and they needed my help. They said they would pay me more and even came to pick me up in a car. I would ask them to come a little farther away, where I would walk to, as I could not let people in my community know that I was working. I would sit and my employer would give me a new mask, and put a plastic bag around my hands, so I don't touch anything. Once we would reach her home, she would make sure that I separately wash my hands and then come to drop me back. I would walk through hidden alleyways so I am not spotted by anyone in my community. I was grateful that madam (her employer) did so much for me. I wouldn't have survived financially otherwise”

The gratitude that she felt for the payment of money hides the multi-layered othering and class and caste-based stigmatisation that she had to endure. Hiding from her own community just to survive. One has to remain invisible to be alive. The migrants and daily wage workers were subjected to coercive forms of power, for the occupation of negatively charged urban spatialities (Ciotti, 2020), like slums and chawls, that have historically been sites of filth and disease, as seen during the bubonic plague. “While upper-caste communities stigmatised and humiliated female bodies as carriers of the covid-19 virus, lower-caste men inflicted harm by controlling and harassing women through physical and sexual abuse” (Chakraborty, 2021, p. 10). As Chakraborty(2021) expands, the biopolitical forces activated by the state, confined the male actors within the suffocatingly small domestic space, such forms of violence multiplied to the verge of elimination or death. The hierarchies that exist within the Indian society normalised and invisibilised the outcomes of the states necropolitical practices, where women, especially lower caste women, were subjected to a specific kind of socio-political death.

The analysis of the COVID-19 pandemic within the uneven landscapes of Mumbai revealed a complex tapestry of systemic inequities and governance failures. As the research showed, there were stark differences between the experiences of populations across Mumbai. The outcomes of the online survey when compared to the in person interviews, surfaced two different realities of the pandemic experience. The lived experiences of impoverished individuals in Mumbai that surfaced through the in-person interviews, illustrated the harsh realities of a system that prioritised economic and political stability over public health and equity. Initially, the call for a stringent lockdown, along with the promised relief packages and health care protocols was highly revered by a specific class of citizens, and looked at it as a “constructive move to conserve and control the population from spreading the contagion” (Chakraborty, 2021, p. 12). International governance agencies like the WHO also purported India's active decision making as extremely effective in containing the pandemic (Malsom & Tripura, 2021). However, marginalised groups or those who were already disadvantaged were unlikely to receive similar support during the crisis (Robertson & Travagila, 2020).

"This mode of governance soon pitted two sections of the population, that is, the upper/middle and lower classes against each other giving rise to polarisation" (Chakraborty D., 2021, p. 12). The upper and middle classes were able to abide by the state dictates having had the opportunity to work from home and socially distance with immediate members of their families in their optimally spacious domestic spaces. The elite class, who were able to adhere to the lockdown norms positioned themselves as superior to the disenfranchised, even to their employees and house helps, who were critical to their own sustenance. Daily wage migrant workers were "looked down upon as inferior, "bad citizens" owing to their inability to follow social distancing measures, living in unhygienic, small, crammed home spaces, and traveling long distances to

their home towns breaking the lockdown protocol" (Chakraborty D., 2021, p. 13) (fig 6.aa.).

The disparities and injustices of metropolitan environments and frameworks, engendered by protracted and perpetuating narratives of divisive and exploitative development, delineate profoundly divergent encounters of vulnerability. As we saw with the slum and chawl typology, the socio-spatial logics of the urban environment that were shaped first by the forces of empire and later by various mutating forms of capitalism, played a crucial role in shaping the lockdown experience. Hygienic, social, and territorial borders are used to control disease, often based on social and racial concepts of purity, filth, and a racialized calculation of valued and



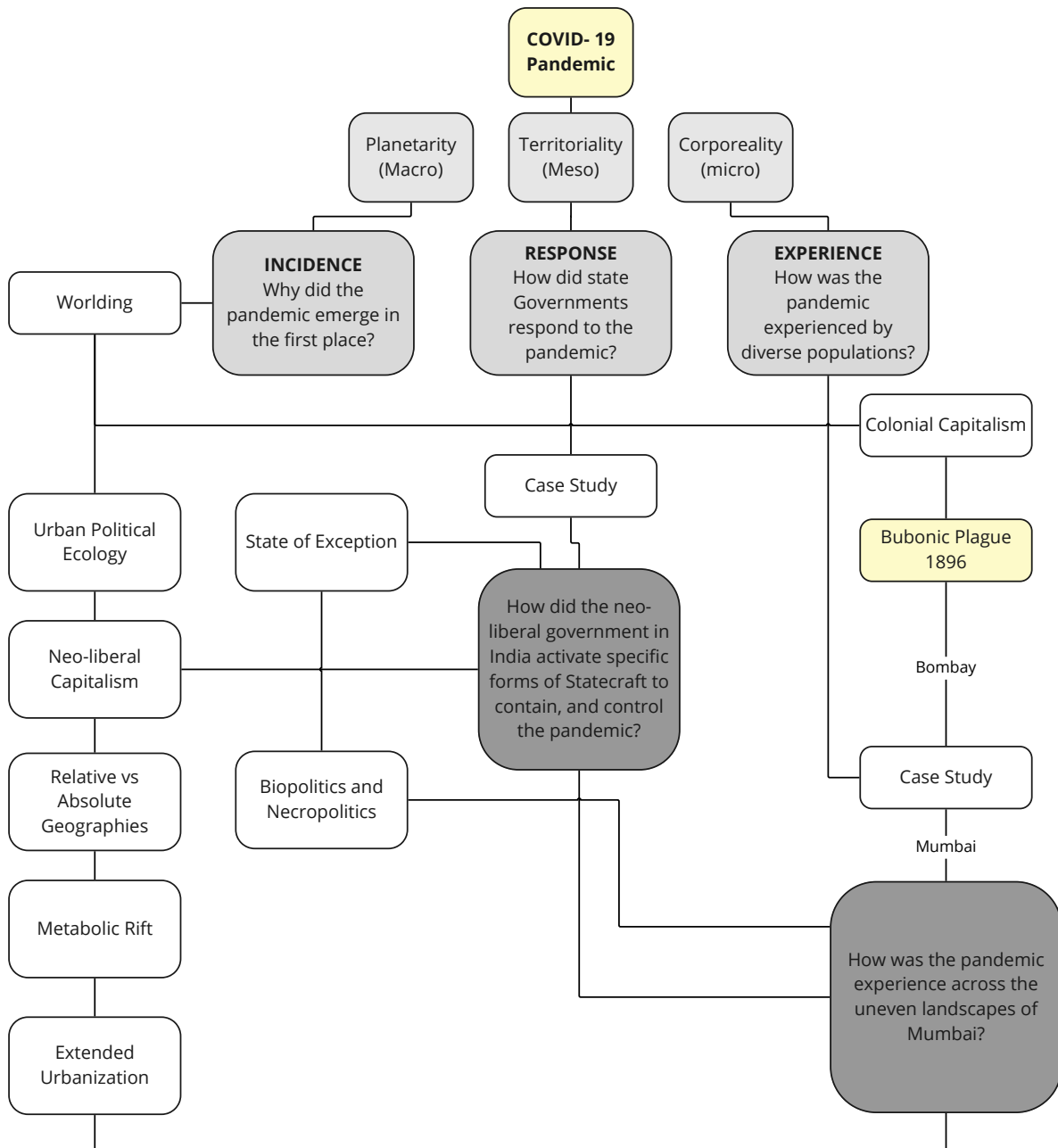
fig 6.aa Image by cartoonist Max Gustafson (2020), succinctly captures the economic polarisation and unequal field conditions that shaped the experience of enduring the lockdown.

disposable lives (Rehman, 2020, para 8). Mbembe's (2003) analysis of the operationalisation of necropolitics, informed by the legacies of racial inequality that were birthed within plantations, act as a foundational scaffolding to "understand the specific forms of necropolitics of caste and class" (Chakraborty, 2021, p. 11) inflicted upon the subaltern labourer within the Indian context. Valued based on the labour that the subaltern can provide, "the labourer is kept alive but in a state of injury, that is with low wages and precarious, unhygienic living conditions" (Chakraborty, 2021, p.11). As Ali et al. (2022) illustrate,

The tissue of urban life became threadbare under pressure as the most vulnerable fell to the virus. Access to public space and ownership of private space became definitive markers of one's chance for survival. Diversities revealed themselves to be cut through with class and race in ways that were hard to reconcile with the official dogma of the open, creative, and cosmopolitan metropolis (p. 2).

"By implementing an aggressive blanket approach such as the country-wide lockdown without adequately calculating the socio-economic costs and with no relief or safety measures in place, the Indian government was attempting to avoid political fallouts and conceal situations of uneven risk" (Ghosh A., 2021, p. 11). The blind application of the best practices blatantly mimicked from the Global North strategies magnified classism in India as the findings demonstrate. The state continuously created death worlds (Mbembe, 2019) for its citizens and actively partook in necropolitical governmentality. The recurrent waves of COVID-19 that followed, the number of deaths, unemployment, and incidences of police violence on the marginalised affirmed that the lockdown disproportionately harmed specific segments of populations. The strategies point towards ideological neo-colonialism that was not designed to alleviate the lockdown-induced suffering of vulnerable citizens, often centred around the production of otherness through cultural alterity.

7. CONCLUSION



Thesis Structure

Pandemics have had a critical role in shaping history that one could compare to that of world wars, technological and infrastructural revolutions, and multifaceted global crises (Snowden, 2010, para.1). Not isolated to merely the realm of epidemiology, they have played a crucial role in shaping our collective history, operating as agents and indices that shape the morphology of urbanisation processes. The COVID-19 pandemic underscored the rhizomatic entanglements between pathogenic microbial life, urban planning, and global circuits of commodity and capital, revealing how historical and dynamic processes of urbanisation and capitalism exacerbate social inequalities and environmental disruptions, leading to the emergence of new infectious

diseases and the reconfiguration of urban spaces. The COVID-19 pandemic has given us a thorough autopsy of neo-liberal capitalism and its impact in shaping the present field conditions. The invisible threat brought with itself masks, sanitisers, quarantine, and social distancing, but in its wake, it made visible the structures of extended urbanisation and hyper-extraction, necropolitical attitudes of the state, rampant privatisation, extreme economic polarisation, and social Darwinism, that are inherent to the globalised neo-liberal order. A transdisciplinary and multi-scalar analysis of the events revolving around the pandemic provided a nuanced understanding of the contemporary urban condition.

First and foremost, the emergence of COVID-19, along with a wanton rise in zoonotic spillovers in recent times, has brought to light a set of invisibilised agents – birds, microorganisms, animals, cargo ships, aeroplanes, and respirators that for the longest time evaded the urban imagination. In its most reductive aspirations, the research "called for a conceptual synthesis between the structural and molecular realms of global health" (Gandy, 2023, p. 2542). The COVID-19 pandemic surfaced the active contribution and agency of these more than human actors in the composition of our urban lives. The cellular continuum revealed how microbial life and other non-human actors are intricately interwoven with human societies. However, the causal drivers of the pandemic called for a non-linear and multi-spectral reading of the pandemic reality. As the research surfaced, the biological intricacies and entanglements were deeply enmeshed with the legacies of historical and contemporary economic, political, infrastructure, and social systems that shaped the experience of being colonised by the virus. To unpack these intricacies, the thesis raised three questions at macro, meso and micro scales to frame a trans-scalar understanding of the emergence of the pandemic, the pandemic response and the experience of the pandemic.

At the planetary scale, exploring the macro-scale processes, the thesis performs a world-building exercise to shed light on the emergence dynamics of the virus. As discussed in the Worlding section, the preconditions for such a global pandemic to emerge had long been in the making. Even though the virus emerged in one of the wet markets of China, through a relative geography lens, one could trace the origins towards the historical and ongoing dynamics of capitalist urbanisation and accumulation. Pandemics have emerged even in the past, traversing territories through man-made commodity and trade networks. However, the world has never been as connected in the history of complex societies as it is today (fig 7.a.). The forces of globalisation, extended urbanisation and hyper-extraction have created landscapes that are very favourable for disease transmission. These disruptive forces are so divorced from the ecology that supports it that the hyper-extractive processes have smashed the regenerative biology of the system, creating sites for metabolic rifts to emerge. Potential viral hotspots such as the landscapes of plantations, monoculture agriculture, feedlots and massive slaughterhouses that are meant to be social and environmental quick "fixes" to feed to ever-growing populations tend to cause more harm. The extractive forces of neo-liberalism have extended into the deep crevices of the forests and wilderness in specific geographies across the world, especially in the Global South. Along with this, the monoculture farming of cattle and exotic meat has brought humans extremely close to non-human viral carriers, increasing the likelihood of zoonotic spillovers. Building upon existing scholarship, the thesis prompts a reevaluation of the emergence dynamics of pandemics, moving away from an absolute geography approach and focusing on the structural drivers of disease, deeply rooted in global capitalism, ecological disruption, and the interconnectedness of the urbanised world.

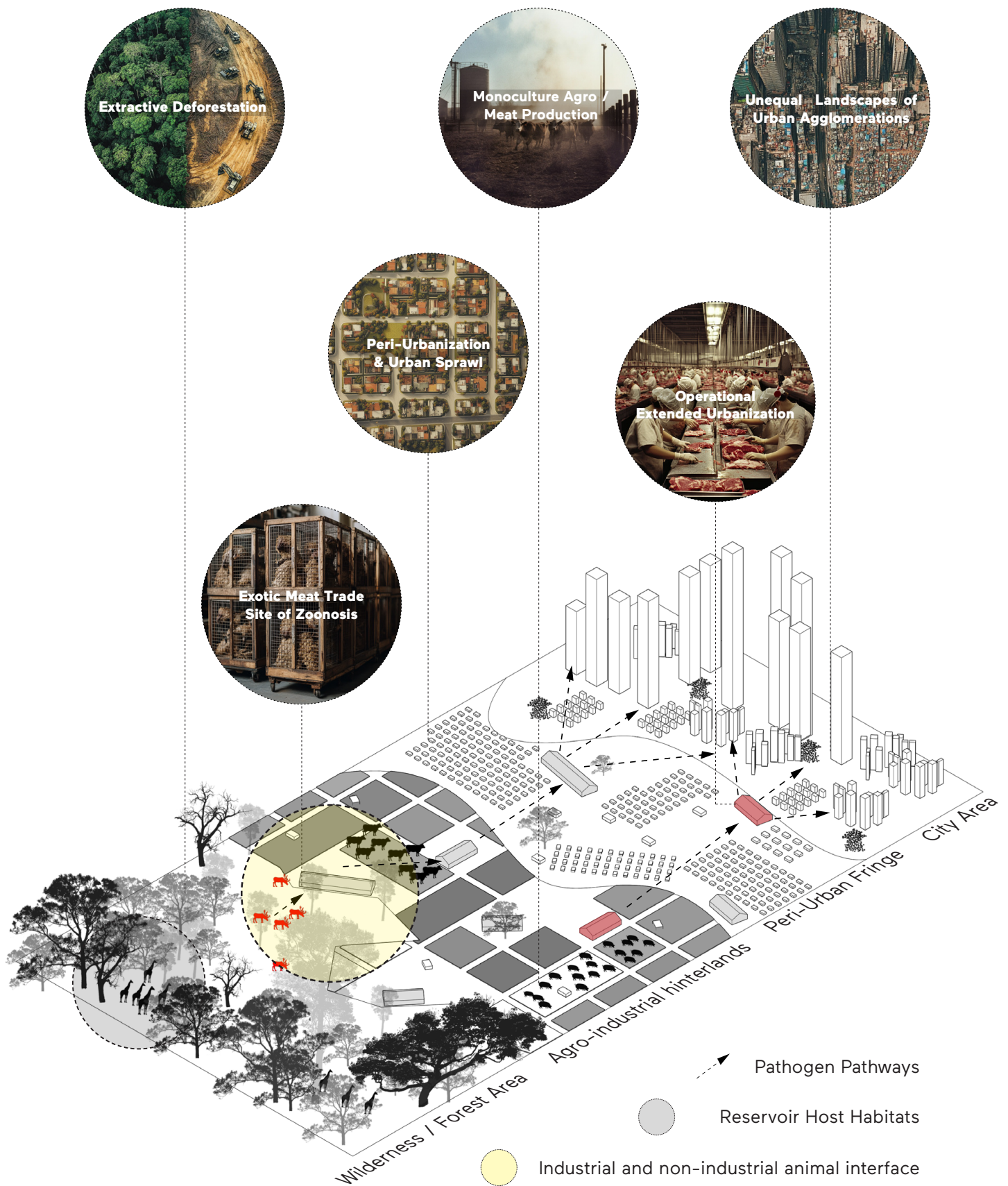


fig 2.b. An urban political ecology of zoonotic pathogenic jumps. Image imagined by the author. Inspired by concepts of Brenner & Ghosh (2022)

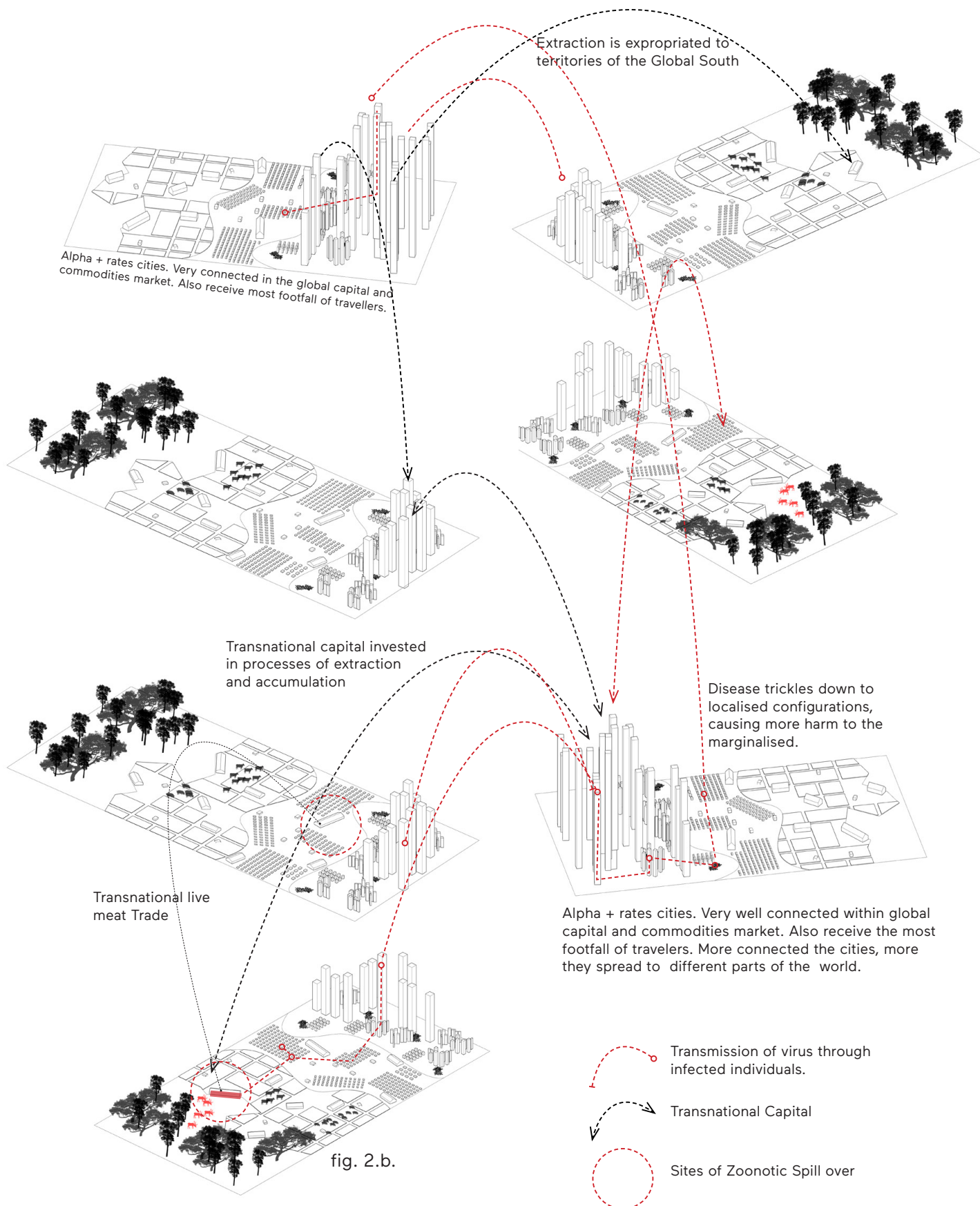


fig. 7.a. Networked circuits of Commodity and Capital across cities overlapping with Pathogen Pathways.

The impact of global neo-liberal extraction and accumulation trickles down into the territorial scales and interacts with nation-state boundaries, shaping novel forms of governance mechanisms. The forces of the market, through capital power, transgress nation-state boundaries and interact with sovereign spatialities and mutate into unique and localised configurations. The rise of neo-liberal governance in the past decades has seen the diminution of state agency, for the reign of the free market. At the meso-scale, the thesis undertook a quick trans-national scan, perusing the immediate responses of states to the pandemic. The investigations not only "revealed the systemic priorities of profit-making over life-making, but also the relationship between capital and the capitalist state form" (Dale & Bhattacharya, 2020, para. 2). The research revealed the colossal failures of state agencies across the planet, even in countries like Brazil, Italy, the US, the UK and elsewhere. The pandemic at its onset acted as a point of contradiction, where the neo-liberal state suddenly had to take back its devolved agency, adopting half-baked Keynesian-style economic measures to manage the crisis. However, this was temporary, and the ground realities of nation-states worldwide were unique and not ubiquitous, which saw governments quickly revert to the logics of the market. As Fredric Jameson (2003) famously quipped, "It is easier to imagine the end of the world than the end of capitalism (p. 105)." The refutation of leaders like Trump and Bolsonaro to go under lockdown in favour of preserving the economy dealt a fatal blow to the populations who were ill-equipped to self-preserve during the global crises. On the opposite spectrum, we saw neo-authoritarian governments like Pakistan, Israel, Hungary and India, practice populist politics and appropriate the pandemic as a means of expanding power, promoting the construction of a hyper-policed state. Within the lived histories of the COVID-19 pandemic, technologies of social distancing, isolation and confinement, quarantine centers, home concealment, and urban zoning indexed a diverse and differentially practiced spatial protocols to disease spread in the context in global health structures (Rehman, 2020, para. 8). As observed before, the blatant application of severe lockdown measures in conditions that were not conducive to its practice, also led to disastrous outcomes for disenfranchised populations.

The activation of practices like lockdowns and social distancing by robust economies of the Global North, were conducive to the legacy of welfare and social safety mechanisms in place. However, these measures did not account for the unique socio-spatial, infrastructural and economic realities of the cities in the global south. The necropolitical economic structures "that the capitalist system has produced do not simply operate as a political economy but also as a policed economy that induces a necropolitics of dispensability for unproductive or replaceable populations" (Howard, 2022, p. 1). Analysing India as a case study, the implementation of stringent lockdown measures shaped by the legacies of colonialism revealed societal fissures, disproportionately affecting lower-income and marginalised communities. The viral metaphor that Peck and Theodore (2013) activate for neo-liberalism can be taken further back to the colonial regimes, that have inflicted perpetual damage on the colonised territories that continue to impact the decision-making of in-power authorities even today. In the case of Mumbai, a longitudinal excavation of how the Bubonic plague was contained unearthed policy based path dependencies. The re-activation of the highly exclusionary Epidemic Diseases Act, a relic from the British Raj, pointed towards the neo-colonial and necropolitical attitudes of the state. The coercive practices and policies favoured protecting certain privileged citizens while disenfranchising a significant section of the population. Buttressing this, a close analysis of the events revolving around the bubonic plague of 1896, brought to light the role of policy and control in

shaping the urban configuration of the city of Bombay, which has also had an impact on the experience of the COVID-19 Pandemic. As demonstrated by the history of urban epidemic management, these forms of bio and necropower become embedded in urban built, revealing systemic racial and economic stratification (Rehman, 2020). The rise of Bombay as a site of labour extraction for the British, propelled the proliferation of specific housing typologies, like slums and chawls, that persist to this date. Thus, the experiences of pandemics become inherently tied to the city's economic history and the current position in the global circuits of capital.

At the micro-scale, the implementation of an Orwellian version of sovereignty by neo-liberal governments meant the proliferation of disease, increase in mortality numbers and the high rate of infection among disenfranchised populations. The fieldwork surfaced a spectrum of realities across the uneven landscapes of Mumbai. The majority of the respondents to the online survey were better positioned within the Indian stratified society, and survived the pandemic and the lockdown rather unscathed. Compared to the online survey, the in person interviews, and situated testimonies revealed a different set of experiences. The experiences of the lockdown highlighted the vulnerability of slums and the plight of migrant workers, illustrating how economic forces, historically shaped by colonialism and now by neo-liberal capitalism, have led to the formation of vulnerable urban spaces. COVID-19 travelled along terrains etched by the ongoing systemic inequalities and violence that accumulates wealth through class and racial/caste suffering. Power dynamics within socio-economic factors such as class and race have intersected with viral transmission patterns, along with existing health disparities, leading to "complex political configurations of hazard and exposure, safety, secession and urban risk" (Madden, 2020, p. 679). In the worlding section of the literature review, the thesis framed the pandemic as a site of the Marxian concept of the metabolic rift. This rift, an outcome of the ruptured bio-physical processes, impacts specific populations significantly more than others. The metabolic rift of COVID-19 saw the activation of Mbembe's necropolitical governmentality, and highlighted a systemic disregard for the precarious living conditions of marginalised populations (Mbembe, 2019). The populations in Mumbai who inhabit slums and chawls, faced the brunt of overlapping planes of marginality, marking them for various forms of death, be it social, civil or biological.

The disease itself did not differentiate between the more vulnerable and less vulnerable portions of society. Rather, "in every phase and aspect of a disaster – causes, vulnerability, preparedness, results and response, and reconstruction, the contours of disaster and the difference between who lives and who dies is to a greater or lesser extent a social calculus" (Swanson & Smith, 2006, p. 106). The pandemic surfaced multivalent forms of violence that were inflicted unevenly across the globe. Violence has a subjective nature, and manifests itself in noticeable ways, having identifiable culprits. Some stories of violence did come to light within the public sphere, in the form of police brutality, demobilization, cessation of first amendment rights, and excessive surveillance. But many stories remained silent or invisibilised that were within the confinement of the home and remained untraced. The people who found themselves not just at the bottom of the class or caste hierarchy, but a global hierarchy composed out of the intersection of multiple axes of identity, were the most invisibilised and faced the harshest consequences of the pandemic. When the safety nets have big holes in them, a lot of the population falls through. As the Lauredales paradox suggests, The sum total of the exchangeable value of goods (private riches) and the sum total of the use value of goods (public wealth), vary in

opposite directions (Hupfel & Missemer, 2023). The wave of privatisation and marketisation of essential services like healthcare, and the reduction and exclusion of populations from welfare schemes caused disproportionate harm of selective bodies through and within corporeal and infrastructural domains.

The political interventions mobilised to contain the pandemic inadvertently targetted the populations on the margins, not recognising the core structural drivers of epidemiological risk rooted in uneven development processes. At a conceptual scale, the research demands a re-assessment and a systemic understanding of the structural drivers of inequality, vulnerability and the proliferation of ill-health. Integrating ecological and multispecies considerations into public health strategies can lead to a more informed framework to mitigate the future spread of diseases and a mobilise a more cohesive approach to planning the urban realm. Contributing to the existing volume of literature, the thesis examines the impacts of neo-liberal governance and spatial segregation on health and well-being. The findings of this thesis call for a radical move beyond replicating prototypical and generic global strategies, and proposes the incorporation of context and legacy of historical processes, to shape an informed disaster response. The specific socio-economic and infrastructural realities of varied urban environments need to be centered in developing tailored public healthcare measures, to ensure equitable and effective implementation of such support mechanisms. Along with a context-contingent approach, effective pandemic management needs to include diverse stakeholders within policy-making processes. Rather than a completely top-down approach, the engagement and representation of diverse communities in the design and implementation of policies can help direct aid where it is most essential.

In conclusion, The COVID-19 pandemic revealed the inequalities and fractures within the neo-liberal world order, that inflicted selective harm to specific populations. The pandemic also underscored the complex and multi-scalar entanglements of economic policies, social welfare, and public health, exposing the fragility of market-oriented governance. The context-contingent mutation of the necropolitical neo-liberal governance activated by the current in-power government highlighted the urgent need to reassess welfare policies that exclude marginalised populations. Moving forward, it is essential to explore alternative frameworks that prioritize equitable development, social justice, and the well-being of marginalized populations, ensuring that future responses to crises are rooted in solidarity, rather than solely on the stability and efficiency of the market. The devastating and violent impact of the COVID-19 pandemic highlights the immediacy of constructing lived worlds and realities that go beyond the built/unbuilt, material/immaterial, urban/rural human/more than human, domesticated/wild binaries and thus make possible a sustainable model of a planetary scale urbanisation (Brenner & Ghosh, 2022). Thinking about the urban through COVID-19, and infectious diseases more generally also calls for a topological understanding of city spaces and the bodies that inhabit them, such that "geographies of health and risk come to be seen in terms of a continuously shifting skein of networks, at once local and global, biological and political, each with its own spatiality and temporality" (Braun, 2008, p.251). Such an anti-essentialist corporeal geography suggests that "health and illness be viewed not as qualities inherent to material bodies explicitly, but rather re-evaluated as the emergent effects of the biological, socio-political, and economic networks" that compose them and that position different bodies as more or less vulnerable or secure" (fig 7.b.) (Braun, 2008, p.2 52).

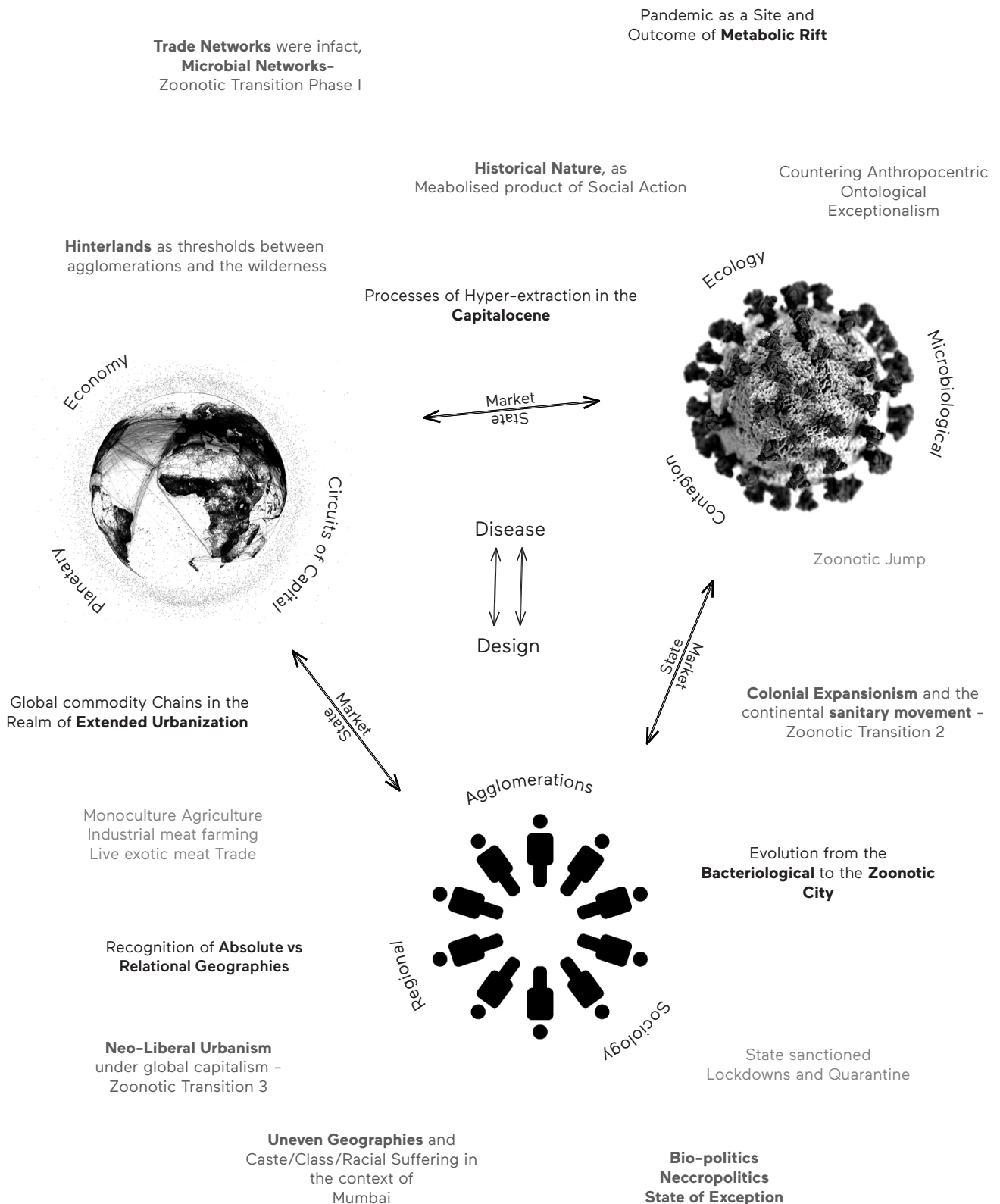


fig 7.b. In the introduction chapter of the thesis, the research calls for a more nuanced understanding of the pandemic. The diagram above reflects the various processes, actors and agents that have shaped the field conditions in which the pandemic condition manifested.

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fig 6.g. Image by the author.

fig 6.h. Cessed Buildings map. Urban Development research institute (2011).

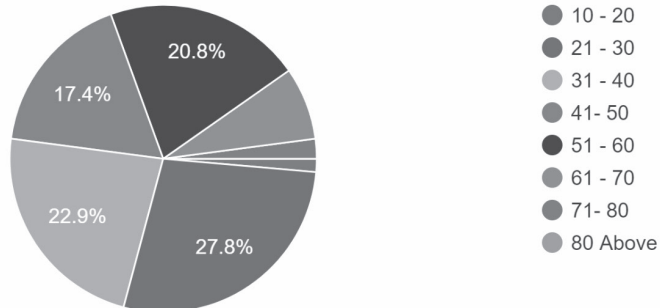
fig 6.h - 6.z. Images clicked or produced by author.

fig 6.aa. Gustafson, M. (2020). *Contagious inequality*. Cartoon Movement. Retrieved August 25, 2024, from <https://www.cartoonmovement.com/cartoon/contagious-inequality>.

10. APPENDIX - COVID ONLINE SURVEY QUESTIONNAIRE

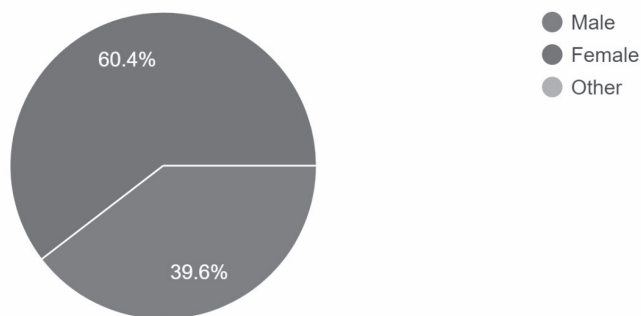
What is your Age?

144 responses



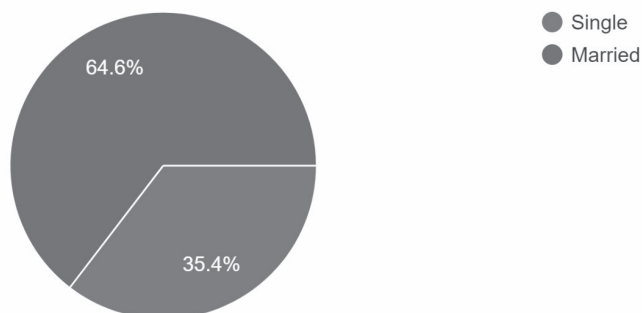
Gender

144 responses



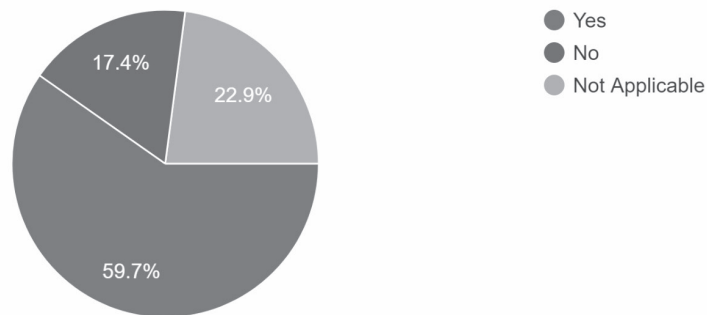
Marital Status?

144 responses



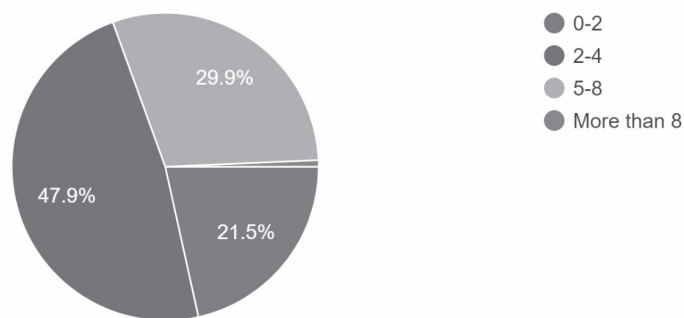
Did you live with your spouse in Mumbai during the lockdown?

144 responses



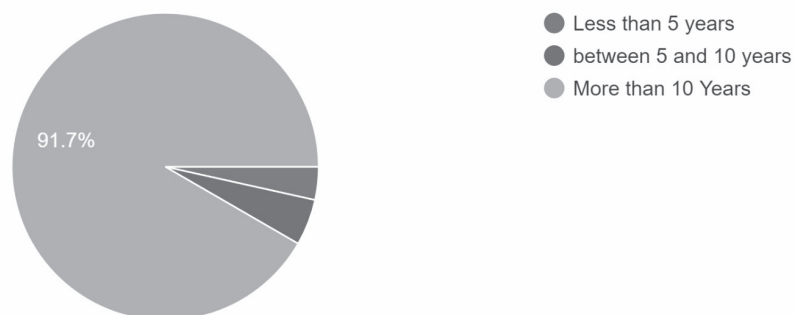
How many people lived in your household during the lockdown?

144 responses



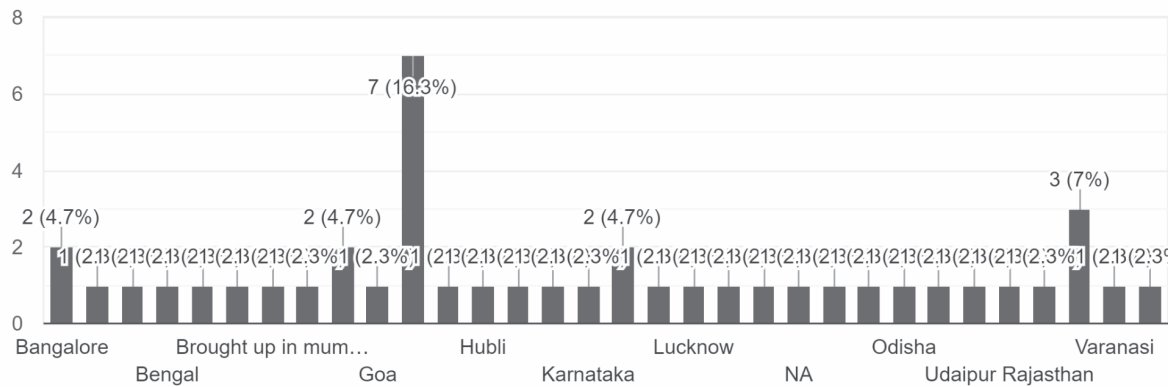
Years in Mumbai

144 responses



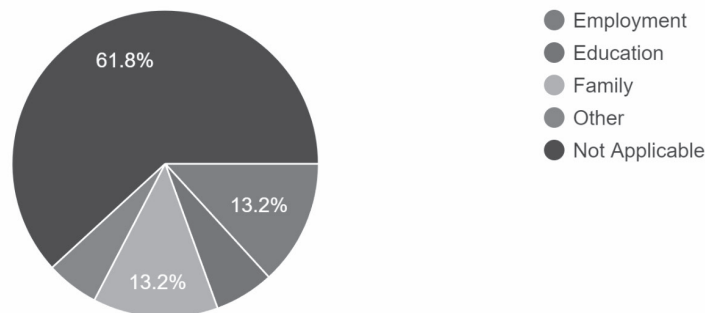
Where did you migrate from? Skip If you are born and brought up in Mumbai.

43 responses



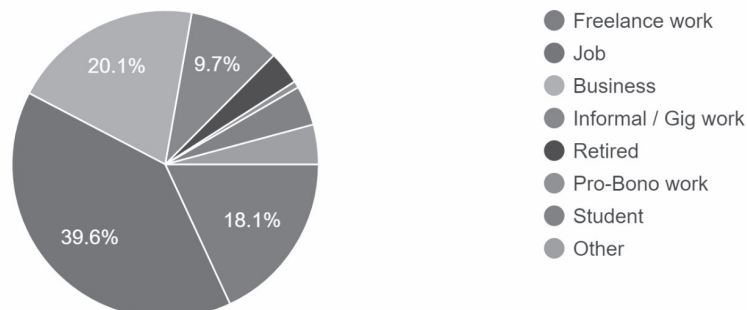
Reason for Migration

144 responses



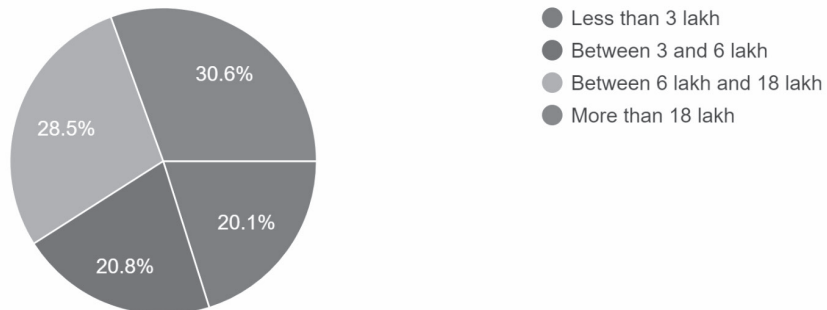
What was your occupation during the pandemic?

144 responses



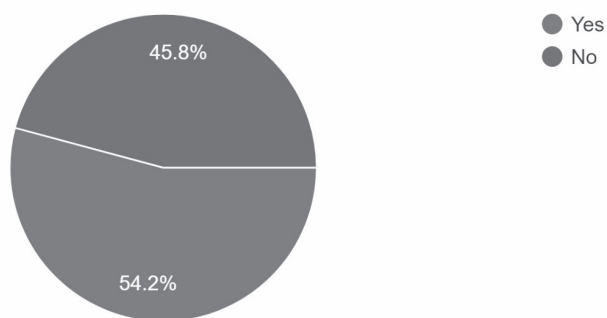
What was your annual Income before lockdown? If there are multiple earners in the houshold please fill total income.

144 responses



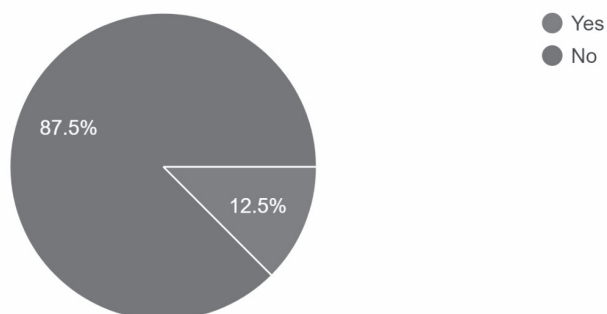
Did your income get affected during the pandemic?

144 responses



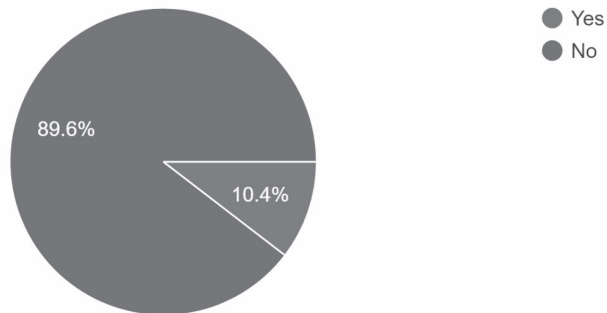
Did you lose your job during or after the lockdown?

144 responses



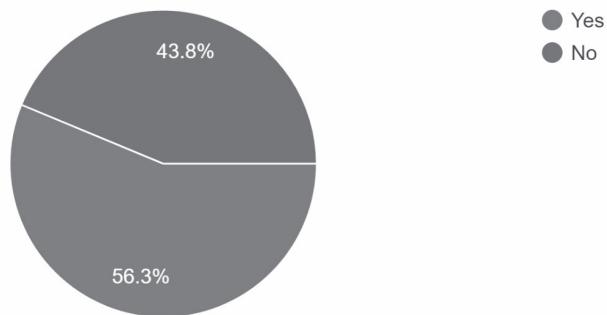
Did you incur any debt because of the lockdown?

144 responses



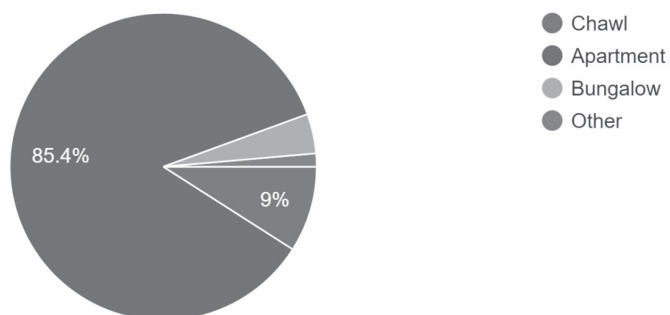
Did you have to use your savings during the lockdown?

144 responses



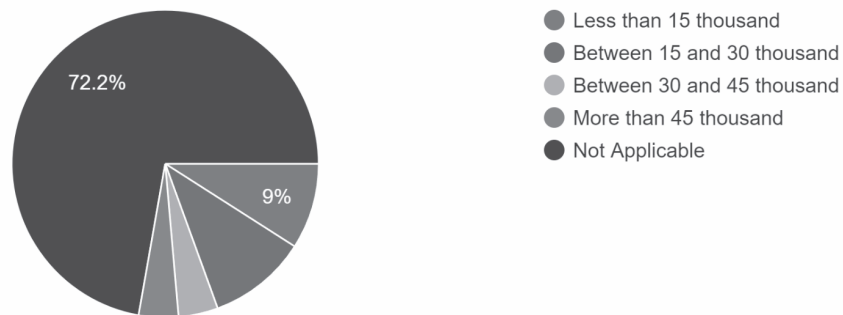
What type of housing did you live in during the lockdown?

144 responses



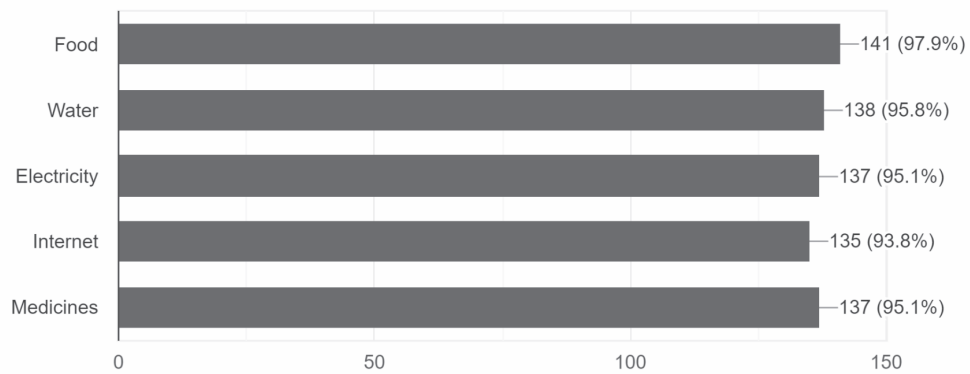
If you paid rent, how much was it?

144 responses



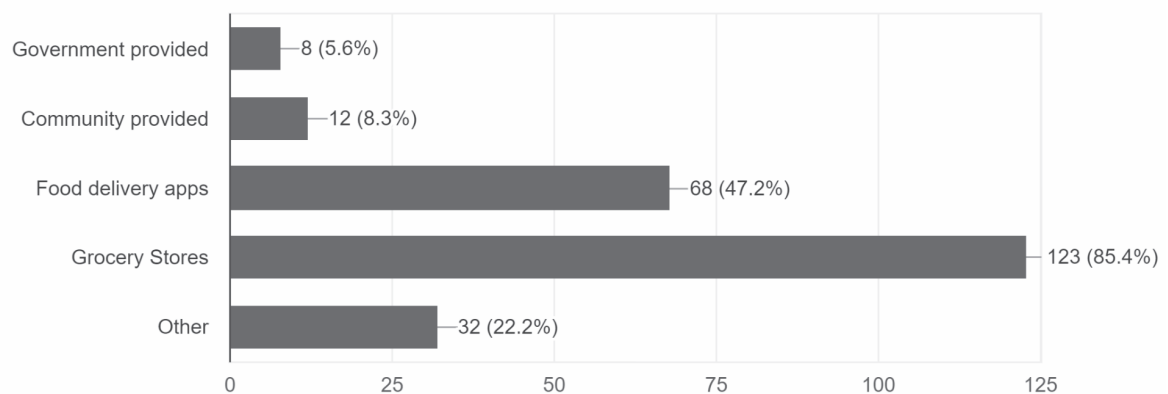
Select Basic Services that you had access to during the lockdown. Select all that apply.

144 responses



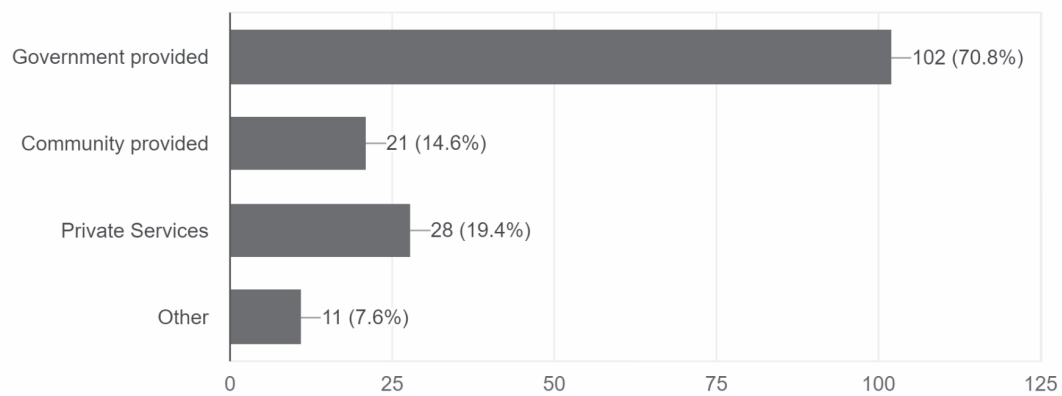
How did you manage getting food and supplies?

144 responses



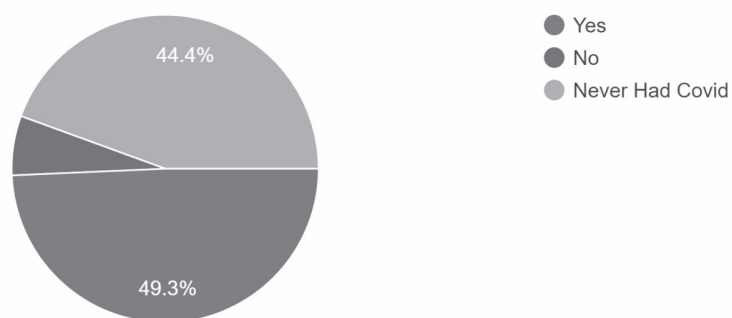
How did you manage to get drinking water ?

144 responses



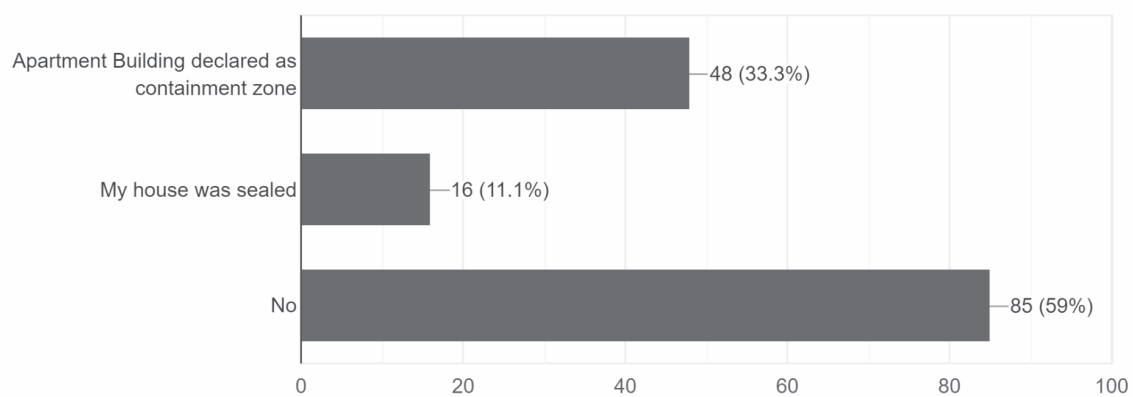
Were you able to self isolate inside your own home if you got COVID ?

144 responses



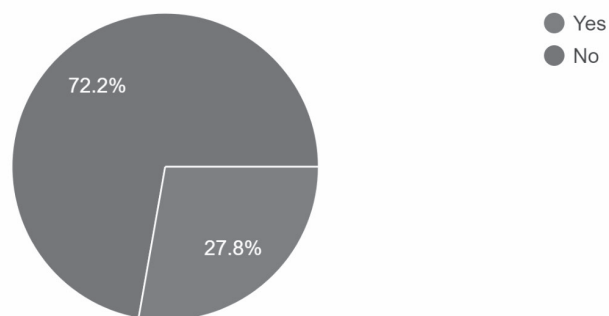
Was your house or entire apartment building ever sealed due to Covid cases or declared as a containment zone?

144 responses



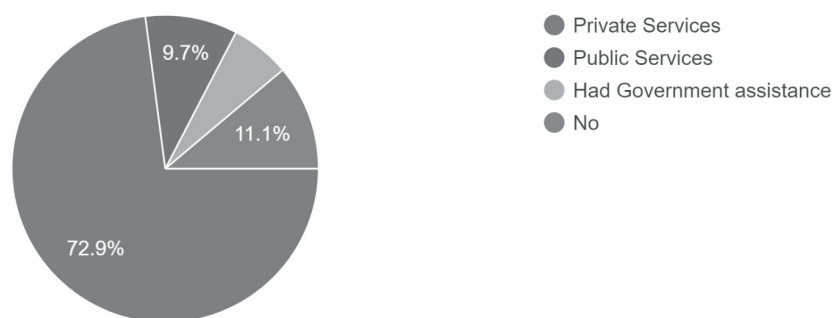
Did you experience any mental health issues during the lockdown?

144 responses



Were you able to access healthcare services when needed?

144 responses



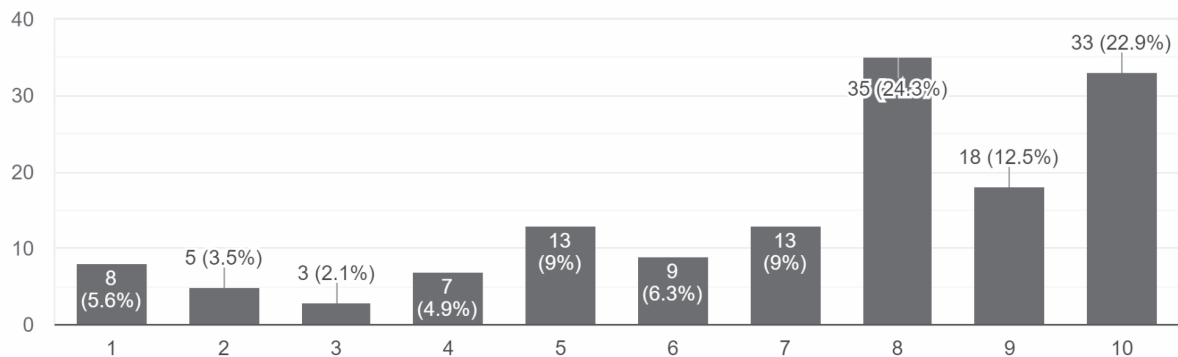
Did you ever stay at a quarantine centre?

143 responses



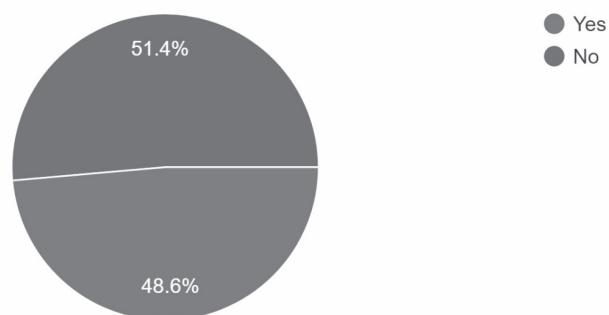
On a scale of 1 - 10 please rate the level of concern regarding your health and the health of people around you during the lockdown. 1 being the least concerned and 10 being most concerned.

144 responses



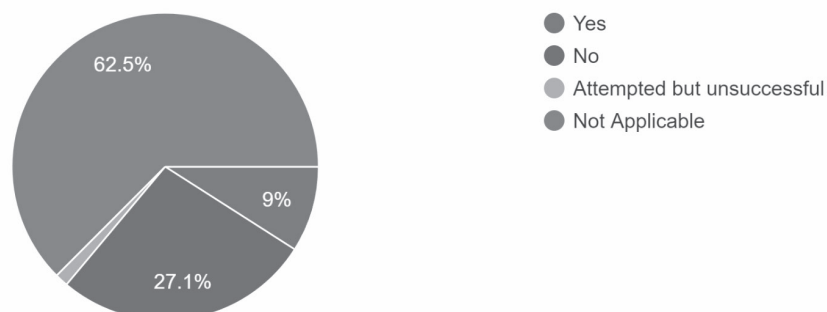
Were there any public spaces that you could access during the lockdown outside your home? Like a walking area or a park?

144 responses



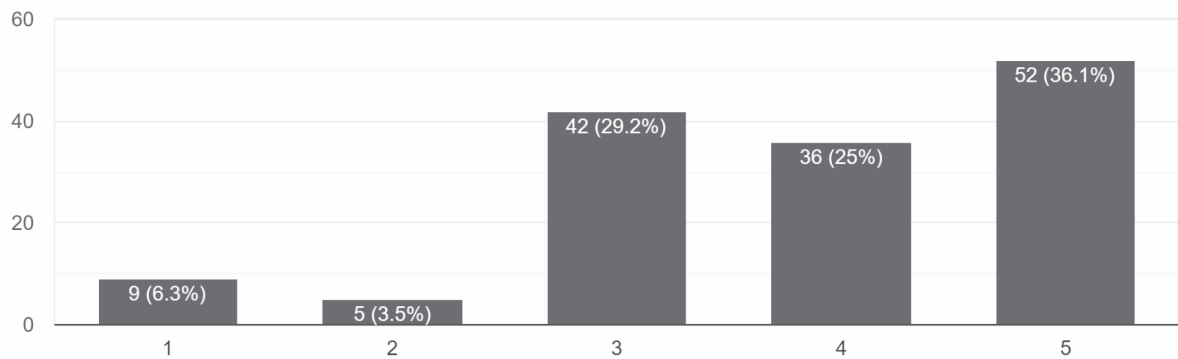
Did you attempt to return to your hometown during the lockdown? Were you successful?

144 responses



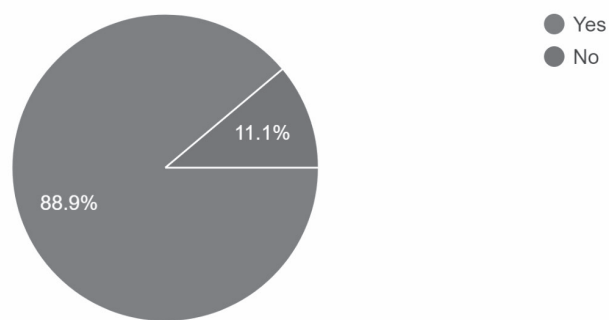
How much did your daily routine change during the lockdown? (1-5 scale, 1 being not at all and 5 being very much)

144 responses



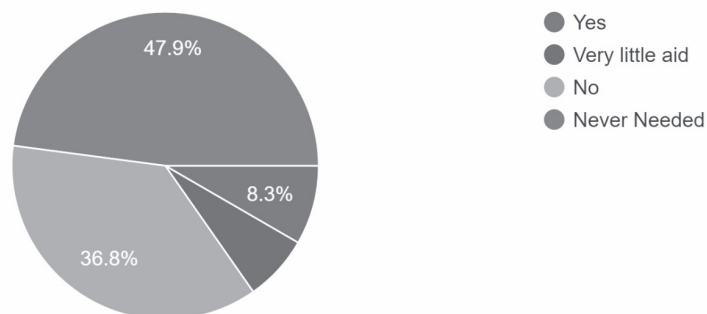
Did your household responsibilities increase during the lockdown?

144 responses



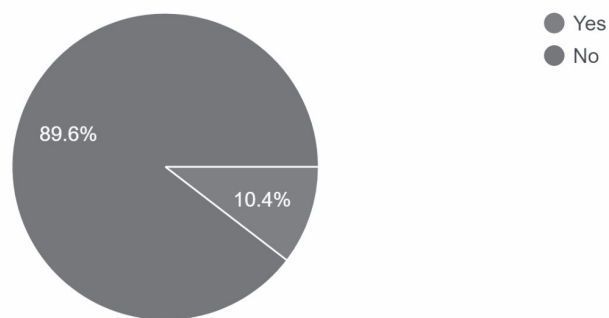
Did you receive any government aid during the lockdown?

144 responses



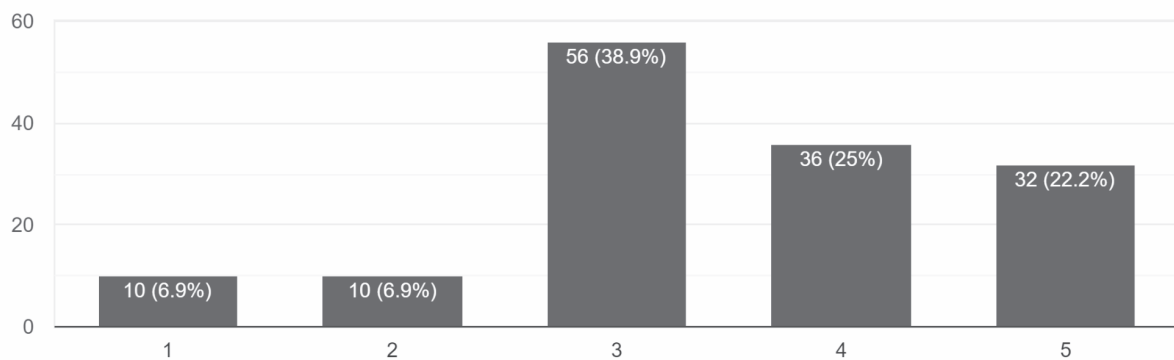
Did you receive support from NGO's or community organizations?

144 responses



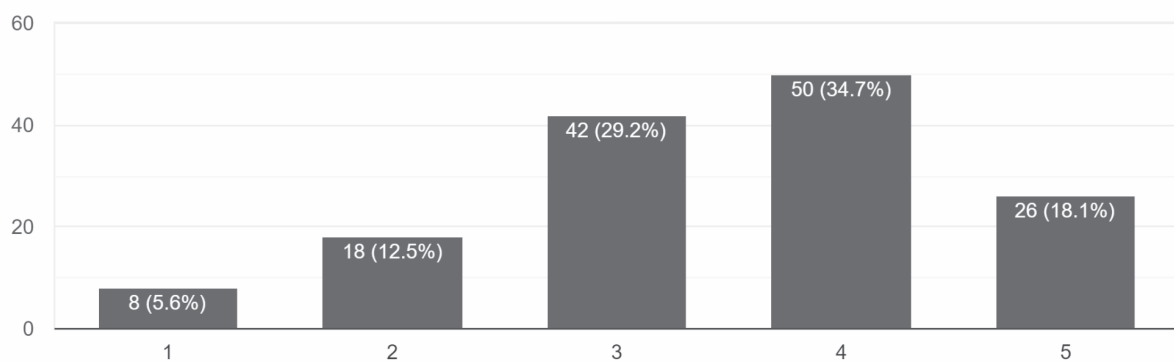
How satisfied are you with the government's response to the pandemic of going under lockdown?
(1-5 scale, 1 being very dissatisfied and 5 being very satisfied)

144 responses



On a scale of 1 to 5, how prepared do you feel for any future crises similar to the COVID-19 lockdown? (1 being least prepared and 5 being very prepared)

144 responses



Further Comments

1. Na
2. No
3. There was no need for lockdown
4. The government purely got involved in census , may be bit of follow up to take meds, if you were declared covid positive - publicly and quarantine etc,. But other than that there wasn't any counselling , or process to deal with if you suffered. Even doctors were so new to the whole pandemic, and they prescribed drugs as per protocol. No one checked the severity of the disease of an individual , or tried to liaise with on individual level. It was blanket protocol for all. Not sure if the government had alternate ways or intel to deal with such situation, but sure was tough on all.
5. There were many ramifications due to Covid. This survey does not completely cover all aspects of the Covid lockdown
6. It was a live changing experience. Due to COVID we came to value our surroundings and respect environment
7. Not during the lockdown but once everything opened my 12 daughter had a lot of issues adjusting as she hardly had any social interactions during the period, in fact still coping up and I needed to seek outside help for her.
8. Vaccine was a fraud due to it many health complications to many
9. The government managed vivid crisis pretty well. Our community took utmost care regarding the health of the residents .
10. Given the population of the city and the scale of the crisis, I don't think we, as citizens, were prepared for what happened or are prepared for it even in the future. I see no change in the government's city planning or public practices to ensure that areas don't become containment zones in the future. We have just gone back to the 'so called' normal.
11. Not sure what the study is about, but - I don't think the government could have done much in terms of containment. They were unprepared and the quantity of our population is not helpful. I feel like everyone did the best they could in terms of handling the situation, and nothing could have been done differently. Obviously if you think in hindsight, a lot could have been differently executed, but at the time, when we were blindsided by this pandemic, everyone was acting on instinct. There were no protocols in place, and the government had to make split second decisions for countless factors that

had to be executed on the second largest scale in the world, that too within a day or two max. It was pretty commendable. However, the government was physically brutal with a lot of people for coming out during lockdown to get some medicines because they didn't have access to basic services, and that's something that could have been avoided. They should have employed more "community volunteers" who could have provided delivery services and made life easier for everyone. The quarantine centres could have been MUCH better as well. The images were terrifying.

12. So long
13. MCGM centralised management of the Healthcare access during pandemic was exemplary
14. There was no need of complete lockdown masks would have sufficed . It shook up the whole economy and resulted in huge mortality rates
15. no
16. Locking down everything and restricting any movement out of the house without proper government provided assistance in place is worse than being thrown in jails for rigorous imprisonment. At least they would receive food, water, and shelter. Many people in Mumbai are homeless and don't have a roof over their heads. Where would they go?
17. While many people suffered in the pandemic, and I too got COVID a couple of times, not to mention was very stressed about my elderly parents, I feel like the lockdown was a time of peace and rejuvenation. I lost 10 kgs as my lifestyle was automatically healthier with no outside food, alcohol and more household active work. I could read much more, write and connect with friends on video where we would play games and pass the time. My work doubled as I'm a copywriter and everyone needed a digital presence with a website and social media. All in all, I think for a certain privileged section of society, the lockdown was a better time than it was for others.
18. Government of India did a great job. People were mostly quite cooperative. Some always love breaking rules.
19. Average effect of lock down in our area.
20. Lockdown was better option as far as civilisation is concerned.
21. My days during COVID Pandemic were managed comfortably due to Govt and Social Institutes support.

