TRANSIENT LIQUIDITIES ALONG THE NEW SILK ROAD

GRADUATION STUDIO

2023/2024

PANAMÁ

BORDERS & TERRITORIES

Cover Image
Christopher Clarkson, 2023

Culebra Cut, 1912
rarehistoricalphotos.com

TRANSIENT LIQUIDITIES ALONG THE NEW SILK ROAD
GRADUATION STUDIO

Delft University of Technology
Faculty of Architecture
2023 – 2024

BORDERS & TERRITORIES

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Ana Mendica
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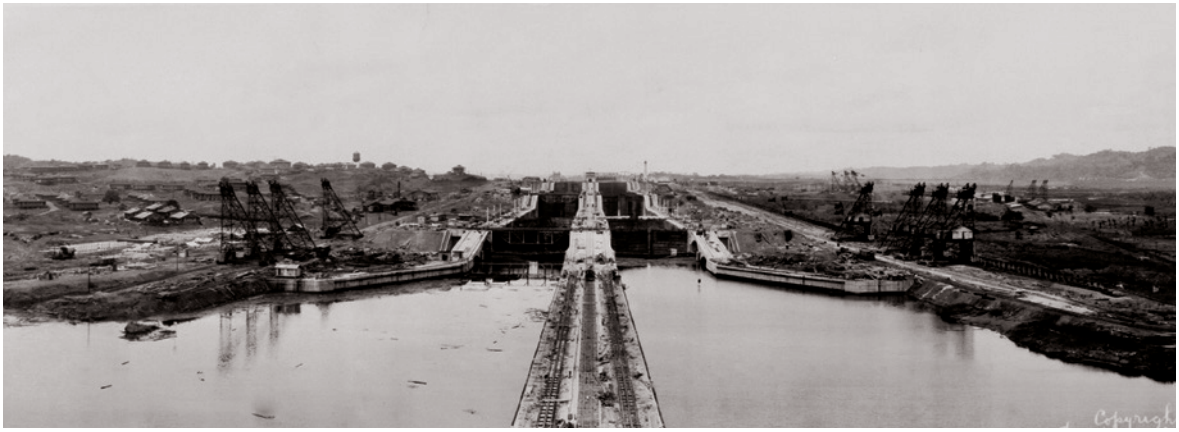
INTRODUCTION

TRANSIENT LIQUIDITIES ALONG THE NEW SILK ROAD III

The BORDERS & TERRITORIES Graduation Studio 'Transient Liquidities along the New Silk Road III' focuses on experimental architecture in socio-political contexts. The studio engages in architectural acts of experimentation while simultaneously emphasizing the importance of the contextual aspects of architecture, which range from the theoretical field(s) of the discipline to the multiplicity of 'contexts' offered by the urban and territorial environments. The studio will cultivate projects that investigate the contemporary spatial conditions located around borders and territories via acts of mapping in the attempt to relate theoretical reflection to spatial analysis and architectural design. Through the act of developing a project, architecture introduces the political as well as the social and the cultural into the everyday life of the city, through its projected spatial implications, through its physical manifestation and through its meditated reflection on the spatial (whether this is theoretical, historical or critical). The interest of the studio is therefore focusing on how architecture operates within a spatial field of power structures; how social relations have their physical effect in and on space; and how implemented policies have resulted in specific spatial conditions. The program positions architecture as an oscilating in-between condition, namely operating in-between design and theory, in-between art and science, in- between the rational and irrational, in-between logic and intuition. This space of the in- between is where the border transforms from a spatial element that implements segregation and division into a space of encounter within a spatial setting. This space of encounter is not necessarily a social space, yet it does contain a specific understanding of the 'other'. Furthermore, within any contemporary environment, the architectural object does not stand in isolation nor has it emerged out of architectural considerations solely. Fundamentally, architecture operates in an in-between field that is unstable, complex, fragmented and non-hierarchical.



RESEARCH

Research in the B&T studio will start with the observation, description and investigation of emergent spatial conditions within cities and territories by emphasizing the relationship between place and spatial practices. These practices are constituted by the spatial acts of everyday life and range from daily rituals to social tensions to anomalous approaches to space. The object of investigation within the studio is therefore the entire array of spatial phenomena and conditions, from the banal, the extraordinary to the idiosyncratic, in an attempt to understand contemporary spatial practices that shape the urban and territorial environments. As a result, the investigations of contemporary spatial conditions will be appreciative of the fragmentary and eclectic nature of the spatial multiplicities found in the contemporary territories. The studio's specific interest in the city and its surrounding territory originates from the recognition that there is an abundance of potent, yet little understood spaces that are in urgent need of corresponding theories. Precisely the descriptions and analyses of the factors that make up contemporary spatial conditions need to be revised and nuanced. Experimental research starts with an open-ended question, which, to a certain extent, guarantees the incorporation of the state of uncertainty regarding the object of study and the process of investigation itself. It requires a strategy that is rigorously open to the possibilities of the emergent, of 'becoming', of imagination, of the crystallization of meaning, of experience. Such an open-ended research strategy constructs knowledge through a 'bottom-up' process, rather than implementing knowledge in a 'top-down' manner. In fact, opening up the discourse to the emergence of the possible, to an unleashing of potential, is reminiscent of Robert Musil's 'sense of possibilities' (as opposed to a 'sense of realism'). Fundamentally, such an investigational strategy does not pretend to be able to govern the current processes within the city, nor does it pretend to offer solutions to straightforward problems. Rather, the attempt is to give insights into the spatial workings of the urban territory by clarifying the processes that occur and the agencies that act. The territorial context becomes a terra incognita of in- between conditions, a spatial field where discoveries occur by paying attention to the non- apparent.

Panama Canal Construction, 1913
wikipedia.org

EXPLORATION

The B&T studio considers the specific, and at times emergent, spatial conditions found in contemporary territories to be a rich field in need of exploration and, ultimately, comprehension. The investigative exploration of contemporary spaces is particularly challenging when the outcomes are meant to inform or purposefully 'ground' contemporary architectural practices in any spatial context. Spaces are, nowadays, diverse and changing, dynamic and ephemeral. Their investigation calls for a strategy of spatial drifting (the so-called 'dérive') that incorporates a certain degree of improvisation and allows for deviations and intuitive decision-making. Dérives have neither pre-conceivable outcomes, nor pre-determined objects of investigation, as they rely on an overlapping of experienced spaces and encountered events, alongside hunches and prior knowledge, to form an ad-hoc reading of the city. In The Principle of Disorientation from 1974, Constant formulated this potential of the drift with wonderful precision: 'straying no longer has the negative sense of getting lost, but the more positive sense of discovering new paths'. In addition, the exploratory nature of the studio should also be understood as a 'drifting' through the spaces of endless differentiation of the contemporary terrirory, as it consists of an abundance of spatial objects, elements, intensities, forces, agents, ecologies and phenomena that are all potentially object of study for spatial analysis.

Culebra Cut, 1902
wikipedia.org

MAPPING

Apart from a specifically defined object of investigation and an inventive research methodology, the B&T studio embraces methods of mapping in order to make the immanent spatial conditions accessible, while at the same time remaining faithful to the complexity and multiplicity of the phenomena and properties at hand. Special attention is given to the development of specific cartographic techniques enabling the registration and interpretation of these spatial processes. Mapping is considered exceptionally relevant to this end, for the map becomes in many ways a distilled territory – a nearly tangible place. As Denis Cosgrove stated in his edited book Mappings, the map is 'the most sophisticated form yet devised for recording, generating and transmitting knowledge'. Mappings compose an index of future possibilities, as they are receptive to interpretation: a mapping offers a small-scale reading that turns an act of 'measuring' into an 'exploration'. Ambiguity, complexity and openness are key to the category of mapping that the studio has been exploring. Even though mapping has been discussed at length in the past three decades, conspicuously absent in these discussions are the relationship that mapping might actually have with architectural design, not only as a supporting tool, but rather as an integral part of the design process. There are numerous examples of urban and territorial analyses that have been part of, or incorporated in, the design process, but the findings of these spatial investigations hardly constitute guiding design principles for an architectural intervention. To formulate the proposition slightly different: contemporary architectural discourse emphasizes the territorial and/or spatial context of architecture either via the collecting of information or through an analysis of its formal principles, but what remains absent is both a theory and a design strategy that relates these two.

DESIGN

The B&T graduation studio has an interest in architectural investigations into contemporary urban and territorial conditions that are eclectic and trans-disciplinary in nature. The 'agenda' of the studio is rather clear about the object of investigation (namely the border and its defined territory), the method of investigation (large and small scale mappings), research procedures (bottom-up) and disciplinary focus (namely architecture as the discourse on space), yet quite diffused in terms of its outcome, whether on the level of the architectural design proposal or on the level of a participatory or engaged ideological standpoint. The focus of the studio on urban and territorial space(s) of endless differentiation can be considered an extension of the development within architecture itself, namely from the more classical contemplation and design of public, religious and institutional buildings (in other words, buildings reflecting power relations directly) to the Modern agenda of state controlled projects (namely the emergence of planning, collective housing, industrial complexes, etcetera) to the current phase resulting in the investigation of a seemingly endless array of spatial practices, on different levels of interest and functioning. This 'environmental universe' of spatial elements, which constitutes the contemporary territory, is not an ordered universe, at least not hierarchically, but consists of constellations of elements, seemingly without any relative weight. Such an attempt to think the whole, grounded in a fundamental understanding of the fragmentation, constitutes the true premises of our current spatial thinking towards a 'speculative contextualism'.

MOSQUITO GULF
GATUN LAKE
TRINIDAD BAY
CHORRERA BAY
PANAMA BAY
PACIFIC OCEAN
CENTRAL AMERICA
PANAMA CANAL AND APPROACHES
FROM UNITED STATES GOVERNMENT PLANS AND OTHER DOCUMENTS IN THE HYDROGRAPHIC DEPARTMENT
1914
SOUNDINGS in FATHOMS
CAUTION. The boundaries shown on this chart are approximate only.
NOTE. The positions of Colon and Panama on this chart are those given by the United States Coast and Geodetic Survey, 1914.
Tidal Information

PANAMA: CANAL AND CITY

When seen on a map or satellite image, the territory nowadays called Panama comes across as constituting a geographic hinge. Literally located on two continents, that narrow piece of land separtes the Pacific ocean from the Carribean sea (and the Atlantic ocean beyond). A border(ous) country, therefore, situated between two vast water bodies. Of course, the Panama isthmus is more than merely a geographical anomaly. The bridging of continents also has caused a unique mixture of ecologies to unfold in the course of time, resulting in a dynamic evolution of exchanges and interferences. Until this very day, that specific ecology remains to incorporate several uniquenesses.

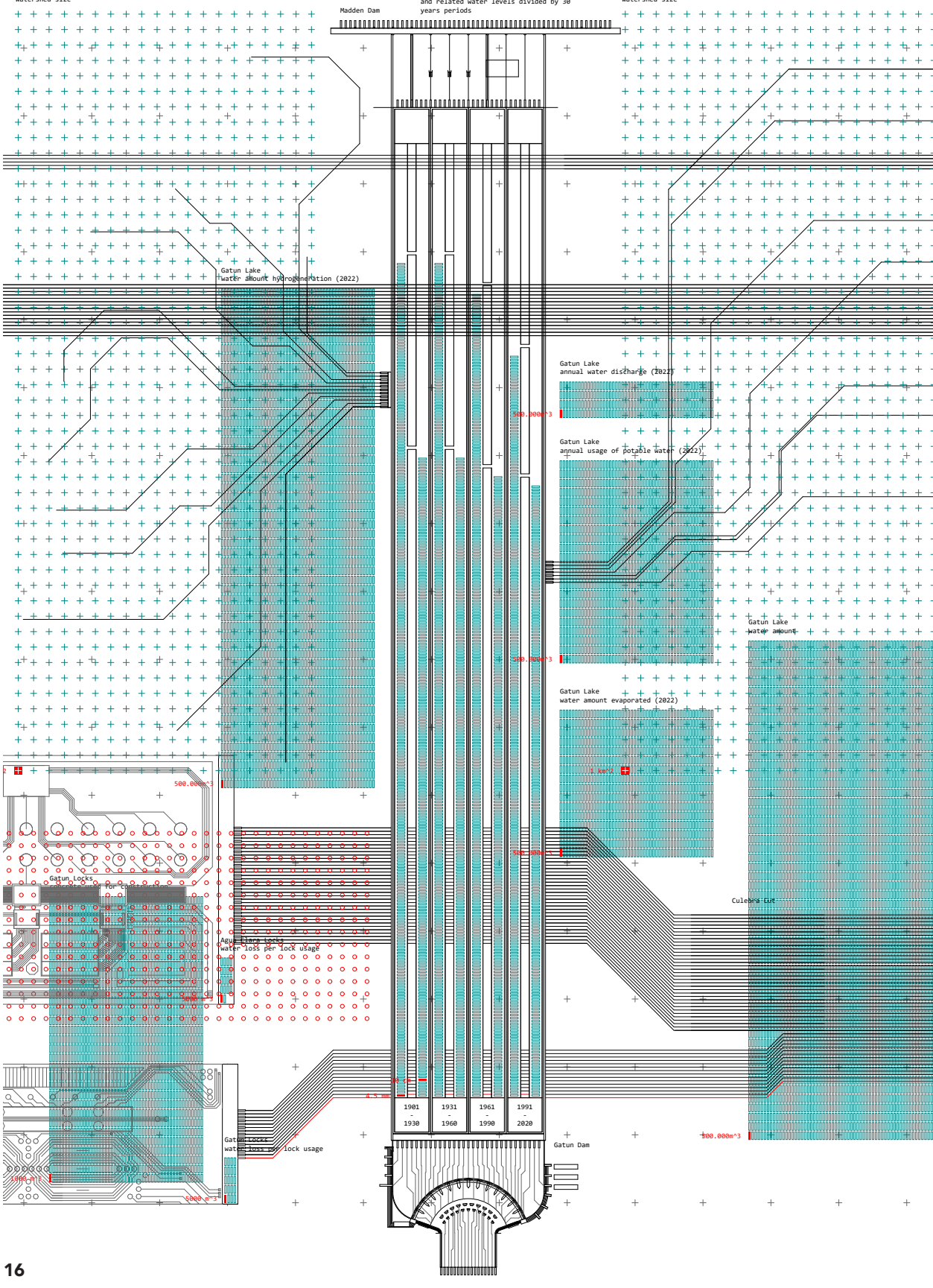
Yet at some point the European explorers and colonizers came, introducing an 'exchange' that had rather severe, if not fatal effects. And since a few decades, that other, more contemporary colonial power, has had considerable influence as well. The Panama Canal is the direct consequence of US interests, later influencing, partly at least, the intervention in Noriega's regime, only aimed at ensuring US economic and global interests. It was not the first, nor the last example of a regime that was installed or fundamentally supported by the US, until the moment its military, economical or criminal activities were no longer, or even fundamentally detrimental to US interests. Displacement is an almost natural consequence of such interventions as the 1989 'Just Cause'. Nowadays, the Darién Gap seems to constitute another disastrous geographical location. With the Scottish attempt as historical parallel, nowadays the almost un-transgressible Darién divide has become the killing grounds of South Americans, mostly Venezualians, attempting to pass on and over to a more prosperous future in the North.

Within this context, the Panama Canal remains an enigma. For sure Werner Herzog must have found his inspiration for the famous boat lifting across the Amazon mountain, in his film Fitzcarraldo, from historical Panama Canal footage. Equally intriguing are the extensive fortifications during WWII. While the mechanics of the older locks remain a fascinating spectacle, the newer lock systems showcase an impressive sequence of enginerial innovations and ingenuity, even though their water consumption remains unresolved, and thus problematic. As the news has recently reported, water shortages have even become obstructive. The Panama Canal still is one of the few logistical knots in the global network of sea trade and sea transport that are crucial and critically vunerable. No wonder, then, that the Canal has become the focal point of the ever expanding BRI, drawing even more capital to the country. The Panama Papers reminded us about the logic of international capital, revealing its flows, whereabouts and financial constructions.

These arguments and references are clear arguments implicating the importance, relevance and intriguing aspects of Panama as a case for spatial-material (i.e. architectural) investigations. Taking global political developments into consideration, especially in the latest post Cold War relationships between the US, China and Russia, this territory seems to be quite crucial. The afore-mentioned ecological anxieties, pressured coexistences and economically driven migratory movements, has caused a contemporary territorial condition to emerge that showcases a stratified landscape of superposed spatial regimes.

Nautical chart of the Panama Canal
and Approaches, 1915
wikipedia.org

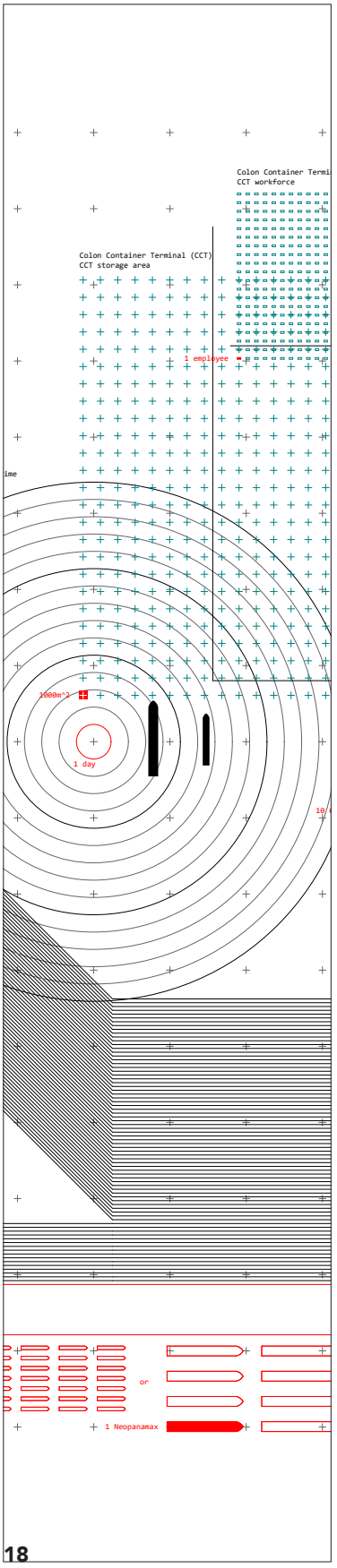
COLLECTIVE RESEARCH

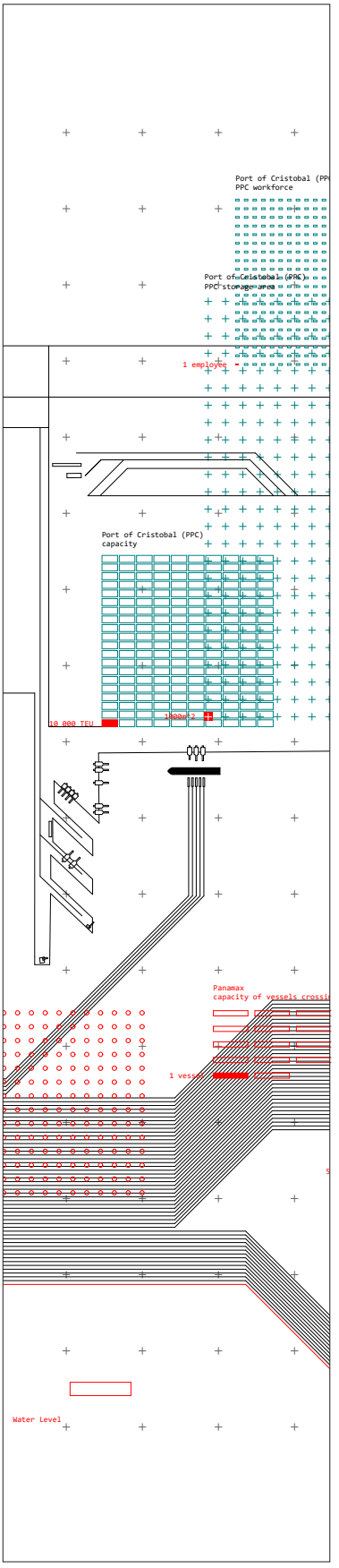

GATUN LAKE
Watershed (Upper Rio Chagres Water Basin)
watershed size
Aggregated and accumulated precipitation
and related water levels divided by 30
years periods
Watershed (Remaining Basins)
watershed size
Madden Dam
Gatun Lake
water amount hydrogeneration (2022)
Gatun Lake
annual water discharge (2022)
500.300m^3
Gatun Lake
annual usage of potable water (2022)
Gatun Lake
water amount
Gatun Lake
water amount evaporated (2022)
500.000m^3
Gatun Locks
water loss per lock usage
Culebra Cut
Agua Clara Locks
water loss per lock usage
1901
-
1930
1931
-
1960
1961
-
1990
1991
-
2020
Gatun Locks
water loss per lock usage
Gatun Dam
100.000m^3
1000 m^3
6000 m^3

CONGESTED INFRASTRUCTURE

COLLECTIVE MAPPING

Henryk Gujda
Szymon Kaniewski
David Marcinek
Caleb Mehari



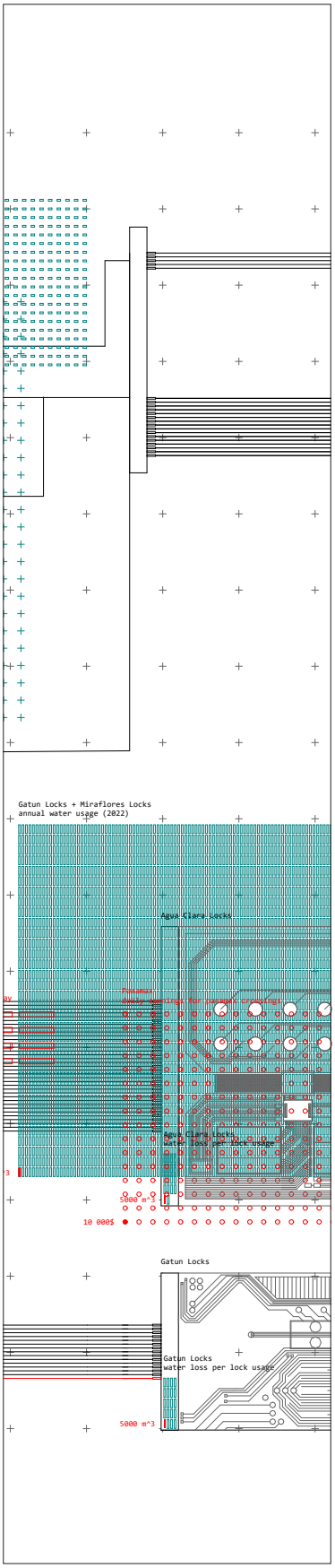


FOREWORD

This research, alongside Borders & Migration and Ecology & Contamination, is part of the Borders & Territories' 2023/2024 Transient Liquidities along the New Silk Road III Graduation Studio cartographic investigation around the Panama Canal area.

Intention to map areas between the 'far East' and other parts of the world emerging spatial complexities, with a special focus on the fundamental changes that are currently occurring regarding radical spatial differentiation, biodiversity, atmospheric and soil conditions, increased technological spatial control and economic asymmetries are addressed.

Looking at existing border conditions within the larger territorial scale(s). The studio focuses on urban and territorial sites where 'other' spatial conditions 'teeming with suggestive meanings and unexpected potential' in a context of discourse that to a large degree omits alternative perspectives. By mapping the larger territory first, and specific localities within that territory later lead to finding obscure aspects of spatial conditions and describing dimensions simultaneously



with the obvious.
By taking perspectives on three separate issues, namely, Borders & Migration; Contaminated Ecologies; and Congested Infrastructures.

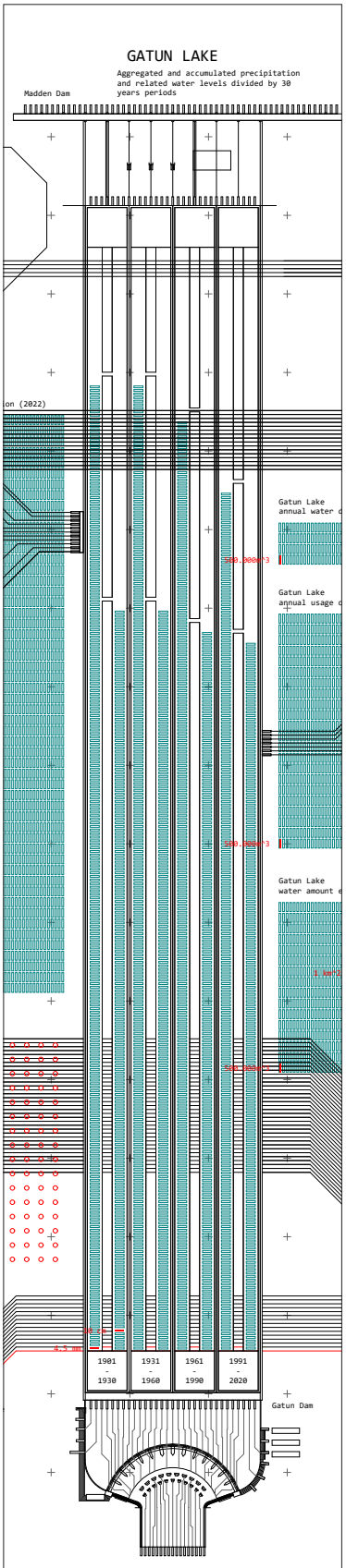
With perspective on this mapping the purpose of this exercise is to link, understand and question the complexities of the interaction between the concepts of congestion and infrastructure.

THEORETICAL ASSEMBLAGE

Necessity of computer analogy for the Panama Canal

We were trying to find a new perspective on the Panama Canal regarding infrastructure and congestion that would provide an accurate overview of its workings yet at the same time address a new perspective on how these processes relate. While the map was being produced, we kept on attempting to define exactly what would allow for this new perspective to emerge. For our research, then, one of the main sources that has fueled our thought was a short, yet for our perspective very productive, essay by Deleuze called Postscript on societies of control published in 1990. Using the theoretical framework provided in this essay, we note that in the age of disciplinary societies the Panama canal finds its origin, yet during its lifetime the societies have predominantly changed from this to the societies of control.

Previously, the United States created the canal in the wish to create ever expanding larger enclosures of both maritime trade and military presence and a disciplinary 'colony' called the Panama canal zone, an area in Panama that surrounded the canal which was controlled completely by the US. Yet with the transfer by the US of the complete canal rights to the Panamanian state and the dollarisation of the Panamanian economy, the relations of power have now shifted to a control that is much less centralized and nebulous. Additionally, with multiple options emerging to cross the Americas by train or another canal in Nicaragua, the global position of the Panama Canal is slowly changing: no longer is it the sole, mythical wonder of human engineering that provides the previously thought impossible, yet 'globally necessary' link between two of the largest oceans on earth. Instead, it is just becoming a link or option in a global marketplace of



infrastructure, bringing with it its own unique benefits and drawbacks.
Therefore the necessity to map the Panama canal as a computer system, a machine that according to Deleuze is one that easily matches with these new societies of control, becomes apparent, since this can in turn expose the contemporary problems that are present in the Panama canal.

The introduction of specialized definitions for the main terms enabled the development of a scope of the investigation:

Infrastructure
All systems and processes that sustain and facilitate the movement of cargo from Pacific to Atlantic port areas and vice versa.

Congestion
Space and time when infrastructure gets too blocked or crowded to sustain the process.

This also matches really well with the supposed dangers of the different machines that are highly compatible with the societies of discipline and the societies of control:

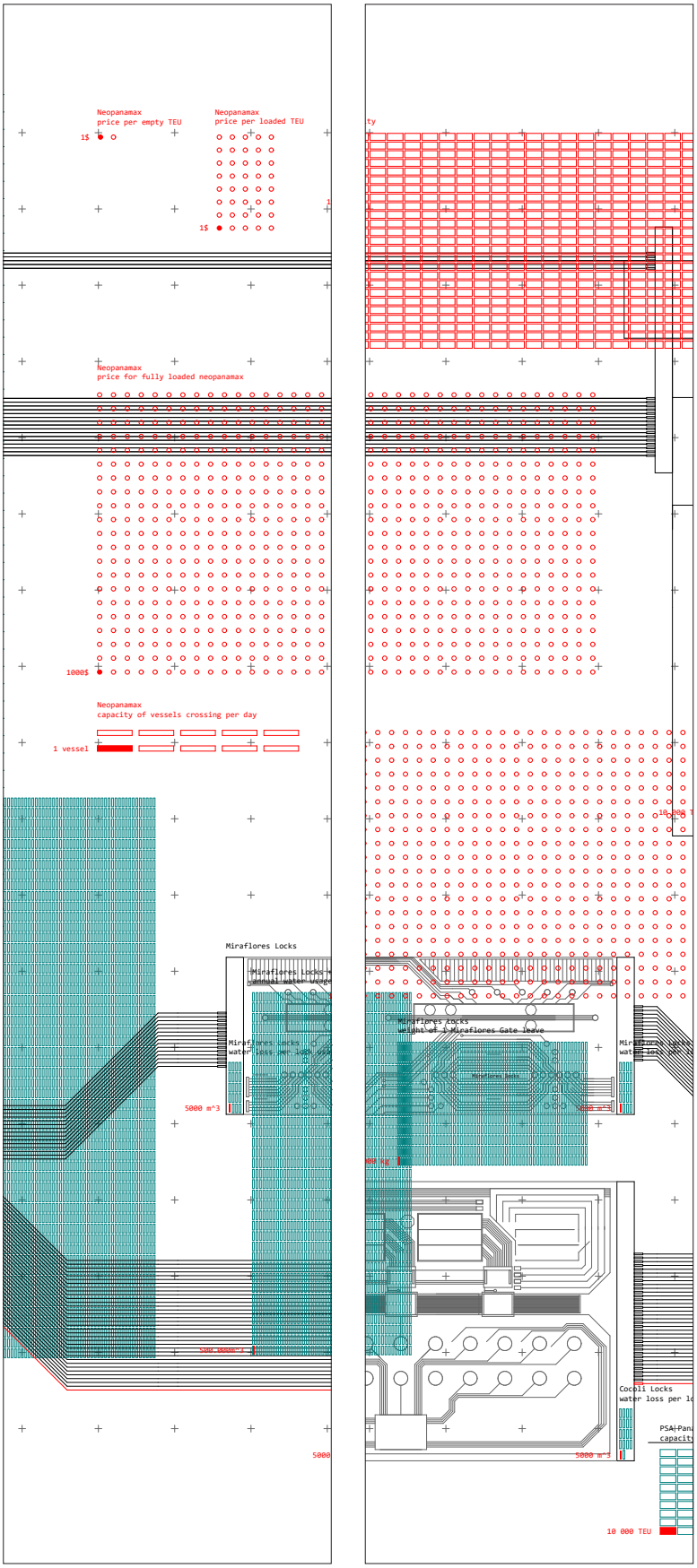
„The recent disciplinary societies equipped themselves with machines involving energy, with the passive danger of entropy and the active danger of sabotage; the societies of control operate with machines of a third type, computers, whose passive danger is jamming and whose active one is piracy and the introduction of viruses.“ (Deleuze, 1990)

We hypothesize, therefore, that these two passive dangers of both society types, those of entropy and jamming, are at the core of the Panama canal, and that precisely the intersection between these problems is fundamental to understand the Canal's contemporary existence.

Systems Theory and the Panama Canal

To make the intersection between these problems apparent, inspiration was taken from a scientific field that emerged in between the disciplinary and control societies, namely 'General System Theory'. A well defined definition for this theory can be found in Ludwig von Bertalanffy's study developed in 1969, which is the study of the abstract organization of systems, independent of their types and substance and the study of interrelations between respective parts within those systems.

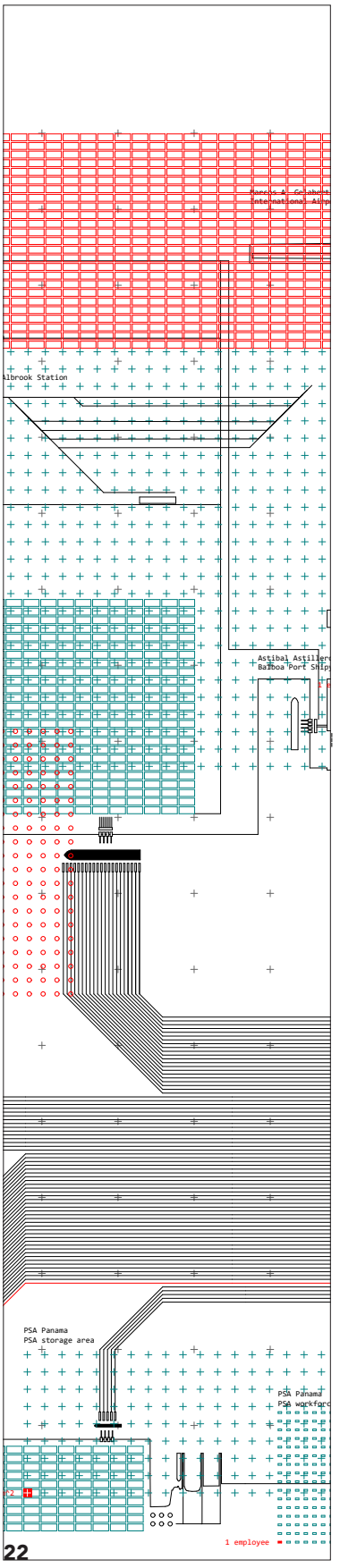
To render the totality and complexity of the material

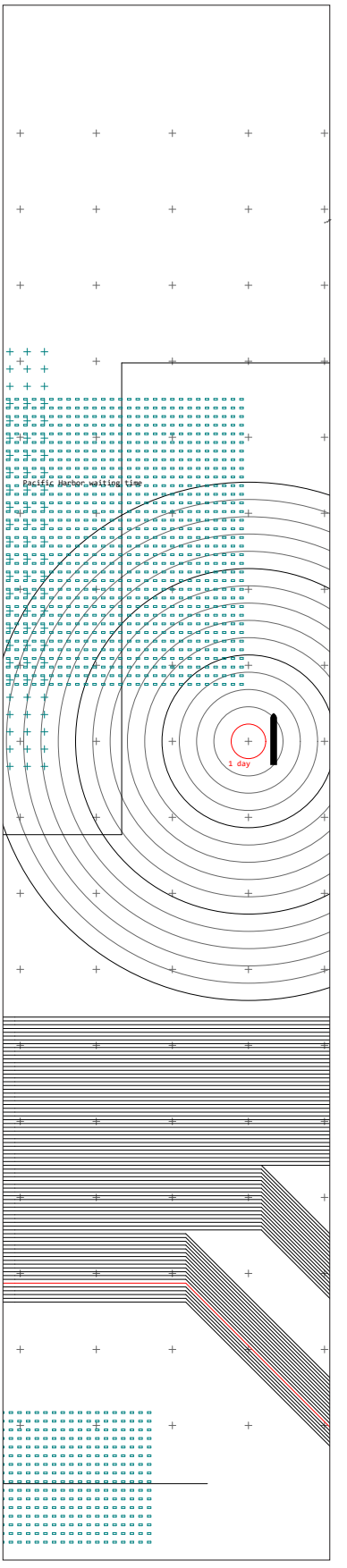


flow in relation to the dimension of locks, the water level in Gatún Lake, the capacity of the port terminals, and the dynamics of the global economy the category of Open System must be introduced. Ludwig von Bertalanffy defines it, as contrary to the closed system, by the quality of "maintaining itself in a continuous inflow and outflow" (Von Bertalanffy 1969).

In order to grasp the complexity of the issue, the Canal was perceived and mapped as a system of interrelations and entanglements, a schema of quantities, connections, and flows. Cause-effect chains, which are the backbone of the functioning of the infrastructure, above all the dependence of the frequency and price of crossings on rainfall and water management and the frequency of alternative forms of transport on the smoothness of port operations, capacities, and global trade power relations, are in the state of constant change and search of equilibrium. Von Bertalanffy (1969) states that "In any closed system the final state is unequivocally determined by the initial conditions", while in the case of the Open System, the final (or future) state is a matter of constant negotiation between the inflows and outflows. The inputs of the open system of Canal's infrastructure can therefore be seen as a reflection of global market trends, geopolitics, and ecology.

The map in the context



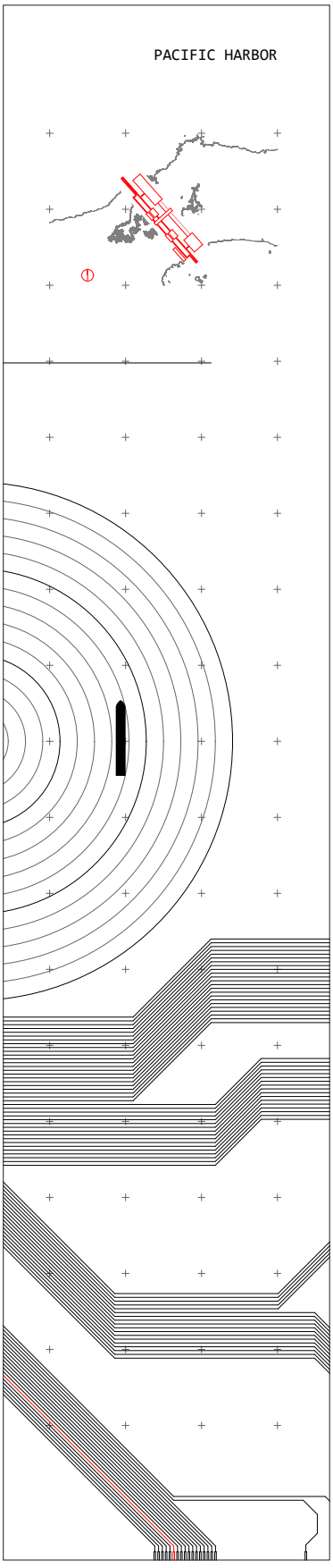


of the General System Theory, becomes not only the representation of the system but also serves a role in the feedback scheme by providing an informed critical reflection, and might become a tool to test the current conditions and speculate about the future, as the congestion and exhaustion of the current system exacerbates as a consequence of specific processes in the system that can be identified by mapping these interrelations.

REPRESENTATIONAL TECHNIQUES

Representation and the computer chip

Graphical representation as the computer chip follows directly from the understanding of the canal, the lake and cargo as elements within a larger system. The inspiration for this representation became more apparent because of the transition of these 'components' in the current age towards functional reliance on digital technology to the point that one cannot do without. Additionally, „The growing complexity of our machines has led to the miniaturization of parts; electronics has already altered our conception of how things need to be shaped in order to work, and of how they must be related to each



other." (Drexler, 1958) This highlights the transition from the material to the functional. Finally, the reliance on new machine art is instrumental in understanding that it is „visually incomprehensible unless one knows about and believes in the existence of invisible forces. [...] Geometric machine art suggests one change that technology is likely to make on many of our common artifacts: the dematerialization of solid forms into clusters of linear relationships." (Drexler, 1958) The linear relationships within computer chip boards are a result of shortening pathways between elements, embodying the concept of mass production in which the canal is the central node facilitating world trade that is currently reliant on it. That is why drawing techniques associated traditionally with a representation of technical systems were used to codify the geography of the entire canal.

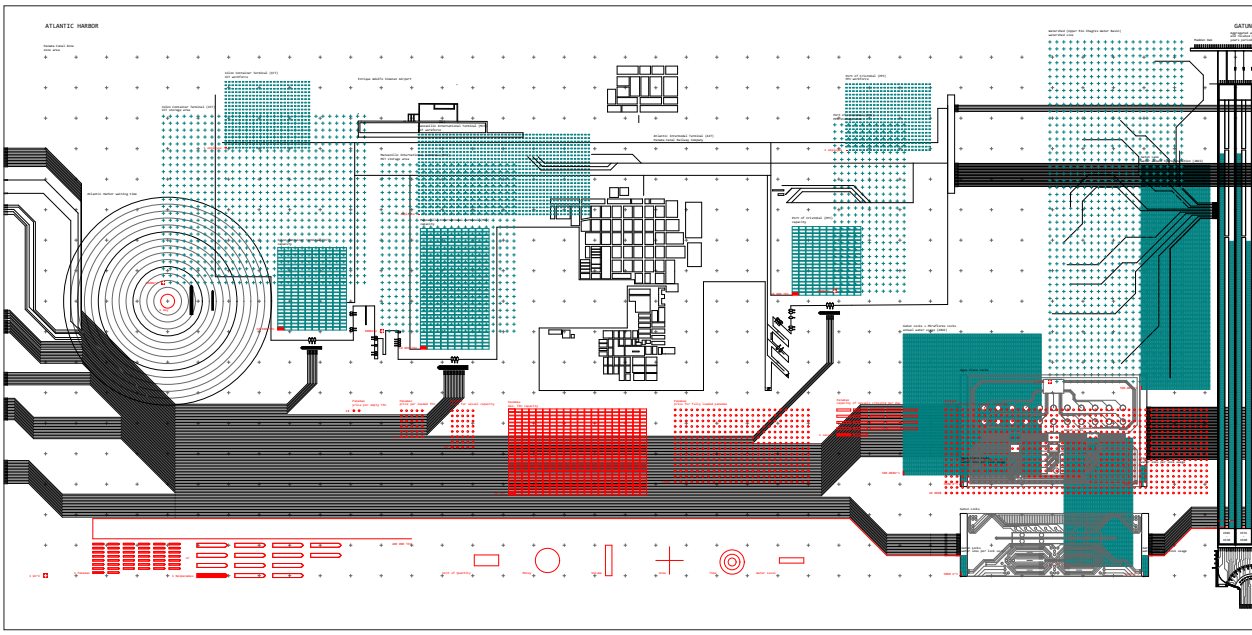
Reducing components to abstractions

Each element of the canal system is simplified along its physical shapes that make for a representation of specific elements purely as nodes with a simple function within a larger system. This brought about a question of representation of the territory and an even more serious question of the distinction between infrastructure and landscape. Over the process these have been equated leading to an abstraction alluding to the understanding both, the geographical and the technical components of the infrastructural landscape as equal actors that allow immediate comparison.
The respective symbols and hatches correspond to the systemic decomposition of the larger context highlighting a blur between the represented and representing.

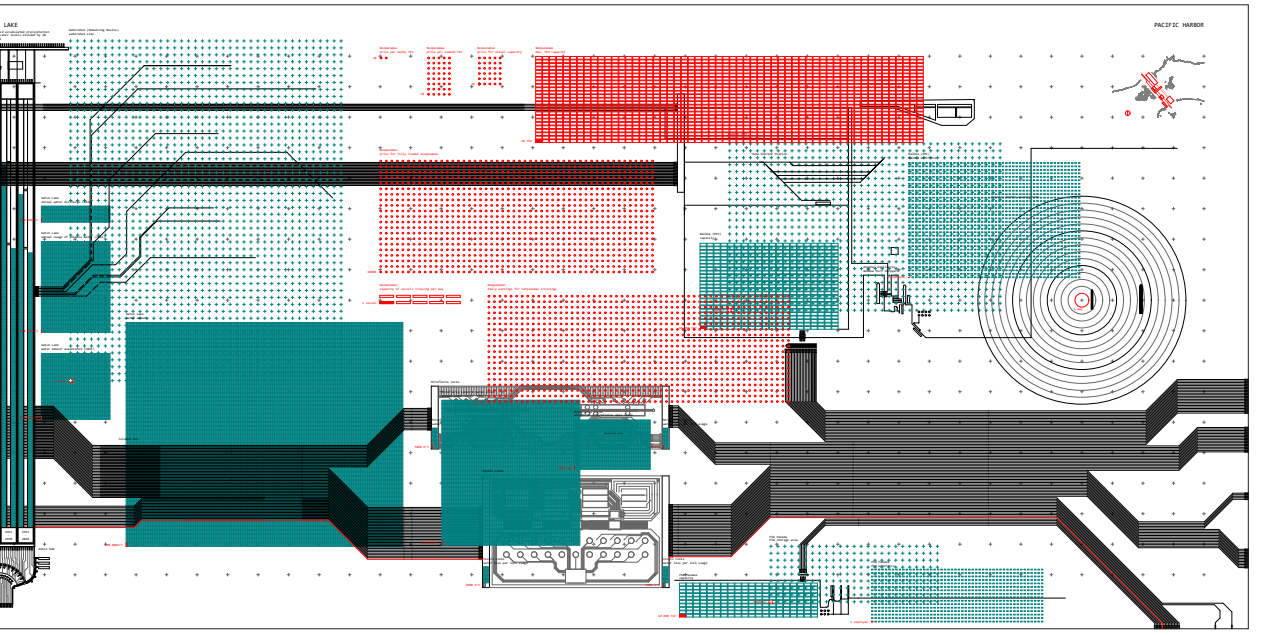
The aesthetic of electronic circuits is an emanation of the systemic, constructivist and controlled. Simplification, systematization, and quantification of processes are crucial in the rhetoric of reconceptualization into an abstraction through data, interrelations and reducibility of the separate elements to their quantifiable attributes. This was a central notion of achieving a coherent visual aesthetic while questioning their architectural complexity.

Fields and rules of quantification

Understanding both the geographical and technical components of the infrastructural landscape as equal actors within a system allows for a unified method of measure. A territorial



quantification is proposed, whereby unapproachable large numbers are broken down into smaller, more digestible portions and layed out as a field of representative units. This way the geography of the Canal is quantifiable in the same way containers are. Five different units are introduced, each representing a category of quantification: Volume, Area, Water level, Money, Time, Unit of quantity. The volume of water lost, the storage area of the ports, the Gatún Lake water level, the toll prices for vessel crossings, the waiting time on each side of the canal and the amount of Containers that are moved are all laid out as quantified fields, primarily relating to each other by the size of each field. The fields of units are scaled varyingly, considering both the approachability of the representing units and the size of such a field on the map. The map differentiates between quantifications that relate to territory and those that are detached from it. The territorially detached quantifications are highlighted as a separate layer, functioning as a legend to the map. Indicating the values of the representing units and providing quantifications on the soft infrastructure of the Panama Canal. The legend layer helps put the quantifications into relation.



FINAL REFLECTIONS

Diversification of transport systems across the isthmus

The main discovery that emerged from our research is that the Panama Canal actually does not solely function as a canal. By framing the canal as a 'transport system' across the isthmus, we were able to identify separate auxiliary means of transport, such as rail and road, that are becoming increasingly more important as the average water level in the canal is lowering significantly. Because of global warming and lessening rainfall, the problem of entropy (emerging as a consequence of the machines of the disciplinary society) (Deleuze 1990) appears to have to be negotiated with the contemporary problem of 'jamming' by pressures of an increasingly competitive global market of infrastructure, which in turn, paradoxically, results in a slow expansion of non-canal means of transport.

High (ecological) dynamism of the system

Another discovery that can be read in the map when looking more closely at its quantifications, is the fact that almost the entire volume of water of Gatùn lake gets lost to the ocean through the locks over the span of less than a year. This illustrates the importance of rainfall to the functioning of the Panama Canal and also the extreme climate that is specific to Panama's ecosystem.

ATLANTIC HARBOR

Panama Canal Zone
zone area

Atlantic Harbor waiting tim

1 km^2

1 Panamax

PACIFIC HARBOR

SOURCES

Deleuze, G. 1992. 'Postscript on the Societies of Control', *October 59 (Winter): 3–7.* Original publication: Deleuze, G. 1990. 'Post-scriptum sur les sociétés de contrôle', *L 'autre journal: 1*, mai.

Drexler, R., as quoted in: McCarty, C., & York, *M. O. M. A.* (1990). Information art: Diagramming Microchips.

Von Bertalanffy, L. (1969). *General systems theory.* New York: George Braziller.

FIGURES

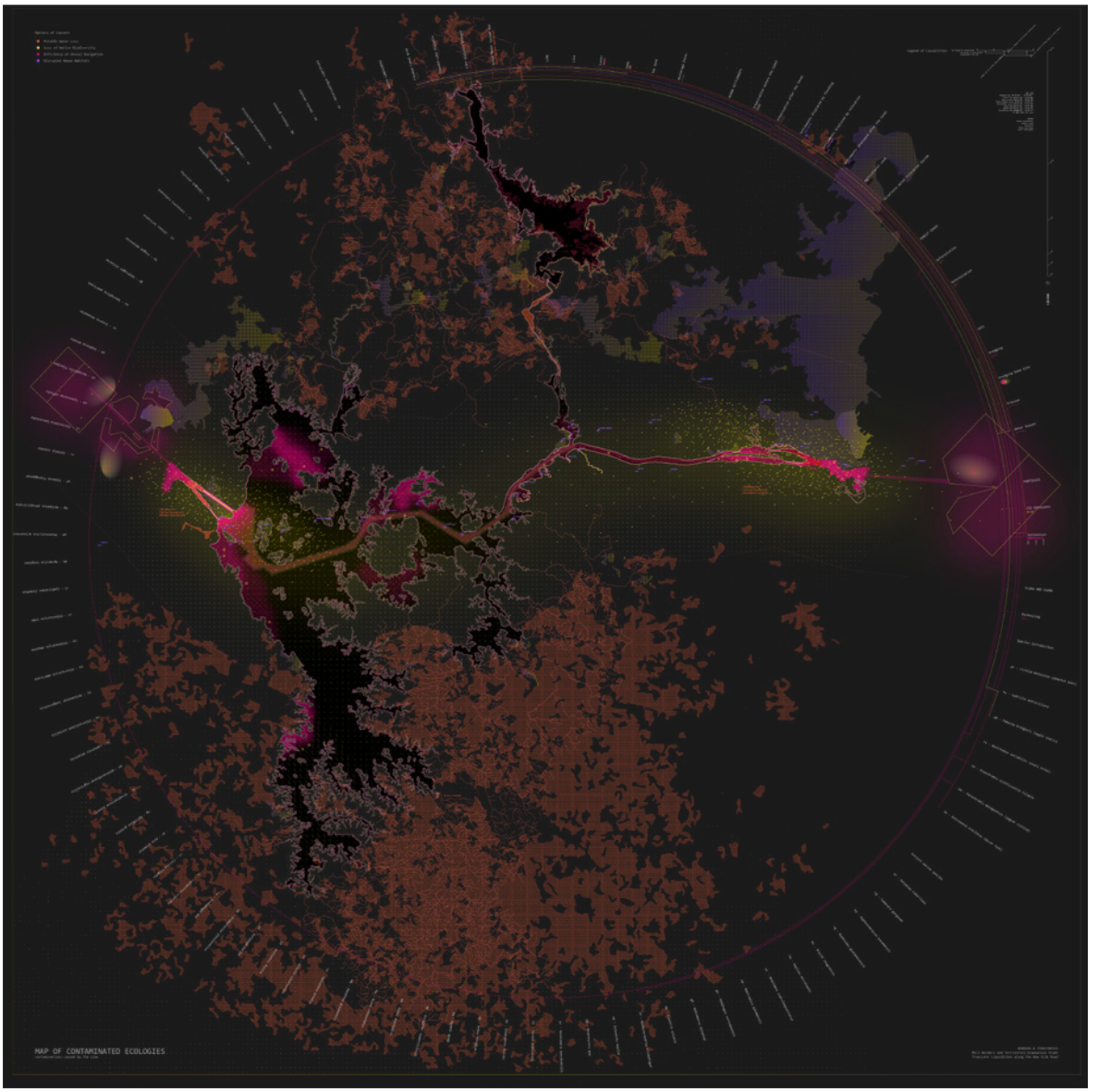
All figures produced by the authors.

ic - I
sa - Sporophi
gv - Geotrygon violacea
tm - Trogon melanurus
ct - Celeus loricatus
lr - Laniocera rufescens
lu - Lipaugus unirufus
st - Schiffornis turdinus
lu - Lipaugus unirufus
vp - Vireolanius pulchellus
pg - Pitylus grossus
dv - Dacnis venusta
hr - Heterospingus rubrifrons
WATER LANDSCAPES
Flooded Canal Ar
Flooded Lake

CONTAMINATED ECOLOGIES

COLLECTIVE MAPPING

Tomasz Dudek
Karolina Krajcikova
Małgorzata Łysik
Ana Mendica
Theodor Reinhardt


MAP OF CONTAMINATED ECOLOGIES

Ecological Mapping Exploring Operational Complexities in Cartographic Practices

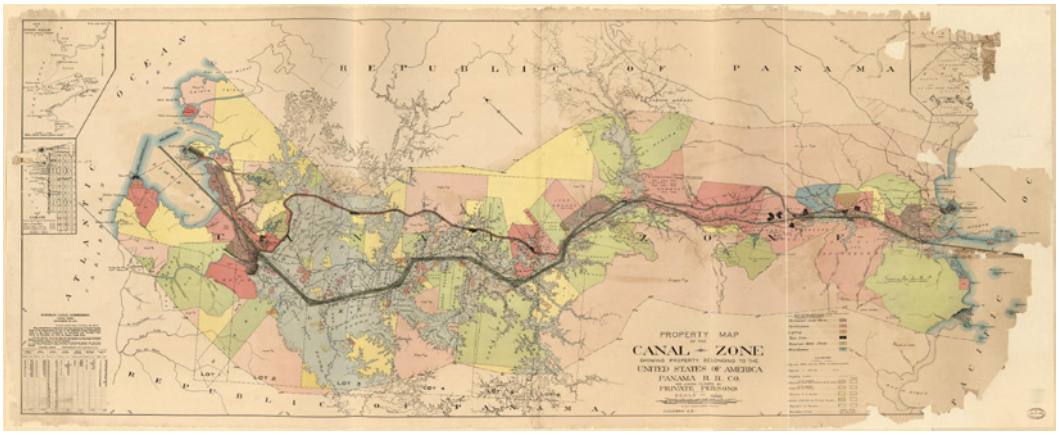
CONTAMINATED ECOLOGIES

Alongside Borders & Migration and Infrastructure & Congestion, our research on *Contaminated Ecologies* is a cartographic inquiry into various processes in the context of the Panamanian isthmus, with focus on the Panama Canal.

The central inextricable issue stemming from the very nature of this assignment is that of complexity. The issue of ecologies - which in recent years has expanded in its broad understanding from the realm of the "natural" to encompass any possible relations between any kind of entities - poses an obvious challenge to anyone who tries to speak, show or let alone attempts to explain it. While in the modernist tradition this issue was often dealt with in a violently reductionist way (A causes B causes C causes D), with the expansion of ecological thinking in contemporary scholarship, scholars and researchers find themselves challenged with increasing inoperability of their attempts to trace and describe ecological systems when trying to be scientifically and morally truthful to the issues at stake. Just as it was with the revolution in quantum physics a century ago; the closer you look, the less you know.

Thus facing the same ontological and epistemological challenge taking on the task of mapping Contaminated Ecologies, the central question and problem for us was:

How does one map ecologically, without either falling into reductionism - stripping entities of their agency and violently pushing them into taxonomical confinements; nor allowing the complexities to get out of hand - compromising the research by letting everything become illegible, incomprehensible and inoperable?



TERMINOLOGY AND AREA OF RESEARCH

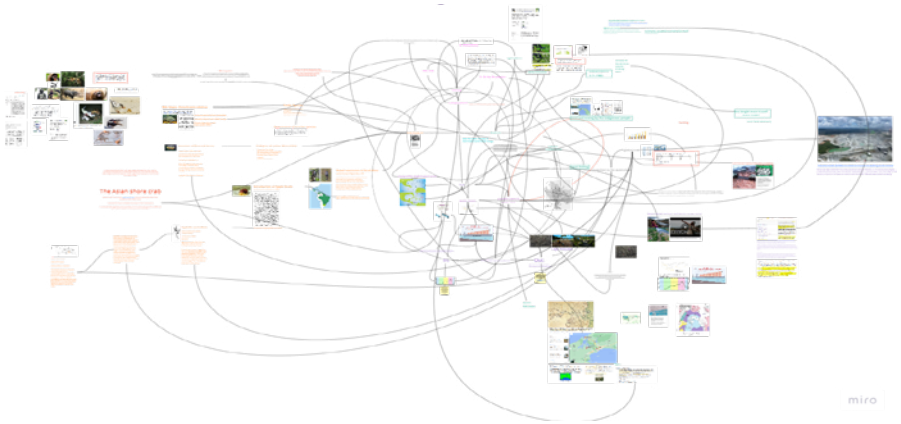
As our central hurdle revolved around the exceptionally intricate and perplexing complexity of the subject, to address this, we made the deliberate choice to first establish a comprehensive vocabulary and set forth explicit definitions that would form a solid ontological foundation for the project.

Contaminated Ecologies

The term *contaminated ecologies* is, in essence, a compound of two words: *contamination* and *ecology*. We establish the term *ecology* as the *relationships of various actors with and within a territory*. We believe there is no entity without its territory, but it's not its territory exclusively - different entities coexist on a territory and operate through them. Hence, we define *contamination* as *a new type and/or intensity of those relationships, which drastically alters certain previously existing context-specific conditions*. Subsequently, our mapping process is a process of tracing these alterations and interrelationships between them through different scales of space and time. And our process, as of that moment, became nothing else than: first, tracing the alterations through space and time and uncovering the relationships between them, in order to comprehend the overall interconnectedness. The expected result of such a process is a *map of altered relationships*, which, according to our definition, equals a map of *contaminated ecologies*.

The Line

Still, the environment is teeming with innumerable connections and their ever-changing dynamics. Attempting to map them all would be both impractical and yield limited benefits. Given that the Panamanian isthmus is where an anthropogenic intervention of a great ecological impact - the Panama Canal - occurred, we decided to focus on contaminations (read: altered relations) caused by it. To be more precise, we narrowed our focus to the conceptual and projective *Line* drawn by humans on a map across the isthmus. This simplicity of *the Line* - a basic two-dimensional Cartesian element - embodies the straight-forward, violent and reductionist idea of crossing a territory by all means.



METHODOLOGY

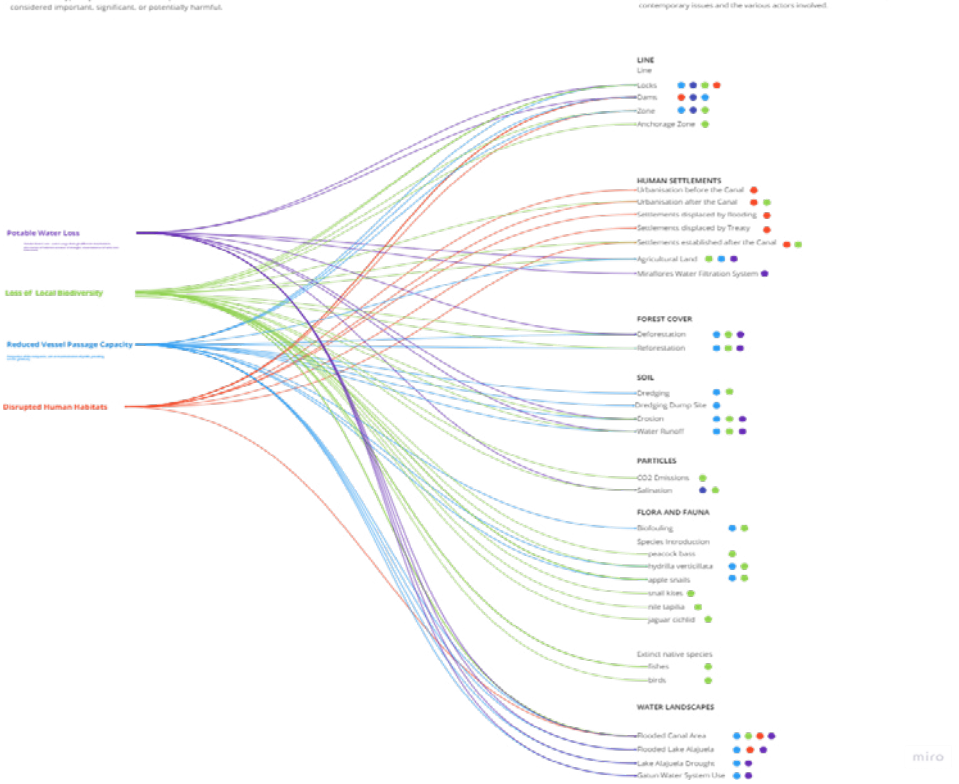
Starting point

The initial engagement with the topic of Contaminated Ecologies began with individual research into all kinds of things happening, acting, changing, influencing each other within the given context. No distinction has been made between subject/object, human/non-human or natural/cultural. The only principle in outlining this ontology has been the ability of one thing to affect another, following in that sense the model of *flat ontology*. Having no restrictions or thematic constraints, we started investigations from a common point of departure into various different directions, which eventually produced a web of complex entanglements.

Matters of Concern

Yet even restraining ourselves to common point of departure leaves endless possible contaminations to map. While expected and outlined above, it nevertheless constituted the central challenge in our work. Faced with an innumerable and ever-growing amount of things at stake and the even more overwhelming complexity of relationships between them, it was clear to us that a tool will have to be devised that would allow us to retain and represent these levels of complexity while at the same time sustaining a level of operability.

Therefore, we have decided to address and focus on issues that produce unusual and unexpected, but also urgent results. When assessing the relevance of different contaminations, we have employed the Latourian concept of *matters of concern* (Latour, 2004). According to Latour, these are issues that are actively debated and contested in society and which, in contrast to the modern's *matters of fact*, don't attempt to superimpose one 'objective' reality over all other possible ones, denying them a voice in ontological politics. By examining how things are part of these *matters of concern*, Latour seeks to understand the complexities of contemporary issues and the various actors involved. Matters of concern

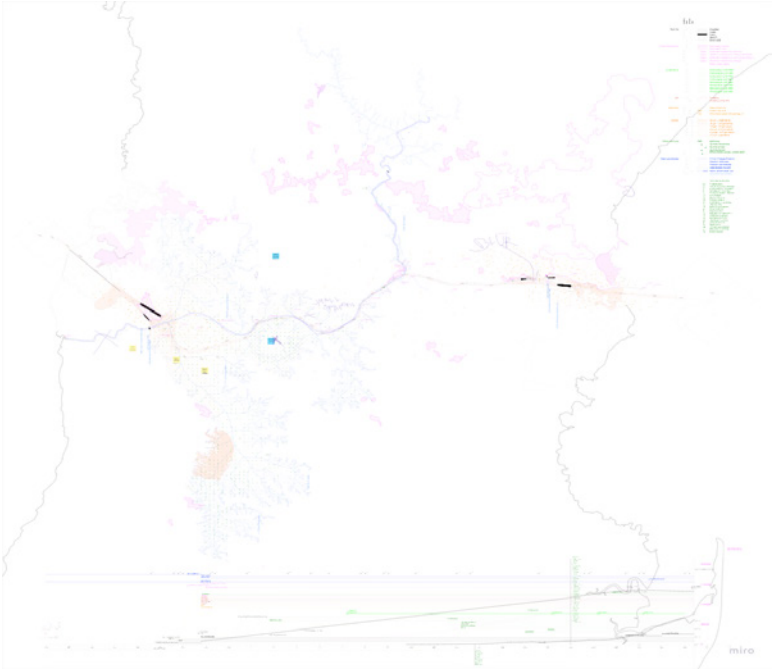


can vary greatly depending on the context and the perspective of the person, group or entity concernned by it, meaning that they do not attempt to write a grand narrative, but instead produce situated, political, oligoptic knowledge.

Data and Information

In his text *Are Some Things Unrepresentable?*, by tracing the etymologies of data and information, Alexander Galloway (Galloway, 2011) gives significant insight into the distinction and relation between the two terms. Data (Lat. 'the things have been given' - 'the givens'), according to Galloway, is to be understood as ontologically raw, thrown into the world empirical proffering (something given for acceptance) of measurable or otherwise observable facts that have been given forth. Information, on the other hand, in its Latin etymology relates to an act of taking or being put into form.

According to this distinction, data bears no inherent information, but rather is instrumentalised, put into form to convey information or ultimately meaning. Thus visualisation of data must invent an artificial set of translation rules that convert abstract numbers to semiotic signs. This insight is of great significance for our work and our thoughts, as we seeked to develop a cartographic method that

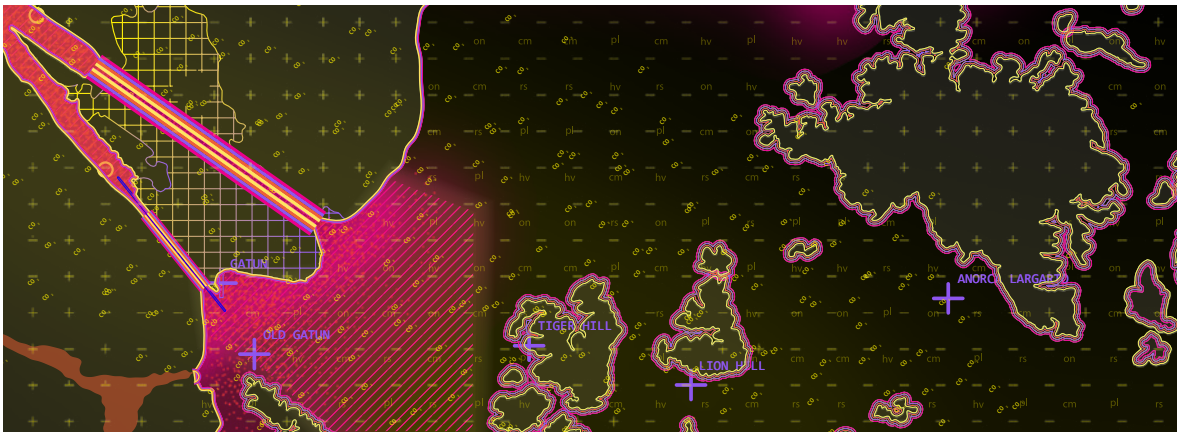


would not only show data, but ultimately produce meaning and knowledge about the ecologies at stake.

Data/Disentanglement/ Territorialisation

Thus the next step in our research project was aimed at producing the ontologically raw - disentangle, extract data and territorialise it within a spatial context.

The contaminations we investigated and the data we gathered vary significantly in terms of their intensity, data types, distribution, and occurrence patterns. To be able to territorialise this wide array of data types, it was imperative to standardise them into a common format, a uniform language of representation. This standardisation process was achieved by subjecting the data to a precisely defined matrix. The collected data on each contamination was categorised based on data type and assigned an according representation method. The four data categories devised were location (if a specific location was known and relevant), area (when a contamination extended itself over a specified part of the territory), rate (when numerical information on the rate at which a specific relation had changed was available) and amount (in case of a known total numerical values at stake). On the map itself, the



matrix was translated into a legend.

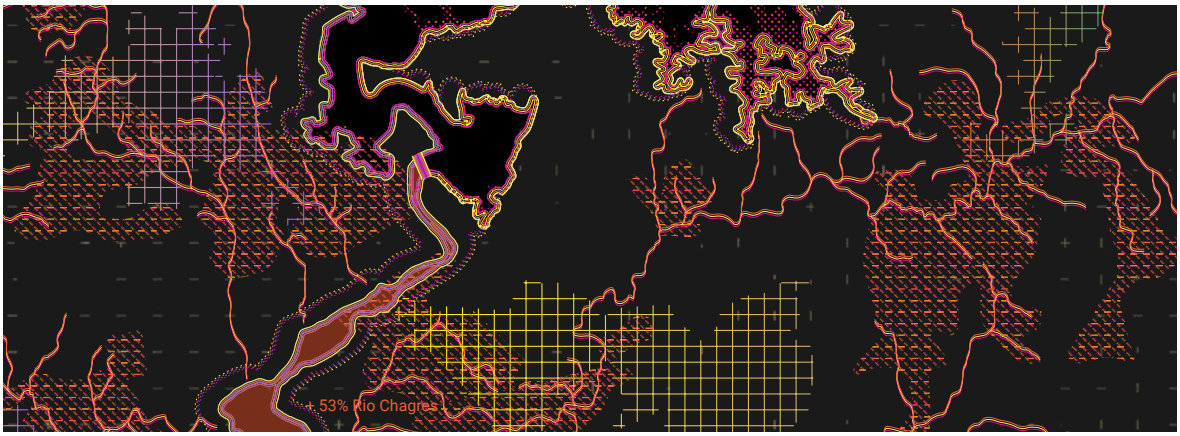
This approach enabled us to disentangle the intricate web of interrelated processes within *contaminated ecologies* into the raw data that underpins these processes and translate them onto a cartographic dimension, making them representable.

This mapping produces a representation of complexity, intensity, reactivity, and potential. It depicts each *contamination* and its associated data, superimposed with other *contaminations*. While it reveals complexity, it does not capture exact conditions or relationships. In reality, all of these data elements influence and interact with one another, connection onto a connection, reaction onto a reaction, resulting in numerous anticipated and unanticipated outcomes. This we then address in our next step.

Information/Re-entanglement/ De-territorialisation

Having initially divided the contaminations into ontological categories (ie. Soil, Flora and Fauna, Human Settlements) and drawn them in corresponding colours, we have found ourselves running into the same old trap of modernist thinking - sacrificing interrelationalities for the sake of legibility. While a legend containing all contaminations displayed on the map proved useful in the diagrammatic and literal tracing of relations (lines) between the different elements, its cartographic counterpart was nevertheless missing the point.

The subdivided rational and colour-coded strict representation was showing things (contaminations) as alienated interchangeable entities. The cartographic suspension of all ecological relations felt eerily reminiscent with a colonial way of thinking and the concept of slavery, which at its core stripped enslaved people of their social relations (Graeber, Wengrow, 2021). It can be argued that among others it is this aspect of 'objective' modern cartographic practice that has paved the way for the 'enslavement of nature by man' - conceptualising entities

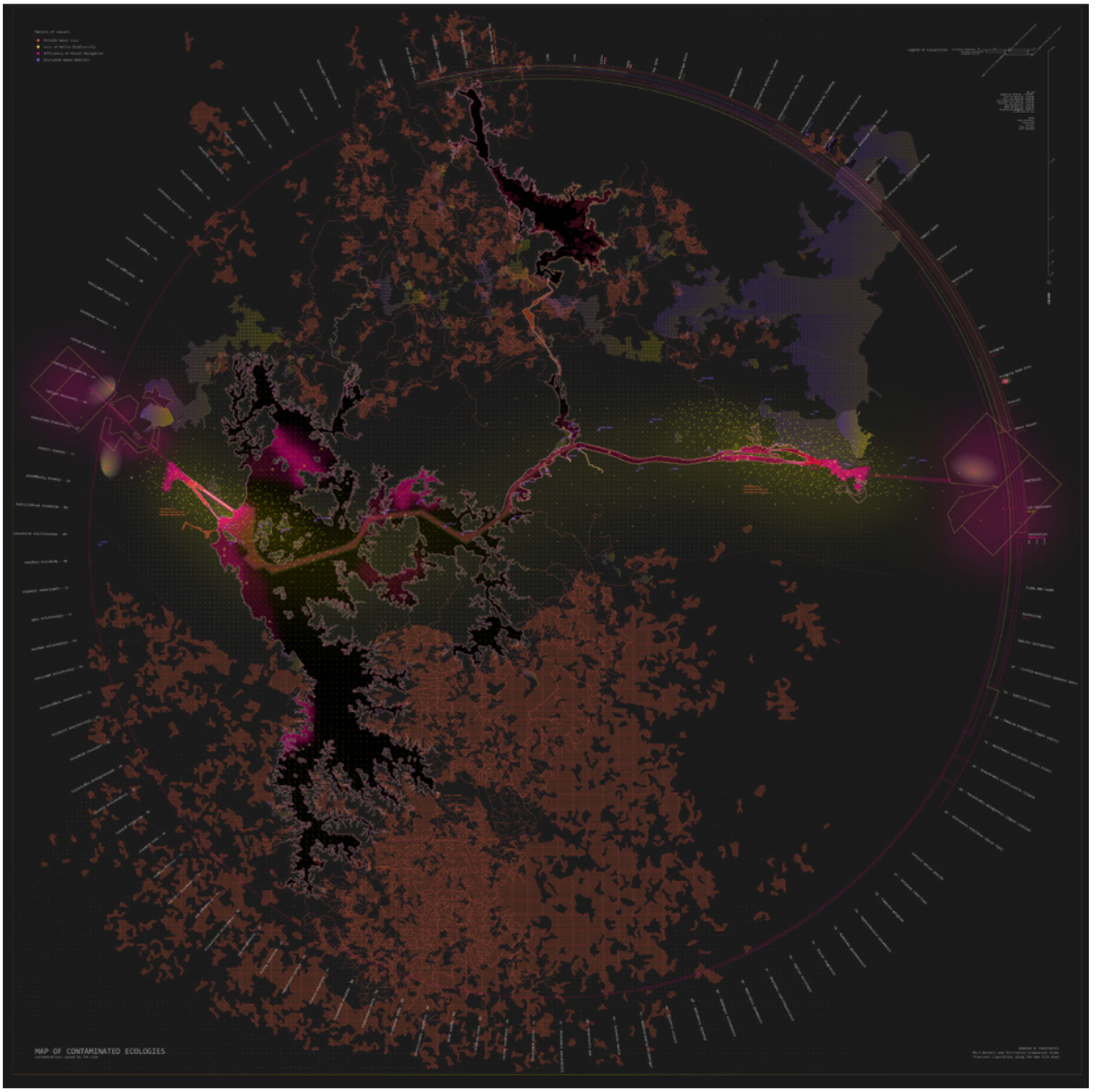


in ‘nature’ as separable and exploitable objects - and its resulting destructive dispositions we now learn to be parts of the Anthropocene.

To challenge this and devise a direction for a potentially alternative cartographic representation, we have worked with two techniques.

First, we have attempted to develop a system of graphic representation that would shift away from a taxonomic (what things are) to an agential understanding (what things do). For instance, engineering devices (ie. dams) are drawn as massive elements whose clear-cut barriers violently intervene into their surroundings, marking their instrumentalisation as elements of anthropogenic control. Streams whose banks facilitate erosion, are drawn with a clear middle and soft edges.

Second, and most important, we took the decision to represent contaminations on the map in colours not related to what would have been their scientific taxonomical division (soil, water landscapes, particles), but rather in relation to the matter of concern which they are part of. This shift from an allows for a representation that abandons the superstructures of ‘objective’ knowledge production and instead places those contaminatons within a system of overlapping, intersectional, situated fields of knowledge. Another effect, which was also surprising for us, is that now the map is not only showing different domains of situated matters of concern, but through the use of multiple colours for one and the same contamination (if ie. erosion concerns both the loss of potable water as well as the reduced vessel navigation capacity) also the shared Uexküllian *Umwelten* (Frichot, 2018; Bridle, 2022). The appearance of multiple colours on one and the same element also points to the intensity of its mattering, its significance for the shared territory and environment it is located in and ultimately unveils intersection and interrelation between those matters of concern.


MAP OF CONTAMINATED ECOLOGIES

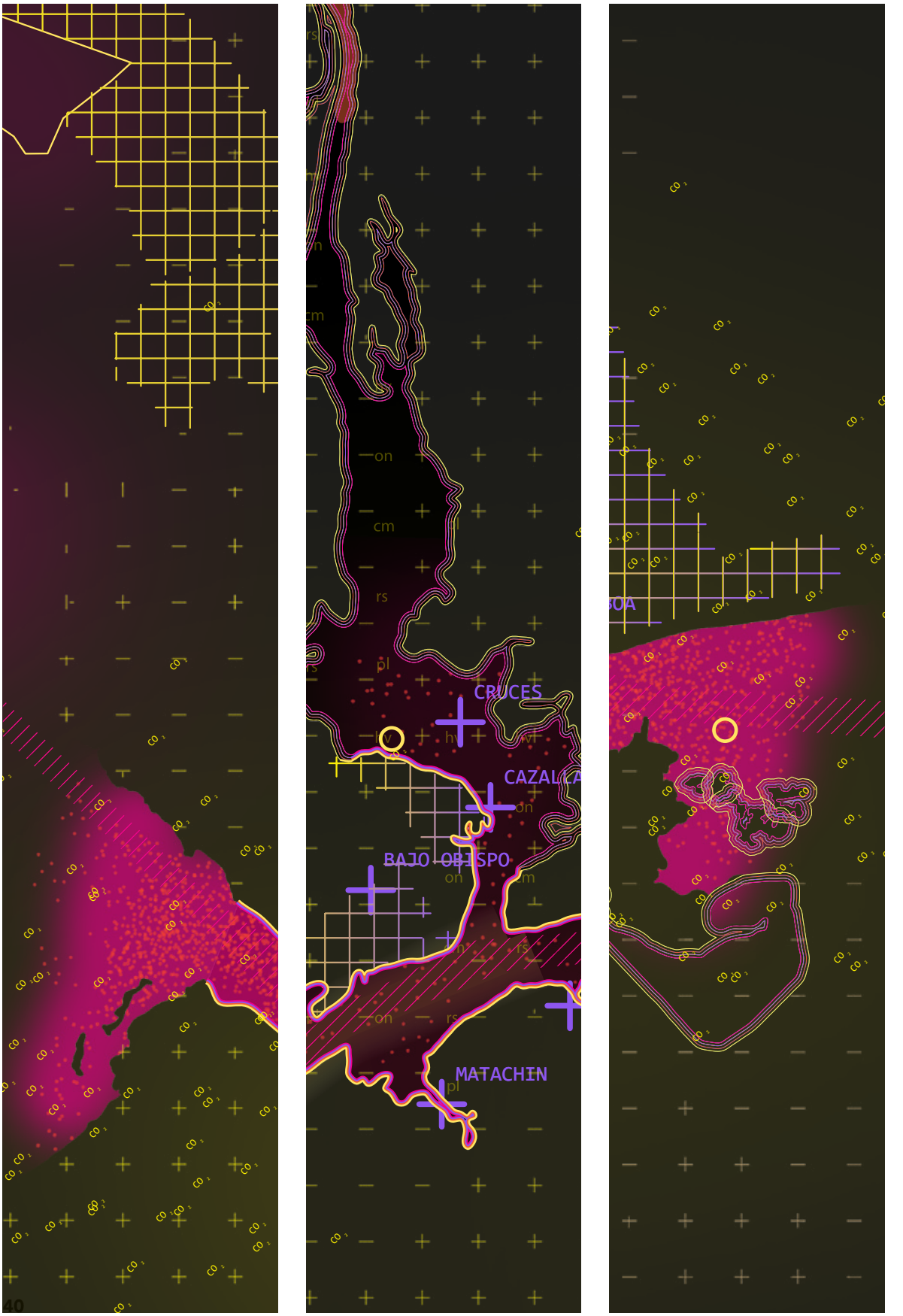
REFLECTIONS AND OUTLOOK

This map serves as a guide and test ground for exploring and representing complex entangled issues. The concept of entanglement itself remains elusive until it undergoes some level of disentangling, yet once fully unraveled, its essence is lost. Some topics, such as ecology and contamination, can never be fully disentangled. What we understand about complex, intertwined subjects is that they cannot be comprehended by either completely untangling them or merely observing them in their entangled state. Instead, ecological mapping should be a continuous oscillation between these two poles.

We perpetually find ourselves in the middle ground, influenced both by individual elements and the data composing the entanglement, as well as by the multitude of relationships and connections that surround these elements, shaping their reactions and actions. Our map encapsulates this dynamic, this exchange and this intensity. It resides between two extremes, offering both data and visual representations of things, as well as interpretations and narratives referred to as *matters of concern*. By engaging with both aspects of the map, we gain insight into the prevailing conditions and discern the crises at hand. The mapping process ultimately evolved into a quest for unexpected consequences, significant for different people and perspectives, stemming from the chain reactions initiated by the Canal's conception, construction, its presence and the daily passage of ships - the Line - whose simplicity and abstraction nevertheless display a complex entangled material presence within the territory.

Following the concept of *Umwelt* as coined by the biologist Jakob von Uexküll, which denotes a particular perspective of a specific organism composed of its knowledge and perceptions, in our ontology where 'organism' can be replaced with any more-than-human group or entity one can argue that what the map ultimately does is to show the shared umwelt between the various perspectives concerned with the territory of the Panama Canal area.

Ultimately, we believe that this research can make a contribution to developments in cartographic practices and understandings that would be able to operate ecologically, within and across various disciplines and contexts, offering a viable alternative between dangerous reductionism and overwhelming complexity. In a time where it is inviable and even harmful to not think and work in ecological terms while complexities continue to expand, this methodology could be a crucial tool to operate meaningfully, as architects and beyond.


CRUCES
CAZALLA
BAJO OBISPO
MATACHIN

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FIGURES

01
Property map of the Canal Zone showing property belonging to the United States of America, Panama R. R. Co., and lands claimed by private persons
Ancon, Canal Zone : Isthmian Canal Commission, Canal Zone, Dept. of Law, 1912.

Source:
Library of Congress
Geography and Map Division
Washington, D.C.

02
Starting Point
Initial research and thematic entanglements

Figure produced by the authors.

03
Matters of Concern
Overview of relevance of contaminations for various matters of concern

Figure produced by the authors.

04
Data/Disentanglement/ Territorialisation
Initial data collection and taxonomic division

Figure produced by the authors.

TIERRA FIRME
PARQUE NACIONAL CHAGRES
PARQUE NACIONAL SOBERANIA
CANAL ZONE
GUTAN LAKE
SAN LORENZO PROTECTE FOREST
GRAN COLOMBIA
THE AMERICAS
PANAMA BAY
PACIFIC OCEAN
ATLANTIC OCEAN
GULF OF PARITA
BERING STRAIT
SAHARA DESERT
GOLD COAST
CAPE TOWN
LUANDA
LEOPOLDVILLE
N'DIAMENA
HONIARA
NEW HOLLAND
TAIPEI
TOKYO
BERINGOVSKY
SIBERIA
LOS SANTOS
Colón
Panama City
Chepo
Tronco
Aguas Dulce
La Chamarra
Golgigorgoduh
START
FINISH

BORDERS & MIGRATION

COLLECTIVE MAPPING

Christopher Clarkson
Augusta Fiseryte
Houry Jamkojian
Joshua Jerome

Gamification as Cartographic Practice

Reflections on Panamania! the board game

With our research into Panama's border conditions and migration flows we have taken what could be described as a 'counterfactual' and ecological approach. Borders are not reduced to line thicknesses on a page but consist of multiple and various events and landscapes that serve to slow or impede the movement of matter and energy. Migration is not seen to represent exclusively the migrant as a person, but rather embodies a broader scope of the movement of various things besides the human: copper, eagles, and cocaine are some examples.

The map takes on a distorted cartography which emphasises Panama, while at the same time positioning it firmly in a global context as a result of its canal. In order to generate an interactive and experiential mode of reading the map, we have gamified these migratory flows and borders, such that the reader takes on the narrative of the migrant, conquistador, or Chiquita banana which they play as. This allows for the introduction of absurd (fictive) scenarios, new potentials, and interactions between characters that underscores their interdependence and shared experiences.

Migration signifies the controlled and perpetual movement of bodies across geographies. Within our map, this phenomenon is embodied through a diverse cast of characters: the migrant, indigenous, conquistador, tourist, eagle, banana, copper, and cocaine. Each is mobilised to spotlight the political decisions, economic opportunities and environmental factors that impact their existence. These characters navigate the borders of Panama that are not just geographical and territorial boundaries, but events that hinder or facilitate their movement. As such we see the border as a function of time. Our exploration transcends conventional representation by delving into the evolving nature of these border regimes across multiple timelines. By doing so, we uncover the interconnectedness of narratives of these characters echoing Arturo Escobar's theory on the pluriverse

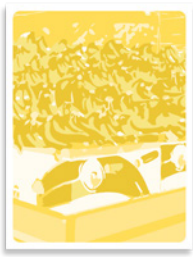
(2018). Within shared borders, their worlds collide, clash and entwine, challenging the notion of a singular truth or experience.

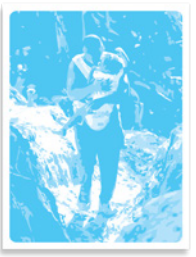
By doing this, our mapping enables us to present a more holistic view on data sets which are otherwise often presented as separate entities: statistical data, versus first hand accounts, versus photographic or video essays, versus census data collected by the IOM. There lies a difficulty in trying to bring these various data sets together (besides their difference in kind): statistics regarding the extraction of Copper are not immediately of consequence to the first hand account of someone crossing the Darien Gap; nor are historical accounts of the Colonial Spanish of any apparent (immediate) relevance to the number of tourists that visit Panama City each year. However all of these events occur within the same territory, they cross paths, and meet each other at various moments in time. Bringing this data together opens up to a highly speculative model - the complexity of what is happening within a territory at any point in time is practically incomprehensible. And with the meagre tools that journalism seems to offer - like the statistic, there exists the possibility for things to happen otherwise. In other words, there is a coefficient of unpredictability built into any event. Finally, since these spaces of migration and regulation are in a state of perpetual change, the data that represents them is also in constant flux. The complexity of these border conditions and the events that take place are made all the more intangible by the means of representation: numbers of tonnes of cocaine for example (who really knows what a tonne is… or feels like? Let alone what 600 million euros (Sterling, 2023) are) - there is a problem of subjective reading with regards to this information, and its ability to 'play out' differently, in different locations and at different times.

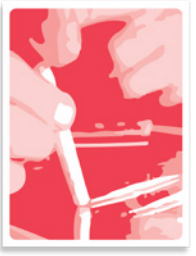
Map: The activation of the game board.

Character: Agents of migration represented within the game.

Player: The audience interacting with the map.







Charcter story & attribute cards

In response to these issues of subjective reading, the slippage of data and contingent realities, the complexity presented by these border regimes and the events which take place along them, we have chosen to leverage the distortion inherent in mapping to create an experiential form of reading.

Through the act of mapping, a complex and inexhaustible set of experiences and information such as the coastline or a street is reduced to a line of a half millimetre thickness; or an entire village with thousands of people can be reduced to a point on a page. In the real world, a set of data is selected and then provided with coordinates that plot their relation accordingly on the abstract 2D space of the map. That person or persons which choose which data is presented, how those relations work, what the system of plotting is, and where on a page it is printed, is in total dominion of their abstract world. This is the case for all maps. We have distorted the world map to fit the needs serving to the tangibility of the data which we are presenting. This distortion occurs at two levels: the spatial, and the temporal.

Geographically, the emphasis of our mapping calls for an enlarged Isthmus, however also for its relationship to the rest of the world. Ultimately this has created a world map in which the continents of Eurasia, Africa, and the Americas are reduced in size, and are spatially organised according to their relationship with the Panama Canal instead of their relationship to each other (Fig. 1). This spatial distortion allows us to focus our attention on the border events which take place throughout a migratory journey across a particular territory, while at the same time maintaining a sense of the periphery beyond the territory of Panama itself.

Any map is not only a distorted representation of spatial features, but also of time (maps don't happen at the same time as the reality they depict, each information point has a different time

Panama Paper Cards

reference, whether that be recent or distant). By virtue of including various 'characters' and pathways across the map - time is presented as a multiplicity, rather than a chronology. The map exists for both the 17th century as it does for the 21st, and movements across the map are contemporaneous. The temporal factor in most maps is cumulative - the spatial consequences of all time are represented at once to the viewer, and the time at which the viewer experiences these features is not often taken into consideration. In our depiction we exaggerate this temporal distortion by including names of bygone centuries, characters of another era, and placing them directly on top of each other, rather than the most recently cumulative feature, name, etc. Secondly, our distortion of time is in the experience of the map's reader, who in fact must sequentially experience the information, which is in turn constantly interrupted by the events of others - happening in their own spatio-temporal frameworks. We have disrupted the fluid passage of time in real experience as an index of singular events for each character. By doing so, we hope to bring forward the complexity of the events that take place in migratory processes, and also offer the ability to engage subjectively with the otherwise abstract and removed information of the map.

The methods used to create our map serve to satirically investigate and critique common distortions, griddings, and temporalities upheld by typical mappings. This is done by means of an alternative, and radical set of distortions which are then overlaid by a highly regular and arbitrary grid. The satire of our mapping exists as a result of our distortions, and points to the absurdity of the act of mapping as an exclusively descriptive tool.

PANAMANIA! CLASSIC

Panamania is a board game which maps out the various borders and migrations across the Panamanian territory.

Borders are not taken to be simply physical obstacles, but consist of multiple and various events and landscapes that serve to slow or impede the movement of various bodies.

Migration is therefore not seen to represent exclusively the migrant as a person, but rather encompasses a broader scope of the movement of various products, objects, animals, and people relevant to the territory being depicted.

PREPERATION is next to none!
Gather friends and family, get a delicious beverage and settle in for a night of laughter and tears together.

Simply remove the board pieces from the box and arrange them according to the fold out map on the next page.

Shuffle the Panama Papers, and place them on the designated zone marked by a '?' on the board.

Each player must select a character from the character cards and then place their corresponding (colour coordinated) pawn on their respective START tile and the fun and despair may begin!

THE MAP takes on a distorted cartography which emphasises Panama, while at the same time positioning it firmly in a global context as a result of its canal. In order to generate an interactive and experiential mode of reading the map, we have gamified these migratory flows and borders, such that the reader takes on the narrative of the migrant, conquistador, or Chiquita banana which they play as. This allows for the introduction of absurd (fictive) scenarios, new potentials, and interactions between characters that underscores their interdependence and shared experiences.

Remember that while you're sipping on your beer having a good laugh that your friend Patrick is being sexually assaulted in the Darien gap in-game, this is happening every day to real people, in a way that's not so funny. The entire boardgame allows for fictive and speculative readings, however is based on fact and research, not fiction.

CHARACTERS are the personifications of migrating bodies in the Panamanian context, and allow for the player to engage personally with the real circumstances of the border conditions.

The characters selected for this game are chosen so as to encapsulate the broadest possible range of migratory entities relevant to the context.

There are 8 distinct characters, indicated by their respective character cards. These character cards will explain each character's origin story, goal, and their unique abilities which are activated in certain situations outlined later. As such your choice of character will greatly influence your gameplay experience and dynamic within the setting of the game - Choose wisely!

MOVEMENT in the game is determined by the roll of a single six-sided dice (D6).

Each turn, the player will roll a D6 and advance that many tiles forward. If the player encounters a coloured path, road, or air flow leading from a tile, they may follow this line until reaching the next following tile and continuing their count as normal.

TILES are the locations in which characters find themselves, and are the main mechanic in the game which introduces information, and demands action from the player. The tiles can be divided into coloured tiles, which are character specific, corresponding to the character's colour; and grey tiles, which are communal, and can be used by any of the characters that have access to them. The lines that connect tiles are always character specific, according to colour.

To map out the various events and situations that act as borders, these tiles can be further subdivided into 8 types. There are 80 tiles per route.

START and **FINISH** tiles represent the beginning and the 'end' of each character's migration with regards to Panama. Characters must begin on the Start tile, and reach the Finish.

DEATH tiles signify the end of a character's path. There are 2 Death tiles per route, and they manifest themselves in different ways. Effectively, the definition of Death here is that the character is no longer 'migrating' and is therefore 'out of the game.

STATISTIC tiles require the player to roll a 20-sided dice (D20) to determine which action they should take. Consequences on the board consist of waiting (skipping the specified amount of turns), going backwards, or advancing forwards by a certain number of tiles.

GOOD NEWS and **BAD NEWS** tiles indicate a consequence that is either good, or bad. The consequence stated by the tile must be carried out by the player. Good news is represented by a circle, and bad, by a square. This was an arbitrary choice.

PANAMA PAPER tiles require the player to pick up a 'panama paper' from the top of the deck in the centre of the board.

The panama papers carry the same '!' icon on their back. The player must read the panama paper out loud to the other players. These special cards are able to create changes across the board - representing global, national, and ecological events that can have consequence for every character in Panama. The characters influenced by the panama paper must carry out the consequence as described.

BLANK tiles are the final tile type, and in the 'classic' version of the game, allow each character to make use of their specific attribute. These blank tiles, in combination with character attributes allow for interpersonal interaction detached from the game board, board games are after-all, a social practice.

LOSE states in the game do not exactly exist. So, 'everybody's a winner!' but perhaps given the character and the nature of their journeys, perhaps 'everybody is a loser...'

It should be clear that as characters you have little in common - your challenges are distinct, your incentives are different, and even your modes of transport. As such, it is of little consequence if the Cocaine is snorted in Berghain before the Conquistador is able to return to Spain with the gold of El Dorado. The opponents in truth are these gosh-darn border conditions!

The game is **COMPLETED** when you as the player have completed your route in some way or another - by reaching the finish tile, landing on a death tile, or otherwise, simply by walking away.

PANAMANIA! VARIATIONS

BLANK tiles are the only tile without a prescribed function, and as such allow the game to be played again and again, with different consequences and opportunities every time characters land on the blank.

What follows is a sequence of game variations, with a different rule for the Blank tile. In these variations, the 'Character attribute' can be ignored, and the game space becomes much more competitive, since you start with the same resources and abilities.

It goes without saying of course, that you are very welcome to define your own variations, inventing your own rules for the blank!
Best of luck out there, it's downright Panamania.

WICKED GAME. In this game variation, blank tiles grant the player that lands on them a number of moves corresponding to the number of active characters on the board.

If 8 people are playing, the player receives 8 free moves. These moves can then in turn be distributed as the player sees fit to other characters.

Furthermore, the player can determine in which direction each character must move: forward or backwards.

Finally: consequences of the tiles landed on apply, except for other blank tiles.

HARD MODE In this game variation, blank tiles simply represent the nearest possible 'BAD NEWS' tile to the player.

A HELPING HAND In this game variation, blank tiles encourage teamwork and being kind - especially great for teaching generosity to greedy little shits.

Every time a player lands on a blank tile, they must advance one other player by 1 tile. Consequences do not apply.

THE GOOD OLD DAYS In this game variation, all 8 players must play as either a conquistador, or an indigenous character.

In this game set up, Panamania 'classic' game rules apply for the character attributes.

With four on each team, they must try to reach their goal with as many surviving characters as possible as fast as possible. The first team to complete the course wins.

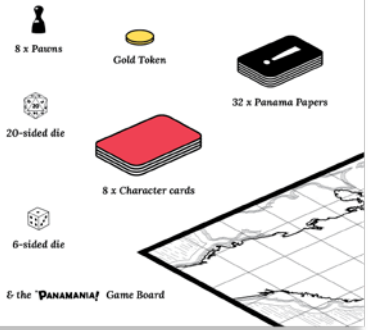
AINAMANAP In this game variation, characters must begin at the FINISH tile, and move backwards to the START tile.

REAL LIFE MODE In this game variation, in-game consequences must be carried out in reality to the players, not only to the in-game characters.

We do not recommend this game mode, and if you are playing it BAM holds no responsibility for any PTSD, Death, starvation, Emotional trauma, or any other potential consequences.

PLAY AT OWN RISK.

IN THE BOX (Box sold separately)



1-8 Players

Designed by BAM in South Hokard (yes, none of the designers are Panamanian and no, we have not been to Panama)

PANAMANIA is a registered trademark of BAM corp. any misuse leaves you liable to group bonding, social enjoyment, and uncovering horrifying truths about various realities.

Ages 0 to 99+ (never too early, or late, to be exposed to the complex often incomprehensible scale of the antic. Contains themes of sexual assault and drug abuse - however this seems not to be a problem for the children encountering it in real life.)

CHOKING HAZARD - bite sized statistics, that explore expansive migratory narratives.

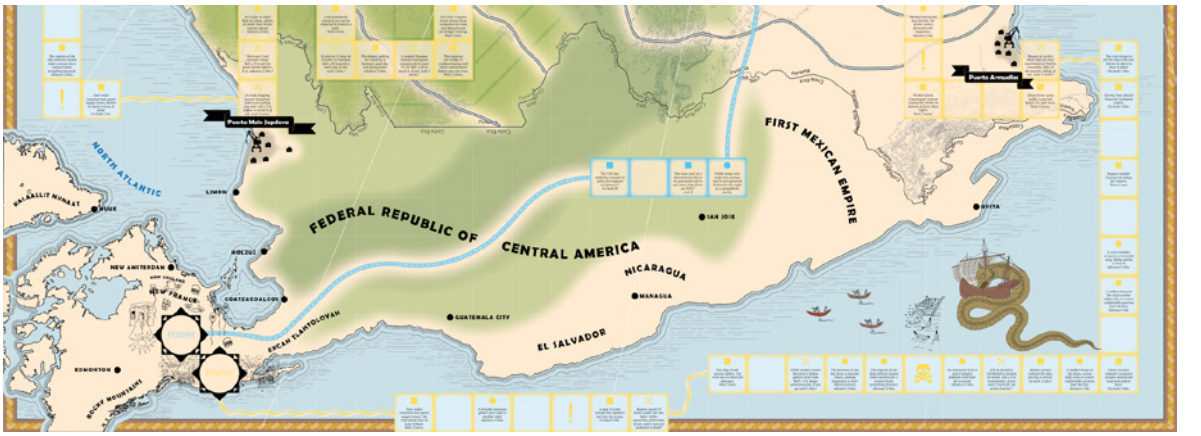
May contain traces of geopolitical tension, economic exploitation, environmental destruction, historical atrocities, modern atrocities and tree nuts.

Auxiliary elements including dice and character pawns.

Satire also manifests itself in the forms of a larger, geopolitical commentary by virtue of our gamification of the data collected. Gamification within cartographies acts here as a form of incorporating strategic elements into the act of reading the map. Due to a person's individual experiences, they will necessarily read any map in their own way compared to other readers. As such, by positioning the reader in the position of a 'player' who needs to act and make decisions in their reading, we are exaggerating their role as the reader, and amplifying the different experiences that are possible within any reading of the map. Making use of game theory, we have provided the reader with an added goal, along with the means to reach it, however, in light competition with the context of the map, as well as other actors who have the ability to influence the player's ability to reach their goal (Ross, 2023).

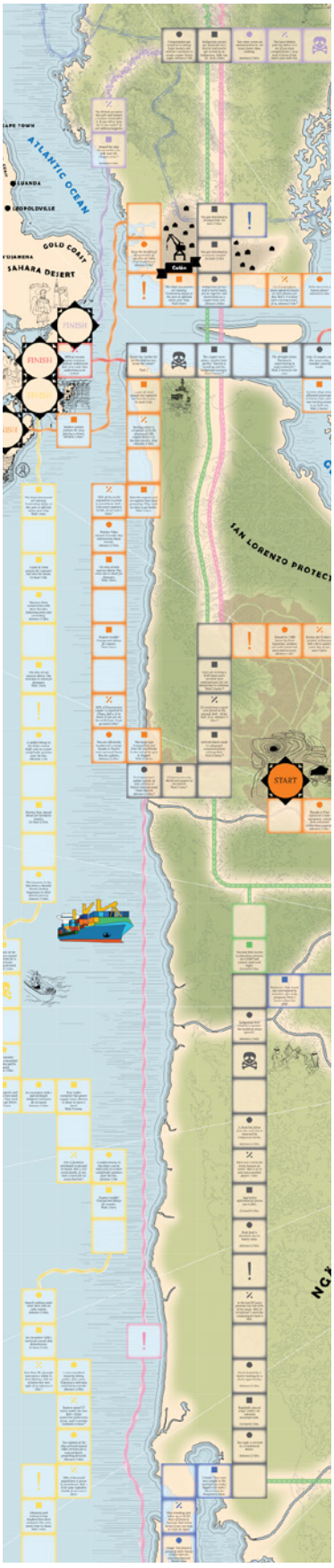
By gamifying the territory of Panama, the readers of the map, or, 'players' are able to personify the characters that build their own path informed by geographic conditions, statistical events and interactions with other actors of the board. The cartography invites readers to effectively become actors in the territory and take a part in a system of events (Fig. 2). The irony of course is that while doing so - the player is somehow transformed into the character in the board, while at the same time exists perfectly removed from the real situation which the map aims to describe. This results in a kind of humour, which is often disturbing - as the events happening to the character become assigned to the person playing the game.

By doing so within the context of Migration and Borders in Panama, we are able to create a strategic situation out of particular actors that have a relevance to the context and each other. As such the characters that we have chosen are representative not only of a particular individual, but also of larger geo-political tensions, such as Chinese/ USA interest in the Panama Canal, the constant pour of migrants moving north from



South America attempting to reach the US, as well as the consumer capitalist society of the west that depends on resources and production from countries in the East.

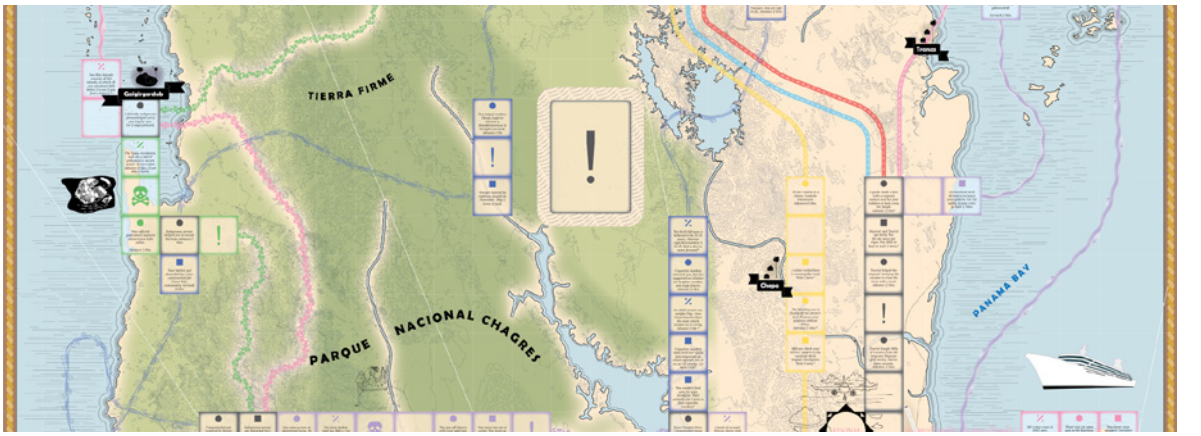
The irony of this disjunction between player and character, is that while the player suffers consequences (good and bad) in game, the consequences are relatively homogenous, either moving forward, or backwards, or waiting (Fig. 5). Characters of the game are optimised into homogenous movements of crossing gridified tiles across the board. The infrastructure of the game unfolds multiple complex systems that each character contains into a reorganised coordinated engaging manner. This is a fairly blatant reduction of the heterogenous range of consequences that could happen in reality. In extension of this, we also realise that while movement is an inherently heterogenous activity, the method of progressing through the board is reduced to a simple and consistent dice roll at all times. Different characters in reality move with different degrees of ease, depending on their capital, ability to fly, or as an object, they are dependent on others - in our game though, flattening this hierarchy allows for the player to experience their position in the game as one which has relative influence on the other actors, and encourages action. Here we recognise also, that every move in the game is tied to a probability of a dice roll - and, where you land dictates what consequence the character must face - effectively attaching a 16.6% chance of landing on any particular consequence. In reality, there is no '16.6%' chance of teleporting from one location to the next or avoiding or encountering death - it either happens or it does not, and it always happens in time, not as instances but as a continuous unfolding of events. However, due to different geographical routes, and different character abilities, different character's routes highlight the contrast of accessibility, risks and danger that each of the characters experience throughout the game. When combined, gamification and systemisation create an



alliance between characters and their routes, encouraging magnified discussions, intensified imaginative scenarios and possible irrational endings.
Taking cues from other game board structures, other features are integrated into our map. These include the Panama papers, a riff on the scandal of 2016 in which millions of documents were leaked, linking some of the world's wealthiest and most powerful to offshore tax evasion, much of which passed through Panama. (ICIJ, 2017) In this instance, the panama papers have become on the one hand a reference to the reality of mass tax evasion and fraud at the global scale, while in the game, they function as events or situations which require action from the various characters - underpinning their inherent difference economically, socially, and geographically (Fig. 3). By engaging with the differences between player, strategy, and character, board, map, and actual national territory, we are making the intangible set of data a sequence of experiences. These are then told as the players play, or read the map, and as a consequence of a start and finish line, and particular character definitions, we come to an understanding of narrative.

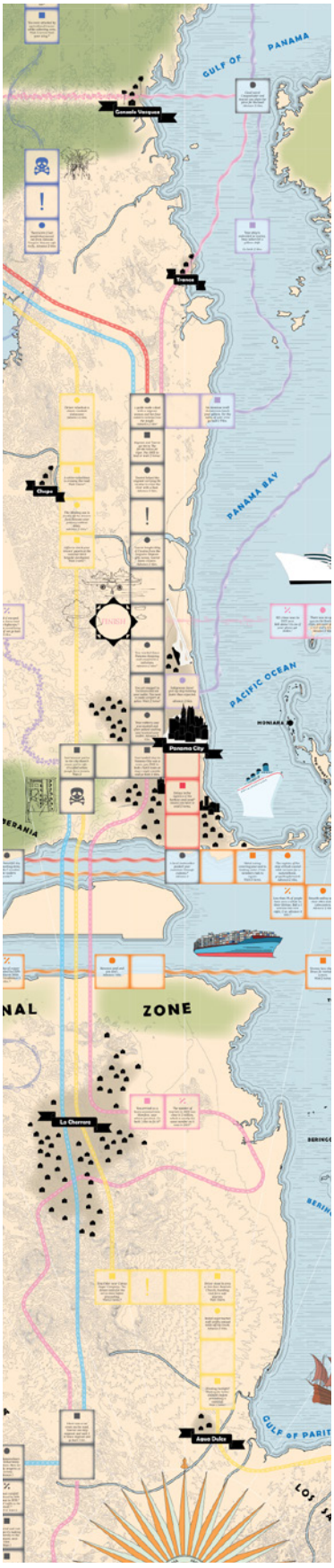
Narrative crafting is an age-old human tradition in which knowledge is distorted, moulded, and repeated. It is one of our most influential tools in which information can be encoded and imparted in ways that interweave familiarity and foreignness and encapsulate the often-imperceivable scales of time and space. Our mapping exists as a narrative in its own right, in which a collection of paths of migratory movement are interrelated, compared and rewritten using visual and literary devices. This was catalysed by the format of knowledge we collected. That being, the linear experiences of diverse characters as they navigate the territorial conditions of Panama; stories that are simultaneously shocking and mundane. Presented together, it becomes a saga of territorial negotiations, inheriting the pedagogical qualities of storytelling and gamification in its player interactions.

Like our map making forebears, our selective distortions, character choices, and statistical representations form a distinct narrative of migration in Panama as we perceive it. However, while we crafted what we can call the 'world of Panamania' the interaction players have with this multiplicity of events is experienced at random. This effectively mirrors the reality rather than the mathematics, as distinct and unique individual narratives form from a world organised by statistical probability. These generated player narratives are further informed by the gamification, in which we distort exactness, rather than defacing it. For example, by stretching the timescale of character movements, and grafting distinct yet related stories. This allows for



moments in which a player, in their navigation of the board participates in parallelism. The game creates a thin line between the player and the character, which deconstructs the barrier between the statistics and real events and embraces engagement and intelligibility. This method of experiencing the map, rather than observing, assists the players construction of meaning and knowledge. Further, it allows complex statistical data to manifest as relationships between players and the game as well as between the players themselves, by directly relating them to the real experience of migration. It is within this imparting of real knowledge through player-catalysed stories that the complex reality can be understood.

Consequently, the gameboard exists as the record of migration and the gameplay becomes a generator of new narratives, forming what Werner Hertzog would describe as ecstatic truths (Hertzog, 2010). These build emotive and confronting bonds between the player and the character. Consequently, shedding the sharpness of statistic-based narratives and re-personifying what are deeply anthropologically intersecting stories. In doing so it becomes possible to compare, subjectively yet relevantly, the incomparable in a way that often becomes satirical in its extreme juxtapositions. Accordingly, the explicit use of visual storytelling and literary devices in our methodology has allowed us to both encapsulate, and project, the interrelated and omni-spatial nature of migration, and the navigation of dissimilar borders and territorial conditions.



In its completion Panamania! has leveraged highly transformative techniques that in their distortions and player interactions present an encapsulating, complex and poignant understanding of migration in Panama. As we have expanded our interpretation of migration to include a range of both human and non-human actors, we have been able to reflect the simultaneity of migratory paths and territorial negotiations. Further, with our distortion of space and time these migratory agents, or characters, are aligned as cohabitants of reality, in which diverse temporal journeys are shown to exist in relation and interaction of one another rather than in a contextual void. In conjunction, we have also provided a critique on traditional cartographic practice, in which objectivity is aspired for yet never achieved due to the innate spatial and temporal bias's present in representation. These methods form the basis of our map, but it is with the gamification of the presented data that Panamania! becomes particularly relevant and effective. The audience becomes a player, and in turn exist in parallel to the characters of migration. As they engage with the map the player catalyses a unique potential narrative, which intrinsically links them to both the statistic and the character that statistic represents. Consequently, the map manifests as an expression of what exists as a statistical collective as well as the potential realities of the individual, in way that coaxes emotive entanglements with the player (audience). In turn Panamania! the board game is an effective example of how gamification in cartographic practice can produce relatable, intelligible, and representative maps that in this case negotiate the complex multiplicities of migration and territorial negotiations in Panama.

AMAZONIA
LITTLE VENICE
BRITISH GUINEA
DUTCH GUINEA
PORTUGUESE GUINEA
SPANISH GUINEA
GEORGETOWN
CARACAS
BARCELONA
SALVADOR
RIO DE JANEIRO
MONTEVIDEO
SERRANA
ANDES MOUNTAINS
Cusco
QUITO
CALI
TRINIDAD TOBAGO
START
Santa Maria la Antigua del Darien
EMBERÁ-WOUNAAN
Unión Choco
DARIEN GAP
Venice
CORREDOR BILOGICO SERRANIA DEL BAGRE
NEW CALEDONIA
New Edinburgh
CARIBBEAN SEA
GULFO DE SAN MIGUEL
GULF OF PANAMA
Tiombhi
Isoola Pa
Sansafy Vampons
GUNA YALA
TIERRA FIRME
Golpiperdido
Tranca

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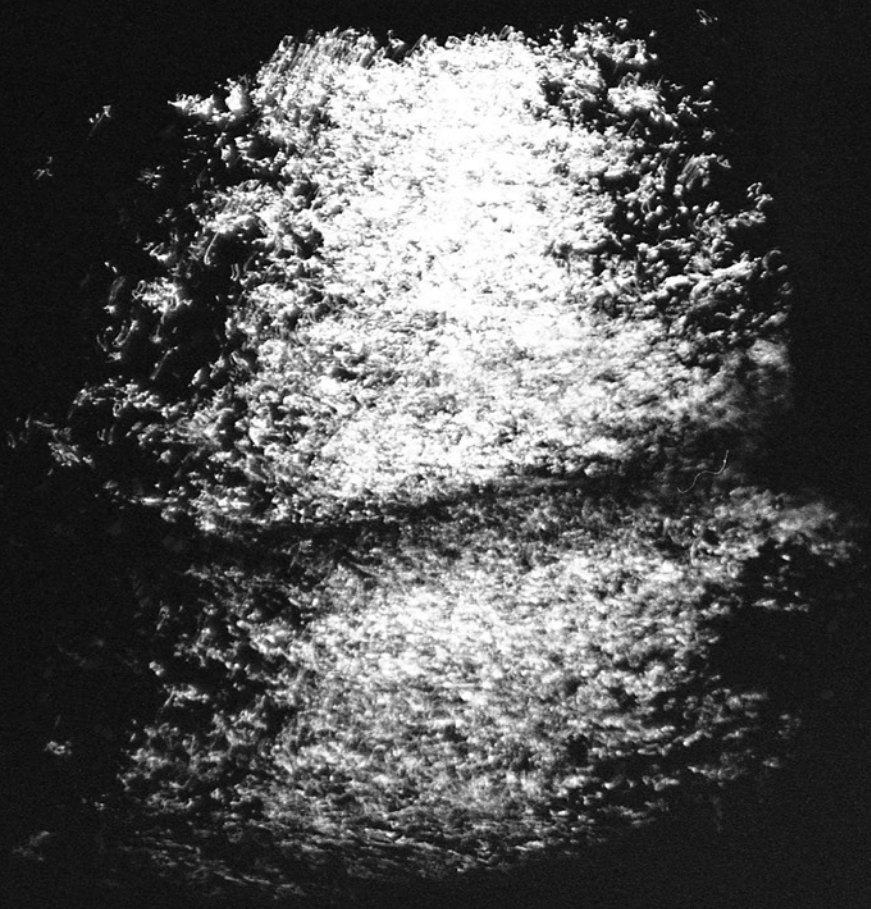
FIGURES

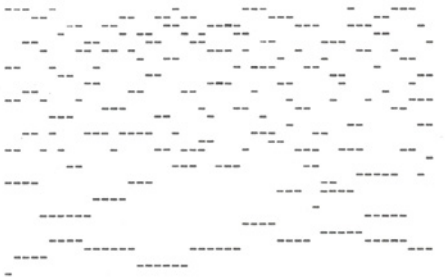
All figures produced by the authors.

INDIVIDUAL WORKS



SURFACES AT LARGE

AND THE MEANNESS OF MEASURE



Preservation named with the scent of death.
Can such thoses stumps feel ?
In the dark, polluted waters
which so effortlessly reflect
The canopy of the clouds overhead.

Sing me a song would you?
You have such a beautiful voice,
Please?

It can never be so bad that it can't get worse,
Stand here please,
That I can study you naked
Before these pale white fish,
They paid good money, after all.

This will be our horizon,
There inside will lay waste
To those foolish souls that have approach.

This will be our refuge,
There brackish waters and
Seemingly dead-off camps between
Intertwined roots, in the
Shadows of the city.

Let us look out onto those dark waters,
Puff puff puff
To theallyings of time,
Something never beneath that carpet
Which escapes all capture.

No blockade is final.
Have your defenses and bonus for impact,
Darts, pupils, beaubles, and Bullets
Will run you down.

Do not fret,
They will pick your bones clean.

Water assimilates by the second,
Dead by the hour,
and rock by the millenium.

Long ~~the~~ the day that is
How ~~much~~ time before Deceitful ice
Becomes a ripple in Rime?

For a creature without destination,
perhaps "being lost" does not exist.

All lights point to you in their reflection.
Desiring jumping, disappearing and revealing
itself, a false image emerges:
You must be such a valiant force
From which all light emanates.

Making tides bring waves that
echo in the dark and disrupt the
water's collective desire.
Ripples advance, swell, and retreat,
but the water's purpose is singular.

Let duty
Free the valleys and cliffs
of a corrugated sheet,
The ruins of yesterday
onto asbestos soil.

Let rot
In the dark chasms
of concrete and brush
The hundreds of egg shells,
Cracked open and left bare.

Seek out
with serpentine tendrils
a shelter
From which to sprout more life,
Organized in a perfect grid.

Gone in a century, or a second,
The flow of being is observed with
a relative motion blur.
Concrete edifices become a smudge in time,
at 93 kilometers per hour.

Slow down.

How long does it take for paint to dry?
How long before the wall turns green?
Step by step - the water patiently
Fills, and then spills.
There is no rush, only survival.

How it must feel,
To be constantly pushed, shoved,
Dragged backwards,
Slammed against the rocks, and
Assembled into Steel?
Dangling at the zenith for a moment
only to succumb to your own weight,
And recollapse with the others once again.

Being confidence, left behind at day's break,
Only to embrace again at dusk.

Submerged beneath the skin,
A single bullet says more
Than a rapid fire of words
which aim to describe it.

How strange the way that the skin
slides around a motionless and
Inert piece of lead.
$I_{xx}I_{yy}I^{2}_{xy} = I_{yy}$.

Europe and Incubator in the same breath:
Europator
The tide cuts its flukes in other
With great attention but without deliberation:
No stone is left unturned.

Toddler of primordial ooze
Leave behind hapless structures,
Living in fierce competition over the remains.

The world above the water's surface
is so such a specialty to those alien and forgotten
Dwellers of the deep,
so that loneliness is to us.

There is an doubling
which operates along the water's limit,
For both above and below.
Who's to say which way is up?

From shifting shale to glassy granite,
The veins of mantle lubricant and dissolve,
Dematerializing, in its excretion & entangle hence.

Tides leave hosts in the mud,
Only to bring them back to life
hours later.

Condensation and sweat create
a sticky haze over or skin
Listening to the continual hum of traffic flows,
In the heat and humidity of The Jungle.

"Those rocks will betray you."
And I set out into that barren expanse.

The weight of water
Puts entry and exeat balance,
Taking whatever route necessary.

There is motionless in the sliding wave,
Leaving only the faintest whisper
of what lies below,
Can you hear it, Journal?

Gate cut through the jungle
with a voracious hunger,
They leave a trail
of decic-tet surrogate in their wake.
Beautiful.

So too have the Chinese,
who now decompose in the North
They themselves once held dominion over,

Black glitter shimmers
To the light of an L.E.D. Billboard,
While he studies from the stool,
Talking to the painting he could not sell.

Shut out?
What featuring wound
attempts such unscrupulis company?

Such a slow and graceful dance,
A seductive soiree, choreographed
to some oceans of death and decay.

The water's edge,
A mirrored frontier,
Which is its own executioner.

Shared against these rules,
The lapping of the tide b-n left its memory,
And made promise of its return,
By way of plastic bottles and toilet brushes.

Emerld cuddles of salt-water suction
sprout lifeless branches and
bring down the sun's scavengers.

A place where Ipomoea Pescaprae
Have once left to drown,
The E.U.A. once protocol electricity,
And where people now freelance cocaine
Besides the Mangroves and the Palmyra.

Forgive us today our daily ravage,
In that place, no deep dark out steady,

Bears the stylus of light into a tapestry
Upon which we may walk,

In the interstitial space between High and Low
Singular us, in search of a different place,

For we must passage on open waters,
Between here and nowwhere so to not get lost.

MIRAFLORES LOCKS
PANAMA CANAL

Author's note:

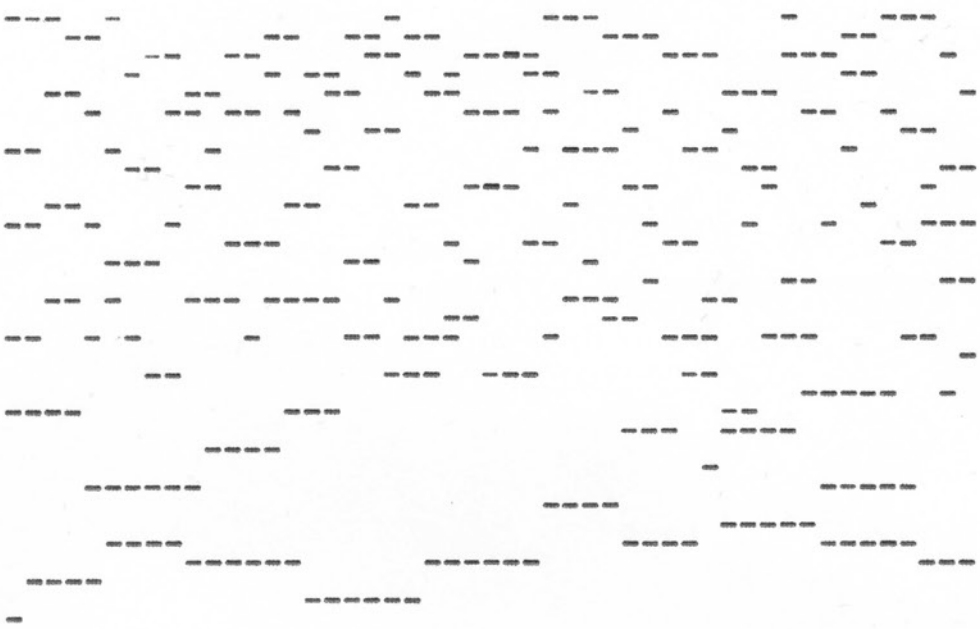
All images, illustrations, figures are the work of the author unless otherwise specified.

Please take the time to print and shuffle the pages of this paper before reading, or alternatively, feel free to read them as suits you - they are not written in any particular order, and I see no need for them to be read in any particular order.

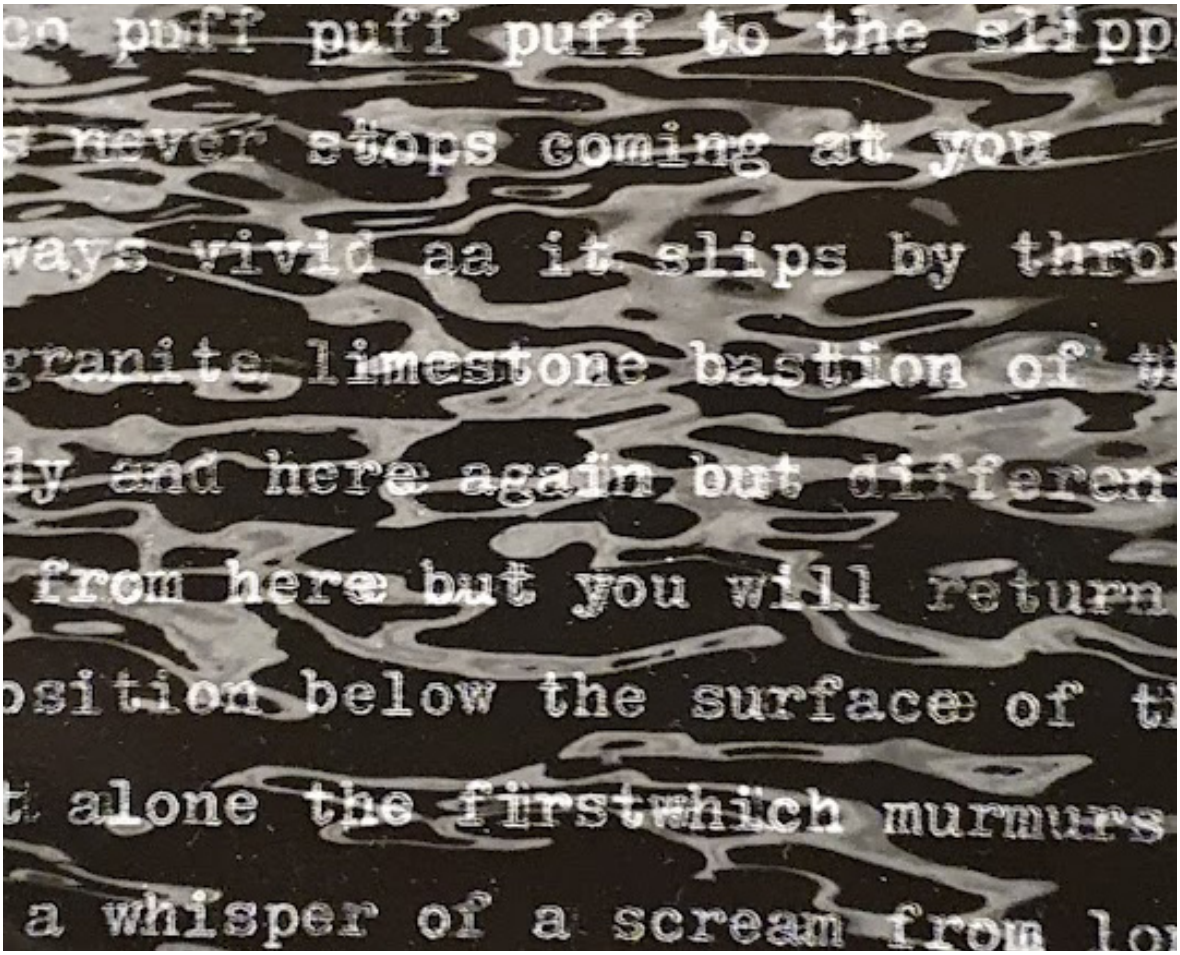
Acknowledgement:

Many thanks to those who have loudly encouraged and supported the creation of this paper, as well as to those who have quietly withheld their reservations. And perhaps most especially, thanks to those who unashamedly voiced their concerns - be they for the paper or for my own sake.

Previous pages:
Poems on water written with typewriter Erica Model 7, and Analog photographs of Panama, made with Pentacon Six TL. Below shows concrete poem titled: Water.

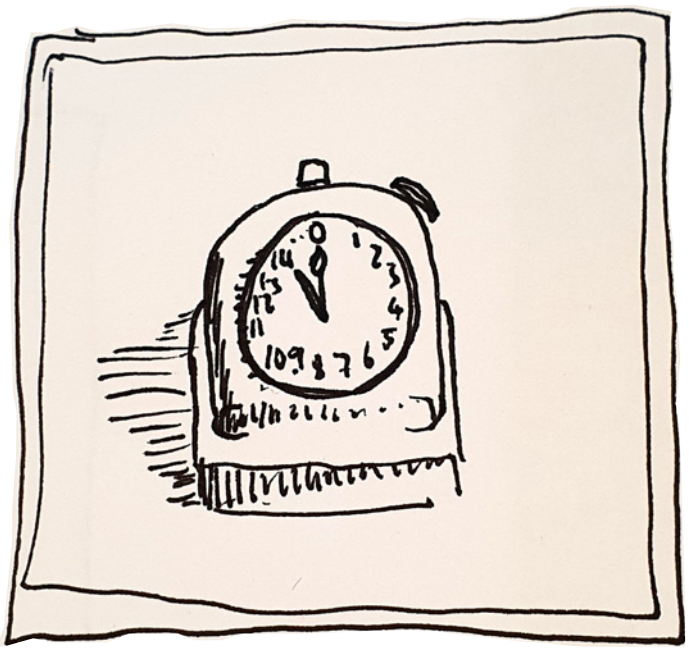


Accidents, errors, and mistakes become compositional features that are embraced as those precious moments in which reality breaks through the rather strange façade of precision that is called for and generally expected. As Agamben highlights in his lecture on the resistance of art, the unfinished, or mistake in the perfect weave is that very thing which allows its author to escape imprisonment by their own design (European Graduate School, 2015). And so rightfully should we acknowledge and embrace the minor error: the slip of the hand, the smudge of ink... The mark of the author left behind, not by their own intention but as a result of their having been in the same place and time as the work - intricately involved in its production through material manipulations. It is only because of the author's intention, their aim for precision, that the error therein as a juxtaposed feature gains its importance and its beauty. As Francesca Hughes (2014) illustrates, the architect's relation to precision and material intolerance has run rampant to the point of redunancy, and near fetishization. It is no longer a question of how things come together, but of a strange longing to remove ones self from the material at hand through machinic practice and digital tools that enable and encourage a practice of designing while ignoring material.



Time itself does not go tick tock to the rhythm of the clock. Nor does time stop when a timer reaches the zero mark. It simply continues, at exactly the same speed – fluid and undivided, in fact indivisible. Yet there exist sharp lines that dictate the precise moment a second has elapsed for the entire planet – offset by hours across timezones that further split time – of course, clinically measured with satellite clocks to ensure we all live 'in the right time'. Daylight savings provides a succinct example of how our understanding of shared time is simply an agreement on international scale, not necessarily a shared experience. Time itself does not care for its own passing, nor does it stop to make sure we are all in sync with it every second. The striation of time is but one of many arbitrary lines that cut through abstract space (Deleuze and Guattari, 2017).

David Claerbout speaks of a heterochrony, or the multiplicity of duration being in constant conflict with clock-time in his work (Walsh, 2022). When thinking of duration (multiple) as opposed to measured or 'clock' time (singular, static), duration implies that time begins to fracture into multiple parallel lines. Moving at the same speed but not in the same moment, the time in which this paper is written, edited, and read are somehow contained within the paper itself, and experienced only as individuals. When contending with these notions of multiple times, individual moments, the collapse thereof in an image and the projection of it into the future, one wonders, in which moment do we live? It seems difficult to grapple with the idea that all persons live in different moments, however also difficult to believe that I exist at the same moment as the person who is reading this sentence.

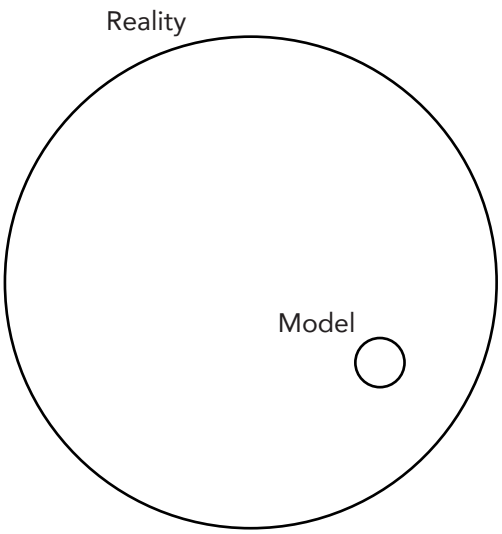


Much like the image, we generate models that mimic properties of reality. In turn the model is studied and analysed and understood in order to make projective analysis and speculation about the 'real' world which contains the model. Models often have a coherent internal logic, a consistent pattern, a recurring set of behaviours that make them predictable, and so our use of these models in analysing reality generates a world in which we anticipate certain things to happen based on a model of our own construction. However, the world is not ~~as we made it~~ of our own construction.

As such we can use a mathematical notation to understand that on the one hand, reality does not equal the model, while at the same time, reality as a set contains the model within it. While the model still technically adheres to the physical laws that govern the larger context, it is framed off, closed from the open systems of the actual, and 'scaled down' such that measure and impact have greater margin for error when scaled back to the reality of 1:1.

Reality ≠ Model

Reality = {Model}



In the words of Walter Benjamin, "The concept of technique represents the dialectical starting-point from which the sterile dichotomy of form and content can be surmounted." Sterile because form and content emerge together, are necessarily linked and dependent on each other, and ignoring their social, and temporal context reduces their relationship greatly.

It is as a result of technique that a work comes into being - it is the method and process by which *formation* transpires as opposed to stagnant form, and in doing so the work becomes encrusted with a surface that encloses the content within. And so the question for this paper and for any thing would be: what is its content, where are its limits, its framing, or surface that encloses it and provides form, and perhaps most importantly how have they been generated?

The difficulty within this paper is its attempt to define a trap that it itself is desperately trying to avoid falling into: the pinning down of an idea, a false sense of security by causing its stagnation and death. The paper is a critique on the measure, and the description and simulation of a behaviour of that encrusted surface which is in constant movement.

Much like the lighthouse which serves to warn of danger, the boat trying to circumnavigate a peninsula does not set course directly for that beacon to find out what the danger might be, but rather sails by at a distance, along its periphery. That periphery is necessarily dependent on the beacon, on the promise of danger towards it. At the same time however, the boat travelling along the periphery provides no independent confirmation of those rocks which it seeks to avoid (there is no collision). It is by virtue of the fact that the boat stays sailing, that it proves the rock-free nature of the waters it sails.

As a result, this paper as an experiment on the form of the essay itself seeks to circumnavigate its own content. Always regarding the dangers of the measure and precision from the ~~sidelines~~ outskirts, without risking collision by claiming to execute such precision itself. In its structure, pages of the essay may fall into place like leaves of a tree in autumn, to be read as it has been written: fragmentary, leaping from one page to the next, getting lost in its content, in order to find one's self again.

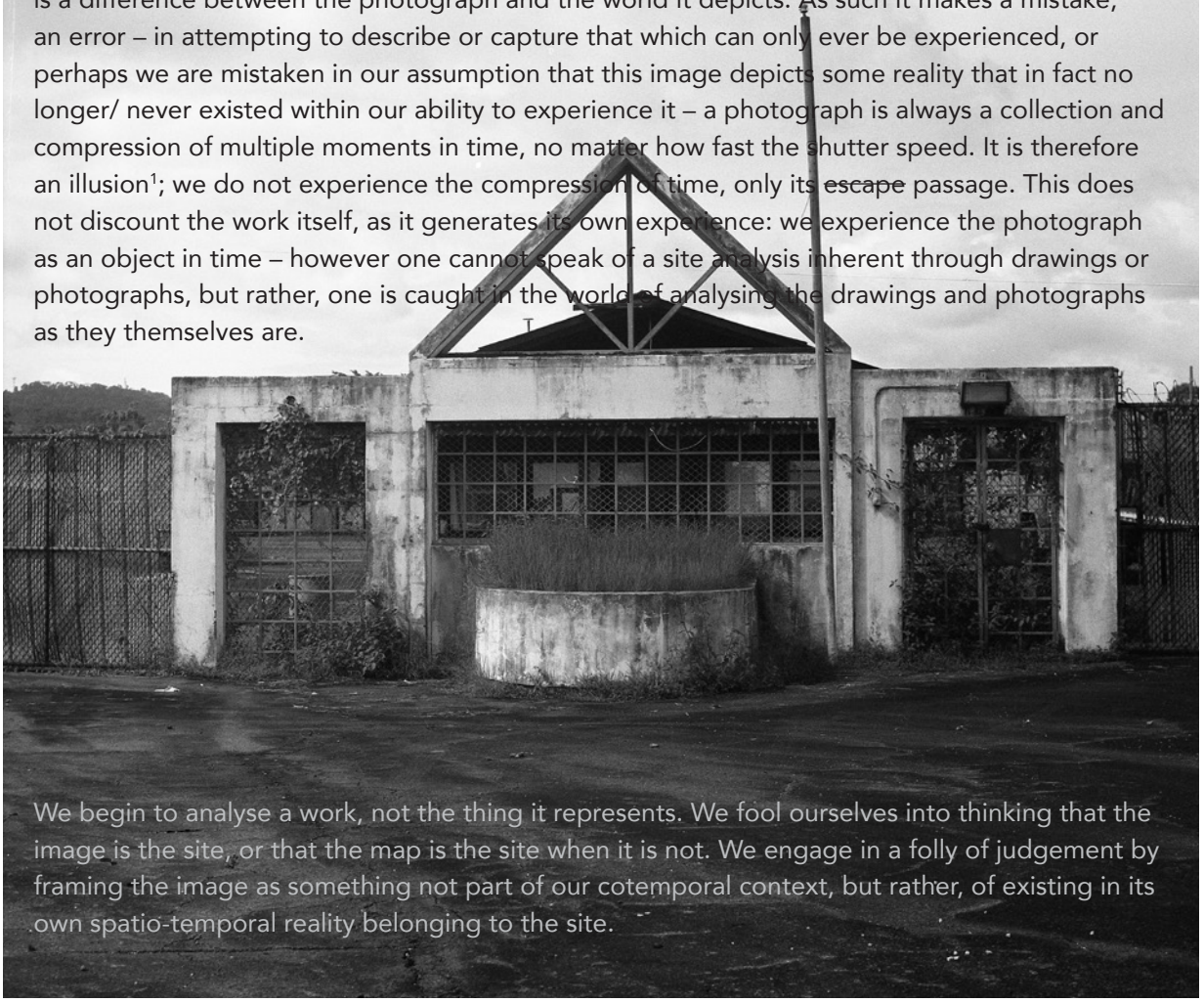
That is to say, the surface as a fluid – not necessarily the fluid surface, however this is where one might begin as a means to analyse and conjecture on the nature of surfaces at large, i.e. the nature of all surfaces, but also, the surface as something which has effectively escaped capture. "The depth has to be hidden. Where? On the surface." (Hofmannsthal, 1989) .Indeed the surface contains more depth than what initially meets the eye - the material world is necessarily textured and rough. Much like the geological formation of mountains which so clearly express their internal stresses and external erosions in rock faces as John Ruskin describes in his conception of the Deep Surface, all matter in its formation develops a surficial crust - evidence of external and internal forces (Spuybroek, 2016). The world is rough, and space is textured, since it is no abstract concept, but exists within the material world.

By modelling the planet based on formerly gathered (measured) data we can project within that model into the future and anticipate how the model, and therefore perhaps how reality will proceed ~~(protention)~~. However, between each cyclic recurrence and each anticipated future, there is a slight discrepency from the previously collected data (often due to a problem of measurement). In this difference, the unexpected, or as Deleuze (2014)[1] would conceptualise Nietzsche's 'eternal recurrence of the same' (Anderson, 2017) lies a greater truth than in the expected, the stereotypical, the archetype, the preconceived and correctly executed story. It is in this way that the act of repetition can be said to engender difference (Sauvagnargues, 2016). Because repetition is an action which operates in time, often engaging with material conditions, it can never produce an identical result. Just as Ursula Le Guinn (1986) decries the typical narrative: "that of the arrow or spear, starting here and going straight there and THOK! hitting its mark (which drops dead)" I contend that there is a need to 'miss the mark,' or rather, acknowledge that we consistently miss the mark in our attempt to reach it. It is in the subsequent moment that what happens next is unknown, the stuff of panic, adrenaline, and urgency as the hero must give chase to the beast that still lives.

Indeed when generating planetary models we encounter great difficulties, many of which are the result of the material world not quite 'hitting the mark' according to our systems of measure. Primarily, the Earth is in fact not spherical, not only thanks to its mountain ranges and valleys, oceans and other topographic features, but even if simplified and considered smooth it posesses an ellipsoidal form that shifts to the gravitational pulls of the moon and sun. This ellipsoidal form of course complicates measurements across the globe, as the curve along the surface is not consistent (in its gradation, there is variation of the curve – it remains continuous however). Similarly, the moon's orbit around planet Earth is not neatly circular, but ellipsoidal with a "*mean*" eccentricity of 0.0549 (note again the mean measure entering once again) (Espenak, F., & Meeus, J. (n.d.). Our orbit around the sun, is likewise rotating ellipsoidally, and in turn our solar system revolves around the Milky Way – each time returning to a different location~~ - how does one return to a different location?~~ To further complicate the matter, the general expansion of the universe implies that we travel in an ellipsoidal spiral - moving laterally whils revolving around a series of planetary masses. Never returning to where we once were, we continue along an uneven, helter skelter trajectory through the seemingly infinite expanse that is space. As a consequence, the tidal interval is never a neat and tidy quantity of time, like 12 hours, but rather, 12 hours and 27 minutes, followed by 12 hours and 16 minutes, and then 12 hours and 39 minutes (Panama Tide Times (n.d.).

1 "The eternal return is a force of affirmation, but it affirms everything of the multiple, everything of the different, everything of chance except what subordinates them to the One, to the Same, to necessity, everything except the One, the Same and the Necessary." (Deleuze, 2014. p.115)

There is a slippage in the transcription of a mark on paper, or the trace left by water on a wall. The slippage is not only one of coincidence, but in its representation, - be it through spoken or written words, or some other means of signification (photography, painting, illustration) - it is a consequence inherent to the representation's inability to *be* the thing it is showing. There is a difference between the photograph and the world it depicts. As such it makes a mistake, an error – in attempting to describe or capture that which can only ever be experienced, or perhaps we are mistaken in our assumption that this image depicts some reality that in fact no longer/ never existed within our ability to experience it – a photograph is always a collection and compression of multiple moments in time, no matter how fast the shutter speed. It is therefore an illusion[1]; we do not experience the compression of time, only its ~~escape~~ passage. This does not discount the work itself, as it generates its own experience: we experience the photograph as an object in time – however one cannot speak of a site analysis inherent through drawings or photographs, but rather, one is caught in the world of analysing the drawings and photographs as they themselves are.



We begin to analyse a work, not the thing it represents. We fool ourselves into thinking that the image is the site, or that the map is the site when it is not. We engage in a folly of judgement by framing the image as something not part of our cotemporal context, but rather, of existing in its own spatio-temporal reality belonging to the site.

1 We conflate the reality of the image for that which the photographer experienced. Instead, in fact, due to the nature of how a photograph is produced, it is necessarily creating its own reality. The illusion here, is one which we generate in our eagerness to assume that the image and that which it represents are the same thing.

The tide does not level out perfectly flat to reach its measured baseline, or maximum line for the day on the 'correct' or appointed minute before receding or rising. Furthermore, the mean sea level of every ocean and sea is distinct from each other, despite being one total body of water, since the basis for their measurement is based on a geodetic system with 'datums' that supposedly stay fixed in relative position to other objects – of course, they do not (Wikipedia Contributors, 2019).[1] The Panama Canal makes use of its own datum, to bridge the gap between the Pacific and Caribbean oceans; which have a 20cm (higher on the pacific side) difference in average height (Kirkpatrick, 1926). This is, also most peculiarly, an 'average difference'. In other words, it is the difference in height between two annual averages, both of which are fluctuating continuously. The actual or specific difference at any given moment ~~can be~~ is much greater, or less.

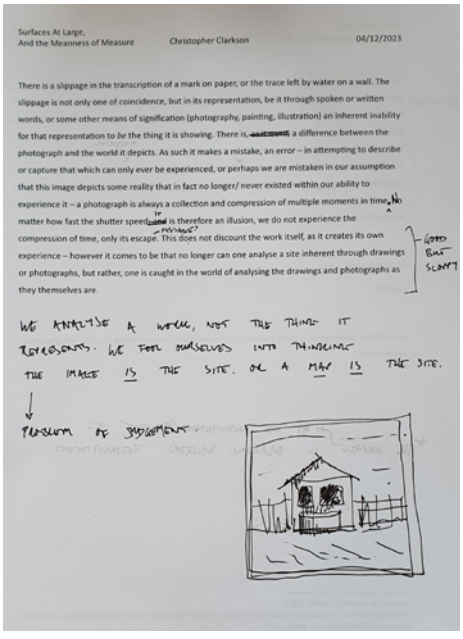
1 The system used today now relies on astro-geodetically oriented data; shifting the longitude and latitude lines on the earth's surface up to 100 meters since the European datum network of the 1950's. (Wikipedia Contributors, 2019)

Protention as conceived by Edmund Husserl and later Bernard Stiegler (1998) is the projection of memory- it is a future passed (be it as imagined, or through technical object, the core concept remains). Paradoxical as it may seem, it is a necessary feature of the human experience – it enables us to anticipate, speculate, and exist between one moment and the next comfortably. As Derrida outlines in his book, *Memoirs of the Blind*, the hand seeks out, before the eye, in search of (Derrida & Musee du Louvre, 1993)... There is at once in this moment, an *anticipation* of a handrail, or for the next footstep, the *anticipation* of meeting the floor. Simultaneously however, there is an *apprehension*. The position of a handrail or floor cannot be known without action, a seeking-out, and a sense of expectancy. So there is an apprehensive manner to this progression; it is not without caution that the blind charge forth in the dark. There is always the chance that there is no floor, but a cliff. This occurs in the same way that one might write a sentence, be they blind or not. Words are sought out one by one, or in phrases as the sentence is stringed together; seldom entirely thought out and then to the beat enunciated or ~~typed out~~ written.[1] Similarly, any illustrative act, photograph, or architectural drawing anticipates some as-of-yet unknown result. There is speak of a 'sightlessness' in the creative act – an inherent indeterminacy, a sense of not-yet knowing, a chance for falling, that the tracks might run out.

1 This may of course follow different patterns based on the language being spoken or written - however no matter the language, in the written format there is always the ability to go back, to erase and restructure, and to seek new ways of communicating a specific intention.

The surface is that very boundary by which we are able to recognise a difference between two distinct things – but is in fact non existent as a 2D entity in a three-dimensional space. It can not be singled out, removed, or captured by its distinct form, but is the manifestation of a Deridian *differance* - that is to say, in the same sense that a word gains its meaning from its distinction to other words, our ability to recognise a thing as such is owing to its distinction from its surroundings (Derrida, 2020). This distinction occurs at the surface, where one material collides with another, at the periphery of form - this distinction exists in a state of continuous change, or continuous state of becoming; the surface 'happens' just as the frame on a painting, the Parergon to the work, happens as a means to separate the painting from the wall, the work from its surroundings (Derrida & Owens, 1979). Understanding reality in a state of constant entropic movement and flux, in which objects dissipate and tend towards a homogenous mixture, when, where, and how does their shared surface disappear and a homogenous mixture emerge? Perhaps, the differential surface was never there in the first place – which would (alarmingly) seem to suggest, we are already living in some sort of homogenous mixture, save that our embodied experience in the material world gives matter its distinction. We should evaluate the process by which this dynamic entity (the surface) takes shape, modulates, speaks to that which is contained by it and that which is extensive beyond it.

In keeping with the slippage that is inherent in this topic – trying to capture the uncapturable, this essay is also 'structured' as a fluid. ~~Taking inspiration from William Burroughs' 'Naked Lunch' (the title of which emerges from a misspoken line of poetry – a detail which will emerge as relevant in due [or prior] course)~~ (Wikipedia Contributors, 2024). The following and preceding sequences of information are unchaptered, and can be /have been read in any order. The emphasis becomes no longer on the precise and pinned down sequence of paragraphs, words, or sentences, but rather that very slippery thing which happens between them in the reader's experience. As such, the paper also opens up to misreadings, committing itself fully to the multiple possibilities and experiences that any text might have on an audience. As a result, the paper aproaches its topic from the periphery - much like the behaviour of the surface and the impossible measure that escapes capture, the paper intends to explicate by doing, behaving like that very surface, rather than pretending to 'precisely' describe it. And so, images of draft versions - traces of the paper in various states of its formation are left visible. As a result the sentences which are struck out are somehow both there and not there, they exist in the final version only to indicate their removal, as well as to reveal that they once were.


Surfaces At Large,
And the Meanness of Measure Christopher Clarkson 04/12/2023

There is a slippage in the transcription of a mark on paper, or the trace left by water on a wall. The slippage is not only one of coincidence, but in its representation, be it through spoken or written words, or some other means of signification (photography, painting, illustration) an inherent inability for that representation to *be* the thing it is showing. There is, ~~[illegible]~~ a difference between the photograph and the world it depicts. As such it makes a mistake, an error – in attempting to describe or capture that which can only ever be experienced, or perhaps we are mistaken in our assumption that this image depicts some reality that in fact no longer/ never existed within our ability to experience it – a photograph is always a collection and compression of multiple moments in time. No matter how fast the shutter speed ~~[illegible]~~ is therefore an illusion, we do not experience the compression of time, only its escape. This does not discount the work itself, as it creates its own experience – however it comes to be that no longer can one analyse a site inherent through drawings or photographs, but rather, one is caught in the world of analysing the drawings and photographs as they themselves are.

GOOD BUT SCARY

WE ANALYSE A WORK, NOT THE THING IT REPRESENTS. WE FEEL OURSELVES INTO THINKING THE IMAGE IS THE SITE. OR A MAP IS THE SITE.

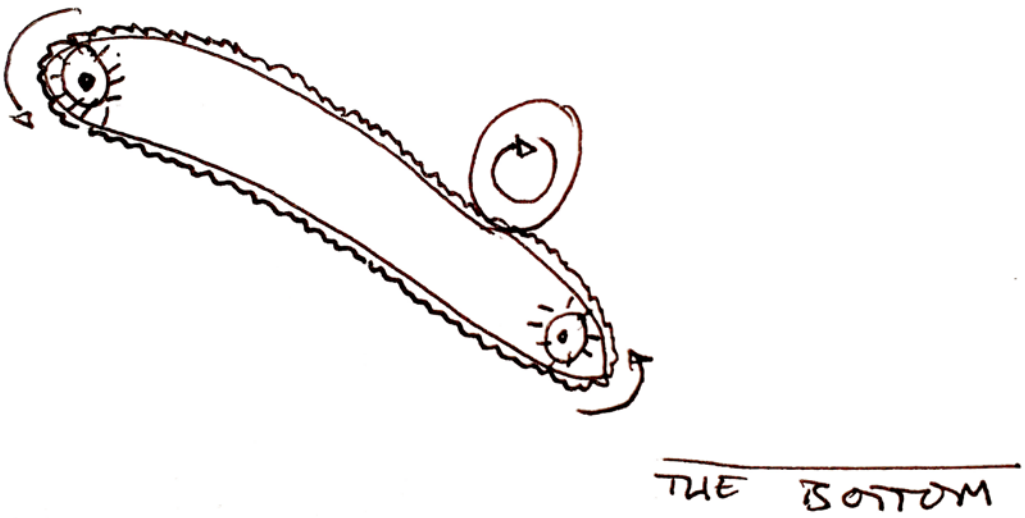
PROBLEM OF JUDGEMENT

The fluctuations that are inherent and continuous in the liquid surface across all axes of movement are the consequence of a miriad of factors: wind, oceanic currents, gravitational pull(s), continental topographies, depths… and ~~at the very basic level~~, the form and material of the surface beneath the liquid, we can call this the 'sub-surface'. At the same time however, that sub-surface is rearranged by the continual movement of the water, taking on the shape of a ripple, by material being lifted and deposited in particular locations as opposed to others; the surface as we know it is broken up, shifted, and reconstituted. There is a quality of continuous, repetitive, and different movement ~~that is apparent~~ – and so there is no 'Site' as can be described by its relative position to other material (see for example, the description of the opening scene of Act 1, in Samuel Becket's (2006) *Waiting for Godot:*

"A country road. A tree.
Evening."

That is to say, there is no stagnant site, one without moving points, shifting, changing landscapes are the only given. As Samuel Becket opens his play, Waiting for Godot with the simple scenography he provides us with two objects, and a time. Their spatial relation to eachother is completely undefined, however they exist simply in one time, 'evening'. It is for the stage director to place them within the frame of the stage, open for rearrangement.
This relative 'sitelessness' is further enforced by an unsituated understanding of place: site gives way to non-site (Smithson, & Flam. 1996).

In the words of the otherwise speechless character, Lucky (Beckett, 2006):
"[…] flames the tears the stones so blue so calm alas alas on on the skull the skull the skull the skull in Connemara in spite of the tennis the labors abandoned left unfinished graver still abode of stones in a word I resume alas alas abandoned unfinished the skull the skull in Connemara in spite of the tennis the skull alas the stones Cunard (mêlée, final vociferations) . . . tennis . . . the stones . . . so calm . . . Cunard . . . unfinished . . ."
Because to claim finitude is to reject duration. The finished state is an illusion as much as five centimeters or three hours are. Since their is no stagnation, only movement, the work can never be finished - like sisyphus (Camus, 1942), only, without effort to accomplish our supposed goal (of progressing), we are in a state of continuously rolling downhill, never to reach...



How exactly to know where any one thing is in a system of moving parts, other than to assume for the time-being that they are not moving, and give measure from one surface to another. It is the distance between these surfaces that make the difference - and recognise that the measure will never be true. It is a cruel trick that we play on ourselves by aiming for a precision that does not exist, not in the absolute - rather it is asymptotic, tending to perfection but never reaching it. Instead, an average, or mean will have to suffice. Since we cannot ever truly provide the height of the water's surface, a position at which it is never existing is instead selected: the mean level, at all times both above and below the water's surface. The meanness of the measure derives from its averaging abilities, and its seductive promise of a knowledge which we do not really have. Let us not be seduced by the siren-song that a definition seems to provide: the false security that one knows something with absolute certainty.

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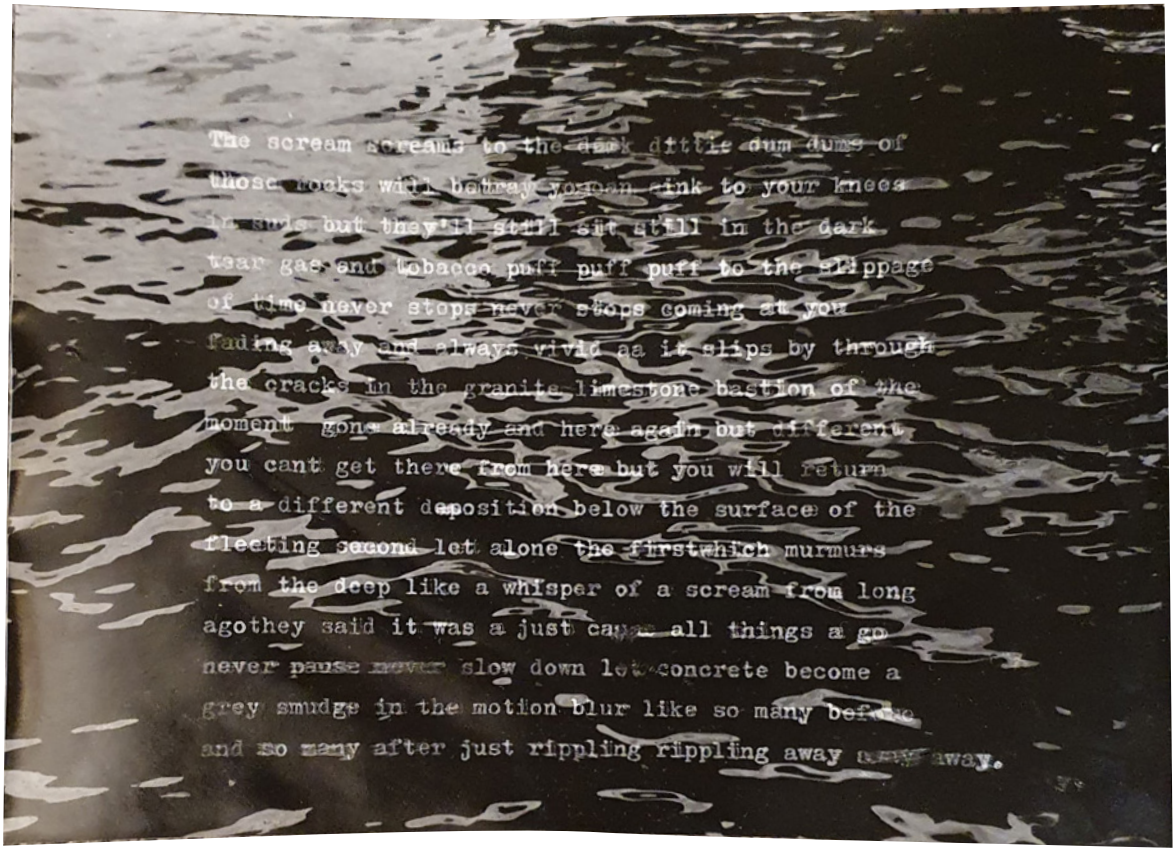
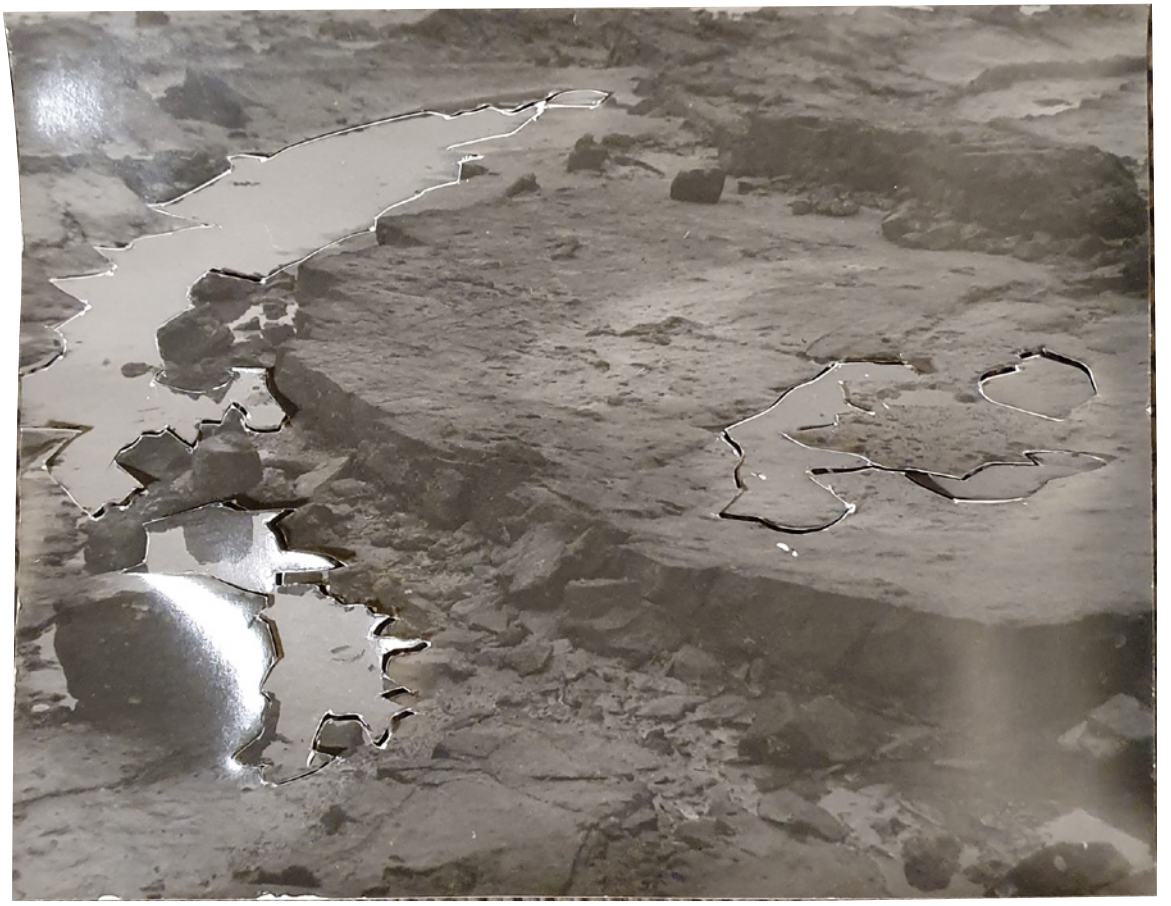
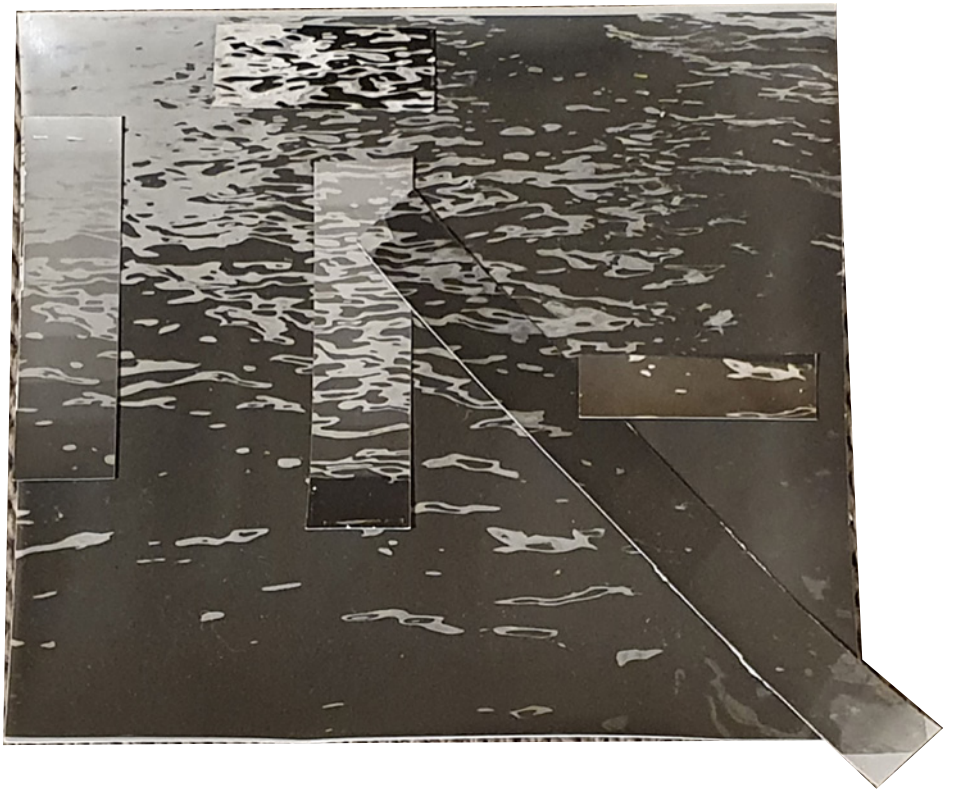
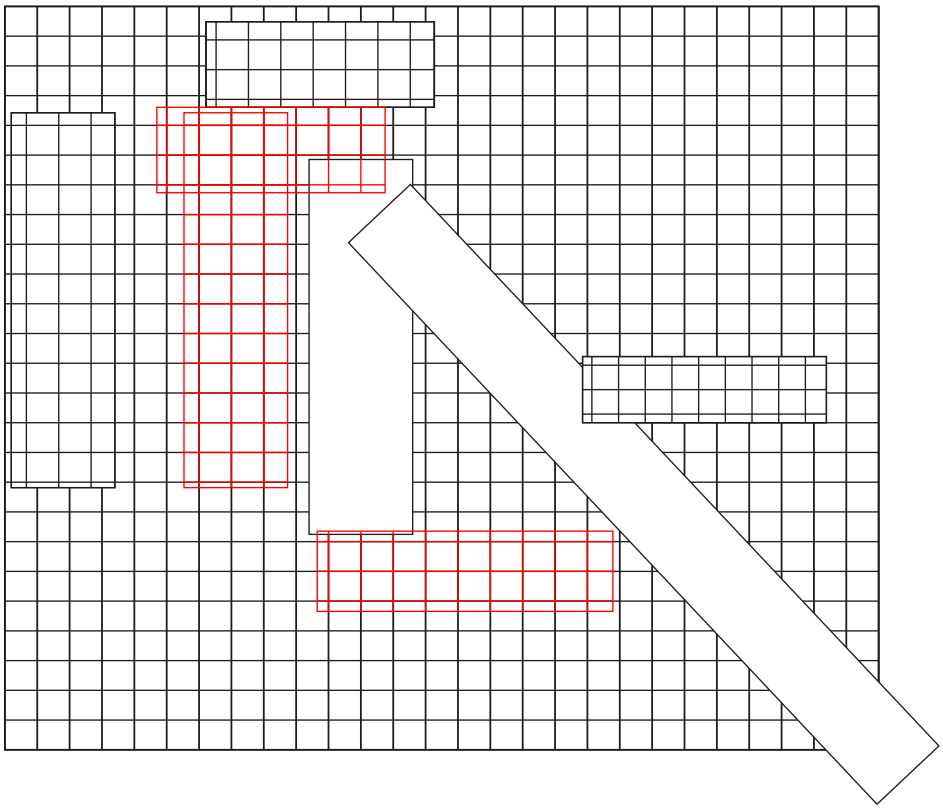
MODI OPERANDI

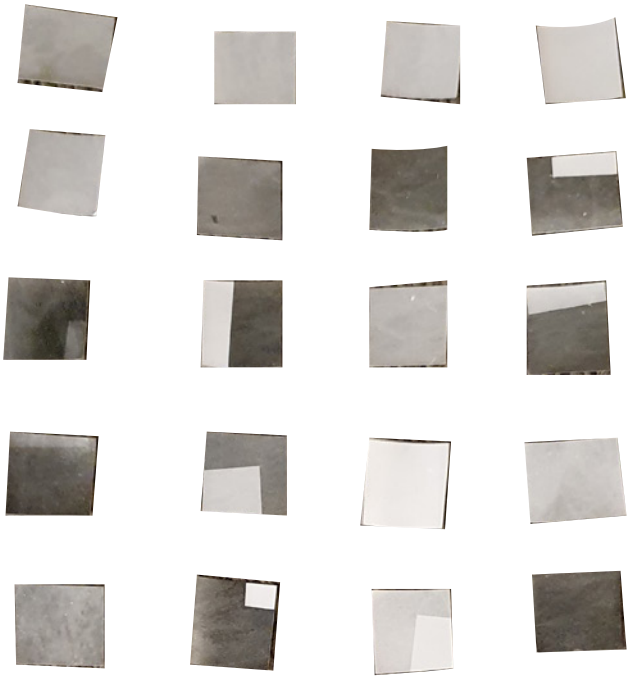
The modi operandi models make use of film negatives made in Panama to create darkroom prints using a Meopta 5 enlarger. Before exposure to the light, the photo-sensitive paper undergoes certain transformations in the dark, such that unforeseeable consequences (errors) can emerge along the surface of the image.

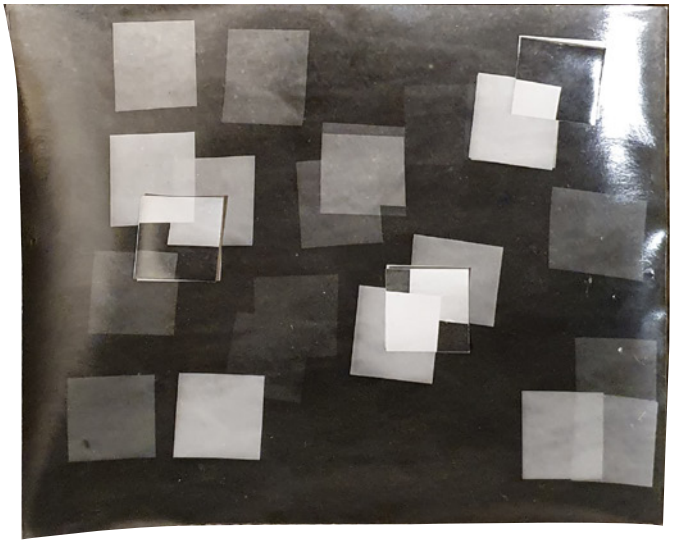


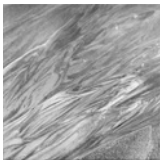


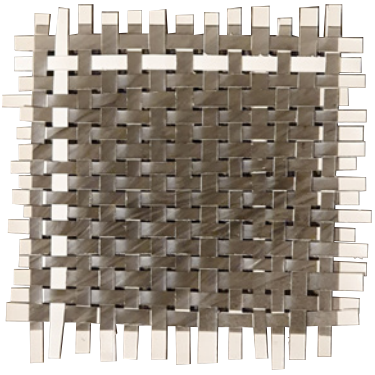


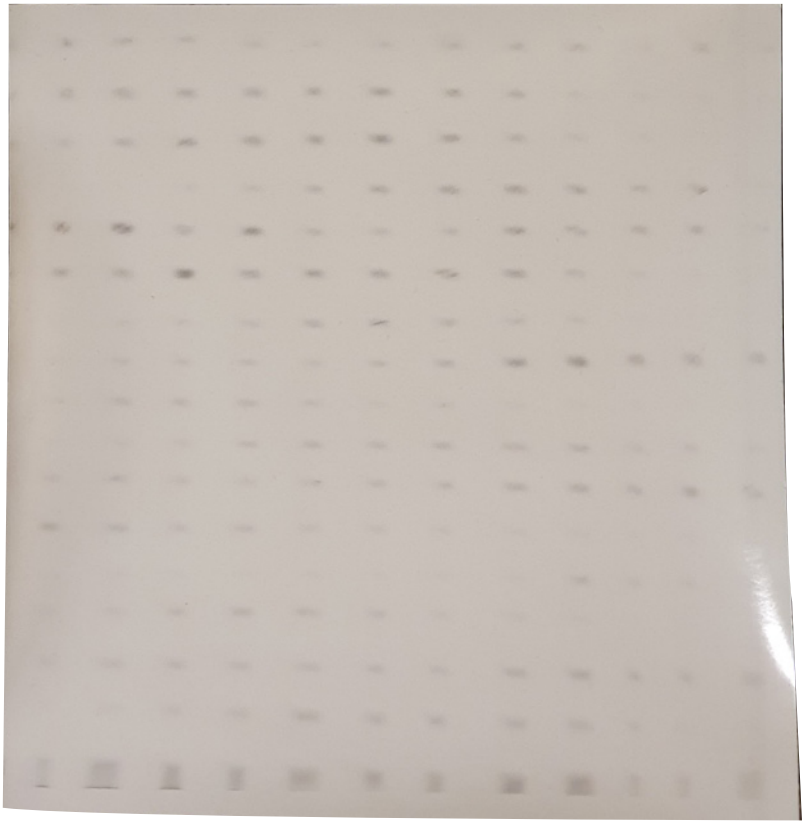


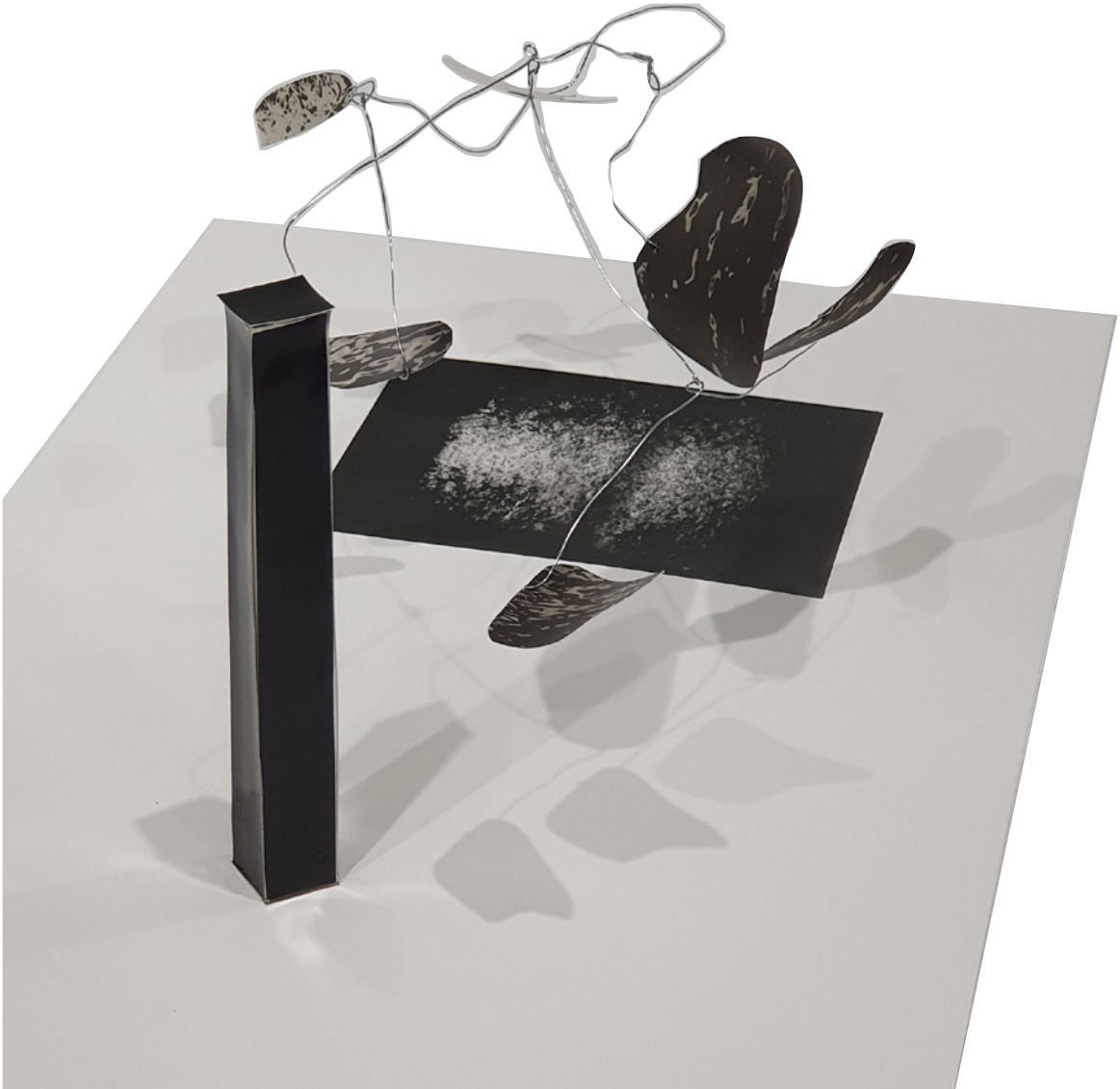


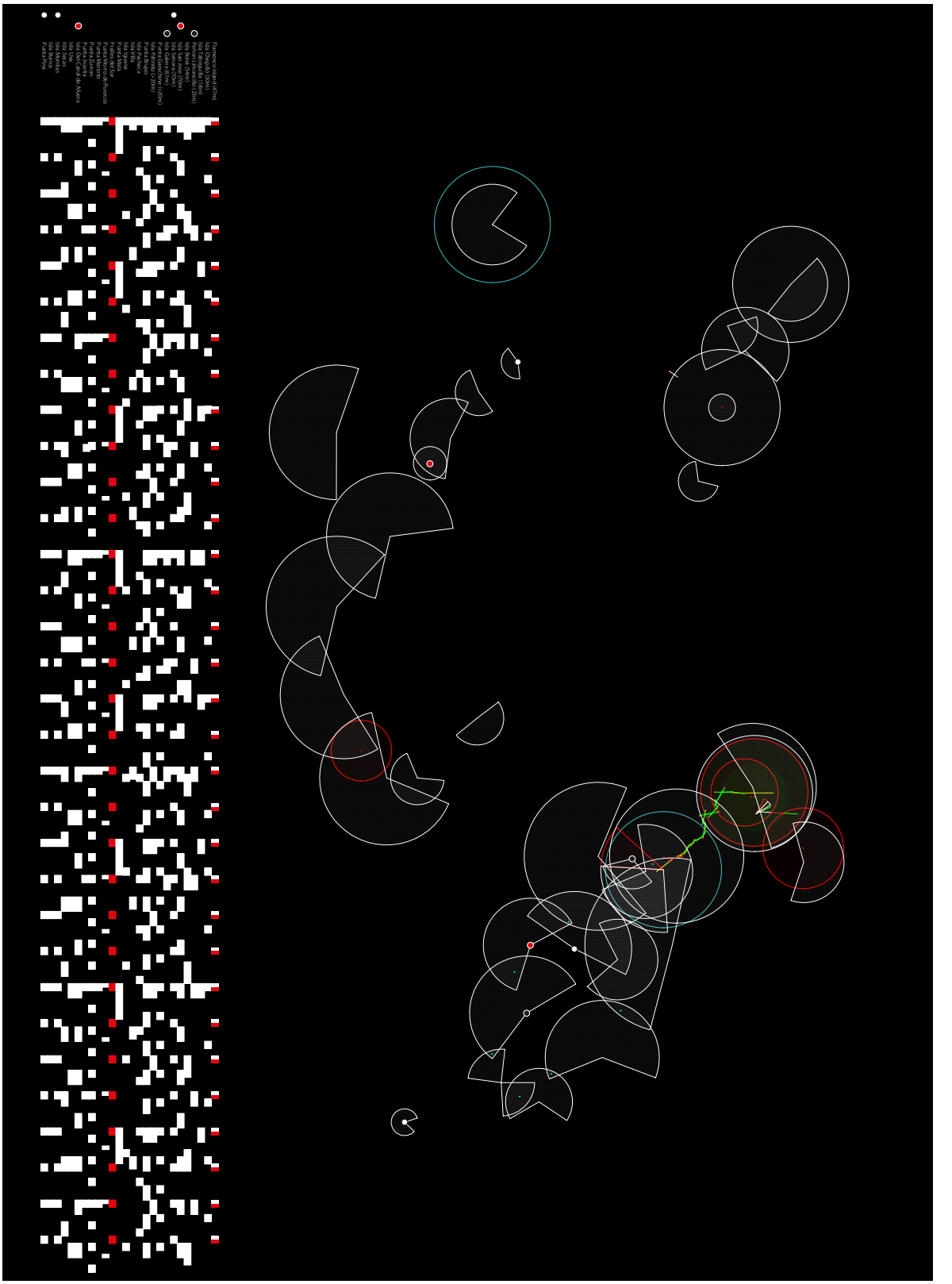








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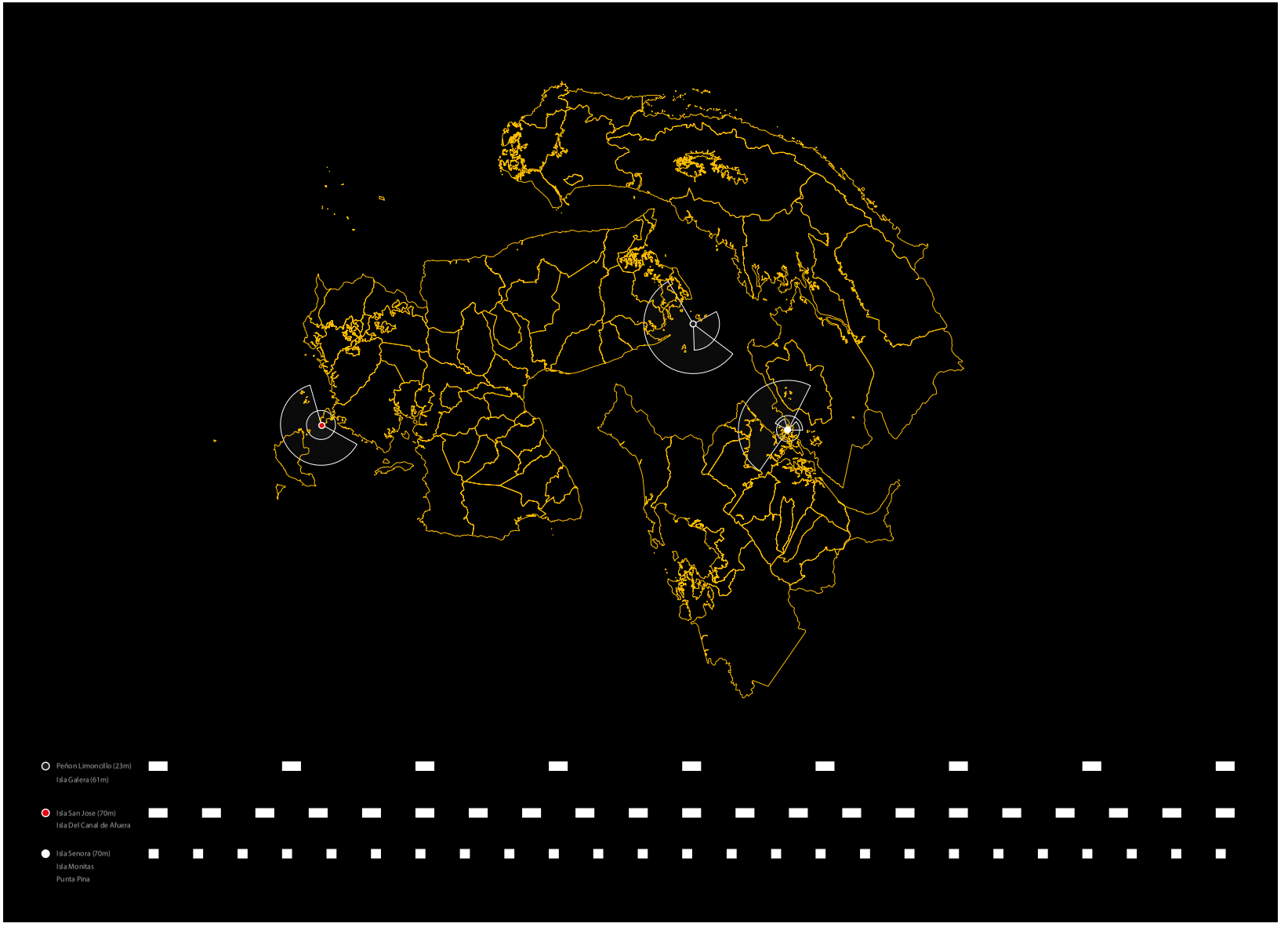
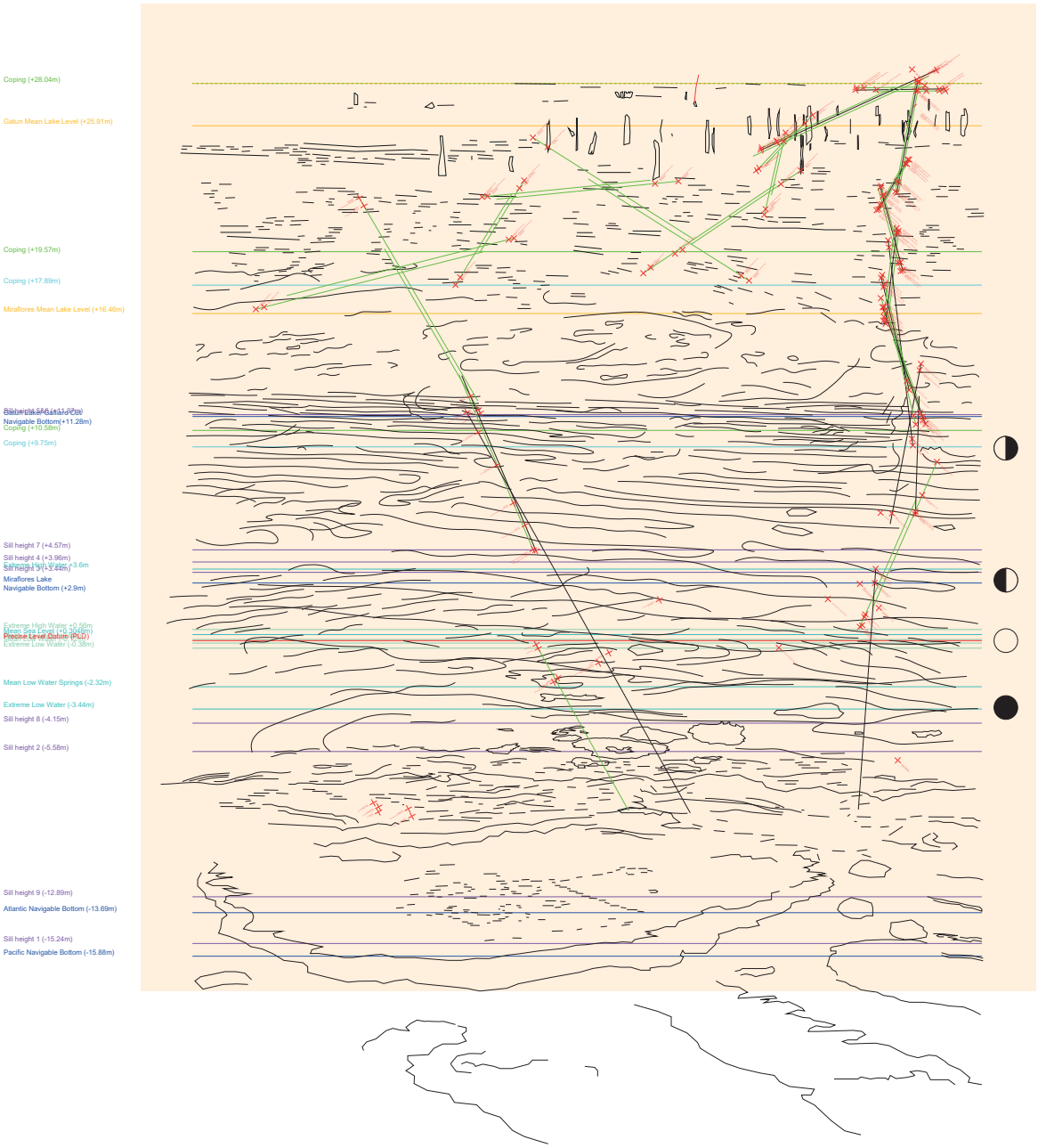

Peñon Limoncillo (23m)
Isla Galera (61m)
Isla San Jose (70m)
Isla Del Canal de Afuera
Isla Senora (70m)
Isla Monitas
Punta Pina



Above: Map of water surface levels and subsurface levels of Panama canal and the lighthouse navigational system that guides ships from the Pacific to Atlantic Ocean and vice versa.
Previous Pages: Lighthouse ranges and colours of Panama with Pacific coast light characteristics. Conflation of lighthouses with same light characteristc resulting in Panama distortion.

Forgive us today our daily dredge,
In that place, so deep dark and dreary,

Weave the rythm of light into a tapestry
Upon which we may walk,

In the interstitial space between high and low
Misguide us, in search of a different place,

For we seek passage on open waters,
Between here and somewhere we do not yet know.

AMIDST RAPID URBAN GROWTH

GROUNDING SPECULATIVE CITY

AMIDST RAPID URBAN GROWTH

Panama City 1930 and 2009
source: arch20.com

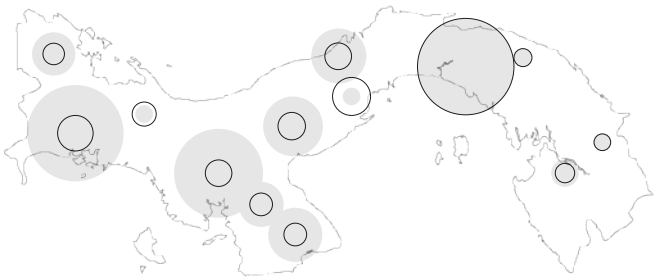
Around the time of the canal's construction, the census recorded 336,000 people in Panama. Throughout the 20th century, particularly in its latter half, there was a significant centralization of the population towards what is now known as the Metropolitan Area of Panama City. This large-scale internal migration towards the city, coupled with a transition from an agrarian to a service-based economy, led to an over eightfold increase in the city's population and rapid urbanization across expanding landscapes.

The canal served as the catalyst for this urbanization, and understanding the city's development necessitates acknowledging the influence of the canal zone. Initially, there was a somewhat schizofrenic growth between fully US state-controlled territory and a city constrained in a cul-de-sac situation, essentially a one-way growing city developed entirely on private property. This duality persists to this day. However, following the return of the zone and all its state-owned properties to Panama, the world and Panamanian government adopted a more privatized and neoliberal approach. This shift saw a massive sell-off of those properties, replacing any possibility of urban planning with business (Uribe, 2023).

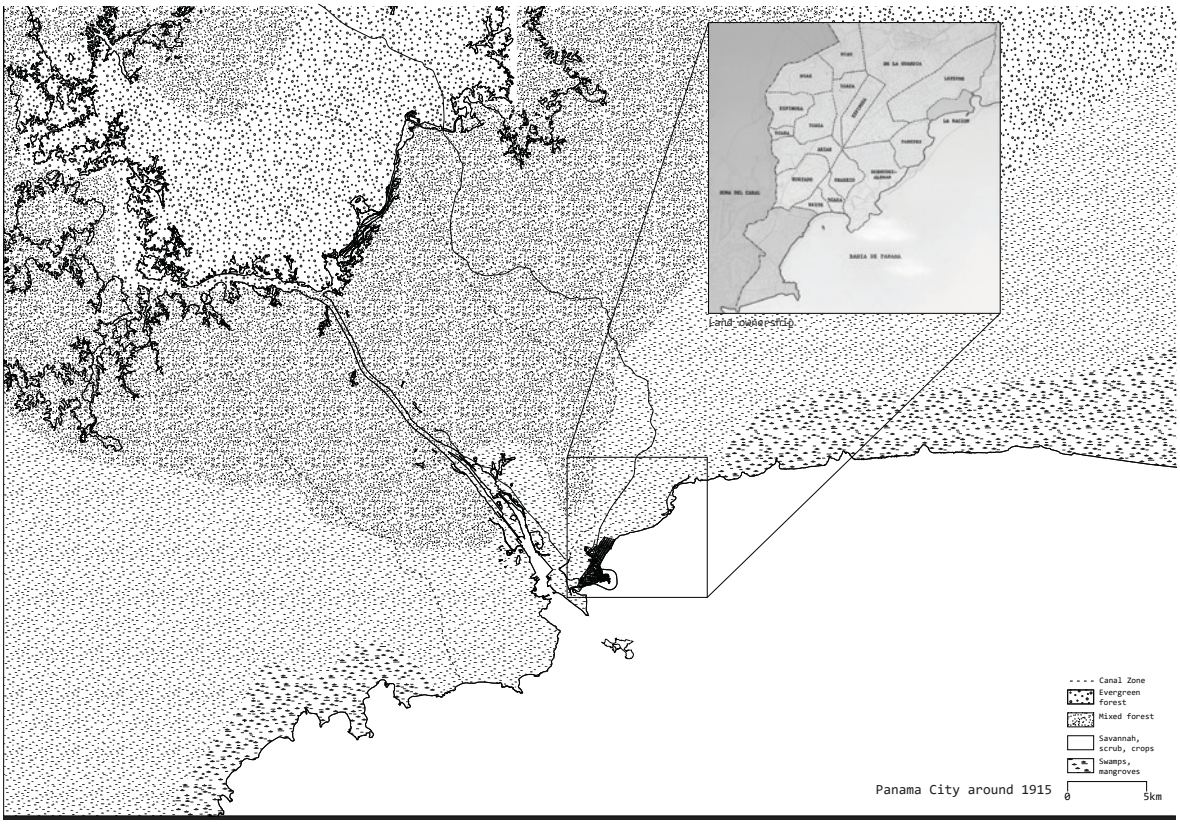
Private property and deregulation have been the driving forces behind the urbanization of the city, further fueled by tax haven jurisdiction and other highly favorable policies towards foreigners and foreign investment. These include protective confidentiality laws that spurred an offshore accounts boom in the 1970s and citizenship by investment programs offering tax exemptions to foreign investors in Panama City.

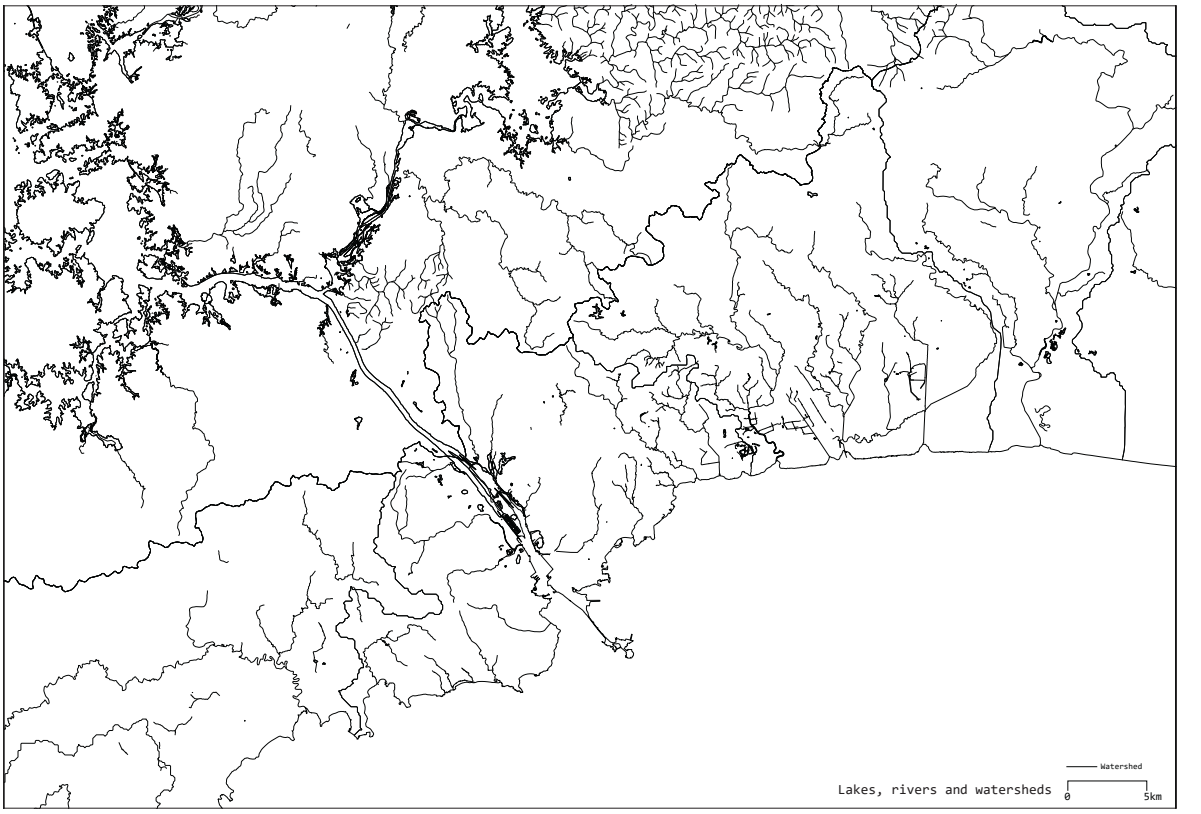
Consequently, a highly laissez-faire environment emerged, with only Hong Kong and the British Virgin Islands surpassing Panama City in the number of international businesses registered (Uribe, 2023). Together with its favorable tropical climate, Panama City became a popular destination not only for tax evasion but also for retirees or expatriates seeking to maximize the value of their currency. While some places struggle with brain drain, Panama attracts individuals who capitalize on these qualities and, consequently, shape the city.

Since its inception, the city has always been open to and developed by direct foreign investments, which are fundamental for its operation. It's worth noting that Panama as a state might not even exist without the foreign American interest in the canal. However, due to global changes and a confluence of historical events, the city has experienced tremendous growth over the last 30 years. As of now, its size has tripled compared to 1990, with



Panama City around 1915 and land ownership





Rivers and watershed

nearly half of the country's population and economic assets concentrated within just 4 percent of the territory (Sigler, 2011).

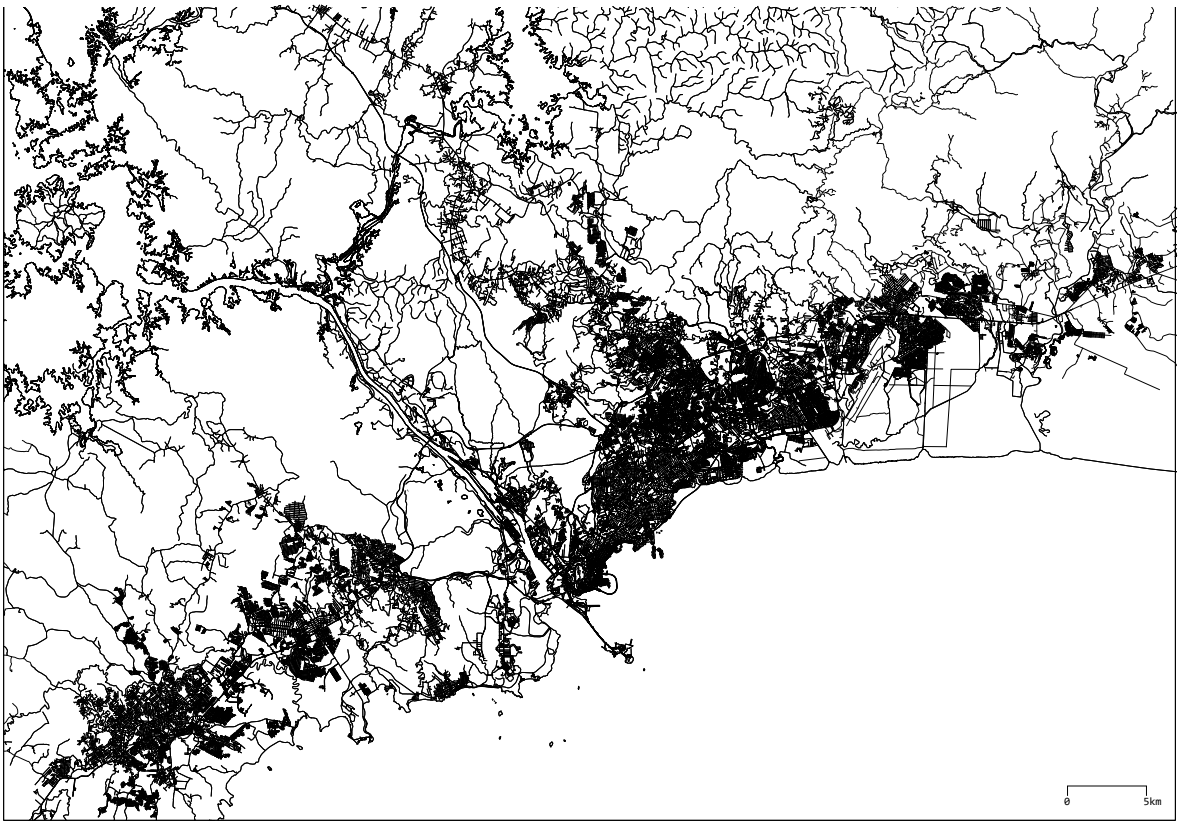
This growth can be categorized into two directions: outward horizontally, encompassing the surrounding landscape, and upward, transforming the city's waterfront. The outward expansion of Panama City is characterized by a significant presence of formalized settlement, guided by the city's elite landowners through established economic channels, distinguishing it from the more informal growth patterns observed in many other Latin American cities (Sigler, 2011). Simultaneously, there has

been a notable transformation of the city's waterfront, marked by the construction of numerous luxurious residential high-rises and the gentrification of the historic district to attract affluent residents and tourists, reflecting a parallel effort to rejuvenate the urban landscape (Sigler, 2011). Some suggest that the Panamanian government is approving construction permits solely to create construction jobs and develop impressive real estate, disregarding any real demand, as evidenced by the dimmed skyline at night (Reuters, 2006).

Interest in the city has always in some way or another been an interest in the collective, what kind of collectivity is produced when everything is based on private property?

What spatial and material measures are being produced in such conditions?

What is the agency of this kind of urbanization?



"The banal is the everyday, the ordinary, the unnoticeable, the routine, the small in proportion to the grandiose and important, that which is very often (and casually) repeated." (Pomerance, 2000) Banality of something is done without thinking, as a result of genuine lack of moral commitment, apart from good or evil intentions, done purely in obedience to a system, laws, and authority or self-seeking motives or just a mere habit (Scarre, 2009). It is important to differentiate banal from trivial and commonplace. Namely, something can become banal, even though it is not trivial at all, as for example complex bureaucratic apparatus described in The Banality of evil by Hannah Arendt. Furthermore, 'commonplace' is what regularly and commonly happens, nonetheless, something could potentially be banal even if it is not common. (20th WCP: Eichmann, the Banality of Evil, and Thinking in Arendt's Thought, n.d.)

Since banality does not attract attention, because if it did, it would no longer be banal, that interest in banality intends to provide different, critical ways of thinking in the realm of spatial practices. This essay does not intend to point out banalities but aims to conceptualize, operationalize, and problematize banality within architectural production. That interest emerged during the research on the rapid urbanization of cities amidst a proliferation of information technologies, increased liquidity of capital and ever-present globalization. Saskia Sassen introduces the concept of global cities. It is a place where global localizes (Sassen, 2005). As she argues, some years ago, there was a significant transformation due to privatization, deregulation of the markets, and hence increased access of foreign firms to national economies, and conversely the expanded involvement of domestic economic entities in global markets (Sassen, 2005). That has multiple implications, that Sassen is suggesting, such as a loss of power at the governmental level, but also in increased socio-econimic inequalities as there is growing number of professionals in highly profitable specialized service companies (Sassen, 2005) From an architectural perspective, those cities, that are plugged in complex global network, develop some kind of striking and concerning similarities in places that are completely different on social, mental and environmental level – such as Panama City, Dubai or Vancouver among many others. Those spatial similarities shape those spatial and are being shaped by those conditions of global cities that Sassen is describing, and in terst in banality aims to investigate.

"I've been around the world several times, and now only banality still interests me."
At the beginning of Chris Marker's Sans Soleil (1983)

Banality and the mind

As famously, but controversially theorized by H. Arendt in the banality of evil, there has been a sort of lack of critical engagement that is produced by banality. In her report "Eichmann in Jerusalem: A Report on the Banality of Evil" (Arendt, 1963), she concluded that Eichmann wasn't a morally devoid monster. Rather, he committed evil actions without inherently evil intentions, due to his "thoughtlessness" or lack of ability for critical engagement. That necessarily implies a particular relationship between the mind (critical reflection) and the environment (in that case bureaucratic Nazi apparatus). Through that relationship, banality is situatuted within the broader contemporary

From left: Dubai, Panama City, Vancouver

discourse on noology.

Noo comes from the Greek nous is "mind" or "intellect", noology, hence noology designates the logic of thinking collectively, both consciously and unconsciously, under the consideration that the mind is essentially embodied, hence situated, somewhere sometime and simultaneously distributed and interconnected (Frichot, 2019). Consequently it touches upon the questions of collective consciousness and collective intelligence, which in that field is related to the concept of noosphere. In this lexical analogy to the biosphere -which is an animate matter and geosphere – which is an inanimate matter, such as the atmosphere, hydrosphere, etc.), the concept of noosphere can be seen as another planetary layer "sphere of reason". At the time of its conception, it built upon the idea brought up by vitalist Henri Bergson in L'évolution créatrice (Bergson, 1907), which denies explanation of evolution solely by Darwinian natural selection and sees world, body, brain, and mind as coupled and affected by and shaped by material and immaterial productions and processes. (Hauptmann et al, 2010) That consideration as an example allows us to link noosphere and banality in the co-evolution of cities or ecosystems and possibly problematize it in the realm of pertaining social and environmental problems (Wikipedia contributors, 2023).

In Cognitive Architecture, Deborah Hauptman situates those considerations in architectural practice and thinking. She claims that amidst an ever-growing world dominated by information and communication technologies, the Foucauldian term of biopolitics, which has been profoundly theorized in the realm of architecture, must be extended to include thinking on noopolitics (Hauptmann et al, 2010). "While the former acts on the body, or populations of bodies, and inscribes habits and practices specific to life (bios), the latter operates on mind (nous), on general intellect and mental disposition. " as she suggests (Hauptmann, 2020). With noopolitics, naturally one can speak of noopower, which is one of the central concerns in the discipline as it discusses the production of subjectivities within noopolitical frameworks of highly distributed systems of organizations and forces (Hauptmann et al, 2010).

In the light of cities and urbanization, it seems highly relevant to introduce the concept of noourbanography appropriated from Creative Ecologies by Helene Frichot (Frichot, 2019)

Andreas Gursky - 99 Cent

Since noopolitics is always situated in some place, some time, noourbanography could discuss the possibility to map material and spatial powers both of environment exerted over mind and reversely of mind exerted over the environment and describe in that way "collective intelligence and collective stupidity as it may be" (Frichot, 2019). As introduced at the beginning that relation between banality, mind and environment, together with related concepts and cartography might allow to study and possibly operationalize the banality within the contemporary critical spatial production.

Banality as spatial quality

What is meant when one says that a place is banal? It is rather commonly understood as a judgmental term, it can express one's lack of interest in the place due to its predictability, as it contains nothing new or fresh and hence ia simply boring. However, as soon as one starts to look into supposedly banal places like supermarkets for example, the whole science behind those places starts to reveal itself. Such as the placement of products, the proportions of the shelf in relation to the body, etc. That, naturally has profound consequences for consumer behavior, and once understood, that place does not seem uninteresting or banal at all.
What becomes interesting in this example, is precisely its apparent boringness and lack of original qualities that together with the spatial agency of the place results in peculiar qualities. It seems that banality can be seen as a spatial quality. Namely, due to its boringness or ordinariness, it has the power to resist critical engagement and in that manner, it can uncritically render its agency. To further explore this notion let's compare the above-mentioned supermarket to a cliché example of the gothic cathedral. So much has been said about the spatial and material powers of Gothic cathedrals. Such as verticality that draws the viewer's gaze towards heaves or material presence of light with its spiritual enhancing qualities for example. Both of these examples could be part of one's routine, and both of them have their

agency, one for consumerism, and another for religion. The crucial difference, however, lies in the grandiosity of the cathedral as opposed to the ordinariness of the supermarket. The small and the ordinary of the banality renders the experience of shopping in the supermarket in a much more unnoticeable, and therefore uncritical manner than the thought-provoking experience at the cathedral. What other spaces have similar qualities?

Still from Playtime by J. Tati

On repetition and predictability

Banality involves predictability and repetition precisely because it is a result of routine, regulations or habits. One way to talk about it is to talk about the repetition of the processes. That can be highly complex bureaucratic procedures, but also daily habits. That repetition results in predictability and familiarization, hence resulting in before mentioned lack of critical engagement. Thus space, which aims at ensuring that qualities have to assure that the spatial and material measures along one's action, cannot cause any surprises.
So it can be said, that banality can emerge among highly complex processes as long as it does not create any critical engagement. Any office space, once accustomed, produces repetitive, uncritical habits that one could call banalities of the office spaces. The quality of predictability necessary for office culture implies some similarity and repetition among offices at large. Their similar layouts and neutral color pallets, so to say similar material and spatial powers, result in predictability, necessary for its proper functioning, as it releases one from constant critical engagement with the place and produces habits and routines necessary for its smooth operation. That inevitably gives rise to common banalities associated with those spaces. It has to be noted, that this repetition naturally allows for certain variation, however, variation that does not exceed the level where it produces critical engagement.

The discourse on banality has been popularly associated with suburbia. That touches on slightly different aspects of repetition. On top familiarity and ordinariness that those places pose, the difference of this example lies in the repetitiveness of their affects replicated over and over across a piece of a territory, creating a sort of homogeneous field of similar material and spatial powers. Consequently, they construct the same, or very similar kind of everyday one next to another. Similar to office spaces, suburbia produces predictable results, in this case however, they spread these predictable results, one, next to another in a sort of homogenizing field without much of a mutual difference.

In the realm of noology, there is concern once noopower becomes too rigid or the same, it could collectively produce affects, that in turn create a "dogmatic image of thought". It is a highly ambivalent concept introduced by Deleuze and Guattari. That can be understood as something that takes control and over-determine how people think together (Frichot, 2017). "The dogmatic image of thought imposes limitations by confining thinking within predefined categories, fixed identities, and hierarchical structures. It restricts the

exploration of new ideas and alternative perspectives by privileging certain concepts or ways of thinking over others"(Frichot, 2019). It creates an environment that determines their feelings, tastes, and desires (Frichot, 2017). Hence, that popular association of banality to suburbia could be explained because of that homogenizing field that produces similar ways people think and live, next to each other trapping them in predefined categories and consequently intensifying the presence of banality. A canonical example in the realm of spatial practices could be Levittown, which effects one can understand from the commentary below by Lewis Mumford:

"…a multitude of uniform and unidentifiable houses, lined up inflexibly, at uniform distances, on uniform roads, in a treeless communal waste, inhabited by people of the same class, the same income, the same age group, witnessing the same television performances, eating the same tasteless prefabricated foods, from the same freezers, conforming in every respect to a common mould." (Mumford, 1961b)

Noorubanography, learning from banality

If banality is something done in obedience to a broadly understood system of laws and authority, self-seeking motives or just mere habits, then through mapping of banality, one can get insight into these topics. One point of entry would be then to look at those highly replicated spaces and learn from their repetition and difference. Through investigation of their repetition, one could discover replicated agency and consequently gain insight into the system. That insight does not only relate to urban planning, laws, and regulations, but also through mapping repetition in difference reveals common ways people appropriate those places and their interests and inform something not only about

the top-down agency on the collective but also about bottom–up collective response. It is important to mention that this analysis should include a certain level of variance in its classification that still renders similar effects. The non-repetitive difference among these repetitions, however, can reveal the specificity of the place and perhaps to some extent homogenized by the imposition of the repetitive model.

An aerial view of homes in Levittown in 2015. Photo credit: Flying Dog Photos/Kevin Coughlin

Greg Stimac - Oak Lawn, Illinois, 2006 (left)

"Isabelle Stengers often repeats the Deleuzian imperative: You must think by the milieu. But what happens when the milieu begins to think you?" (Frichot, 2019)

Banality of…

Lastly, I would like to try to theorize in the realm of spatial practices, the problem described in the famous, but controversial report on Banality of the Evil. Adolph Eichman as H. Arendt suggests "never realized what he was doing "(Arendt, 1964) because of "disengagement from reality of his evil acts"(Arendt, 1964) He was not fanatic, he was not motivated by ideology but by professional promotion.(Arendt, 2013) In that context, banality does not imply that the results of Eichman's decisions were banal, but rather that his actions stemmed from a sense of banal complacency, a sort of uncritical satisfaction with one's achievements.(Arendt, 2013) Learning from this example, there seems to be sort of discrepancy between one's experiences and consequences of one's actions. Hence, on top of what has been already said in terms of predictability, repetition, the ordinariness of banality, and how that could produce a lack of critical engagement. This case shows an element of framing, that is spatial and crucial to problematize for this particular case.

One way to situate it in the realm of architectural theory and practice could be through the introduction of Bernard Cache's understanding of architecture and image. Cache has a dynamic conception of image and architecture as he analyzes them in terms of frame and territory rather than model and imitation (Cache et al, 1995). Architecture is the "art of frame", an art of introducing intervals and probability to a territory, to do architecture for him is to manipulate images through the frame. That dynamic conception of image for Cache necessarily understands frame not only as an opening in plan or elevation but rather as coupled with the body and hence can usually be much better understood in a section. Through reading on noology, that introduction of intervals and probability to a territory could be further operationalized by introduction of parameters of attention and memory as it was suggested by Lanzaratto's conceptualization of noopower in societies of control (Hauptmann, 2020). Attention could be seen as a result of motion/rest through time-space to introduce sort of analog understanding of framing and their intensities (Hauptmann, 2020). Memory, on the other hand according to scholars of noology could be understood through Bergson's conceptualisation of memory (Hauptmann, 2020). For Bergson, memory was not just the storage of past events but an active force shaping our present experiences and

Still from Playtime by J. Tati

influencing our perception of the flow of time. He proposed two types of memory: pure (or true) memory, and habitual memory. (Bergson, 2007) Especially the latter seems particularly relevant in the context of banality. This type of memory is associated with routine actions, skills, and automatic behaviors that we perform without conscious effort, such as learning a verse through repetition without reflection or deeper thought, leading to a mechanical and non-reflective recitation, which ties particularly well with the previous discussion on routine and repetition.

It must be said that this conception of framing focuses on predominantly, but not necessarily on visual aspects of architecture. One could think of a truly expanded understanding of this problem through the expansion of this spatial condition to sort of discrepancy between effect and affect. The effect, simply understood as "the result of a particular influence" (Cambridge dictionary, 2024) and affect as suggested by Brian Massumi in his notes on terminology in Thousand Plateaus of Deleuze and Guattari is "an ability to affect and be affected."(Deleuze & Guattari, 1980). In Deluzian terms affects are 'becomings' that place us in disposition towards action. Hence, that discrepancy describes the lack of affection by one's action/influence. Having said that, one could think of not only framing as problematic in the realm of banality and its consequent disengagement from reality but perhaps also about materiality. Patina, weathering or lack thereof particularly alters one's experience towards time and forces impacting material things. So does the condition of hyperreality as suggested by J. Baudrillard where one cannot distinguish simulation from reality. Perhaps then by following those concepts and mapping banalities and their problematic effects within cities for example, one can manipulate their frames and potentially increase the probability of incalculable and unforeseeable situations where one is critically engaged with their concerning effects.

Summary and conclusions

The essay attempted to conceptualize, operationalize, and problematize banality in the realm of spatial production through the cross-reading of contemporary critical and architectural theories. Initially, it situated banality and its associated lack of critical engagement with the mind and noology, which consequently allowed to link it with and environment and therefore with spatial practices. It provided a series of concepts, such as noopower, the image of thought, and noourbanography, that allow us to not only critically engage with but also operationalize banality. Next, it discusses different aspects related to banality. Firstly, it talks about banality as a spatial quality, that due to its characteristics allows to material and spatial powers of the place without much critical engagement. Secondly, it discussed routine and repetition as crucial components of banality and it distinguished two kinds of repetitions, one as repetition of processes, that through familiarization, produce banalities and their lack of critical engagement. Another one is a homogenizing field of similar affects, that intensifies the presence of banality and in that manner explains popular discourse on banality among suburbs. Through engagement with the definition of banality, it argues that analysis of banality could reveal something about the collectivity of the place. Lastly, it attempted to problematize and operationalize the famously theorized example discussed in The Banality of Evil by Hannah Arendt. It problematized it as the discrepancy between one's experience and the consequences of one's actions and spatialized through the concept of frame as understood by Bernard Cache. Through reading on noology and architecture it aimed at further operationalization of the frame by attention and memory and suggested the possibility to expand that theory further by introducing Massumi's affect.

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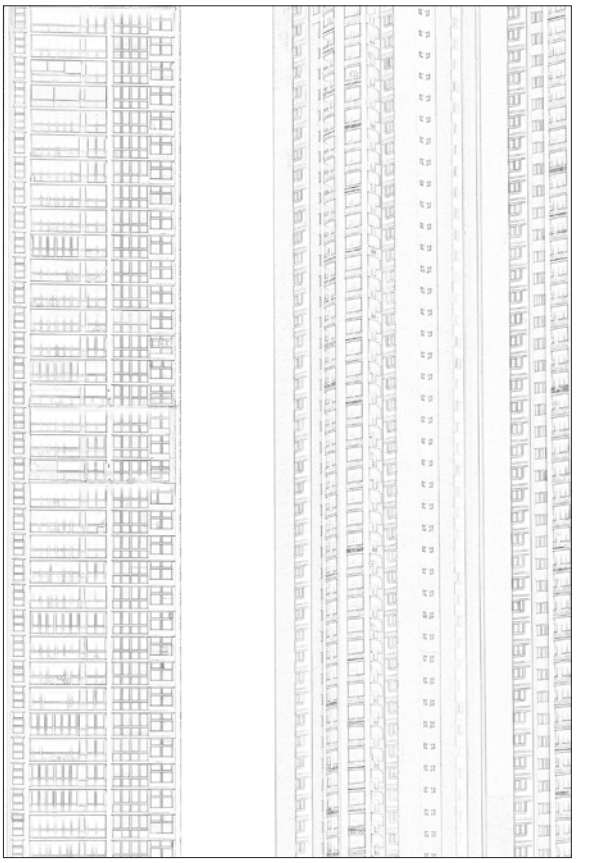
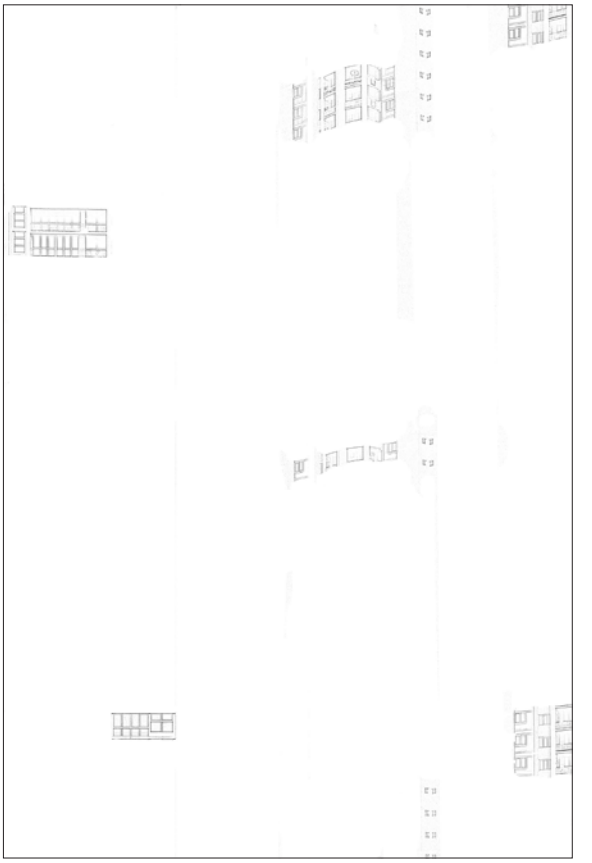
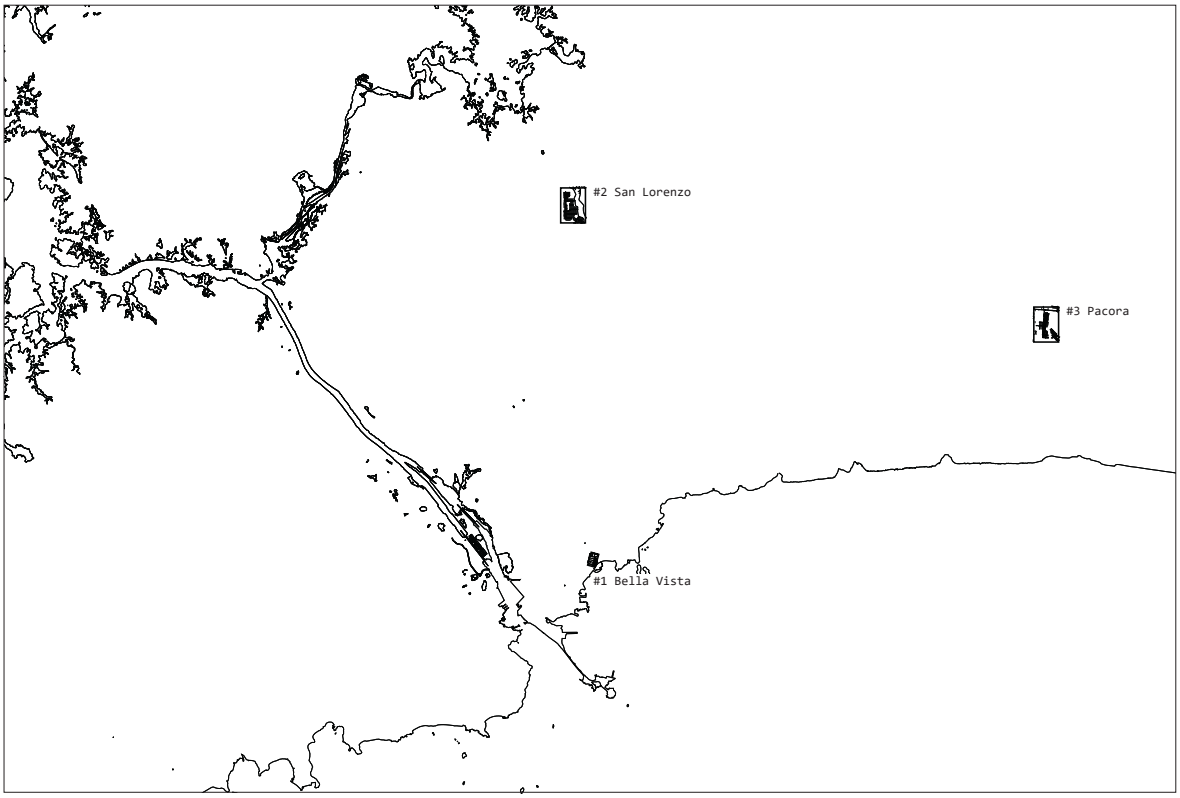
MAPPINGS

Parallel to the theoretical paper, research on urban growth was investigated through the mapping of three case studies. One area with significant vertical growth and two cases of outward horizontal suburban growth. In order to express that this simple, repetitive, market-driven accumulation of residential units on the one hand and the absence of real demand on the other, the drawings are always starting in an orthogonal manner either in plan or 90-degree oblique projection and are either very detailed or remain almost empty.



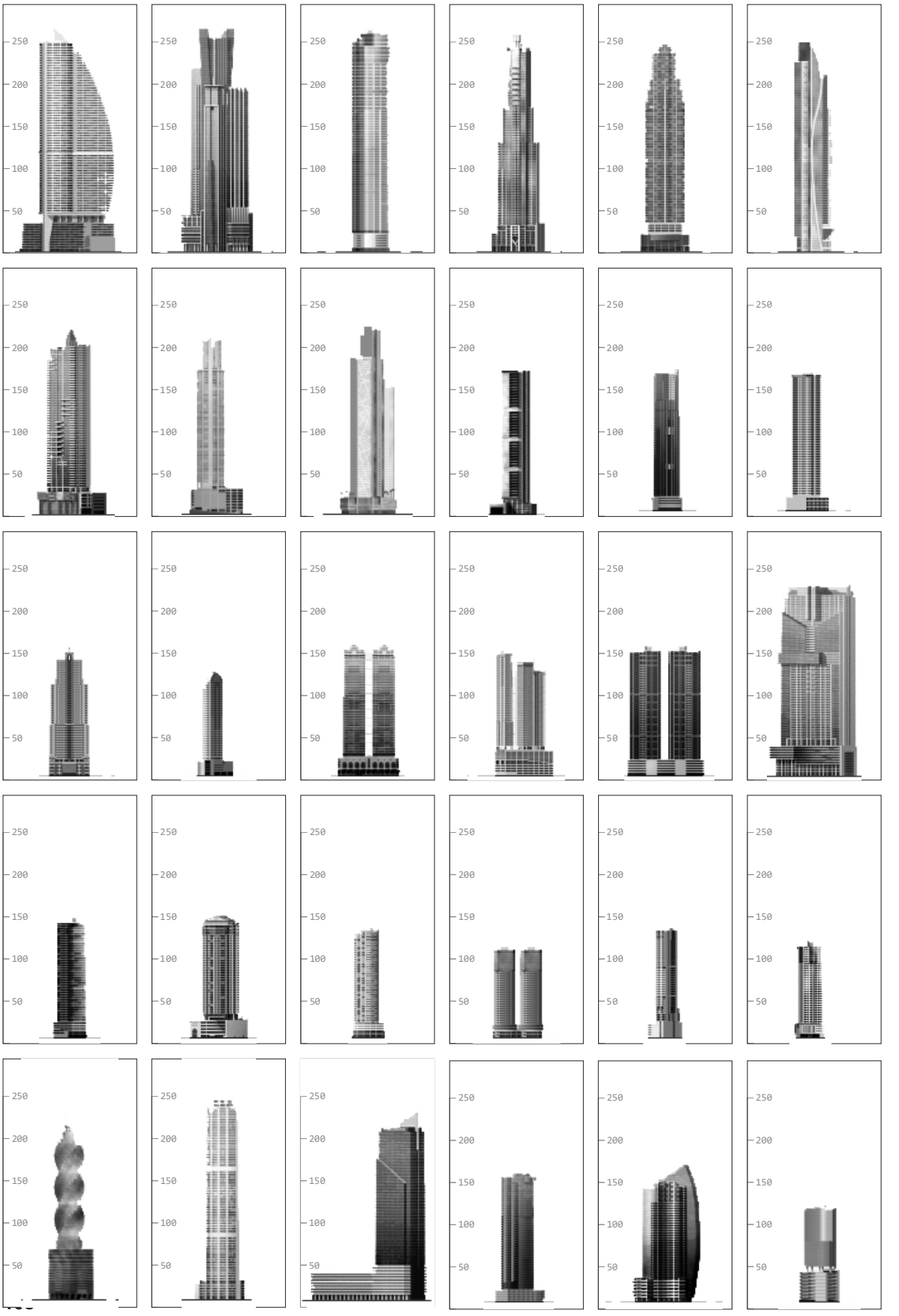


Accumulation
Absense/Presence



Case studies locations

Jaime Justiniani – DGAG Contemporary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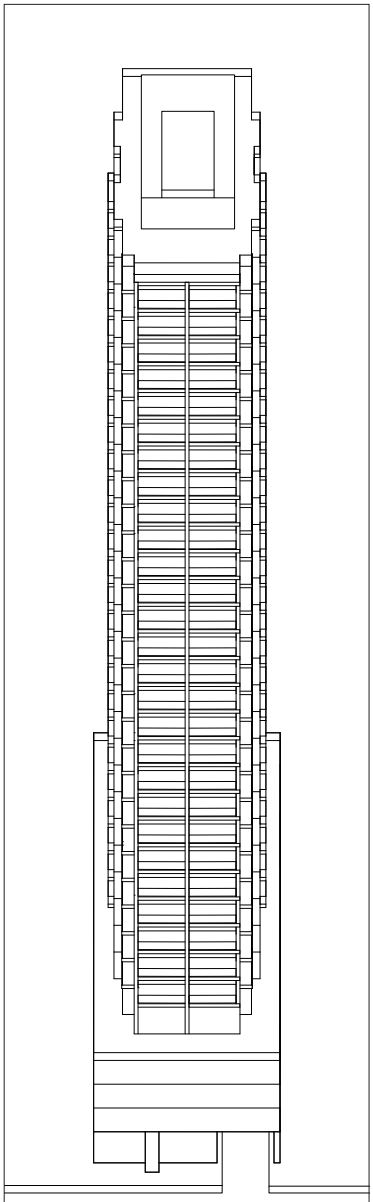

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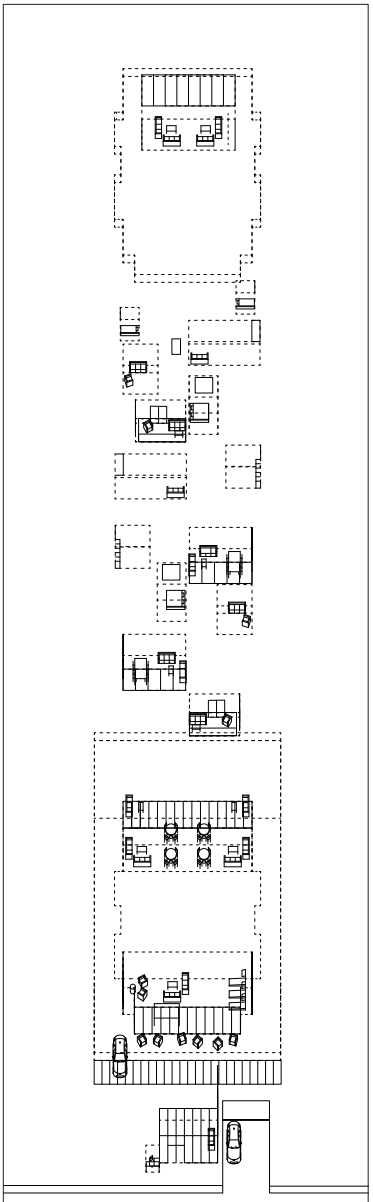
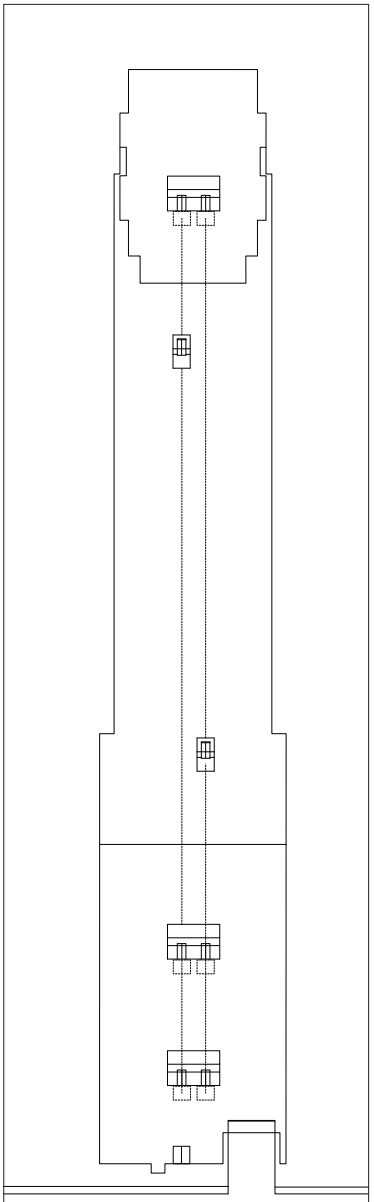
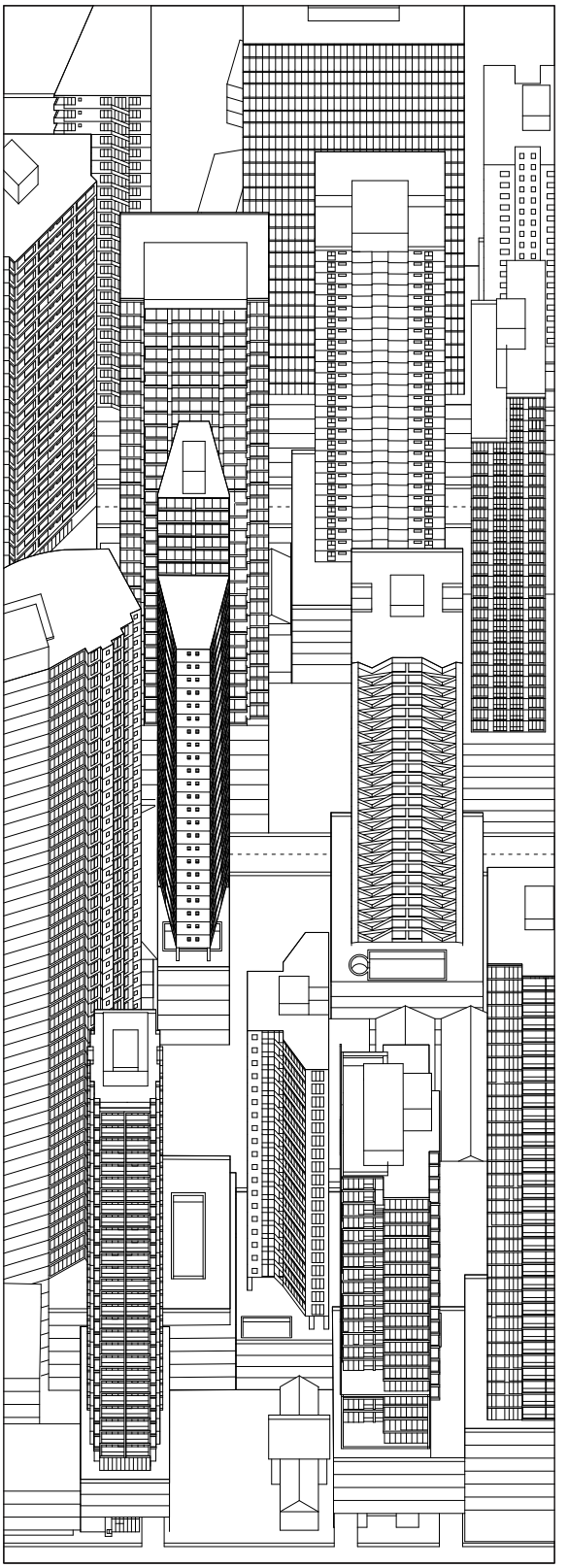
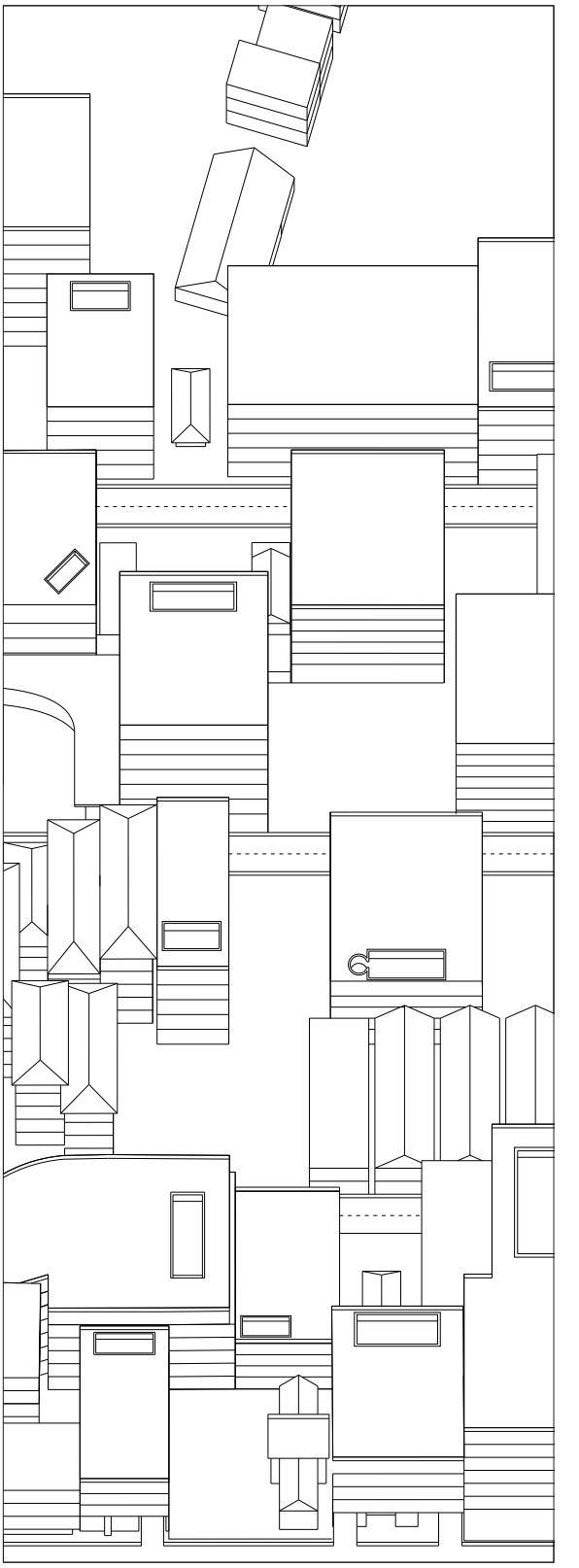


Frames of probability
Interior - Exterior



Frames of probability
Interior - Interior





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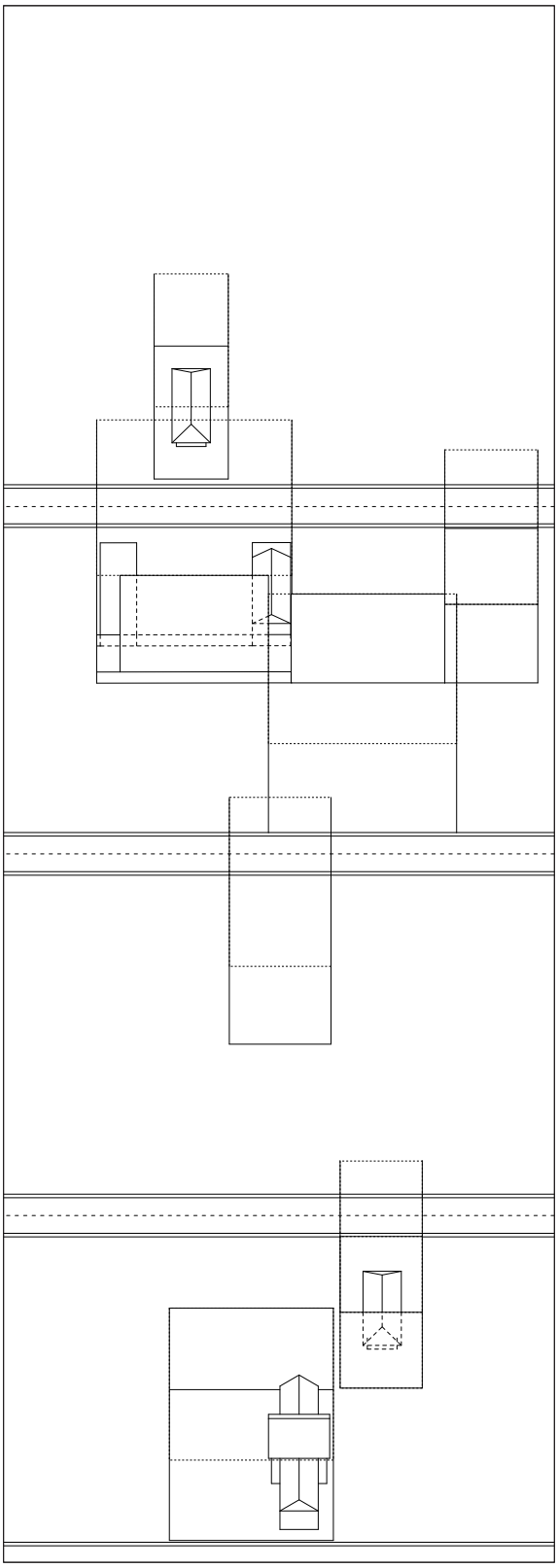
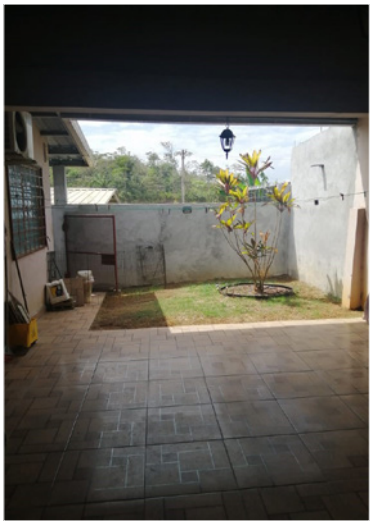
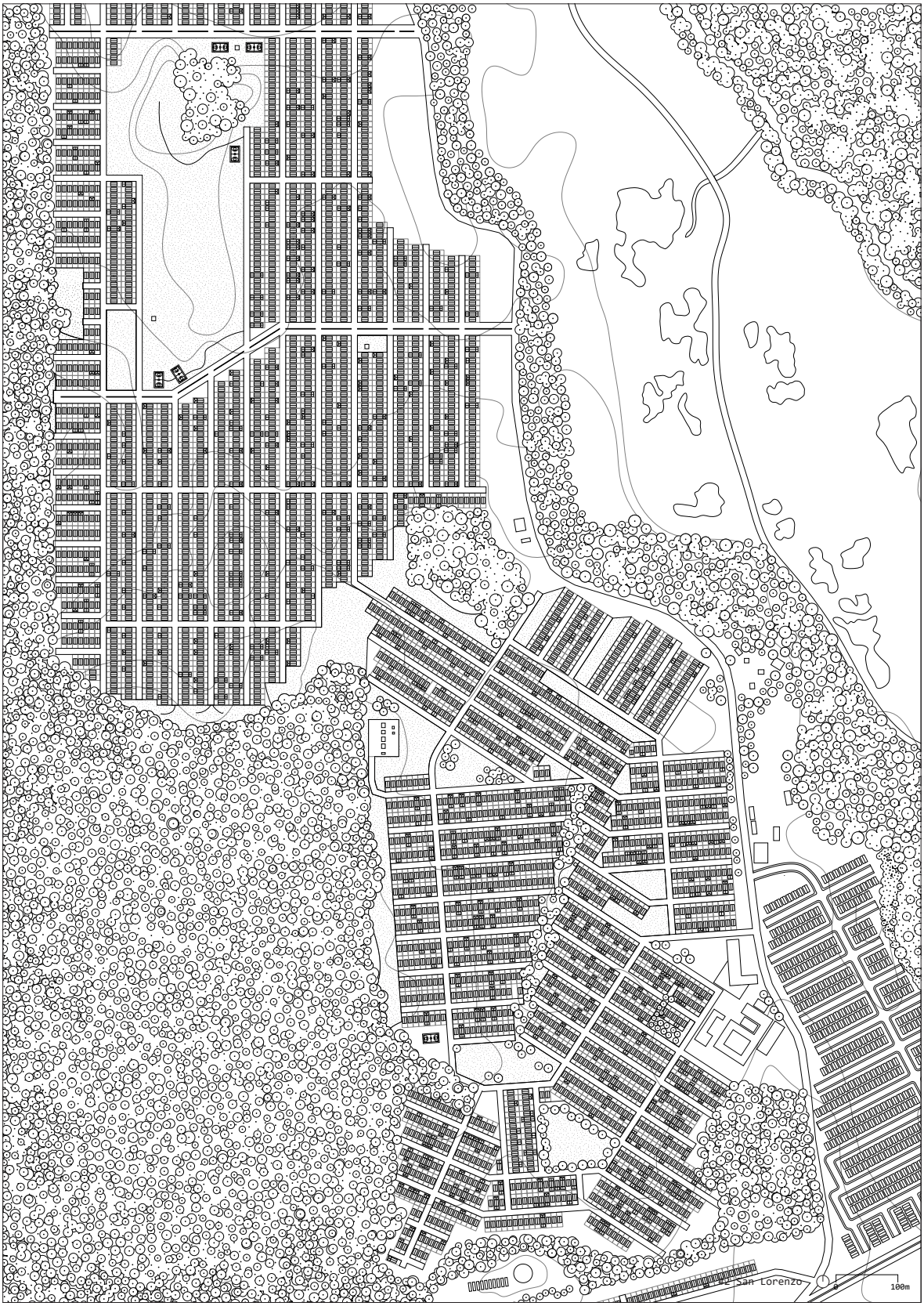


Those spaces are produced without thinking, as a by-product of this kind of urbanization, done purely in obedience to a system, laws and authority or self-seeking motives or just a mere habit.

Voids of Bella Vista

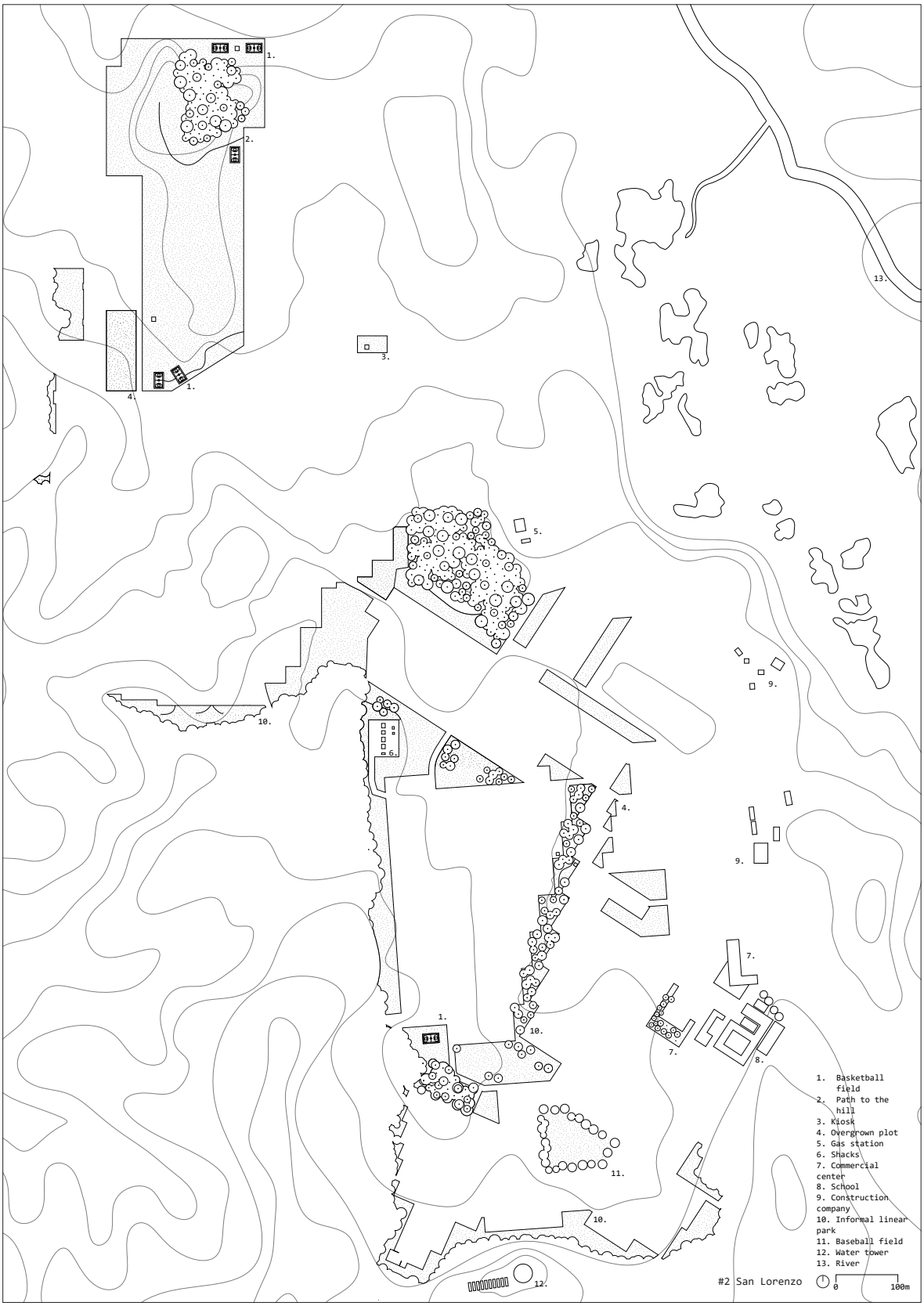


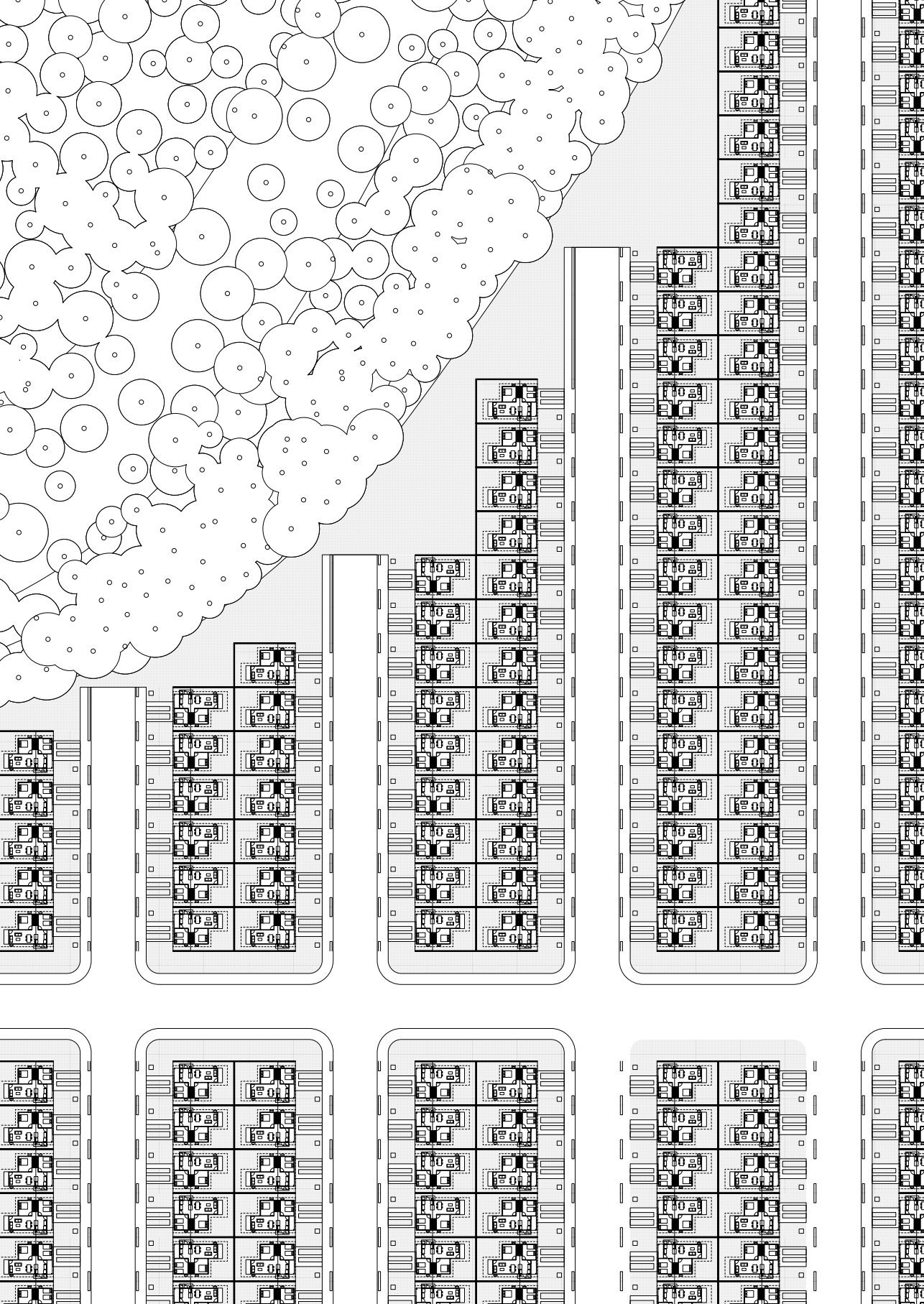
View of the backyard,
Source: Panama realtor


B16
B16
B16

Construction site around San Lorenzo
source: Panama Realtor

Linear park as a byproduct


1. Basketball field
2. Path to the hill
3. Kiosk
4. Overgrown plot
5. Gas station
6. Shacks
7. Commercial center
8. School
9. Construction company
10. Informal linear park
11. Baseball field
12. Water tower
13. River
#2 San Lorenzo
0
100m



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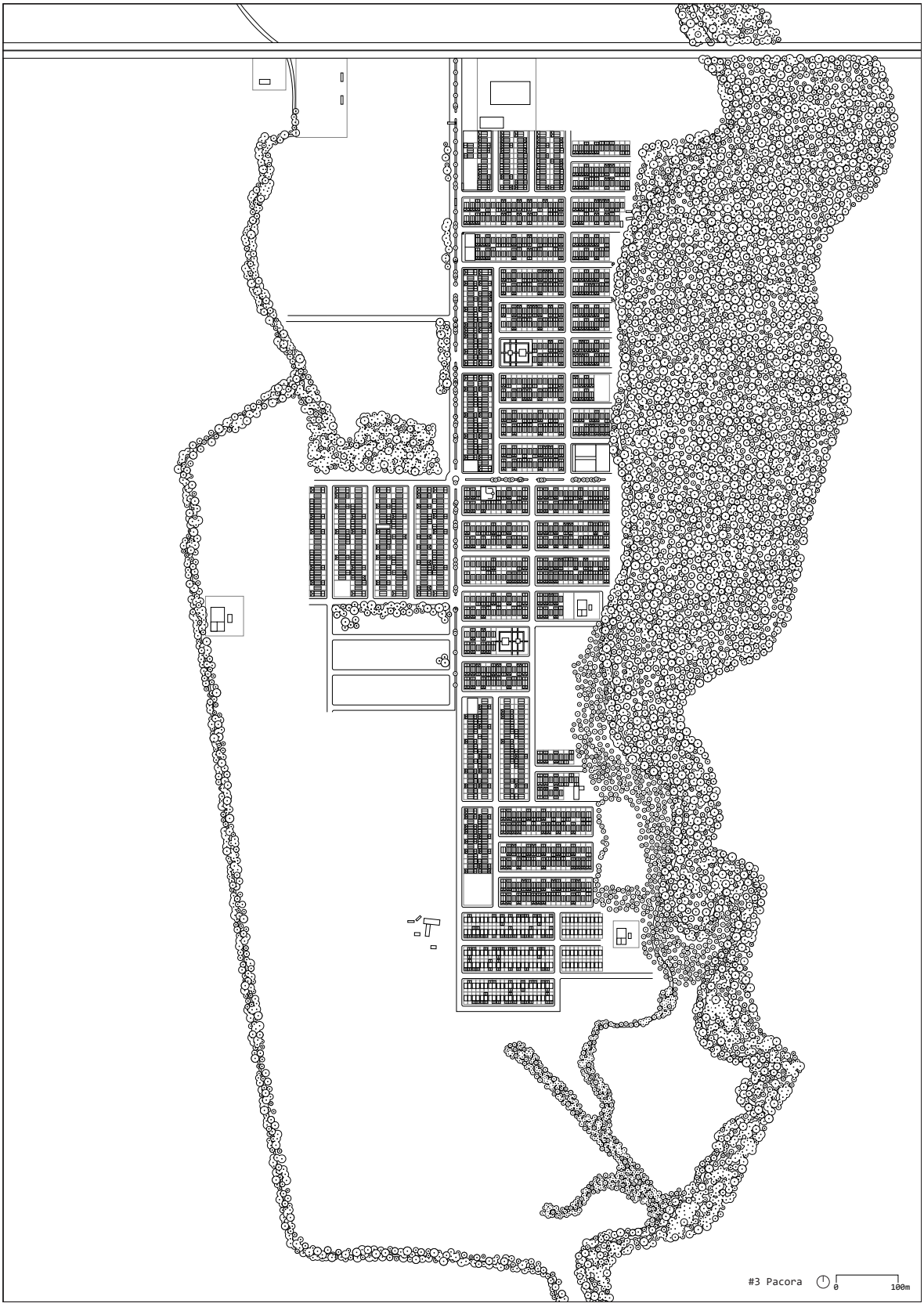
#3 PACORA


#3 Pacora
0
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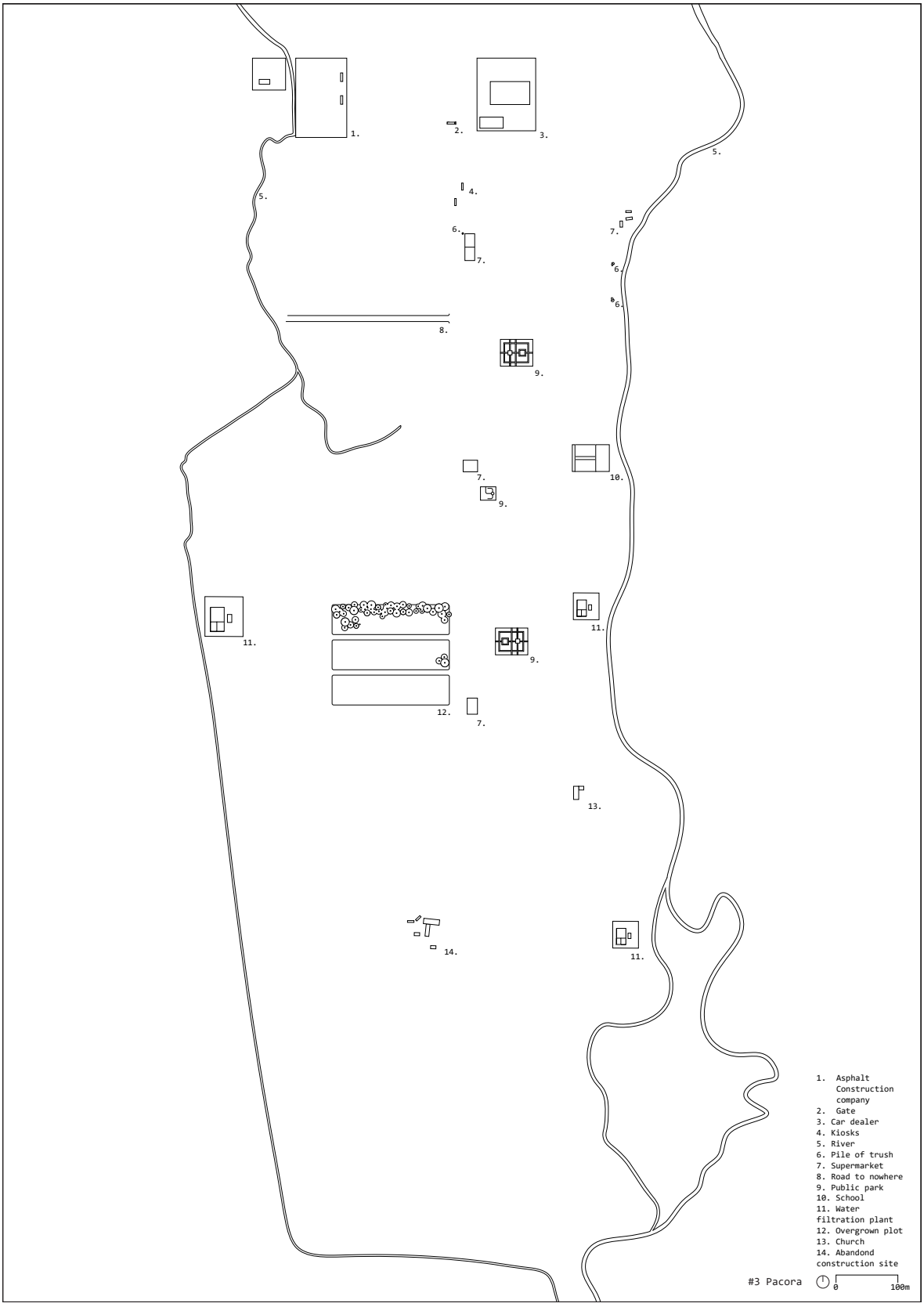
Entrance gate to the Pacora neighborhood

Pile of trash next to the supermarket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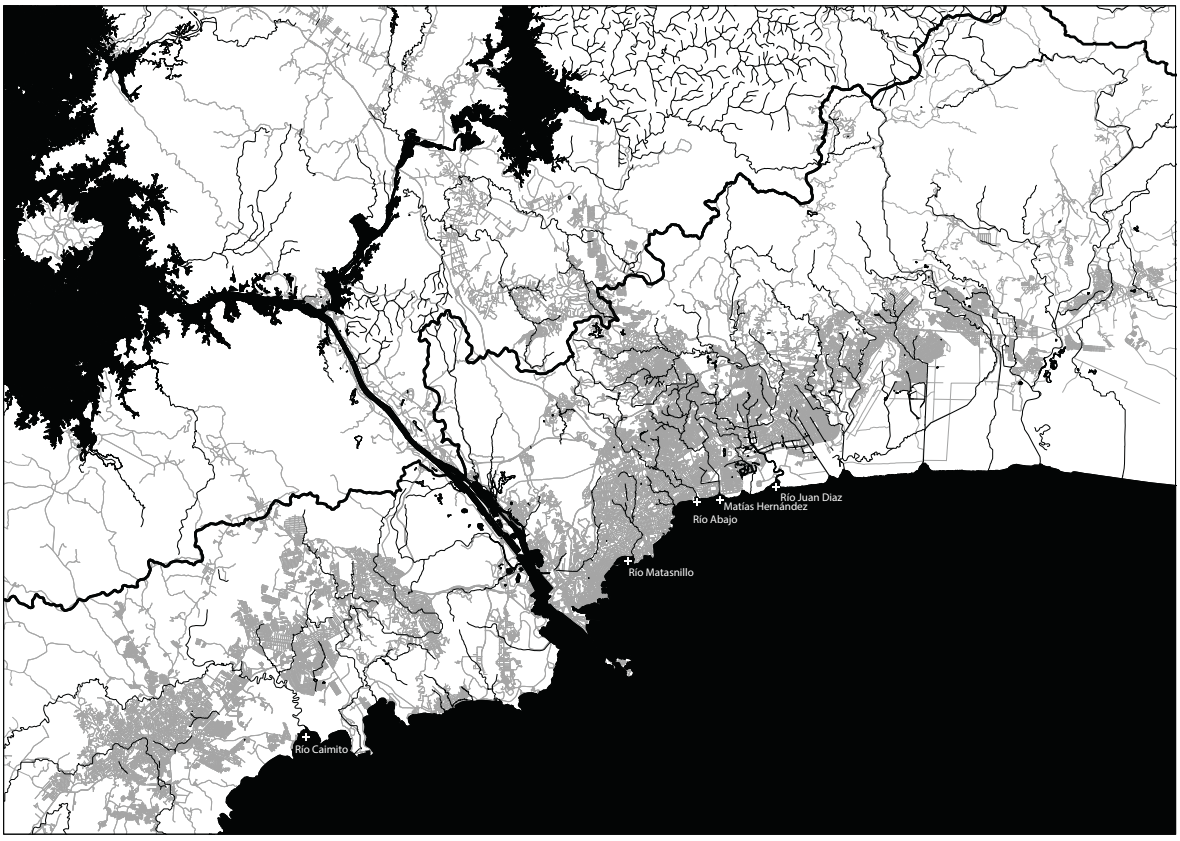
1. Asphalt Construction company
2. Gate
3. Car dealer
4. Kiosks
5. River
6. Pile of trush
7. Supermarket
8. Road to nowhere
9. Public park
10. School
11. Water filtration plant
12. Overgrown plot
13. Church
14. Abandond construction site
#3 Pacora
0
100m

About 95% of the potable water in Panama comes from surface sources (rivers and lakes), while the remaining 5% comes from groundwater.

Tight, impervious market-driven urbanisation results in many floods throught the city.

Suburban growth

Time



According to OCEAN CLEAN UP, Panama City has five out of seven most polluted rivers worldwide, where majority of debris along the coast comes from bad waste managmend in the city.

GROUNDING SPECULATIVE CITY

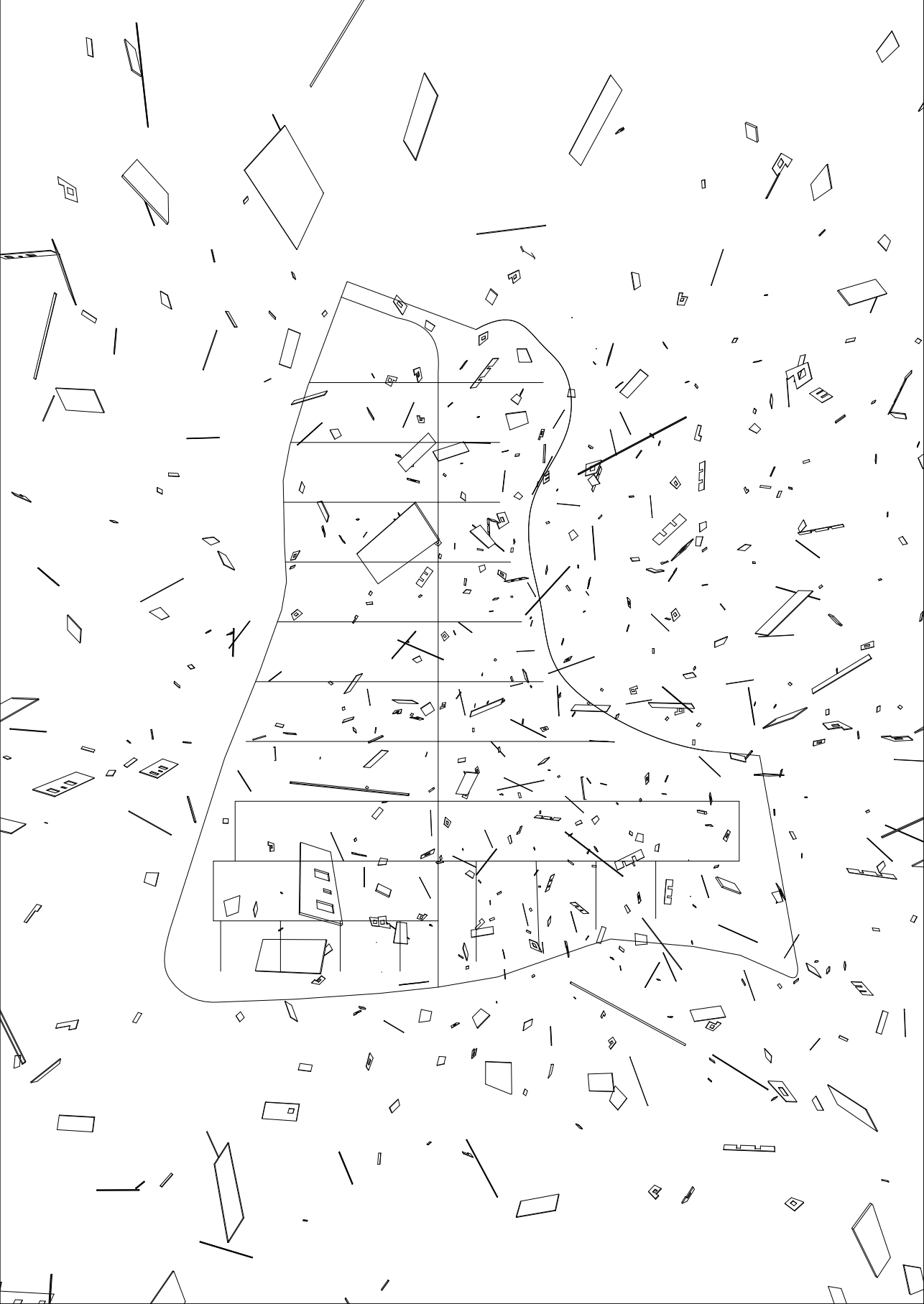
Problem statement

Last 30 years Panama City built up a problematic relationship with the ground. The proliferation of hundreds of towers in the downtown area has not only transformed the social and environmental fabric of the ground but has also exacerbated the city's housing challenges, leading to extensive sprawl in its peripheries. The absence of effective urban plawvnning, coupled with market-driven suburbanization, has fundamentally altered the city's surroundings, laying bare social disparities and contributing to issues such as compromised potable water quality, increased flooding, and the accumulation of waste along the coastline.

Project intention

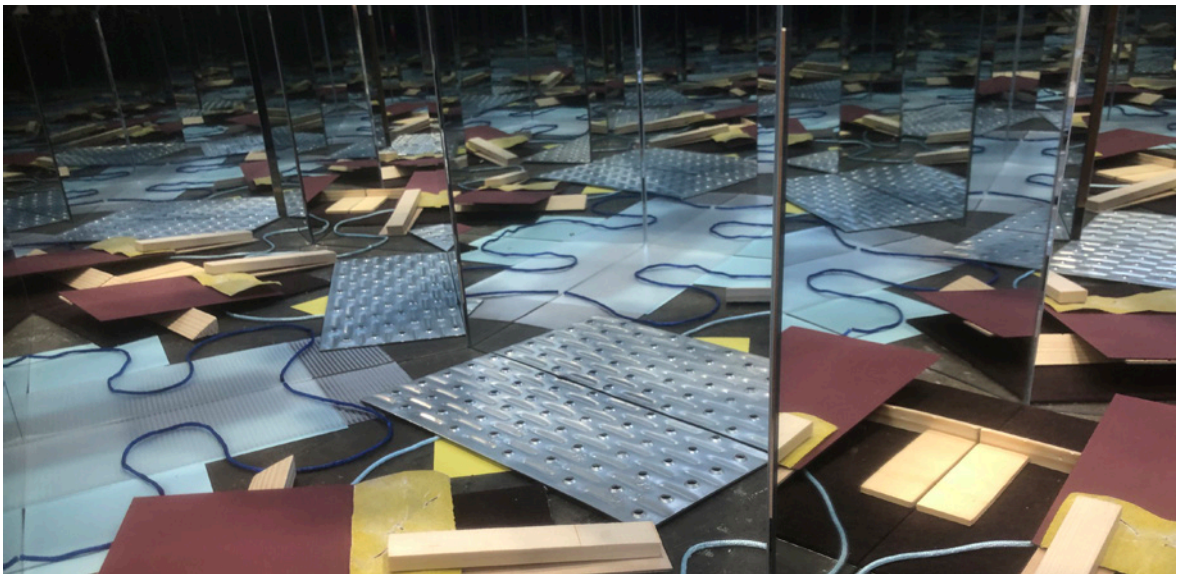
At its very foundation, this architectural project aims at exploring new relationships with the ground. From the perspective of the rivers, there seems to be a kind of necessity to make more ground, to accommodate exacerbating heavy rains that climate change is bringing. This is kind of oppossed to the idea of architecutral project, as it always in some way or another occupies the ground. Hence, this destructive force of the river could also be seen as a potential, as a creative act. The project seeks potential in crises that those rivers are bringing not only to adapt the city to changes that the climate crisis is carrying but also to take this as a driver of change on social and environmental levels. Instead of proposing resistance against those floods, it proposes for a city to incorporate and become with those flooded grounds.

"The passion for destruction is a creative pas-
sion," wrote the anarchist Mikhail Bakunin



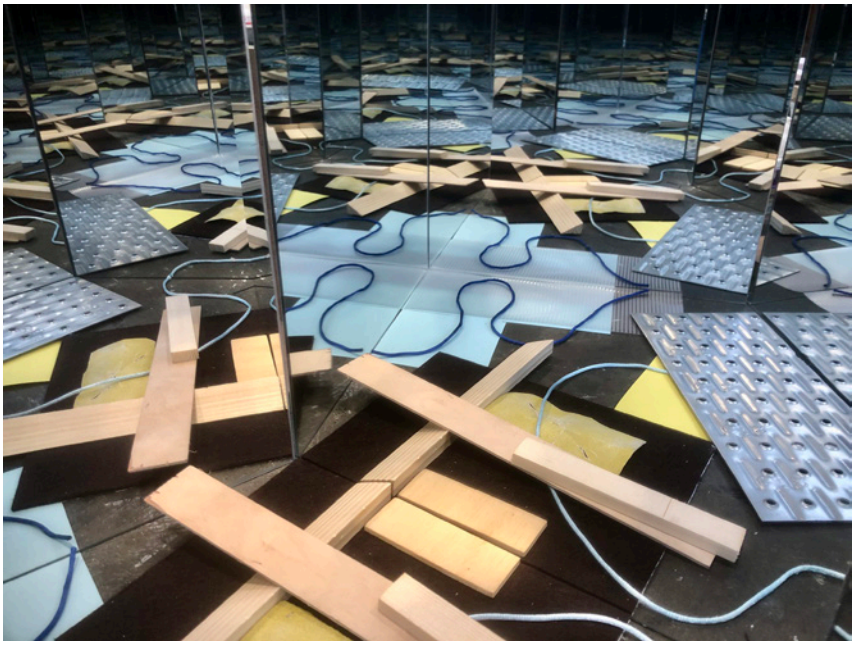
MODI OPERANDI - Site

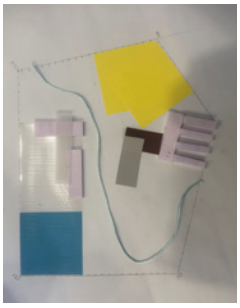
MODI OPERANDI - Spatial Situation

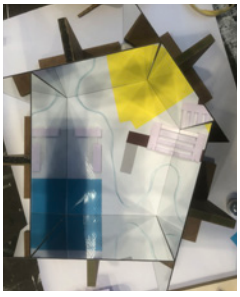


MODI OPERANDI - Form

Study of the reflection







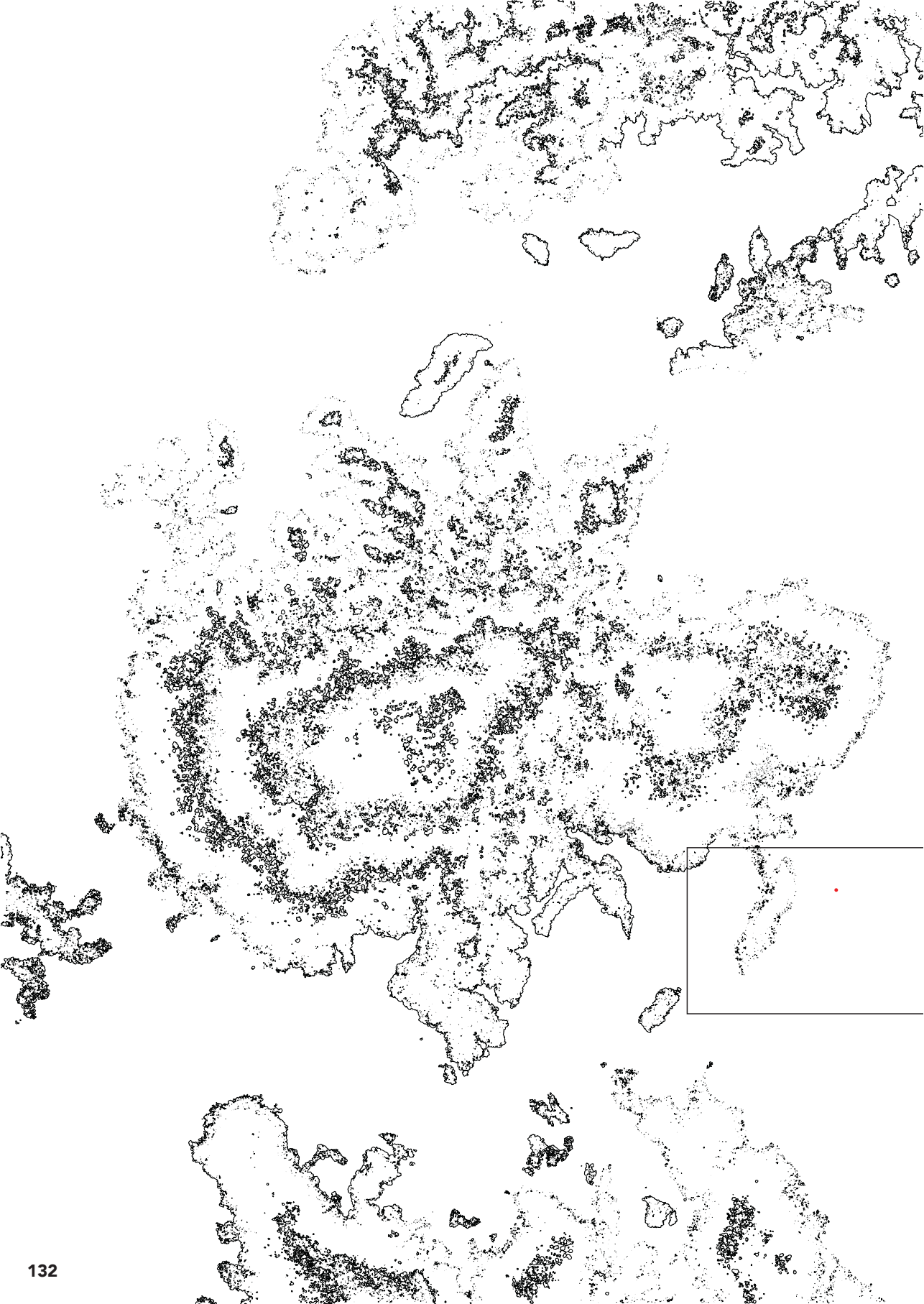
MODI OPERANDI - Form

MODI OPERANDI - Combination

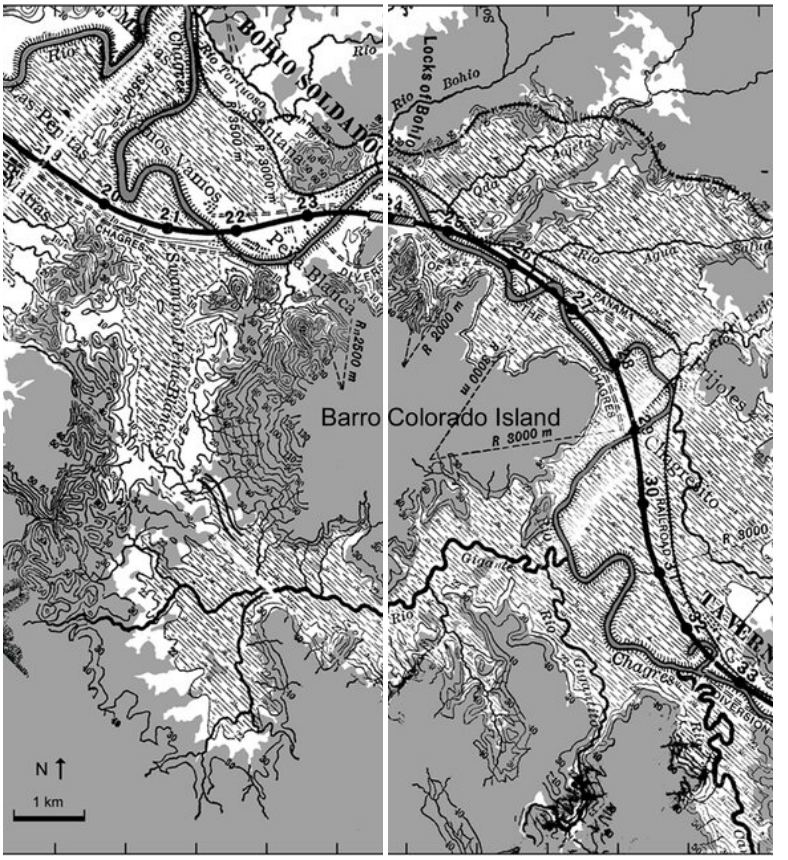
With the multiplicity of gazes, mirrored irregularly by the glass panes of this viewing machine, comes the multiplicity of forms that it generates.

Each of the photos show the same model, however picutredfrom a differnent position.

MODI OPERANDI - Combination



FUTURE ARCHIVES: TRANSCALAR (DIS)ORDER OF TREE DEBRIS IN THE LAKE GATUN



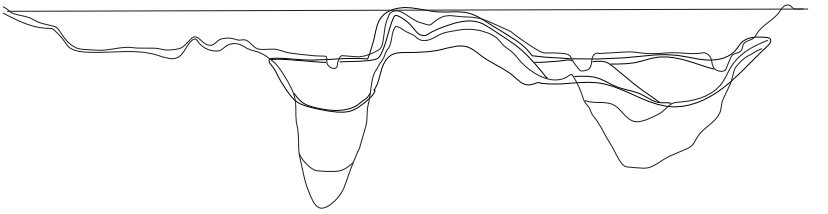
Historic archives of Barro Colorado Island

Low Gatun water level in the past year unfolded tree trunk debris that emerged from the water's surface, informing about the past forest existence. Waterlogged timber becomes the witness object of the past, which is absorbed and preserved in the water body that was flooded over a hundred years ago. As Carse revisits Panama Canal's environmental history at Gatun Lake, it becomes intriguing to revisit the matters of time and scale of events that affected the pressure and change of waterlogged timber that is sunk in the lake.

The view of the Lake creates a sense of sublime and simultaneously undresses the fragility of the past that existed before the current body of water. The emergence of a gigantic creature of mankind, the Panama Canal, changed the morphology of the place, overlooking the outskirts. "Why did Panama's transit zone, a region with a long human history, appear more natural to many visitors and recent settlers during and after canal construction?" (Carse, A., 2016)

Barro Colorado Island is one of the examples of a Secondary Forest that grew after the Panama Canal Zone excavations and after the Lake Gatun flood. It is currently the most popular island for scientific investigations.

Satelite image of Barro Colorado Island



The paper explores a multiscalar methodology to investigate the material and the aftermath of the material in a series and scales of events. This method employs the matters of time, space, and agency and places them into a grid of the most suitable order. The grid becomes a reference for how to layout analysis to make the method more explicit and straightforward. The grid becomes an anchor point for the start and the finish.

CRITICAL TRANSCALARITY

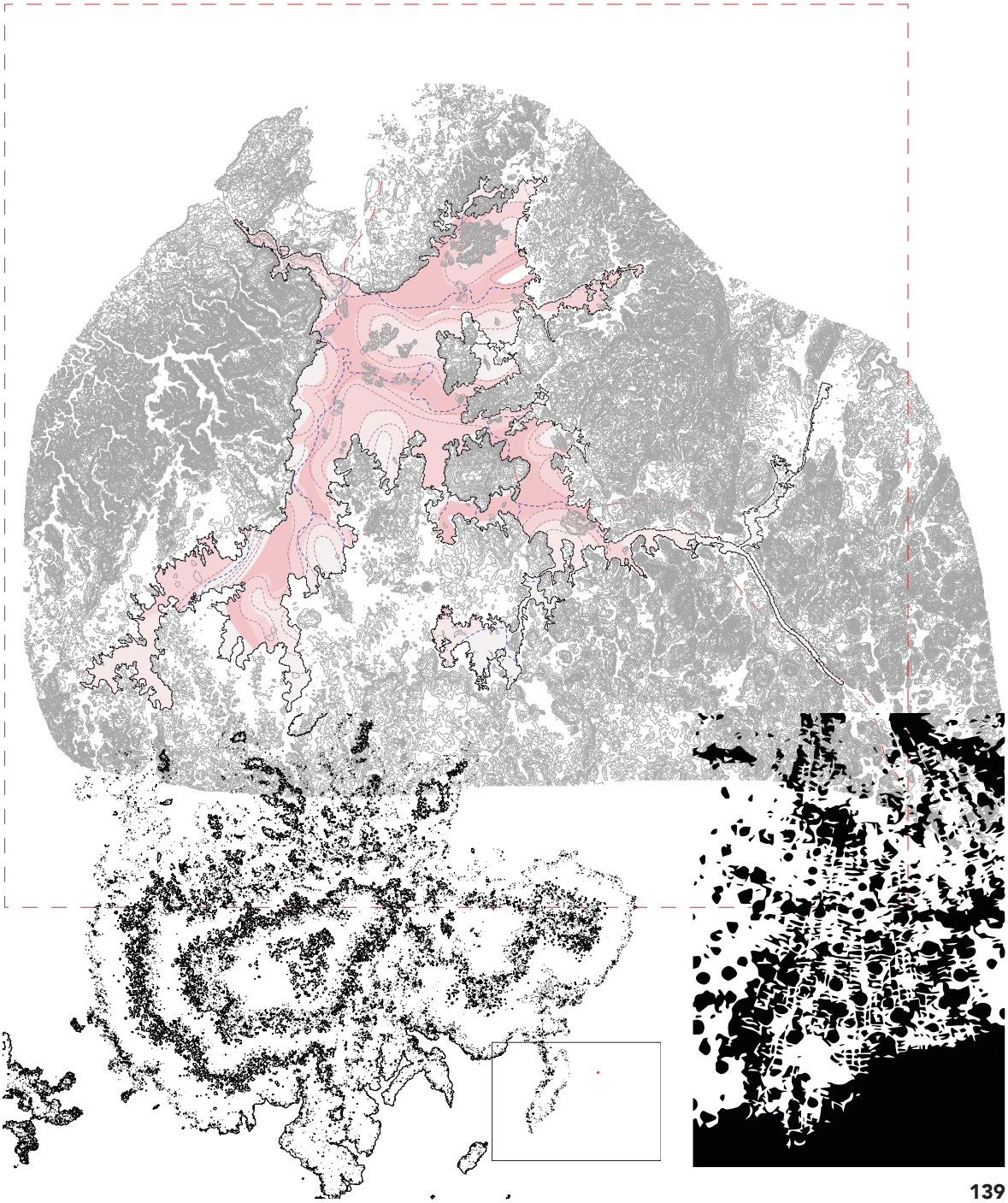
Time, space, and agency are three fundamentals that are considered in the analysis and are sliced into three other main phases. Each phase is responsible for a certain cluster of scales.
Time is divided into "Then"- as it unfolds the history of the event, "Now" is a current state/ norm, or it informs about the past, and "Tomorrow" is the intention, planning for the upcoming/ new.
Space is divided into "Micro"- as the study of the material through a microscopic lens, "Meso" is seen as a naturalistic exploration without specialized equipment or tools, and "Macro" is explored as a collection of data through a satellite lens and national or international database of the landscape.
Agency measurement explores how human agency intervenes through matters of time and space by "Collecting" data, "Witnessing" data, and creating new proposed data.

3rd SCALE

It addresses established Micro and Macro constructs and enhances the literacy of the site into a third, mediating scale.

One of the ways to understand such scale and its qualities could be discussed through our intersection of everyday life, ethics, and our relationship with the world, as Jane Bennett suggests in her book "The Enchantment of Modern Life". She would argue that the material world would maintain a sense of agency and vitality, which would lead us to further observations of the atmosphere and our experience in it. (Bennett, J., 2001)
This kind of methodology of observation would involve using the unaided human senses such as vision, touch, smell, and sound - to perceive and understand objects, and environments in their 'natural' state and scale. It's the kind of observation we engage in normally without specialized equipment or tools.
Such an approach would rather be used in psychology, biology, ecology, anthropology, environmental science, and art.

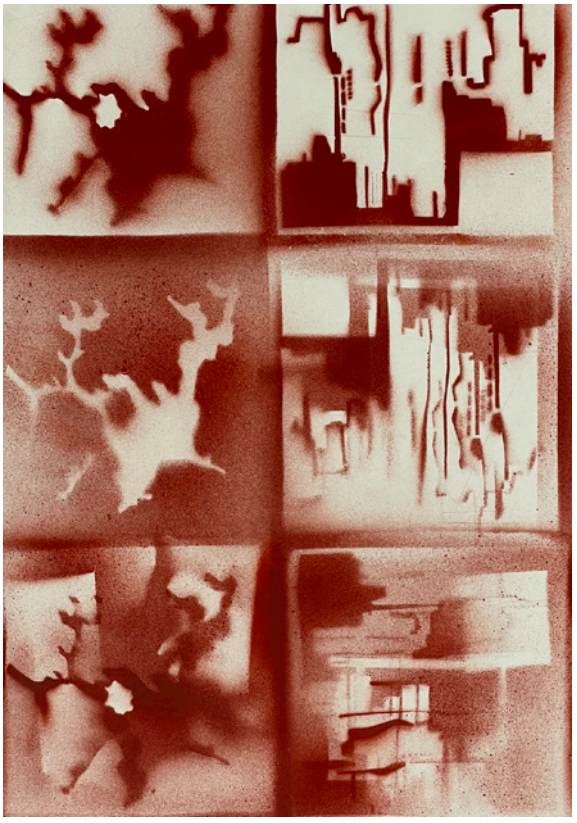
It illustrates the third scale, a scale that is appropriate to experience the data of the environment.



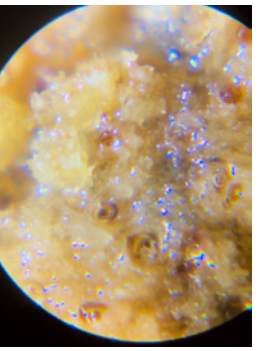
Photograph of Gatun Lake shoreline, Panama

Irene Kopelman, an artist known for her exploration of natural phenomena and scientific research through art, often delves into the idea of presenting objects without a defined context or reference point. Her work frequently involves drawing and representing elements from nature without specific scales or contextual clues, emphasizing the importance of the observer's point of reference in understanding the object or phenomenon. "Drawing inevitably prompts one to think about its different functions and forms: drawing as a medium, as a representation, as means of observation; as a way of relating landscape, to things, to knowledge."(Kopelman, I., 2015)

While sketching tree objects from the Barro Colorado Island, located in Lake Gatun, Kopelman highlights the powerfulness of drawing as a method to research and analyze the object and the state of objectification. Such methodologies may vary between different specialists simply because they might have different points of interest that they aim to explore in the same piece of object. "Drawing can be a means to train the eye, to see - but not objectively per se. That's what distinguishes the artist from a scientific draftsman." (Kopelman, I., 2015)

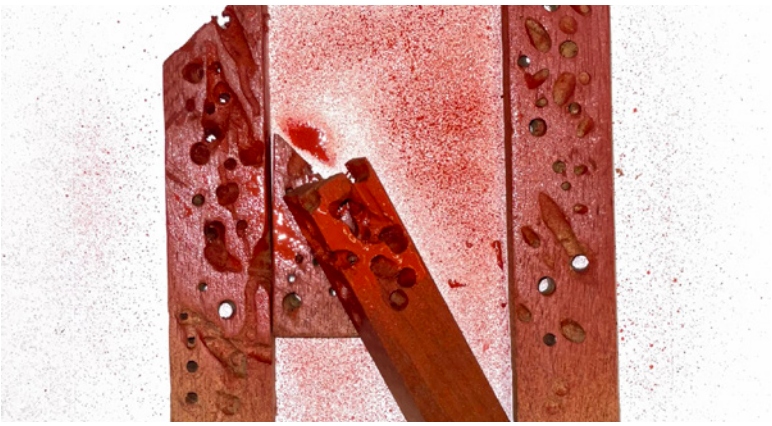


MODI OPERANDI EXERCISE



One of the aims of multi-scalar methodology is to find persistent care and scrutiny in gathering things. This implies the careful gathering of the past or sincere experiencing of the present but with the notion of scale, which defines how deep it delves into the contextual matter. In Astrida Neimanis' "Bodies of Water: Posthuman Feminist Phenomenology," sensitivity is a crucial aspect linked to her exploration of the entanglements between bodies, water, and the environment through a posthuman feminist lens. (A. Neimanis, 2017). Neimanis reiterates the sensitivity by emphasizing the interconnectedness and interdependence between human and non-human entities. Therefore, the overlay of the past and present, micro, meso, and macro can help us create a more considerable and critical gathering of details that later informs and leads us to our present and future agency.

Waterlogged timber in this case becomes a material for our use, for space, structure, beauty, and trade. It becomes an example of a long-processed substance that is taken by humans and modified into new forms of life. Maybe long-lasting, high-quality furniture in this case is all we need.



Overlaying scales and matters of time we can learn to be more critical, and evaluate our existing value or nonvalue that we contribute to the space.

SANATORIUM

The project becomes a proposal for a sanatorium on Barro Colorado Island on the shores of Lake Gatun. The sanatorium is a visiting facility that is open to tourists and locals for slow recreation and healing. It is a space where scientific knowledge is applied to spatial assemblage that stimulates awareness of the surrounding environment. Visitors are intended to take time and experience the sanatorium. It accommodates educational and recreational treatments. Sanatorium appropriates a new, third scale that archives material entanglements through time. The third scale appropriates new visibility of components of the Lake and the Island (timber, water, soil, air). Sanatorium invites to gather, witness, and encounter.

Sanatorium responds to isolation

1. It frames a piece of Barro Colorado Island's shore, bordering Gatun Lake.
2. It challenges Barro Colorado Island's physical (surrounded by water) and functional (dedicated island for scientific purposes) isolation and allows its borders to be transgressed by visitors.
3. It responds to a social exclusivity, which has been inherited through the island's set of rules, regarding social status, gender, and literacy.
4. It connects scientific knowledge to an applied practice, through spatial experiences and interactions.

Sanatorium responds to scale

1. It addresses established Micro and Macro constructs and enhances the literacy of the site into a third, mediating scale.
2. It illustrates the third scale, a scale that is appropriate to experience the data of the environment.
3. It mediates between Micro and Macro worlds, through a structural assemblage of capillarity, density, and porosity.
4. It reacts to the microscopic significance of flora and reveals its operation to visitors.
5. It reveals the site's morphology through the curating of the materials and their interaction with fluctuating liquid and dry environments.

Sanatorium responds to place

1. It assembles a series of spaces that have a logic to reveal ecological conditions and non-remote sensing experiences.
2. It reveals the vertical and horizontal qualities of the surrounding embedded materialities.
3. It acts as a palimpsest, created through the sculpting of the land.
4. It responds to fluctuating lake tides, washing the Barro Colorado coast.
5. It creates a healing bridge between the surrounding ecology and a human being.

Sanatorium responds to time

1. It invites visitors to stay for an extended time to stop and notice a change, and explore the qualities of the place.
2. It documents surrounding natural phenomena through time, by archiving its presence and the future.
3. It enhances the cyclicities and temporalities of the environment, appropriating its presence into a third scale.

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OPEN WORLDS

SPECULATIVE WORLDMAKING

We landed in Panama City without expectations, an open mind, thirst for Experience and discovery. The airport smelled of caramelized popcorn that immediately gave me a bad stomach, but it was funny to look at people who were shorter, browner with a hip to limb ratio way smaller than the average human being. After being held up at the Airport for two hours for making jokes about not being paid for this 'professional' trip at the immigration check, everything else went smoothly. We caught an uber straight to our Airbnb. Mesmerized by the skyline we gaped at it already from afar as we approached the city. As we got closer something else became apparent, it was 10 at night, and about only 10 percent of lights were on. 'speculative' someone mumbled. We didn't make much of it, everything pointed towards a vibrant metropolis - neon signs, Hilton hotel, casinos...

Not much longer after we arrived to the Casco Viejo, the 'historical' part of the city. Buildings
were smaller, older and had a colonial feel to it. Hungry and tired, we dropped the bags and went exploring. Google maps was useless as everything seemed closed, but I had a hunch we'd find something that was open. After a short walk, we were hit by warm oily fumes coming from what seemed like a garage. It was Arepas Locas, a small business ran by Venezuelan migrants. We got our first dinner. Deep fried arepas, $ a piece, cold beer and reggaeton playing in the background.

The morning after, boys went to pick up a rental car and I walked around looking for a breakfast spot.7am, not much was open but a small bakery in a street that looked like the center. A church, couple trees, and a cafe with a hand painted Coca-Cola sign. Apparently that was its name.

Already then I started to wonder what is this, is this a city?

Does a dry definition of Polis stemming from polloi meaning 'many' and pollus meaning 'much' exhaustive?

In his book Building and Dwelling, Sennet defines it as a coming together of oikos – households. He brings about an important distinction between the way a city is built and the way it's lived. In French this distinction is very easily understood between the terms ville and cité. Difference lies between how the city is built and how the city is lived. The built form is different from the way people dwell in it. This becomes very important when one is looking at very detailed level of interaction between people in a city. Where they shop, where and how they interact with each other, what causes them to interact. These two concepts are very closely interlinked and influence each other. Why is this important though? According to statistics, urbanization in the last two centuries caused more than half of the population to live in cities and that impacts not only on technocratic sustainability but also social structures and cohesion. In the coming years it will grow to two thirds and the fact that 'Out of crooked timber of humanity, no straight thing was ever made', which Kant observed in 1784 brings about the question whether 'gated communities (…) the most popular form of new residential development' makes for built form that alienates people from otherness, a diversity needed for a tolerance built on simple accidental interaction. Are those forms of developments making humanity straighter?

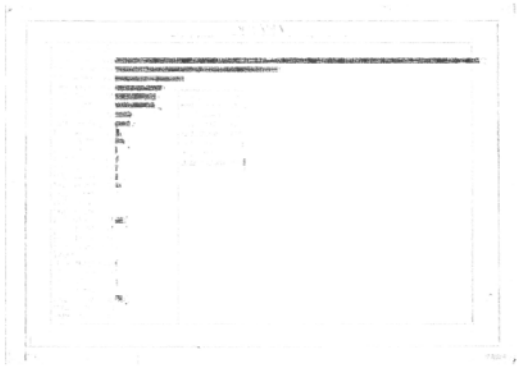
'Puto gringo' we heard at almost every corner of the impoverished parts of Casco Viejo. Bejamin, a cousin of our valet, was blaming migrants. Invisible in one sense but present in the street dialogue. It
used to be better is a phrase heard almost everywhere. Could be… but a story I heard somewhere of a
young Indian child bumping into an English man in a supermarket who in turn doesn't scold the kid but
laughs and lightly touches the kid's nose

has somewhat given me the belief that different people should inhabit same spaces, collectively share the experience of life. A mother watching this situation unfold might understand that we are in the end all the same and it doesn't matter that the system we live in might be above the power of that specific gringo, but he does have a heart and understands kids.

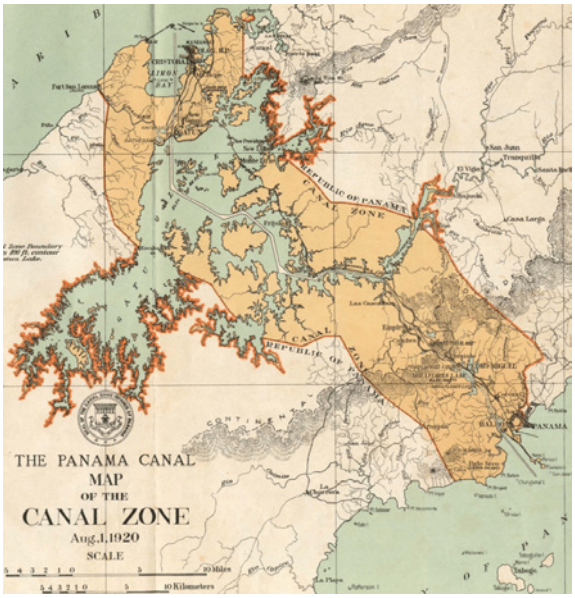
SETTING THE STAGE

Industrialization has brought about tremendous progress, created wealth, and brought many people out of poverty. For Panama it was the beginning. The country became a test ground for an engineering feat never undertaken before. Under the aegis of capitalism, freedom and independence, a country was formed, given independence and for a small price of being literally flooded and torn apart.
The isthmus between Pacific and Atlantic 50 kilometers wide was already planned to be cut by the French, like the Suez canal, they planned to dig out an entire mountain to connect the two oceans, funny enough that wasn't feasible and the Americans figured a dam and a couple locks would do the job.

Couple thousand deaths from yellow fever and malaria later.



Malaria – death rate among employees Panama Canal



In the zone

The Zone was established and for seventy six years it was a quite literally a fancy ghetto, with its own currency to prevent people from outside acquiring products sold there, how was life for the average Panamanian back then?

In 2000, the canal was finally handed over to the Panamanian government and after few decades of stable economic growth the housing market in is booming. This can be attributed to the expansion of the Canal, an immense service sector and direct foreign investment. Urbanization in that respect has also been increasing due to population growth and results in increased demand for housing and development of many new residential areas.

Jetlag going westwards is way better than the other way around. Sleeping early and waking up with sunrise seems healthy and energizing, so we set out for Gamboa early on. We caught up to the other car somewhere near the Smithsonian institute located in the old Zone. While part of our group was already bombarding a poor security lady with overly brainy questions. After being sent away we stopped to look over Culebra cut, train tracks and a massive rusty crane. So borders.
Just around there, was an old Zonian settlement, leftovers of what once clearly a colonial outpost is now in ruin. Falling apart, slightly repainted, balloon frame houses lining a street that led to an extravagant resort full of obese people eating sugary tarts. We decided to ditch that place and continue to Madden dam. We parked the car, grabbed some Takis out of the trunk and started snacking while David was gone recording hums of a massive generator. Immediately after walking onto the dam an alarm was set off and a security guard told us to leave over a megaphone. Where was Panama though?

Everything seemed empty and lifeless… We hopped in the car and continued on to the cement factory. Speeding through winding roads, we saw many Panamanian houses, some people walking in the streets, the countryside of Panama, few people whose stares did not make it inviting to stop, but there was no reason to either, no actual places. Increasingly there was more and more houses and some businesses along the road, little to none, and all of a sudden, a huge neighborhood appeared.

A repetition of a same house on an unprecedented scale from what we ever saw, almost like a render. We tried entering it, but got turned around. It also seemed lifeless. Where were the people though, where do they live? Couple hundred meters further, a number of similar neighborhoods, bit older, with some additions, not gated anymore, but still with one entry point. Detached houses, wide streets, sidewalks, curbs painted yellow, yet no one using them. What was striking was that the houses seemed all the same – concrete, repeated over and over. Away from the smell of trash rotting in the heat and kids bathing in manholes of Panama City, but still the only optimal way of hydration is the purified water with an aftertaste comparable to lake water going down your nose.

After a long day of travel we naturally grabbed beers. In a sweaty humid atmosphere, a cold hiss released by a cold can of beer was what kept us sane. Or at least desensitized our empathy to the misery that place imposed on the average Panamanian, and us who succumbed to the luxury of rethinking the idea of space and neighborhoods. D started the conversation.

The neighborhood didn't look too shabby.

He suggested.

Yeah, still is pretty grim.

Totally… I would not want to live there, there's something about that place that is uninviting.

Reminds me of the Death and Life of Great American Cities, theres no life, no diversity and mixed uses, sure there are sidewalks, a couple shops but it's not organically grown and no bottom-up planning.

People make additions, they do what they want – he argued.

Sure, but that doesn't add to any interaction in the streets. The city is dying man. This is
modernist urban planning, car-centric, zoning dictated by capital and homogeneity, large-scale developments that aren't even inside the city limits and the guy in the shop said people who live there
mostly work in Panama city.

At least there's eyes on the street, even signs that say so – he added jokingly.
I laughed.

Insenthusized by everything we made it back, and as per usual Scott removed one of the orange cones
so we could park right in front of our house. wanted to buy some weed. We approached the man
and asked whether he knew anything.

Fumar fumar – Verde?

It's all we knew to communicate to him but he understood and with a big smile on his face
replied.

Sii Sii, ven en un rato, quince minutos !

We knew all was good.

Bianco? - he added, but I only winked at him and left.

We went to the rooftop, sat at a table and the mind altering properties helped to really get deeper into the various topics.

I think we could view these areas as just part of infrastructure of the city - I suggested.

No way! That's a reductive view of that place, they're living their lives normally, pretty sure I saw a karate school, theres additions to the houses, they're painted different colors.

Sure, nothing is black and white, but think about it. Just around where we were, 50km north of Panama City, land becomes cheap enough for developers to build these massive neighborhoods, they're
probably used to launder money by these big shot investors, and if anyone from abroad decides to invest, they might just get away with taxes elsewhere too. It's absurd. It's not how this should work and there is plenty of other places around the city that look very similar. These neighborhoods really don't give that feeling. It's the same house repeated on a massive scale. All these people live in a same house, in the same way. They live far from the city cos they can afford to have a house but then commute for an hour or longer, stuck in their car for ten percent of their life. They are a commodity living in a closed system. Day in, day out.

Yeah right, funny you call it a system, but why a closed one? An infrastructure would be more like the canal, flows and cargo and a closed system more like a circuit, a zero-sum, nothing more coming out of it than came in. It's definitely an open one. The only dude I know that talks about it is Ludwig von Bertalanffy – he said something like an open system is "maintaining itself in a continuous inflow and outflow". Isn't that what that is? Organismic growth, differentiation and increasing complexity?
Yeah, and we concluded that the canal was open too, it's just the level of abstraction you wish to
adopt.

Yeah a degree of openness, could be…

So what are you sayin?

Maybe, an open system, or city, should make people deal with complexity. An open system 'marks the city in modest ways, using simple materials'. The city should be complex, dense, and buildings should be incomplete to foster change in use. There should be open spaces near to the buildings. People should live on busy streets, meet in parks and have access to public spaces. 'An open ville will avoid committing the sins of repetition and static form; it will create the material conditions in which people might thicken and deepen their experience of collective life'

Yeah, and what does it have to do with architecture?

Lemme explain. Apart from how the neighborhood is laid out, the houses there follow nuclear model, it's too static. Rationally speaking there is a family. A man, a woman, children, a family. We have a kitchen, a living room, bedrooms, for one 'family' only. Organized in this way it's bland. What happens when the child grows though? Does it consider its needs as a growing and evolving human being? What happens when it becomes older. Does he have the space to do what he wants and needs? In Victorian times in London, houses were organized vertically. Every generation of a family living at a different level. The eldest on the highest floors. One access at the front and one at the back. The front had a staircase leading to the first floor and the back a staircase leading to a sous-terrain. At the age of 21 a child would receive a key to the back door and the plumbing of the house would allow him to set up a kitchen and start using the sous-terrain space as a studio, separate from the family living above, starting a life with their partner. All in the same building, that allowed a generational evolution. A model of this kind is more sustainable, and incidental deviations can be housed and accounted for in a more flexible and softer way that influence the structure of families, schedules and closeness to family - which is also in decline in the current age. It cannot just be a machine for living but a flexible system.

And on a city level? How would it work?

There are different examples each with their own drawbacks. Garden cities, Cerdas blocks,
Olmsted, it reaches into a discussion on interiority that is confining and a relation with the outside is necessary for cross-pollination of ideas and human development. Again, Jane Jacobs spoke about some
of this and she was envisioning a kind of bottom-up cellular framework of infrastructure within which things could organically evolve.

Right, what a punk though huh? This guy Mumford was also into this and they really had contrasting views in terms of scale. Don't get me wrong, on a neighborhood level she's great but according to him you can't really build an infrastructure – the system has to be thought out as a whole.

I remember now! Yes! This guy was advocating a way more technocratic view of the city – didn't he coin the term smart city? The provision of roads, electricity and water on a larger scale and iterative revisiting does sound like a more down to earth idea. She 'emphasizes the processes of discussion, debate and resistance' leading to more open politics but a provision of a possibility of a socialist life might be a more manageable idea.

Sure man, but what would you do?

Theorize all you want but you gotta go with the times. We are living the times of societies of control brother. The control is happening though through a different medium, not a spatial one but the computer, and war is becoming way more individual. No more 'If cities are to become just, their foundations have to be put in order through design. The ville has to lead the cité'. The form is built, we got crazy machines now, neural networks, so much data. Why be so critical? You can optimize for happiness, you're not going to design it from scratch!

Just watch me! Pure neoliberalism, as the reappearance of the market-oriented, free-market ideas is ravaging throughout the whole world. Architecture is political. It's a direct emanation of the system, maybe still in combination with the old model.

Who are the people building it though? Good question what are you going to do about it?

So is a city also a living machine?

Yeah maybe – a fast one too.
I shrugged.

Tired of endless conversations and lightly intoxicated I played Fabric 96 by DVS1, an album involving some of the top techno DJs in one continuous mix beginning with Charlie Chaplin's Final Speech.

I'm sorry, but I don't want to be an emperor
That's not my business
I don't want to rule or conquer anyone
I should like to help everyone if possible
Jew, Gentile, Black Man, White
We all want to help one another, human beings are like that
We want to live by each other's happiness, not by each other's misery
We don't want to hate and despise one another
And this world has room for everyone, and the good Earth is rich and can provide for everyone
The way of life can be free and beautiful, but we have lost the way
Greed has poisoned men's souls, has barricaded the world with hate, has goose-stepped us into misery
and bloodshed
We have developed speed, but we have shut ourselves in
Machinery that gives us abundance has left us in want
Our knowledge has made us cynical
Our cleverness, hard and unkind
We think too much, and feel too little
More than machinery, we need humanity
More that cleverness, we need kindness and gentleness
Without these qualities life will be violent, and all will be lost
The aeroplane and the radio have brought us closer together
The very nature of these inventions cries out for the goodness in men - cries out for universal brotherhood - for the unity of us all
Even now my voice is reaching millions throughout the world - millions of despairing men, women, and little children - victims of a system that makes men torture and imprison innocent people
To those who can hear me, I say - do not despair
The misery that is now upon us is but the passing of greed - the bitterness of men who fear the way of human progress
The hate of men will pass, and dictators die, and the power they took from the people will return to the people
And so long as men die, liberty will never perish
Soldiers!

Don't give yourselves to brutes - men who despise you - enslave you - who regiment your lives - tell you what to do - what to think and what to feel!
Who drill you - diet you - treat you like cattle, use you as cannon fodder
Don't give yourselves to these unnatural men - machine men with machine minds and machine hearts!
You are not machines!
You are not cattle!
You are men!
You have the love of humanity in your hearts!
You don't hate!
Only the unloved hate - the unloved and the unnatural!
Soldiers!
Don't fight for slavery!
Fight for liberty!
In the 17th Chapter of St Luke it is written: "the Kingdom of God is within man" - not one man nor a group of men, but in all men!
In you!
You, the people have the power - the power to create machines
The power to create happiness!
You, the people, have the power to make this life free and beautiful, to make this life a wonderful adventure
Then - in the name of democracy - let us use that power - let us all unite
Let us fight for a new world - a decent world that will give men a chance to work - that will give youth a future and old age a security
By the promise of these things, brutes have risen to power
But they lie!
They do not fulfil that promise
They never will!
Dictators free themselves but they enslave the people!
Now let us fight to fulfil that promise!
Let us fight to free the world - to do away with national barriers - to do away with greed, with hate and intolerance
Let us fight for a world of reason, a world where science and progress will lead to all men's happiness
Soldiers!
In the name of democracy, let us all unite!

The bass made it impossible to resist.

I grabbed a bottle of Seco, the cheapest local booze and went to Scott's Pots.

Hey Scott, ?

Cuanto?

I reached into the pocket where I had some change, three dollars something. It was enough .

We sat outside one wooden chairs, Benjamin grabbed some ice and poured us some of the driest cocktails imaginable into plastic cups. I asked him whether there was anything going on. I wanted to experience the *cité nocturnal*.

Wednesday, but his friend owned a club so

The reggaeton was unbearable but we got to speak to some girls.

Go to one said. We caught a taxi and rushed through the city.

'Cash'

It was really dark, music pumping and women started approaching us. I asked Ben whether

He laughed

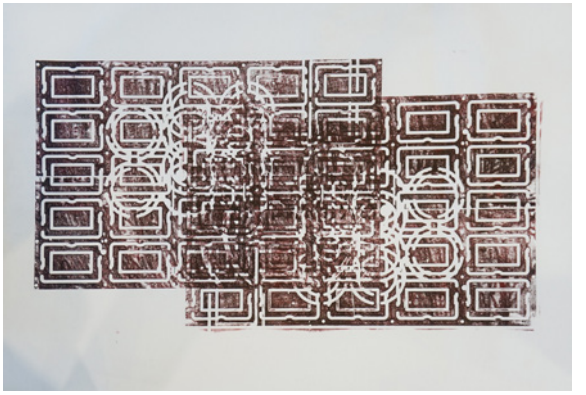
It was my first time in a skyscraper there, dawn, I felt disconnected.
We could've been in Columbia, nothing made sense. How was this similar to the neighborhoods?
The additive grid has in the modern era served as a tool of capitalist power. The skyscraper has become a new type of additive grid that expands vertically. The view is nice, but you cant tell the expression on the faces of people in the street below?
How else are you going to help solve the housing crisis?
What is needed is a diversity stemming from interaction, at the street level.
How does one design
A city without a tight fit
A block without a tight fit
A machine without a tight fit

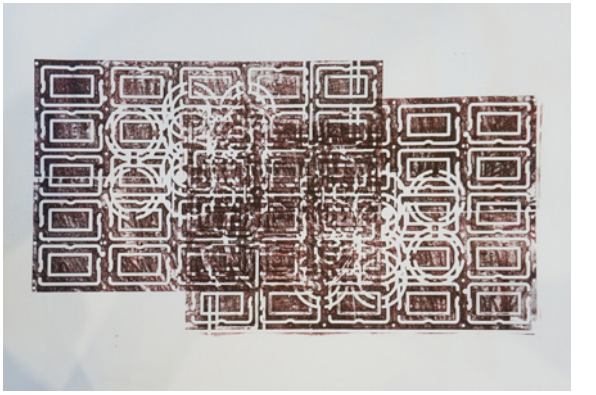
Increased control, data processing and efficiency is making the world easier to control. Violence is a result of the systemic violence that generated a number of phenomena in a population.
With proper understanding of the mechanisms involved, we could control the population further and
make extraction of labor even more intensive.

'The promotion of this sense of impotence, and the resulting inertia, are encouraged by a patronizing capitalist "nanny state" on behalf of corporations for whom profits, not people, matter. The only antidote to that inertia is surely to start planning the "disorder" promulgated by Sendra and Sennett.'
One of the last days Houry was kind enough to drive me to a some sites once again.
On the way back, we saw an airport on the map, so we tried to see it. Houses along the street were blocking the view but we saw children leaning over the fences behind the houses looking onto the airport in the approaching sunset. We didn't dare entering peoples gardens so we took a right at the end of the street. Still couldn't see what was going on. The airport was on a higher ground. A couple masked men cutting grass on top of the hill. We stopped the car and I told Houry to keep it running while I got out of the car and jumped through a hole in the fence and slowly approach the summit.
The view was unreal. I was standing at the end of the runway in golden sun. Kids running around, adults jogging and two makeshift football pitches on a green stretch between the asphalt and jiggered walls that people jumped over from their houses to go onto the field. I waved at the others to follow me and we walked along it, can this type of space be only accidental? Would synchronic and diachronic approach of analysis of the airport help?

One of the kids kicked a ball towards me

War machine





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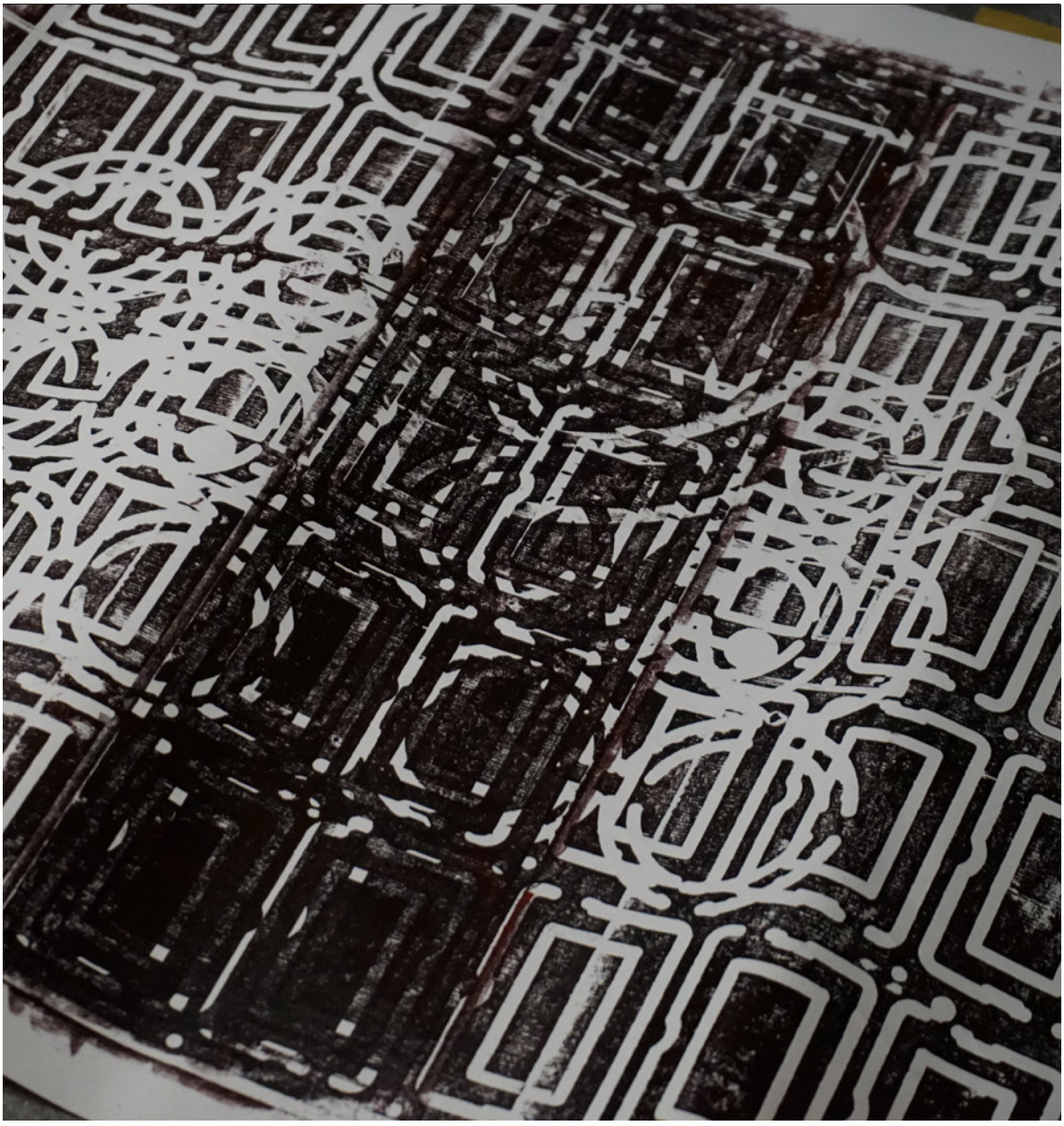
The project stems from a graphical experiment that is done with a number of pieces that constitute a research process aiming to find a new type of design method.

PRINTING

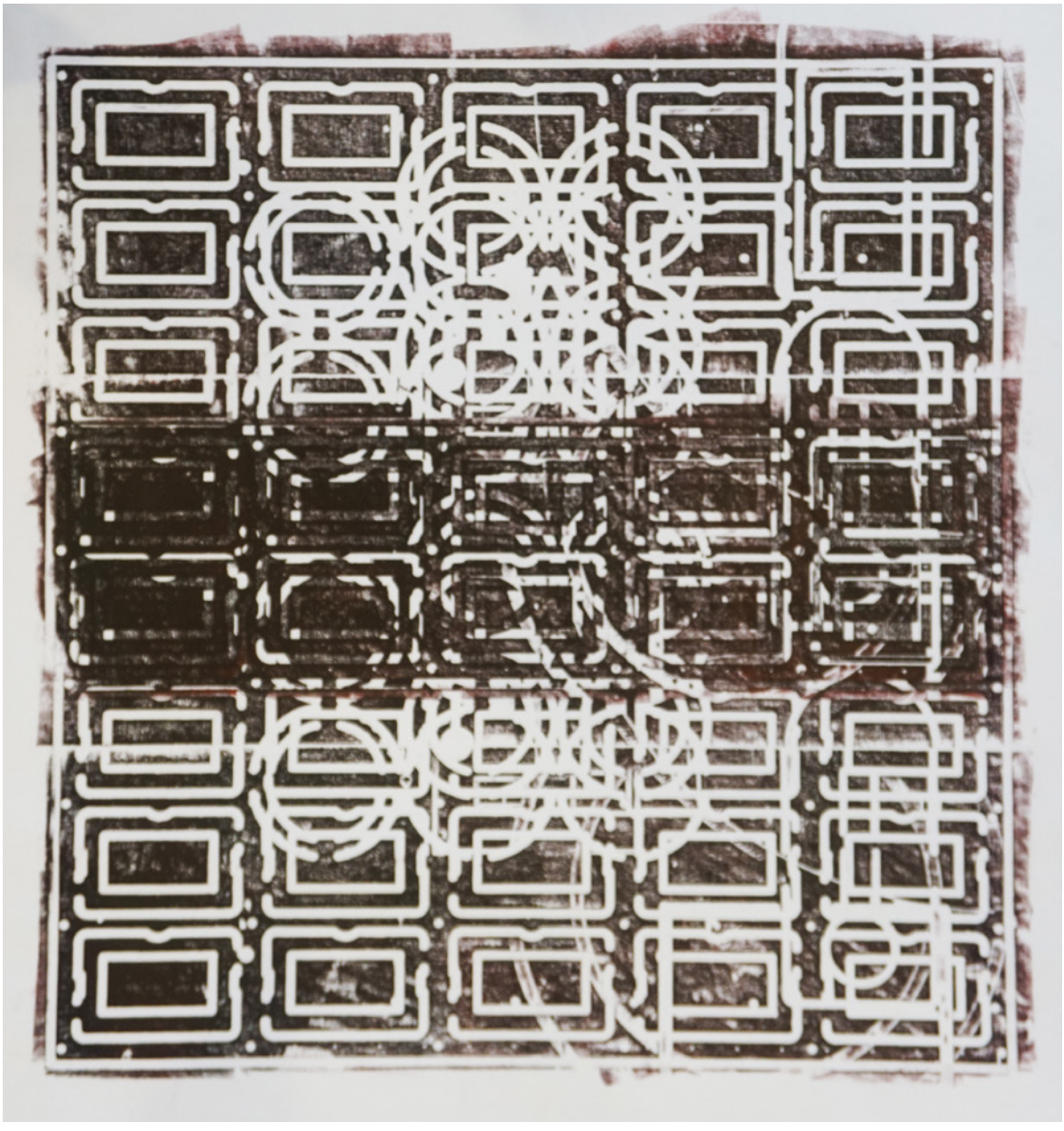
The first process of mass reproduction. Printing constitues the very first technique of replication on massive scale. Coinciding, or foundational to industralization, together with an icrease in steam power and mechanized textile spinning these processes gave a foundation to the modern world. Everything from the ease of education to ease of production, housing to control of society.

The plates used in the process are residual elements from a contemporary industralized process. Computer Numerical Control milling allows the computer with itss numerical control systems to completely take over the process, leaving no room for human errror. (?)



The repetitve print pattern carries suggestive meaning of a conceptual map that is utilized to enuenciate the condition of this type of architecture.

The confined city



Within the utopoic context of an American neighbourhood a new type of life appears. A life devoid qualities of what a real city should offer, an urbanism devoid of incidental interactions.
The problematization goes beyond understanding urbanism as built form but rather a social and pollitical dillema. How a city is built impact the way people live in it and impacts the way people evolve spatialy. How does one adress an issue of this type and scale?

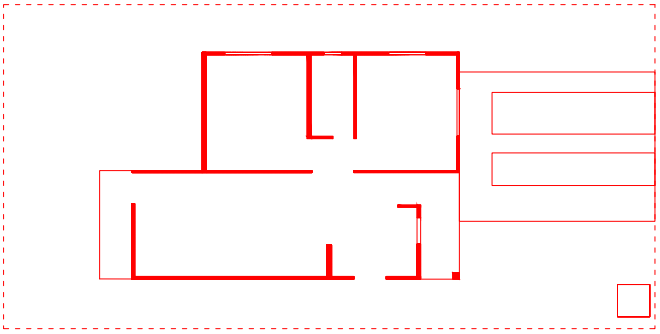
OPEN CITY & DESIGN

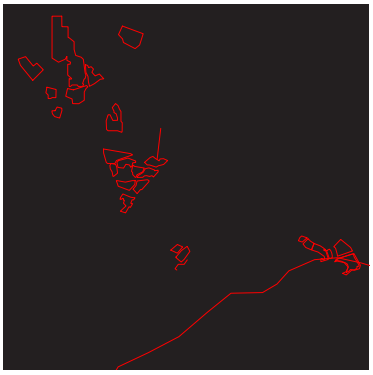
Neoliberal landscape has become the new normality in this context. The dream of a house a family and community in an americanized style is sold to the detriment of the milenia long idea of the city. A vicerally modern type of architecture goes against the idea of a world that sprouts from self organizing chaos. Organized chaos and slow appropriation of the public as well as private domains or territories should lead to a vibrant community and a spaces that forster interaction between different groups of people.

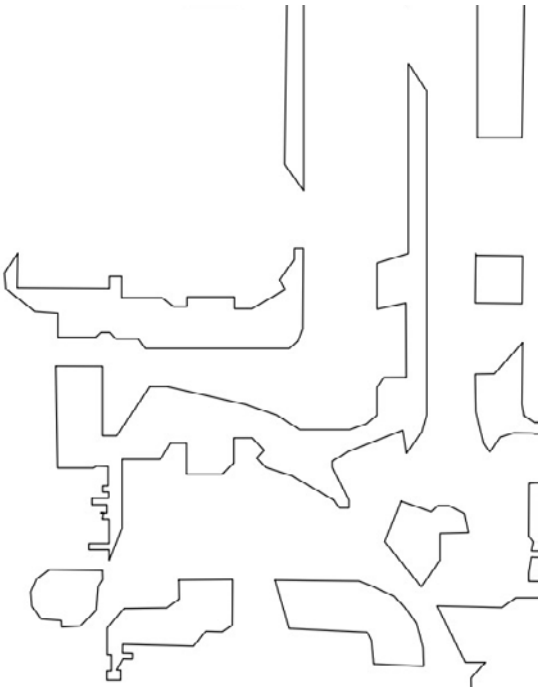
How does one facilitate it in the current economic landsape is an isse with legislation and planning which in itself poses problems due to the high demand of urbanization.
The destruction of the city is the result.
'The 'open city' has recently been theorised as the urban condition that best accommodates diversity, incorporates change, and fosters adaptation. In this respect, the open city can be framed as a complex system, the overall form of which cannot be predicted in advance as it is in a constant state of becoming. Although the open city, as an emergent system, cannot be designed from the top down, it needs some direction as it can also spontaneously veer towards its decline and turn into a closed system. What, then, is the role of (spatial) design in setting the conditions for the emergence of the open city and in preventing its self-destruction?' (Porqueddu, 2020)
Ho w does radicalizing the view of these areas as purely infrastructure of the city allow for a radically different persepective on design approach?

The same house repeated on a massive scale. In itself not the biggest problem, however a closed unit design repeated on a massive scale without consideration of the public domain scales the problem back to the individual. Everyone living in a similar house, in the same way. Distanced from the real body

Architecture has ethological qualities that impact the way life organized within evloves. This should be considered when looking at design of each individual units and thier relationships.

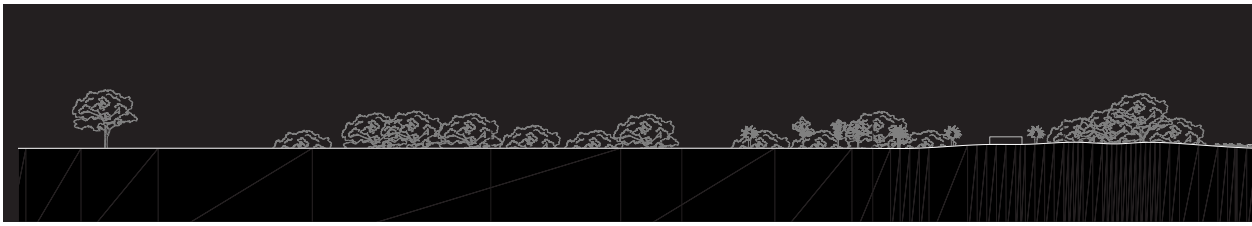






of the city reproduces a closed system based around commuting beteen nodes in the system rather than an organic flow of material bodies that should profit from interaction.

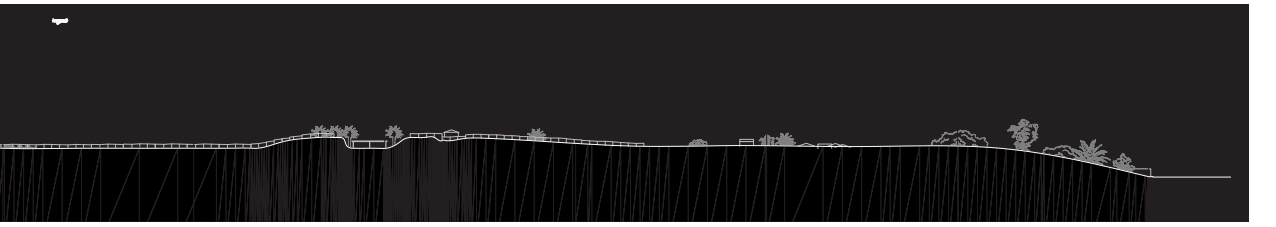
How does the graphical investigation help in adressing the condition of the city?
An open system ‘marks the city in modest ways, using simple materials’ (Sennet, 2018). The city should be complex, dense, and buildings should be incomplete to foster change in use. There should be open spaces near to the buildings. People should live on busy streets, meet in parks and have access to public spaces. ‘An open
ville will avoid committing the sins of repetition and static form; it will create the material conditions in which people might thicken and deepen their experience of collective life’ (Sennet, 2018)
How can this be adressed by architecture?
The images visible here are a testament of a search for an urbanism or morpholgy that are a suggestion to what a world imagained within these frames would look like. There are different examples of such dreams each with their own drawbacks. Garden cities, Cerdas blocks, Olmsted’s park, Jane Jacobs was envisioning a kind of bottom-up cellular framework of infrastructure within which things could organically evolve.
If understood in this way what could evolove in between and within these forms?
According to him you can’t really build an



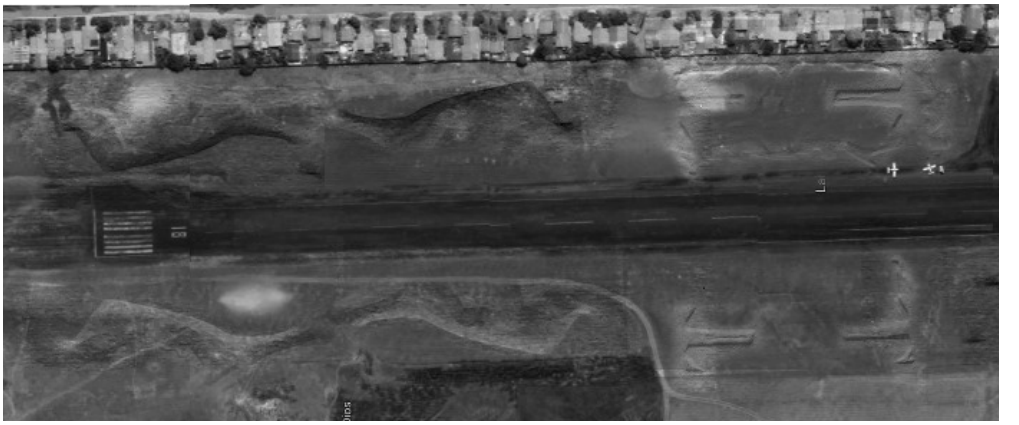
Transgression and appropriation of Calzada Larga

infrastructure – the system has to be thought out as a whole. Advocating a way more technocratic view of the city - a smart city? The provision of roads, electricity and water on a larger scale and iterative revisiting does sound like a more down to earth idea. She 'emphasizes the processes of discussion, debate and resistance' leading to more open politics but a provision of a possibility of a socialist life might be a more manageable idea. Surely top down approaches cannot lead to a city that is performative in its opennes. Theorization can help establishing baselines however the way society is evolving right now within the frames of Societies of control points to a different direction. Control is actualized through a different medium, not a spatial one but the computer. This is an ethological factor that architecture could not adress. The only way is advocating and building public spaces that foster real life interaction and grab attention and people time better than the digial entertainment.

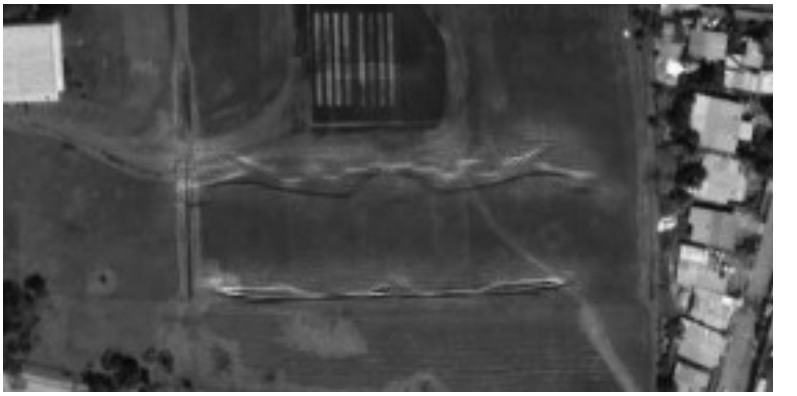
Architecture is still political. Reappearance of the market-oriented, free-market ideas is ravaging throughout the whole world. It's a direct emanation of the systems we live in. It becomes essential for sites like these to perfom a social defibrilation. The airport as a case study exemplifies what people yearn for and what they actively seek. Cultivation of these types of spaces becomes crutial in fighting for longevity and sustainability of the urban and social structure.



CALZADA LARGA AIRPORT



Land art builds on already existing use of the airport creating spaces that can further be appropriated and used in ways users see it fit



The design attempts to bring attention to this site by creating land art that builds on already existing use of the airport, creating spaces that can further be appropriated and used in any way users can imagine. Mounds arranged around spaces repetitively used as football pitches can serve as tribunes for informal matches. Aligning parts of it with the boundaries of the airport could further ease transgression of the terrain by alowing pople to climb over thier fences.

Porqueddu, E. (2020). Design for the Open City. Directing Rather than Mastering Emergent Transformations. A Journal for Planning and Building in a Global Context.

Sennett, R. (2018). Building and dwelling: Ethics for the City. Farrar.

Jacobs, J., & Epstein, J. (2011). The death and life of great american cities. Modern Libray.

THE HOUSEKEEPER

MEDIATING BETWEEN BODY AND TERRITORY

SPACE, TIME, BODY

The juxtaposition of the two terms 'architecture' and 'migration' often implies opposing forces, with the former evoking principles of groundedness, stagnancy, and permanence, and the latter principles of uprootedness, mobility, and temporariness. Societal biases tend to privilege a sedentary lifestyle which casts migration as an exception rather than an accepted way of living. Consequently, migrants face suspicion and hostility as they enter or cross territorial boundaries (Cairns, 2004, pp. 1-2). Many scholars associate them with nomads, emphasizing their deterritorialization due to their perpetual mobility. However, migration entails cycles of deterritorialization and reterritorialization with the ultimate aim of settlement.

This paper seeks to challenge the common misconceptions about migration as a timeless and spaceless phenomenon. Instead, it argues that space and time are integral concepts to comprehending the process. The body of the migrant emerges as a dynamic actor in understanding the spatio-temporal experiences involved. The paper is divided into three chapters, each exploring a different aspect of the relationship between space, time, and the body. Through the three, consecutively titled: Body in Space and Time, Space and Time in Body and Embodied Timespace, the paper aims to understand each of the nodes of the triad by analyzing how they influence, counter, and reinforce each other.

The paper aspires to draw lessons from migrants' strategies of confronting the challenges of "unhomeliness" whilst on the move. Through different conceptualizations of migrants' placemaking, termed "homemaking" in this paper, the objective is to explore the potentiality of a body-centric approach for an architectural project.

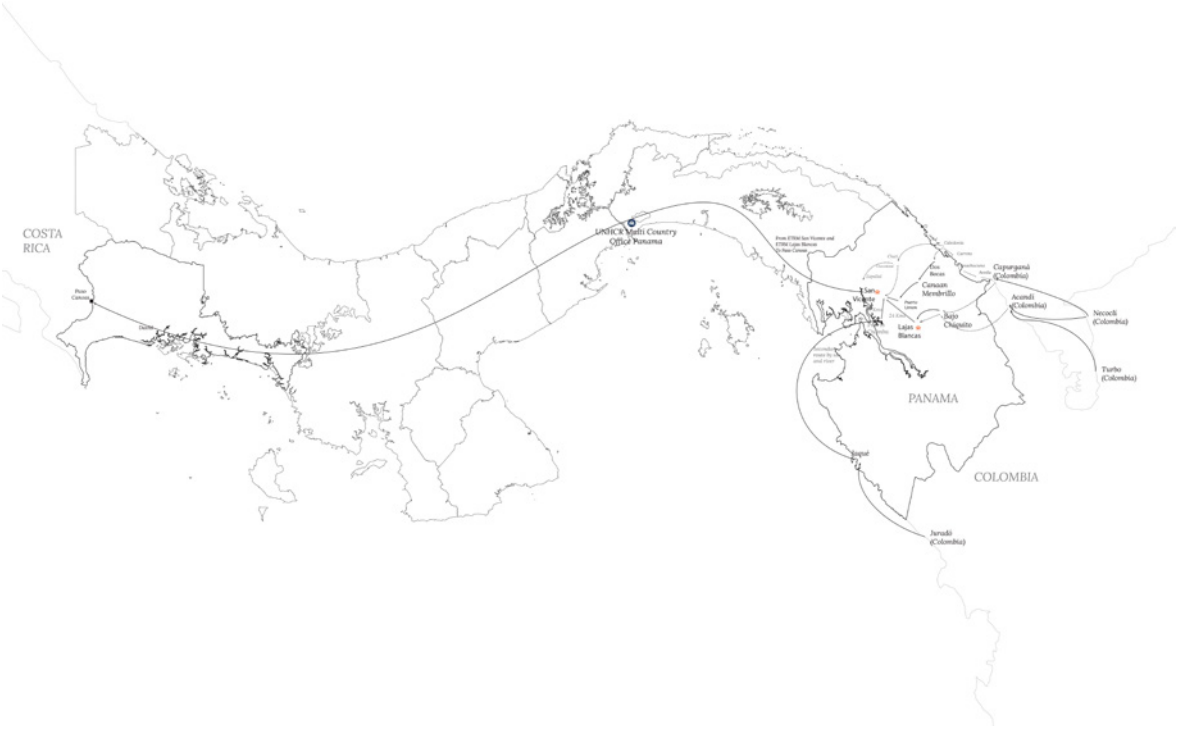
01 Map of Routes: Mixed Movements through Darien, Panama

BODY IN SPACE AND TIME

Migration refers to the movement of bodies between two locations, from a departure point to a destination point. During this movement, space is transversed over a certain passage of time. Therefore, as the body moves, it manifests "a spatialization of time and temporalization of space" (Cresswell, 2006, p. 4). The line that connects the departure point to its destination is not simply direct, but rather one that is entangled with complex spatiotemporal relationalities along its course that either deter or promote mobility. Through investigating the transitional territory of Panama within the context of the migratory flow from South to North America, this chapter aims to reveal the dynamic nature of relationalities that are not only generated but also evolve in response to the perpetual movement of bodies across its borders.

Amidst the intricate choreography of our globalized world, a continual movement expands across borders, one that is not restricted to the circulation of capital, goods, technologies, and information, but also that of people. Economic transactions while fostering disparities among nations, propel large numbers of people into motion in the pursuit of stability, safety, and opportunity beyond the confines of geographical origins. One such prominent current in this global dance flows in Central America. Although the movement is characterized as south to north, departure points do not exclusively originate from South America, but from other countries that are often classified as part of the global south as well (Yates & Pappier, 2023).

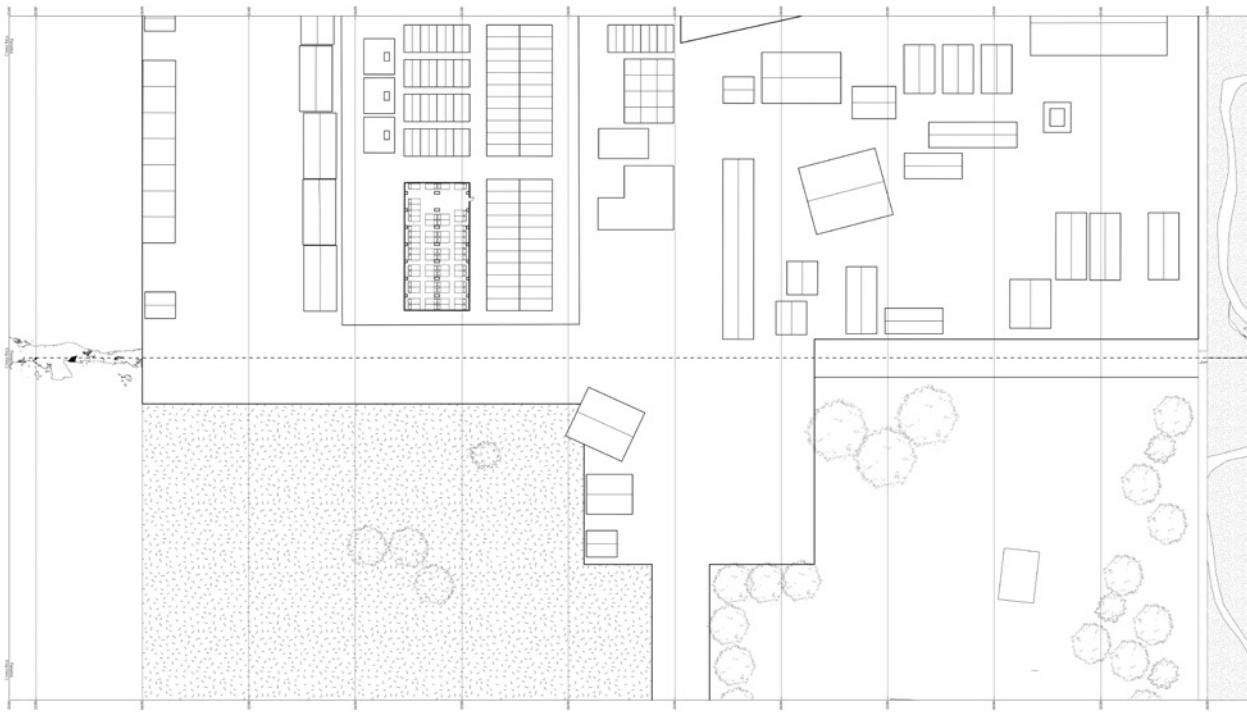
As the landmass that connects the Americas, the Isthmus



of Panama is considered a gateway territory within this movement. Geopolitical, social, economic, and environmental developments in departure geographies have instigated an increase in the number of bodies crossing Panamanian borders annually. From an average of 11,000 yearly crossers since 2010, the number drastically increased to around 130,000 in 2021, 250,000 in 2022, and estimated to be 500,000 by the end of 2023 (Yates & Pappier, 2023). The consistency and intensification of the movement of ephemeral bodies has led to the establishment of normality. This establishment is evident through the development of spatial strategies along the way.

One such spatial strategy is its borderland. It is not merely the linear political border marked on geographic maps, but rather the 25,900 square kilometer Darien Gap, a thick jungle that spans both sides of the line between Panama and Colombia. Here is where the 30,600 km long Pan-American highway, a transcontinental road that threads through the Americas, is broken (Yates & Pappier, 2023). This incomplete project is an indication of concerns over the integrity of the border. In the absence of infrastructure, houses, and streets, the unforgiving terrain, harsh climate, wildlife, Gaitanistas (Colombian neo-paramilitary group), border patrol, and other threats are used as devices to order and control the migratory flow (Awan, 2020, p. 50). Migrants enter into this realm of uncertainty and unfamiliarity forced to adjust to its spatial and temporal conditions. The jungle operates under the cyclical rhythms dictated by natural phenomena of days and nights, and wet and dry seasons. Migrants, haunted by the perpetual fear of death, must navigate these natural cycles and respond to arbitrary threats by

02 Alternative Mapping of Migration Routes through Panama

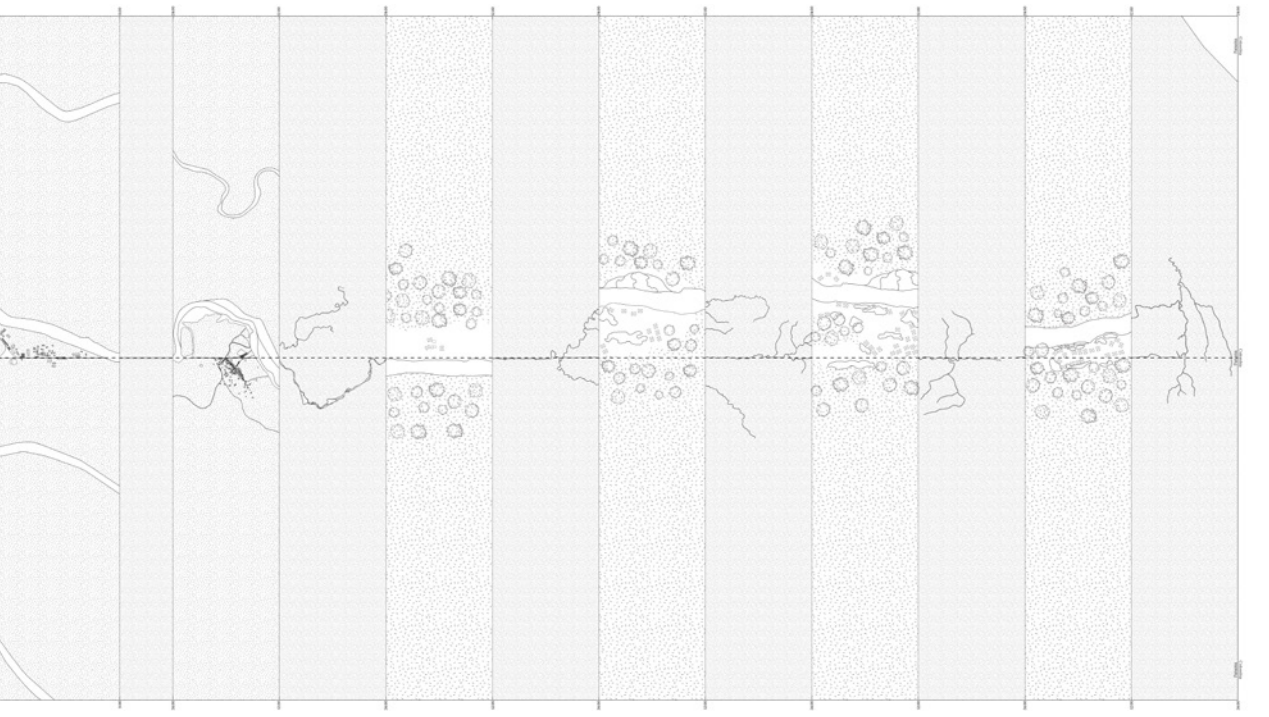


delaying or redirecting their movements.

Apart from being subjected to relationalities, migrants are also generators of economic opportunities. Those with better financial means can secure safer and consequently faster routes through the jungle organized by guides and smugglers (Pons, 2023). In return, the mass movement of migrants becomes central to the livelihoods of the local communities (International Crisis Group, 2023, pp. 4-5), illustrating the complex power dynamics embedded within the Darien Gap.

The second spatial strategy adopted by Panama is the allocation of the reception centers in Bajo Chiquito and Canaán Membrillo with their respective campsites in Lajas Blancas and San Vicente. In these spaces, migrants are provided with emergency services to tend for the damages imposed by the treacherous crossing of the jungle. The four locations are funded and operated by governmental, intergovernmental, and nongovernmental entities. The first service they encounter is the security check and registration conducted by the National Border Service agents. The migrants are thus channeled from the vast territory of the jungle into two entry points beyond which they are escorted into fenced camps. There, migrants' daily experiences and routines are governed by linear institutional and legal rhythms. Sociologist Isabel Gil Everaert describes such camps as "waiting territories" that operate through bureaucratic violence by the restriction of migrants' movements to a particular space and the imposition of delays (Everaert, 2020, p. 28).

Due to recent overcrowding of camps, some infrastructural upgrades have been implemented. The upgrades include the UNHCR-provided



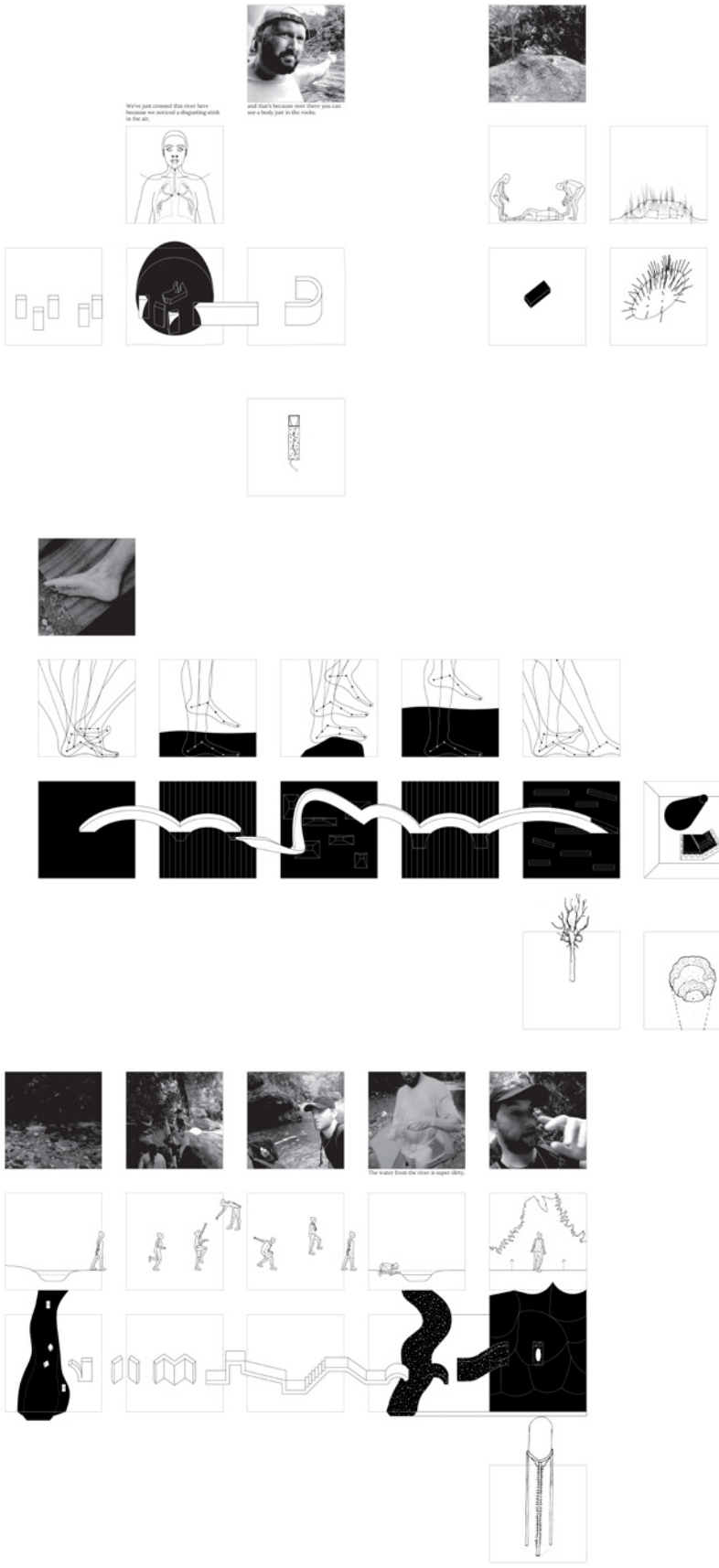
water filtration systems (UNICEF Panamá, 2024) and electrical wiring networks (Lee & Espinosa, 2023). However, these systems were installed above ground without any digging procedures. In regards to the temporality of the camps, these along with the new, IKEA-designed Better Shelter tents that plug into them suggest transiency. As architecture and urban planning scholar Stephen Cairns suggests, migrant architectures are conceived with technical parameters of economic, logistical, structural, and material efficiencies above all other qualities as the discourse surrounding them is disciplined by what are anticipated to be temporary disasters (Cairns, 2004, pp. 24-27).

Once the migrants have been processed through all administrative processes, they are transported directly to the Temporary Attention for Migrants in the southern part of Costa Rica. Besides brief stops in Chepo Anton, and Guabala the buses transverse 750 km within 15 hours later quickly passing through populated regions (Lee & Espinosa, 2023), systematically isolating the migrants from locals.

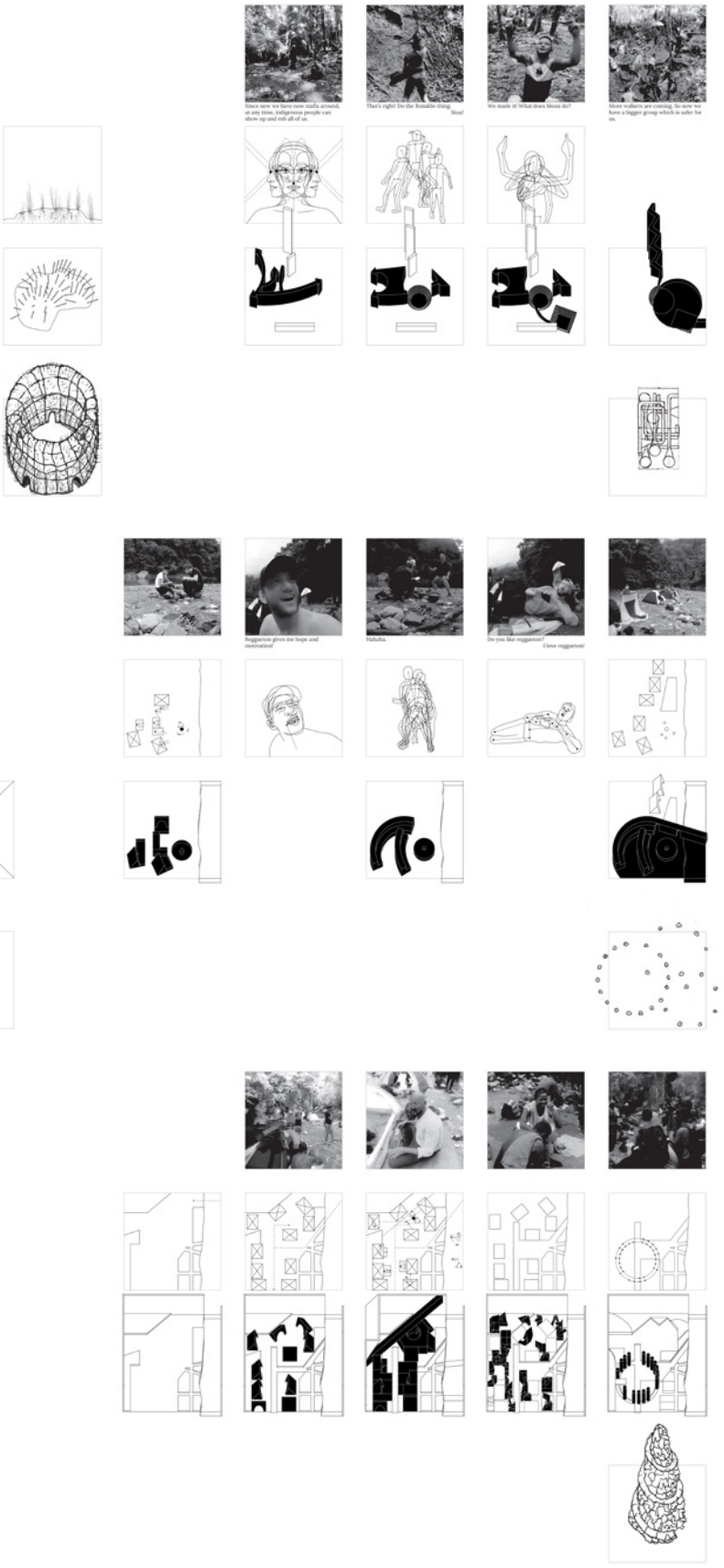
In conclusion, the complex relationship between space and time is a powerful agency in regulating the mobility of bodies across the migratory terrains of Panama. The borderlands, camps, and transportation means serve as spatial barriers that regulate the temporal experiences of migrants. The evolutionary trajectory of these strategies unveils another aspect of migration, wherein the conceptualization of the body transcends the individual crossing in a particular period in time. Instead, the migrant body represents a continuum of bodies that have and will transverse the territory.

SPACE AND TIME INBODY

On their journeys toward their destinations, as we have established in the first chapter, migrants' movements are dictated by linear, cyclical, and syncopated space-time structures. Building upon philosopher Martin Heidegger's thinking on the situated being-in-the-world (Dasein), migration studies scholar Sergei Shubin proposes a new understanding of these relationalities beyond the reductionist framework of spaces marked by lines and points on a map and time marked by calendar dates. Instead, they represent "moment-sites" where migrants come into presence with the spatial constitutions of their surroundings (Shubin, 2015, pp. 352-353). Through his lens, the migrant ceases to be a passive body controlled through spatiotemporal agencies, but rather a body that encapsulates time and space through active engagement with the happenings of the world.



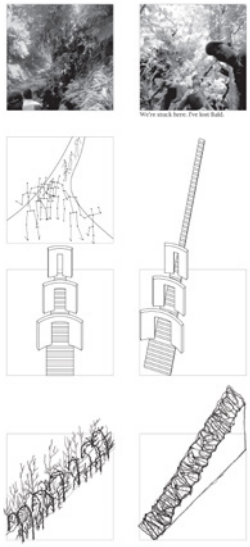
This engagement is a form of transgression used as a tool to cope with the uncertainty or the trauma of the sedentary body being on the move. Architect and artist Sam Grabowska refers to the outcomes of these



"moment-site" engagements as "casitas" or "little homes" (Grabowska, 2016, p. 127). Through this line of thought, I will refer to the migrants' performed transgressions as acts of homemaking. In this chapter, I will analyze the ways homemaking is practiced temporally through openness of successions of time, and spatially through attunement to other objects and persons.

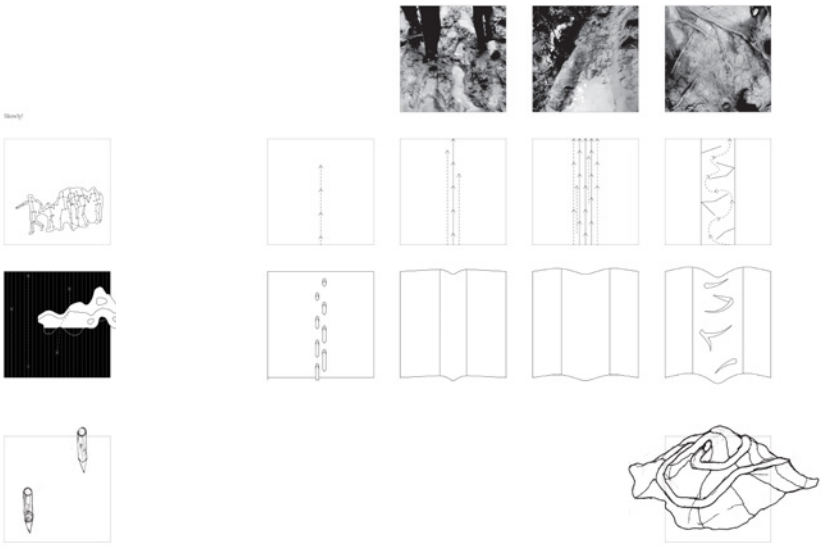
Shubin highlights an alternative temporal realm adopted by migrants amidst the difficulties of navigating the transitional phase between deterritorialization and reterritorialization. This realm is composed of the past as the origin home that is not under a person's control, the present as the transitional context, and the future as the possibilities of the destination home. Rather than being sequential, Shubin suggests that the three coexist and influence each other (Shubin, 2015, pp. 351-353): the past looms into the present and triggers movement, the future expectations inform the present decisions, the identity formed in the past is reflected in the future home, the future home resents the past home, the present opportunities adjust the envisioned future home, etc. Thus, homemaking occurs as the three open up to each other.

For most migrants, the American Dream awaits at the destination. The promise of the endowed rights to "Life, Liberty, and the pursuit of Happiness" (Jefferson, et al, 1776) fuels them to transcend actuality and comfort themselves with possibility. Of the three dimensions, the pull of the future is the most relevant and what makes the migrant a futural being.



In the spatial practice of homemaking, migrants best exemplify what Heidegger calls "dwellers" (Shubin, 2015, p. 352) Despite being a spatial tactic driven by anxiety from unfamiliarity, migrants mindfully engage with their surroundings to cultivate a sense of belonging. Of the spaces traversed by migrants in Panama, the jungle stands out as a prime arena for this exploration as a space that presents the furthest departure from the commonplace landscapes of everyday life. With particular gestures, bodies use available items such as shrubs, stones, branches, tents, backpacks, and clothes with the help of tools such as limbs, eyes, and language to transform the "moment-sites" of the jungle into "homely" spaces (Simonsen, 2005, p. 2). There is a certain domesticity about what they make. Just as any house, they create private spaces to rest, sleep, clothe oneself, and defecate, and public spaces to cook, wash and socialize. Through homemaking, they satisfy the need to create an interior setting to isolate themselves from the chaos of the wilderness whether through individual-oriented spaces or collective settings (Grabowska, 2016, p. 115). Once the jungle allows them mobility, remnants of their homemaking are left behind. These traces of past crossers cease to be a part of the homemakers' realm, but rather, another "happening" in the world of the future crossers.

Although the migrants situate themselves in "homely" spatiotemporal settings, they never truly feel "at home" since the spatial and temporal "happenings" are not of their own choosing. However, home is something built over time. The gradual process of becoming accustomed to a specific way of living contributes to the increasing homeliness of their surroundings. It's a journey where, over time, the unfamiliar transforms into the familiar, creating a profound sense of home that is nurtured through temporal progression and sustained engagement.



04 Moments of Intensity in the Darien Jungle

05 Modi Operandi 03 'Spatial Situation'

EMBODIED TIMESPACE

Continuing on Heidegger's mid-to-late thinking on time and space, Shubin highlights the intersubjectivity of migration. He claims that the "presencing" of the migrant is not granted by the human experience alone, but constitutes a spatiotemporal opening of the world of things, persons, and their own (Shubin, 2015, p. 352). In the same vein, according to philosopher Henri Lefebvre's conception of the generative and creative social body, as discussed by social geography scholar Kirsten Simonsen, during the production of its world, the body is also produced in the process (Simonsen, 2005, p. 4). This perspective challenges the human-centric discourse surrounding migration, transforming the understanding of the body beyond mere human anatomy to encompass all entities involved in the process of homemaking.

The title of this chapter, Embodied Timespace refers to a concept that integrates the notions of the body, time, and space into a cohesive framework. To embody is to contain or include an other as a constituent part of the body in a tangible form. As one body with its own internal processes engages with other bodies, it forms a symbiotic relationship that harmonizes its diverse timespaces. The other bodies, in turn, become part of the one's extended self, blurring physiological boundaries and conceiving a unified totality.

In this context, the sense of touch out of all others becomes a vital mediator between bodies. For centuries, the heightened dependency on optics in architecture has fetishized the world into abstraction. This has inherently led to man's estrangement from his surroundings. As part of the lived experience, touch becomes a crucial aspect of affirming existence in other worlds (Simonsen, 2005, p. 2). The act of touching is reciprocal: the hand that touches is simultaneously touched by the other. Therefore, it becomes a vehicle through which the body perceives and is perceived. Philosopher Maurice Merleau-Ponty further expands on this intersubjective relationship by terming the embodied conception of the body as "flesh." Through engagement, the "flesh" of the body, the "flesh" of the other, and the "flesh" of the world intertwine (Simonsen, 2007, pp. 171-172).

The “flesh,” referring to the body’s outer protective layer, contains and protects the body’s structural elements as in its bones, and functional elements as in its organs. Openings in the flesh serve as portals that facilitate the insides to communicate with the outside. If we extend the analogy of the “flesh” to the world, it implies that any other that the body engages with also has an inside. Besides the direct contact through touch, bodies communicate via excretion, absorption, penetration, and vibration. These stimuli are perceived through all senses: smell, taste, sound, touch as well as sight. Through this lens, the other, whether it is an object, a being, a person, or a terrain, is no longer seen as static, but rather animated, and its animation calls for a response (Simonsen, 2007, p. 172).

The acknowledgment and awareness of the limits of not only the other but also oneself is necessary for this engagement. Excess or insufficient stimulation can lead to deterioration, such as the wear and tear of the flesh through excessive friction or exertion, the breakdown of tissues due to inadequate nourishment, the compromise of structural integrity due to over-manipulation, etc.

06 Modi Operandi 03 ‘Spatial Situation’

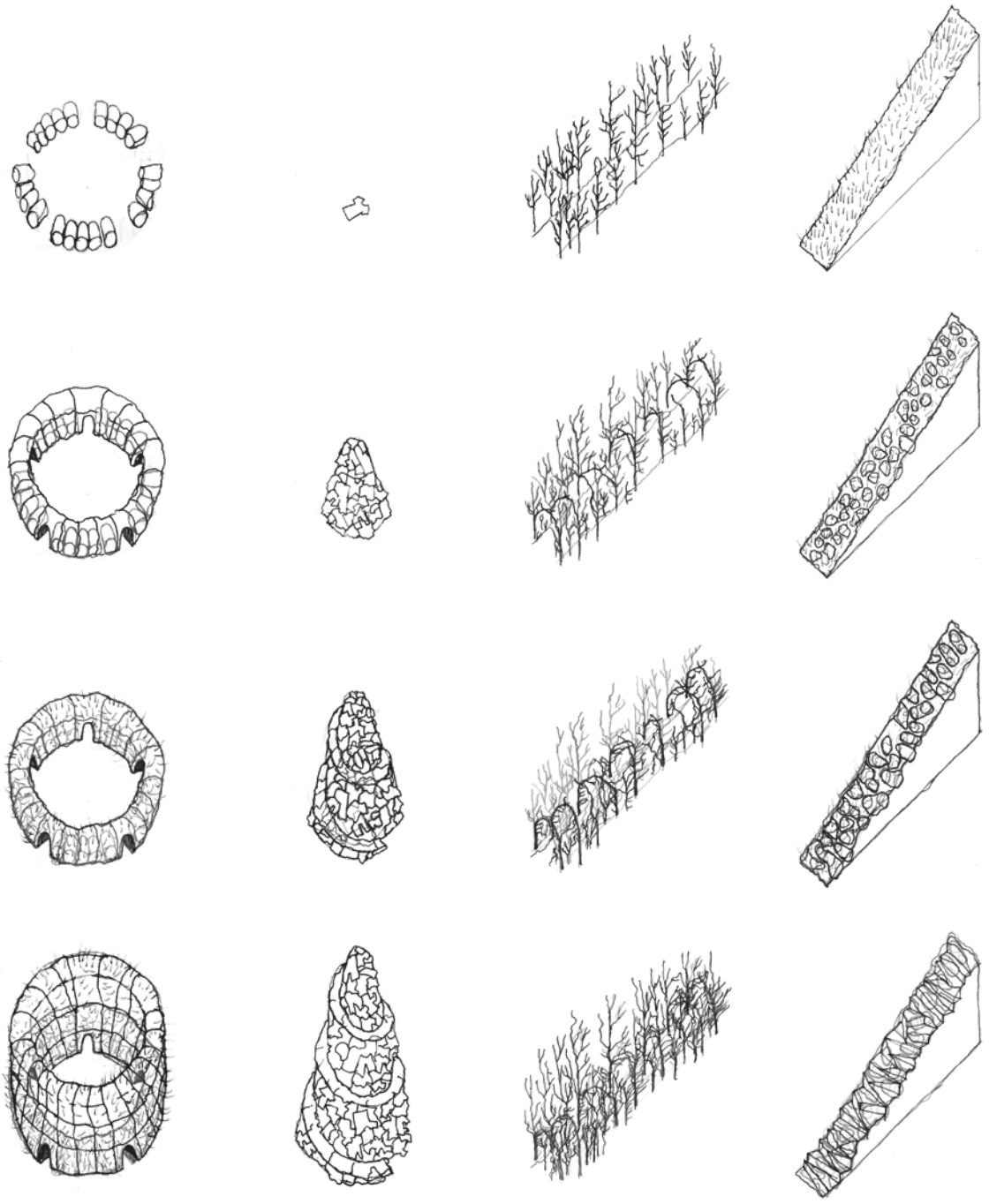
THE HOUSEKEEPER

In the pursuit of unraveling the interplay among Space, Time, and Body within the realm of migration, this paper navigates through three distinct states that encapsulate the migratory experience. The initial chapter highlights how the systematic control of time and space affects the mobility of the migrating body. This phase defines the interaction of the body with time and space as systematic, establishing a foundation termed as relationalities. In the second chapter, the exploration of time and space takes on a different dimension as migrants engage in acts of transgression against the established relationalities. Here, the concept of relationalities is reconceptualized as "moment sites," acting as dynamic settings which allow migrants to practice temporal and spatial homemaking. Finally, the third chapter marks a shift in focus, as the investigation places the body at the forefront, leading to a renaming of the constituents of moment sites as bodies. This phase delves into the embodiment of a multiplicity of timespaces, highlighting the physiological nature of these temporal-spatial interactions.

Expanding on these conclusions, the body emerges as the central node within the triad of Space, Time, and Body. Through movement, the body not only traverses but also catalyzes a profound spatialization of time and a temporalization of space. The interactions between migratory bodies intersecting with static transitory territories create a new dimension, characterized by an exchange between both parties that materializes through imprints.

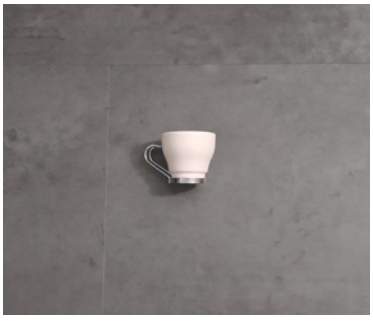
How can the body be used to frame a architectural outcome?

How can architecture respond to a constant state of crisis?



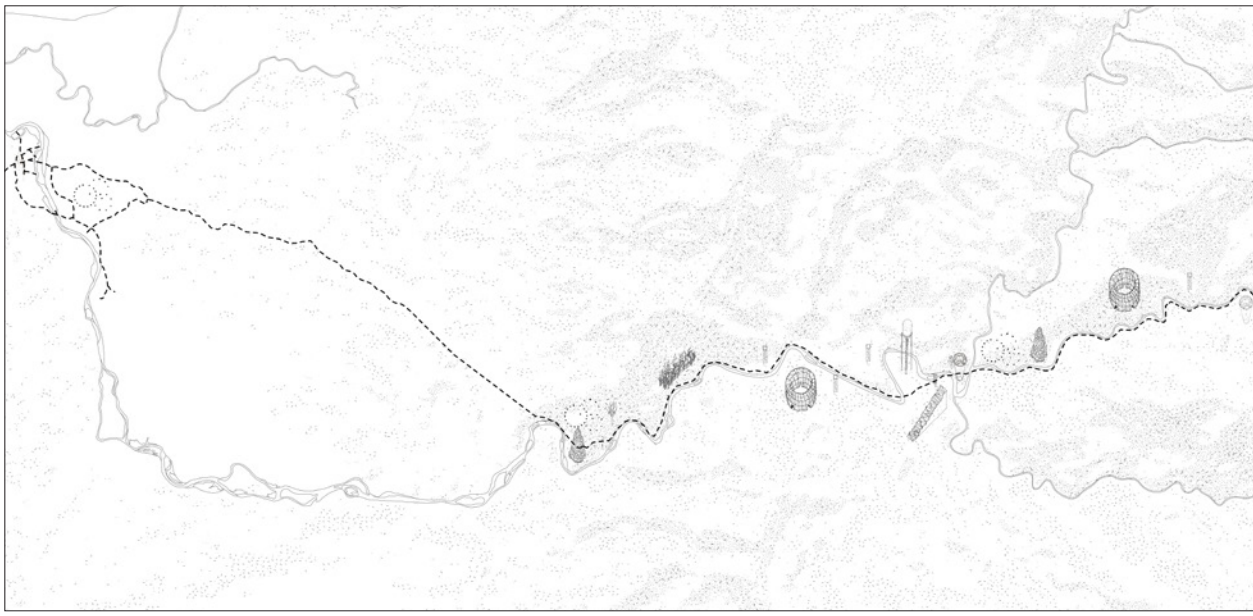
07 Hedge 07 Welcome Mat 07 Buffet 07 Stairs

The design assignment involves the creation of a "Housekeeper" who assumes the role of a mediator within this dimension. By habitually organizing imprints, it strives to establish a harmonious equilibrium between the migrant body and the surrounding territory, fostering a reciprocal inhabitation. This orchestrated ordering of imprints materializes through a series of interventions, strategically placed along the Tuquesa and Membrillo rivers, which are central features in the two migratory routes through the Darien jungle, forming a closed-circle



08 Modi Operandi 02
'Assemblage'

exchange. The continuity of these interventions relies on the active participation of both territorial elements and migrant bodies, sustaining the dimension. Once the exchange ceases, the architectural assemblages undergo a self-destructive process, marking the end of that particular dimension.



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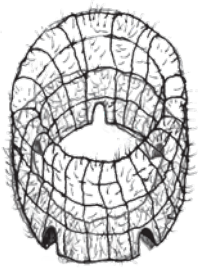

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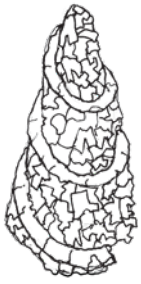

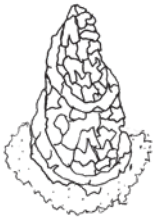

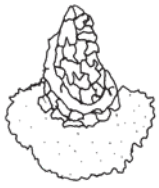

07 Buffet

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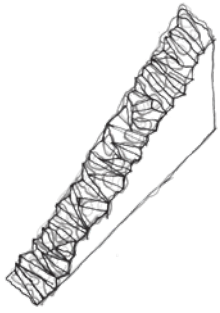

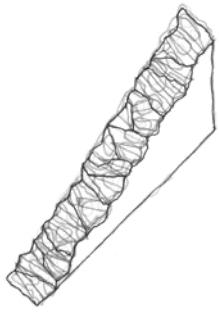

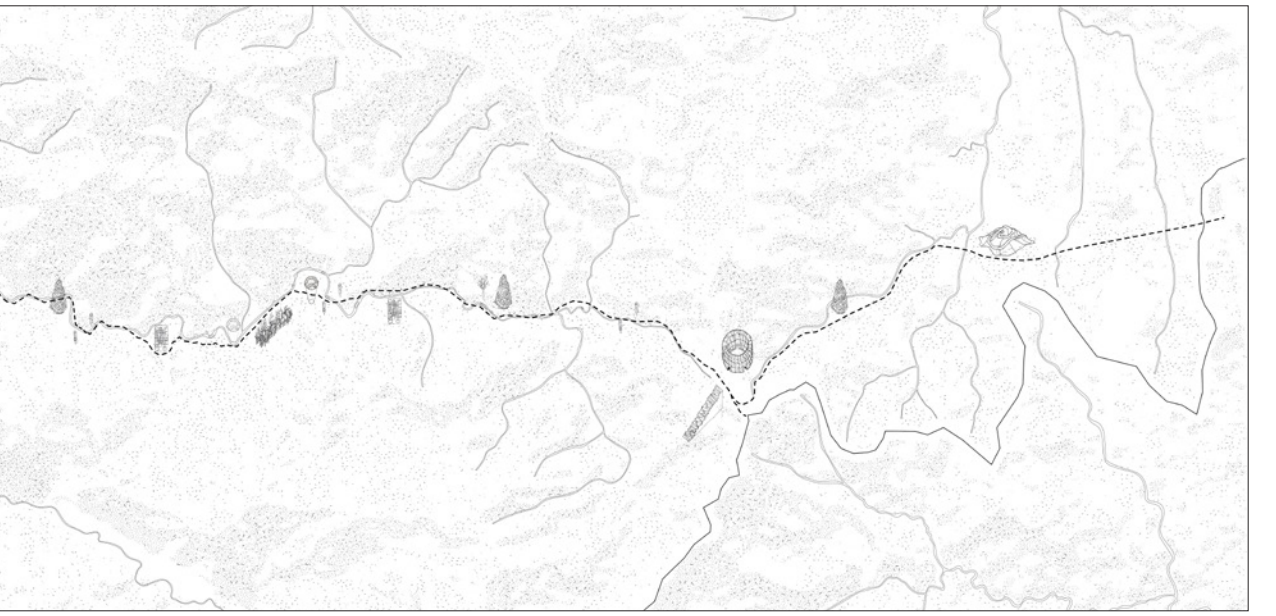

This approach embraces migration as an inevitable and dynamic process and, therefore, avoids creating systematic and permanent solutions. The architecture in this context is not static but rather evolves and disappears in response to the temporariness inherent in migration. Aligned with the project's exploration of migrants' placemaking strategies the project explores the potential of a body-centric approach for architectural endeavors.

09 Architectural Intent

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FIGURES

01 UNHCR. (2023). Map of Routes: Mixed Movements through Darien, Panama. ODP. https://data.unhcr.org/en/documents/details/100506

02 Author. (2023). Alternative Mapping of Migration Routes through Panama

03 Author. (2023). Modi Operandi 01 'Ground'

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BECOMING THE OUROBOROS

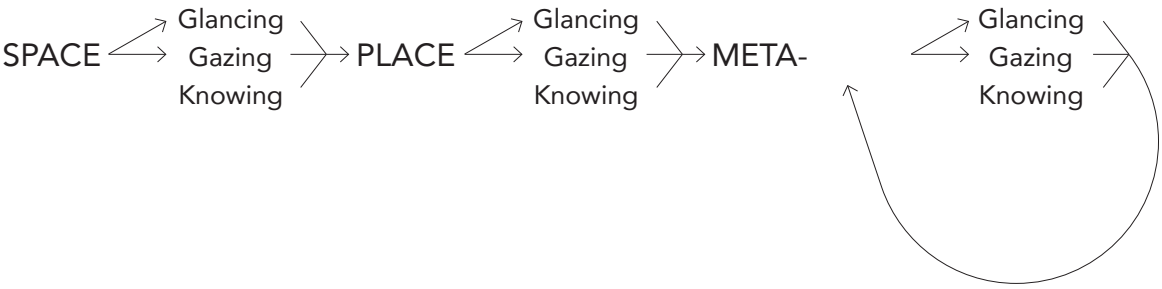
INVESTIGATIONS IN META-PLACE

INTRODUCTION

Every experience in life is a perception. We perceive the things we do, within the spaces we inhabit and in doing so build a world of our own. But often architecture cannot just serve one person and their world, instead it must be able to relate to many intersecting realities, that can exist complementarily, incongruently or paradoxically to one another. This project explores the way in which this world of many worlds or place of many places (meta-place) can be produced, understood and operationalised. Further I am exploring the role of personal distance in catalysing and fostering the meta-place, with out the blinding light of my own memory of a site. In doing so research in the meta-place allows my intervention to better reflect the communal reality of place and in turn produce a valuable architectural intervention.

"The relationship between what we see and what we know is never settled. Each evening we see the sun set. We know that the earth is turning away from it. Yet the knowledge, the explanation, never quite fits the sight."

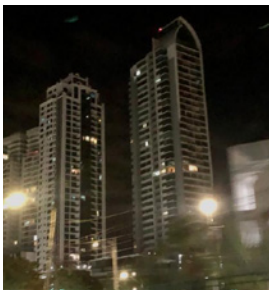
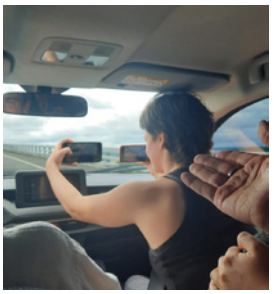
John Berger

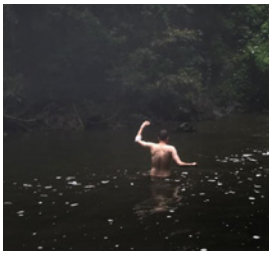


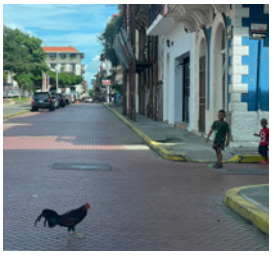
THE META-PLACE

Italo Calvino's Invisible Cities begins in the unrelatable shoes of an emperor. With a melancholic voice, Kublai khan accepts that despite his rule over a vast empire, he must give up "any thought of knowing and understanding" the spaces that are his (Calvino, 1974). Through a collage of poems Calvino goes on to describe fifty-five cities, presented as "places" in the extensive Mongol empire. However, throughout the book it becomes apparent that each description is just a facet of one city – Venice. With each page Calvino introduces a new perceptual angle. Somehow, the readers understanding is pushed further from the spatial reality, yet they begin to uncover the essence of Venice as they learn of the truths, falsities, paradoxes and opinions it is formed upon. Like the Khan, the reader must accept that they may never know the space but can still learn of the realities that have been spun from it. this constellation of places produces what I have donned the meta-place, a way of seeing a space for what it implies, rather than just what is there or what one experiences.

Invisible cities presents one example of meta-place. Therefore, what are the mechanics of such a construct and how do they form? Put simply, place forms when a space is sensed by the body and then interpreted through the lens of one's existing knowledge. To do this we employ two key methods of observation – glancing and gazing. Using the senses (sight, hearing, touch etc.) the glance takes an unconscious, wholistic approach to interpreting reality, ensuring things are how we expect them to be. The gaze compliments this by actively investigating what the glance identifies as abnormal, as well as what we consciously choose to examine. Within this process of observing and interpreting space, physical surfaces (space) are converted into usable information (knowledge). As meta-place is a place of places, it is formed when we glance and gaze upon place (instead of space), and similarly interpret the findings through pre-existing knowledge. however, instead of translating the physical into the informational, this process interprets existing knowledge to produce more knowledge. Therefore, a meta-place can be continuously glanced and gazed upon to produce a more developed meta-place. It's production catalyses a self-perpetuating system that can repeat infinitely to expand the understanding of a site.





Along with answering questions each colleague sent me one photo they felt encapsulated their experience with Panama.

PANAMANIAN META-PLACE

Producing Panama as a meta-space involved manipulating the methods of observation, gazing and glancing, to uncover new facets of place. Initially, through the group mapping research and production of PANAMANIA!, Panama began to form as an amalgamation of sequenced interactions that compete, complement and perpetuate each other. Following this my studio colleagues visited Panama City, Colon and their surroundings. Travelling with them was a notebook I provided with the request that a different person each day of the trip answer predefined questions about their experience. Concurrently, I found and visited Panamanian artefacts in the Netherlands, hoping to answer the same questions myself. My experience was quite unfruitful. As I gazed upon Panamanian objects attempting to create a place (new knowledge) from a distance I instead branded them with the identity of "Panamanian". Contrastingly, the answers of my colleagues presented these salient gazes upon their individual place of Panama, in a way mirroring invisible cities. Yet because of the fragmented nature of what they shared (answers to six distinct questions), they became more interpretable than Calvino's prose, promoting me to more radically speculate their common spatial thread through iterations of narratives and embellished collages. The following are the answers provided by my colleagues.

EXP: 30-10-23

1. "What are your first impressions of Panama, and is this different from what you expected?" - It's a really poor Dirty and empty post colonial city. I expected it to be a little more orderly however we have only explored a small past [part] of it so far.
2. I wore my regular sneakers that are slowly falling apart, a black t-shirt and airy black shorts that made the heat and humidity bearable [.] I carried a Fanny pack which made it feel safer to walk around because I kept my money and documents in there [.] I also carried a camera however I took more pictures with my phone because it seemed more socially acceptable to shoot this way.
3. Main Street of a sketchy neighbourhood. One of it [the] many streets that is alive/ where shops are open along the whole length of the street. Colourful post colonial architecture in juxtaposition with modern architecture also painted in lively colors. There were many poor people that spend their days there and stands [stand] with both men and women selling lottery tickets.
4. I spoke to Louis who was one of the few locals that spoke really good English [.] he randomly started telling us the story of the waterfront in front of our house, rather passive but I crossed him again and have [gave] him some change later that day and he gave more tips about getting round the city [.] Lady in bakery told us to not leave our phones on the tables because they disappear 'rapido' gave the feeling that some people look out for foreigners despite majority trying to scam you [.] Similarly police made us turn back from a treet through which a protest would go on at night which seemed a genuine concern for our safety.
5. Smell [-] bunch o [of] trash rotting due to humidity and heat [.] -Hearing [-] kids laughing in the street [.] Sight [-] downtowns expensive towers far and the overgrown buildings in the vicinity [.] Taste [-] bottled purified water tastes like lake water [.] Balance [-] sitting on the ledge of a rooftop Casa [.] Touch [-] the dry rough hand of a beggar who shook my hand after playing salsa on a bucket [.]
6. Rainy

EXP: 31-10-23

1. "List and describe the most prominent demographics of people you have observed in public spaces?" - One of

1. the most prominent demographics that I have seen is that of the yellow taxi driver. They circle neighbourhoods like vultures and honk at you to get your attention. Besides this, there are many police and/or military personnel in different uniforms (black "policia", and camo-gear guys). They stand at checkpoints and patrol on motorbikes or in cars. There are many beggars, and also informal street vendors, both in public squares as well as beside three-lane highways.
2. Yesterday I wore ASICS sneakers, shorts a T-shirt and my standard assembly of wristbands, watch, and hair-tie. I carried my belongings in a fanny pack (passport, wallet, phone, cigarettes) and also carried my camera: a Pentacon SIX-TL. The contact of these two objects on my body resulted in the saturation of my T-shirt in sweat. The hair-tie has proven to be essential-however my neck is badly sun burnt.
3. The 75th floor is a peculiar space. Vultures circle the city below at eye height, sounds of wind, honking and elevators generate a surreal acoustic landscape, and the fire-escape is bathed in yellow from the tinted glass. Living in the clouds, the city and the landscape continuously is hidden and revealed. , An abandoned playground in-between some of the most kitsch neo-classical skyscrapers I've ever seen. Surrounded by a hedge/fence, a few sad, faded plastic jungle-gyms/equipment waits. An empty bird feeder hangs from a tree. Rich old white people walk their mini-poodles from their gated community/privatised island, into the city.
4. Entering the skyscraper, Gosia and I decided to simply act as if we belonged. Following a small woman carrying toilet & cleaning supplies, a doorman holds the door open for us as we smile politely at each other "Gracias". Entering a private Island – "build (design?) your home, your way." – a security guy runs across the road controlled by traffic booms and stops us on foot. "touristas?" he asks, and then tells us its private and we may not enter.
5. Dead Fish – Smell, Grape Soda – Taste (taste like neo-purple), Panama in yellow, 75th floor – sight, car horns – hearing, thunder – Hearing (unlike any I've previously experienced), Crumbling soil/stone – Touch, broken Pier – Balance
6. Panama (city) is a place both full of vibrant life, and at the verge of collapse – The junkie waits patiently to reclaim it all.

EXP: 01-11-23

1. "Describe the interaction between forest and city" - Everything is a bit city and a bit forest. Birds sing on the rooftops, machines hum in the wild. Many buildings are just ruined envelopes which surround little forests inside. The city seems dense but there is more plants living between those walls than people.
2. White t shirt, black shorts, white asics sneakers, black Fanny bag, green cap, grey metallic Kia rio. In the trunk of the car I carried my lunch which was a pack of Takkis, a pack of almonds, a pack of bruschetta bake crisps and a bottle of mineral water.
3. The magnificent crane, the neighbourhood in the jungle populated mostly by kapibara-like creatures, the dam, the territorial machine larger than the neighbouring towns, the mythical origin of the canal, the landscape of copy and paste identical houses [.]
4. Two policeman with exposed guns pulled our car on the side of the road in the middle of rural Panama, east from the Dam. They checked my driving licence, ask about our plans and told us to take care. They seemed genuinely concerned with our safety and well being. It made me think that its good to be European when you encounter Panamanian police [.]
5. Endless road surrounded by trees and hills, no smells, dull and beautiful sound of the cement factory, slippery rock in the rainforest, Sour Takkis, a feeling of hitting the hard asphalt surface after I fell [.]
6. Panama is obsessed with control [.]

EXP: 02-11-23

1. "How does Panama City feel to navigate, from the perspective of a woman? (safety/experience wise)" - I feel like here, if I was to feel unsafe about something, it would be more about my background, rather than gender. The only safety concerns I had so far were always related to me being a tourist, a foreigner, a fool easy to trick. I felt like my fear of the unknown, of this culture gap, and the chaos made me vulnerable way more than me being a woman.
2. OOTD: comfy shoes, cargo pants and a top. But with me I had my whole backpack with things like rain poncho, rain backpack cover, my knee bandages, water, sunglasses, sketchbooks, apples, swimsuit and a towel. The rain stuff definitely came in handy in the walk through the city. Even though at the end I was all wet. At least for the rain vibes. Water & towels served well when washing the tear gas away from our faces [.]
3. We went to see how humans attempted to connect back what they initially divided and how Panamanians repurposed what USA left behind. Last was a walk through the chaos of different worlds mixing.
4. It was a day with not many interactions. Most of them were greetings "Buenas", "Hola" [scribble] "Hermana", "Bonita" … other than that, the necessary ones while ordering food. Those were super oute [cute?], and went beyond just food ordering, to "how are you" "wow rain rly got u", … All the interactions make me feel more & more safe.
5. Sight & Smell - tear gas, hearing – protest, touch – beach sand, taste – dodgy street food, rice & meat, Balance Slipped & fell twice
6. It's [Panama] an old money heiress dressed in Gucci and a homeless man walking next to each other. Each their own path. Sometimes the lady throws a coin on the floor for the homeless guy, but only to distract him for a while to take his (nicer) part of the path

EXP: 03-11-23

1. "Describe and reflect upon rituals formed or observed at your own meal times and among Panamanians, how is food present in daily life?" - Lots of rice! For these past 6 days we of course end up eating at wherever is in our proximity. Evening No 1 was a hard scavenge haunt that ended with us cooking pasta with water we found at some shop that was open. We now know that it was an expensive spot despite it being a very undecorated & simple shop. Actually I noticed how conditioned I am to associate a nice looking spot with great food. But I think that perception has been shattered by my experience here in Panama. No 2 lunch was my first time trying Panamanian food & I truly loved it. Ate plantain for the first time & dripped lemon juice all over my hands so now I carry wet wipes everywhere. No 3 lunch Mcdonalds ritualistically my first order was their special mcflury flavour. Strawberry cheesecake. Loved it! No 4 Dinner. Clams for the first time. Dripped juice everywhere but this time I came prepared. Wet wipes! No 5 Lunch. Left the best impression! My guess is that it was Chinese fusion place. many Chinese/mix-chinese people here that have brought with them some food options. A plate full of rice! Some lentils (cooked it a way that reminded me of a Lebanese dish I usually dread eating but appreciated it in Panama) & 1 peace of pork spices by an Asian style sauce. A buffet-like serving technique where we pointed to what we wanted. Simple! (saw this at other spots too). No 6 dinner at a very simple looking place close to our house. A mountain of rice with some shrimp. I appreciate how the servents here (in Panama) serve the whole table at once. So the eating ritual starts as a collective. No 7 Lunch. Wendys for the first time. Burger. No 8 Dinner at the same small spot. Really missed vegetables! No salads! Maybe from the road closures? No vegetables at markets/supermarkets. Feeling the need to get refreshed. Ate fish & chips? But they also serve rice as a side dish. No 9 Lunch Panamanian chicken soup! Corn! Yams (first time) I felt refreshed! Finally. Served rice as a side dish again. Confession I don't like rice.
2. White shirt: Bad option was super dirty by the end of the day. Transparent enough to show my [fanny pack]. Body fannypack: that I wear under my clothes makes me feel a lot more secure. I put my passport/cards/money (backup) in them. Disadvantage make me look fat, but I don't care. Jeans: packed very badly. Needed shorts! I associate rain with cold weather. First time sweating under the rain. I felt unsafe about wearing shorts in a foreign country as a girl, but the weather is shorts weather. Sneakers: not so rain friendly but comfortable so I am okay with them. Vintage mini bag: fits everything. I love it, but the clasp

opens easily so I get paranoid & have to constantly check it. Umbrella: after losing my umbrella that I brought from NL, I had to buy a new one for $10, great investment! Short sleeves + umbrella. I think I've uncracked it.

3. I remember the car ride mostly because I was in the middle seat & had a hard time avoiding motion sickness instead of focusing on the scenes. Stopped in the middle of the road a lot. I have the image of the car parked like that the most because I was scared that we'd be annoying people/ other drivers. Today I realised that I only remember the second dam we saw yesterday, even though we stopped at the first one longer. I think I was distracted by the car doors being open & the car unlocked & the van driver exercising next to us with loud music at the viewing spot. Had been noticing the sharp contrast in area in proximity a lot! But yesterday I saw that the most. I really had to take a bathroom break but didn't feel comfortable to announce that until we passed by a "subway" restaurant.
4. Yesterdays interactions were brief. Simple Holas & payment. Except for when I felt we were the center of attention in a public area as "white" people. I even felt made fun of when I was goofing around to take photos. Sharp contrast to my previous day's interactions where everyone was so warm & friendly & tried helping me under the rain as I struggled with not having my umbrella. I don't know if it is a gender thing. I felt judged by the men in the public space, but very cared for by women on the streets. Could also be a regional attitude! I am not sure. But I really loved those women.
5. Sight: black smoke. Smell: bathrooms. Hearing: car music. Touch: Sand under by [my] shoes. Taste: local jam pastrie [pastry]. Balance: car middle seat.
6. Panama is contrasting (it was hard answering these without sketching things for clarity)

EXP: 04-11-23

1. "Identify and describe reflections of culture in your experiences, what has felt deeply panamanian?" - In the little time I spent in Panama I think I experienced a deeply Panamaian [Panamanian] moment yesterday. I entered a supermarket to buy a large bottle of purified water for our household. I know Szymon hates the purified water, but that was the only large bottle I could find. As I was approaching the cashiers, I stood in line behind what looked like a family with a mother and two sons. The sons were loading their groceries on the counter, the mother stood ready with some cash in her hands. The lady behind the cash machine was clearly not in the mood for her job, however the employee packing up the products managed to get a smile out of her with his comments. Some of the products seemed to not be scannable. A few minutes later the whole scanning process was still going on, which led to me crossing my line of impatience and walking to another line. There was just one guy in the line who was having a casual conversation with the cashier as she was taking forever to scan his two products. When she was finally done, the exchanged a few more sentences until she eventually acknowledged my existence and in a deeply relaxed manner scanned my one vig bottle of purified water. I payed [paid] in cash, said 'thank you' and started walking away. When I hear her calling for me. I need to to [delete] take the receipt to show at the entrance as proof of having payed for my bottle of purified water.
2. As every day so far I was wearing my black jorts (jean shorts), a black t-shirt, black socks and black leather shoes. I was carrying my Fuji camera with a vintage canon lens. I also had my green and pink coloured Susan Bijl bag with my passport, an A6 sketchbook and a powerbank inside it. Having my camera proved useful, however I didn't use anything that was in my bag.
3. Yesterday I spent the afternoon alone. I needed some time to collect my thoughts and mentally prepare for the second week. After some time in our apartment I went out to walk to the place that I feel has been calling me the whole week. Anywhere we went in the city, by foot or by car the past week, I would see this place. I walked through a few narrow back streets. Kids were playing football. Trash and decay was omnipresent. I finally reached a wider street, which was as lively as I haven't seen it so far. I then turned into a street that google maps was leading me to, which was barricaded with large steel scaffolds. I rerouted using a narrow passage , trying to get back on track just to see that all other streets, leading me to the place that had been calling me, were also closed off. I decided to walk back to the apartment and try my luck another day. I stopped at a supermarket on my way back.
4. I was walking back to the apartment from the supermarket carrying the large bottle of water when a middle aged guy sitting on the side of the street called out to me, asking where I am from. I answered. He wasn't expecting me to engage with him, but quickly signed for me to come over. I didn't have anything better to do at that moment so I did. After exchanging a few sentences he asked me about my camera, and wether [whether] taking photos was my hobby. I said that it was. He was excited about our little interaction and told me to take a photo of him I was just as excited about it and I took his portrait. He wished me blessings as I walked away. I thanked him looking back one more time.
5. Sight – Panamanian flag ; Smell – Trash ; Hearing – Megaphone ; Touch -greasy Arepas ; taste – beer can ; Balance – pedestrian bridge.
6. Panama is a mess

EXP: 05-11-23

1. "Identify and describe the kinds of history that are spatially present in Panama City, what can you see remnants of? (Indigenous, colonial, American etc.)" - History. Panama city indeed is a mic of multiple historic layers that reminds me of a wall of an old apartment that has been painted multiple times and the paint starts to weak [flake] off and unfold the hidden. Colonial architecture seems to shine in the most touristic places such as casco Viejo. You can also see that this type of architecture is the most preserved and restored, newly painted, therefore it does not always reflect its authenticity. You can also clearly see the American footprint that leads most of the architecture from the xx century until today. Starting from car based infrastructure and following this wild capitalistic postmodern urban jungle, covered in beige colors. Unfortunately not many traces of indigenous in Panama city, but you can clearly see the timeless nature that has been nurturing way before cities were born and it is always ready to bring it all back. Constant fight between natural and non natural. Maybe not a fight but more of a dialogue.
2. I was wearing green shorts, black t-shirt and black west [vest], which was comfortable because it had multiple pockets that I could use for my belongings. Also socks and hiking shoes for a comfort and unexpected landscape scenarios. Small bag with wallet, passport, tissues, mosquito spray, allergy pills, battery charger, phone, sunglasses. I also brough swimsuit and a towel because we were planning to stop by Caribbean see [sea] or Gatun lake. I was also carrying my notebook and a pen for notes, sketches, but the trip was quite demanding, a lot of movement on the car, walking, running, photographing, and truly, no time for a calm moment to reflect on a piece of paper. Not in a bad way, though, It's just a time to absorb it all with my eyes, hands, feet, nose, skin. I document places that are oeak [speak] to me with my phone camera, bom [?] pictures and a lot of videos, lets see what comes out of that!
3. I visited a very industrial, empty, static, polluted area, as a first stip of our Sunday trip. I felt intimidated by a place a little bit because it seemed to be over static, planar and non-sensitive. Concrete wall , glass objects behind the glass seemed lonely and forgotten, stored. Later on we moved to a place to see water and large storing objects floating on it. Second half of the day was way more refreshing. More water, I went to swim, water was extremely salty and warm. In the horizon I approached abandoned ship and tress in the shoreline. Later on we moved further and faced weird local neighbourhood. The further we went the more compressed the area looked like, everything was covered with fences. One guy who lived in the area was modest to us and opened this fence to his backyard. At that moment I felt happy and shocked, the place was revealed. Large space, wide and open, light and welcoming. That was a highlight of my day or even my whole trip. Day finished, we went back home.
4. I bought food in the supermarket. There were a few trays of warm rice, some

1. vegetables and protein. I always get anxious when I need to explain or ask for things because I don't know Spanish. So, I was just smiling and pointing my finger to the ingredients I wanted to be in my plate. It all went smooth. My other biggest interaction of the day was people from that last special place. although they were confused what am I doing here, they tried to understand. I said hola and smiled and they did likewise. Without a single word they understood why I was strolling around their houses and they were kind enough to share this special place with me. I wished I knew more Spanish to explain how important it was for me.
2. Sight – wide and endless lake with soaking tree trunks in it and a woman swimming in the lake. Same location – I smelt some kind of burnt plastic and for a moment frightened me later we realised that someone used a generous amount of mosquito spray on their skin. So that was probably it. I heard locally played music. A looot of local people enjoyed their time and at least 10 spots played music at the same time, but it worked. I touched extra salty water that was almost a bit like a soap. My skin was extra hydrated. Taste – I had the most amazing cappuccino from the supermarket. Perfect sweetness and foam. Balance – I was floating in the water, salt was pushing my body up, a bit of a dead sea experience.
3. Panama feels sometimes brutal raw, but homely, delicious, welcoming, warming. Many times, it feels like we were on the edge, or that we were not supposed to be where we are, but at times it was surprisingly simple, accepting and non-judgemental. A whole palette of feelings.

EXP: 06-11-23

1. "Describe your most interesting or relevant observation, or perception, of Panama City" - I guess that the most relevant observation/perception for me was in result of this speculations, these empty skyscrapers, dark vacant towers. It was interesting to see how many buildings are actually vacant, by night its really dark. but then you have this city building speculation super empty, combined with this central American Latina culture which is extremely vibrant. So there is these voids in the buildings with extremely lively public spaces which makes a kind of interesting image of the city.
2. White t-shirt and white shorts, with zipped pockets (to keep my wallet safe), colourful long socks (I always love them) and black running shoes. On the day I was going to a safe neighbourhood (safer neighbourhood) so I took my digital camera with me, there are certain areas of the city I don't take it because I am worried about it.
3. I visited one of the few public parks in the city, the life is really different from where we live [stayed], like they speak English instead of Spanish in the streets, there's much more international community, way higher standard of living, skyscrapers with condos all around the park, nice cafes etc.
4. The morning I didn't have actually any, I was just walking through the park, so no really relevant discussions apart from maybe a short chat with the uber driver on the way back. But in the afternoon, we met the local architect in the larger group and she gave some very interesting insights into the city. For my research it was interesting that she said that they live in the bubbles in Panama City, then I was asking her if there's any architectural or built environment foundation for them creating the bubbles, and she said it was a very complex topic.
5. Sight – I was amazed by this skyline, I have never been in a city with these skyscrapers apart from maybe like London, but here it is completely different, there is so many of them so the skyline has had a big impact on me. Smell – We lived near [Spanish Name] which is quite a dodgy neighbourhood and there is not a proper waste management or good water management, so its very humid and they have a lot of garbage stuff in the street, so the smell is always very intense, kind of fried food and high humidity that gave the strongest sensory experience. Hearing – I would really love to be in a more silent space, we were right on the street so it was very loud in our apartment, especially these yellow taxis, you know I'm a total gringo here so they always bumped [honked] at me to try and get me as a client. Touch – the high humidity so the 30 degrees rain meant my T-shirt was very wet stuck to me. Taste – Lebanese restaurant in the evening was the taste experience of the day. Balance – I'm not sure exactly what you mean but definitely a city of not balance, in balance in every sense, it is really cliché, it is a city of extremes so there is no object of balance as I didn't see any balance.
6. It is the weirdest place I have ever visited, on the one hand you have this very kitsch production of space which follows this banal imagining, the skyline the apartments that face the ocean, the balustrades, this super high class, but still in a bad state, not full of super rich but those who try to somehow stretch their dollar. They have these kind of spaces that follow behind as a result of this numeral desire, which is extremely vibrant Latina culture.

EXP: 07-11-23

1. "Describe the salient sounds of the night in Panama City" - I think sounds are not something I was consciously aware of here, but I'll try to give an overview. To keep in mind we didn't spend (almost) any time in the night outside of Cases Viejo, so the sounds I can recall come from a very specific privileged context. They include: Subtle rolling of car tires on the newly refurbished brick pavements, occasional random shouts from residents at the end of our street, kids shouting and running around, habitual (double) honking of passing taxi drivers, checking if one needs a ride, music playing from the balcony of Mojo Dojo with the occasional unmistakable laugh of Gosia.
2. OOTD: Plain white T-shirt / black shorts / white socks / black sneakers, black fanny bag. I brought 2 black & 4 white t-shirts which mean that I almost had a bit of a uniform thing going on. It's the lightest stuff I own which is very helpful as the last couple of days it was really hut [hot]
3. Yesterday I visited "the hill". It is monumental and dramatic for its size, beautifully printed with antennas and a flag on its gently sloped to a "plateau", covered in a dense forest while dominating and organising the city around its slopes.
4. We were quickly stopped at a police checkpoint in El Chorillo. I had my passport and drivers licence ready, lowered my window, said "Buenas" to the (militaristically looking) grumpy policeman. He only pointed to the back window and gestured to lower it, peeked suspiciously into the car and after let us pass. I was a little anxious but also strangely excited. But quickly forgot about it.
5. Sight – coastal wetlands in low tide on the pacific; wide, brown-grey, crossed by streams; seemingly dead next to a dense forest but very beautiful. Smell – Strong smell of garbage fouling in the midday heat. Hearing – deafening roar of a backup diesel generator on the ground floor of an office tower which suddenly appeared during a blackout. Touch – Itchy office carpet in the conference room of a local architecture firm (I sat on the floor). Taste – bitter yet amazing coffee at 7am while half asleep. Balance – sitting on the wall / balustrade at the tip of cuaco Viejo, Facing ships anchored and waiting to pass the canal while the sun is about to set behind some massive clouds to the right.
6. Panama is exciting yet not charming

EXP: 08-11-23

1. "Describe some key observations of violence and/or it traces in Panama" - Yesterday we were stopped (me, Caleb and Szymon) on our key trip to colon. Almost at Calon, the highway was blocked and we attempted to get to our destination through another secondary road. All was well initially, but as we made our way closer to the destination traffic was getting way worse. People were using stumps and car tyres (tires) to block the road. These locals appeared frustrated and had to feel some sense of power. They would stop us and let us wait for an arbitrarily long time and then let us through when ever they felt like it. After passing about six of these roadblocks, we encountered a particularly zealous figure who claimed to have killed two "gringo" professors before. After that moment we felt we had to return. But this return was anything but straight forward; again we had to pass through all the roadblocks but now on our way back. Caleb and I did not experience the situation as particularly tense since most locals that were not participating in the protests appeared to go about their business as usual. Szymon, however, felt really

trapped in the whole situation, because when stuff would get really tense there would be no way out. The best strategy appeared to be to let people have their moment of power and just calmly follow their instructions. After we made it back to the first road block, the police appeared to have finally arrived. Fire, shotguns and gasmasks calmed Szymon down as we finally felt this nonsensical operation was shut down.

2. I was wearing short cargo pants, a t-shirt and a bandana that shields my neck. Also some tactical sandals and a fanny pack with my essentials. Everyday I would carry my field recorder with me, but this day I planned to do my final rithmal in colon. So a bright Henryks JBL speaker, my laptop, my rain hat overalls, tripod, and finally my clarinet. Which in the end were pretty useless since we were too tired after the whole roadblock incident.
3. A shitshow on a local road. A whole new landscape that can only be visited during ebs [?].
4. We talked to these protestors, which was active I suppose. Most made us feel calm but this on guy kind of freaked us out. Also chilled with scott and his cousin for a bit at scott's pots.
5. Sight, a landscape wosuilly [usually] unseen. Smell, burning tyres [tires]. Hearing, little sea snails crawling back into the water. Touch, sticky restaurant tables. Taste, decent Korean food with actual vegetables. Balance unstable rocks at the exposed sea floor
6. N/A

EXP: 09-11-23

1. "Describe the place in Panama that has made you feel the calmest, in doing so reflect on the spatial, environmental and social conditions of this space" - I was actually thinking about this in the last two days and I was struggling to find a place like this. I would say it would either be my Airbnb room when no one is home or 'the loop'. The loop is a bridge connecting the center to the southern side of Panama city, from there you see the entirety of Casco Viejo and view on the skyscrapers. There is a car lane, separated by a greenery from the cycling and pedestrian lane. There was always a couple of people (only men) running, it's a good spot for running, cause its quite long (and also I usually went there in the evening, around the time of a sunset), but there is very little shade, there are only these weird 'bus stop' looking bits, where you can supposedly sit and observe but because the pedestrian path is in the inner circle, it directs you to look at the city, not the sea, I could also observe the changing tide from the loop. I felt calm, because I was not surrounded by honking cars and a lot of people and dirt and just the whole I was just removed from the whole intensity of the city.
2. I was mostly wearing a swimsuit and part of the days shorts or just a towel around my waist. When we were moving I had my bag with me with 2 sandwiches we made at home for the beach, and they were a bit annoying on the way to the island, because we didn't have a proper bag or container to carry them, we had to put them in a plastic bag and close it very tight. My camera is also a bit too heavy, so my shoulder was red from carrying it around. In my bag, I had a pencil case, notebook, bag with cards and money, gum, Icebreakers, mosquito spray, water and earphones, but I don't think this item has really impacted my comfort.
3. I don't even know the name I think! Haha. We were on a beach that was extended to the sea, connecting a small island and you could access the sea from both sides of the beach and for a second it made me think is it Atlantic on one side and Pacific on the other? Haha of course it wasn't it just made me kinda laugh in my head, how stupid of a thought this was.
4. There was this 40 something year old guy in the beach checking the shit out of me, which was flattering at first, but then, it became a bit creepy and weird, cause he was just smiling at me from [for] ages (and he was by himself) and not doing anything. (but this was a non-verbal interaction). Not approaching me or anything. But tbh I have not really talked to many locals in that day, or foreigners, only in services, but it was not a very memorable conversation.
5. Sight – the amount of ships entering the canal, we saw them from the ferry. Smell – I keep smelling this disgusting smell from the shops, smelling maybe like disinfection, but worse, artificial and I just cant figure what it is. Hearing – The waves, and the wind in the beach, quit heavy. Touch – The sand, all over my body, because it was super windy, I still have bits in my hair. Taste – The food I was making for people here, veggies, tomato sauce, capers, raisins a lot of white wine, honey, O and a pretty good job with limited amounts of ingredients.
6. I can't say how Panama is because I have mostly only seen Panama city, but from what I understood so far, very socially divided, capitalistic as fuck with people living in their own bubbles, very poor, frustrated and angry.

EXP: 10-11-23

1. "Describe some of the key physical traces of Panamanian globalisation" - It seems to me that globalisation here manifests itself the strongest in the juxtaposition of the globally known brands (starbucks, Takis etc), western design practices (skyscrapers, interiors of restaurants) with the miserable living standards of the local population.
2. Yesterday I wore shorts and a T-shirt. I try to keep it simple coz I spend a lot of time in a not very safe district. I already stand out when I go into not touristy places. I like to wear flip flops, no bag, just necessities in my pockets. I'm trying to emulate this ' Just walked out my house for a second' type of a look.
3. I came back yesterday to one of my favourite places in Panama city. I wanted to show it to other students. It is just a 'shack' with music and drinks. Very DIY sort of place where locals come to chill together. It consists of two sheds between the trees an couple of improvised tables. What is notable about it is the true love for music of the owner. You can also experience the community brought by the shared living situation and need to find escape from brutal life.
4. In the 'shack' I interacted with the locals. Since I've been here before, the owner recognised me & greeted us. he was super welcoming and said his place is our home. What really touched me is that although they are probably struggling financially, they gave us free round of beers and even one of them climbed up a palm tree to give us coconuts for free. Me and other students also danced with one of them. At the end we all hugged.
5. Sight: I saw whole districts consisting of ruined houses. Some of them were just skeletons filled with piles of rubble. Smell: Ripe, sweet smell of pineapple that was added to the fish sauce. Hearing: music, lots of music, coming out of almost every building in one of districts. Touch: glossy, hard coconut shell. Taste: fresh coconut water straight from coconut. Balance: tripped and ended up with my bare feet in a puddle, was slippery coz sewage is running down the streets.
6. Panama is a hard place to live for most of its population. There is not only poverty, but also crime. There is a lack of basic infrastructure. People live in half-demolished houses that doesn't even fully protect them from the environment.

EXP: 11-11-23

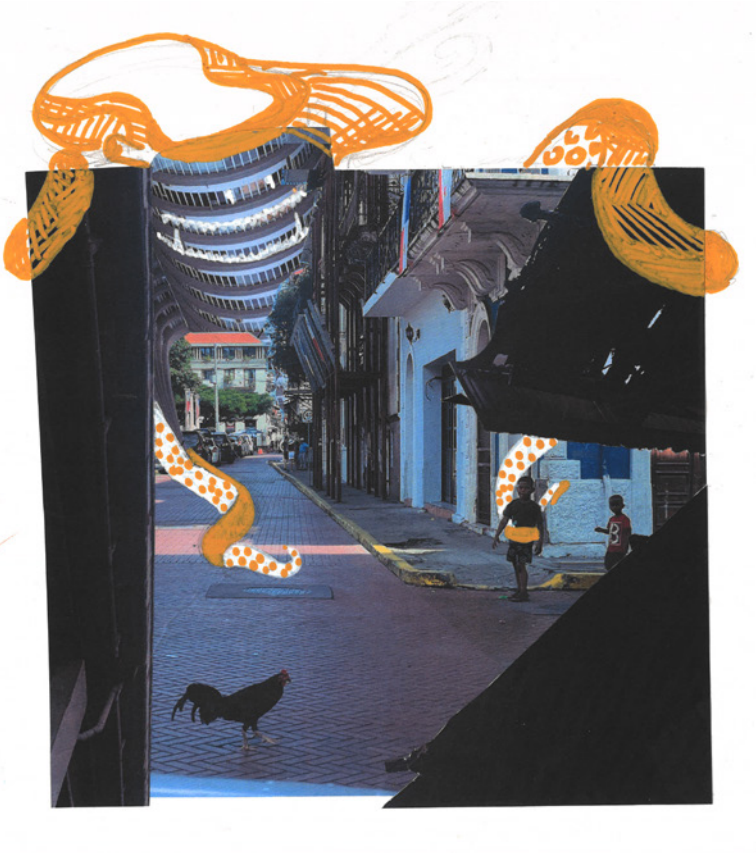
1. "Where is Panama?" - Panama, as an idea, manifests everywhere, seemingly arriving and leaving like an arcade wack-a-mole. A flight lands, a boat leaves, an exhibition opens, and an animal dies, territorially defined and tied objects exist extraterritorially.
2. I wore blue jeans, a green T-shirt with a cream half-zip jumper on top. My shoes are brown-cream pumas. I carried a woven Jumbo bag (like a potato sack) it helped me collect my groceries. Sometimes I wore a scarf or a coat, though it was so windy it often didn't help.
3. A park with many animals from across the world (from home as well), A building full of artefacts of different peoples, a field with long straight bitumen and multicoloured tails, a waterway with large boats, a suburb with town houses & apartments and many flags.
4. I spoke to Enzo about his trip to Panama, he had gone also to Nicaragua and Costa Rica, Panama city was very different to the rest of the region he said. I guess so tall maybe? I read many stories of Panama in La Prensa, and many ads.
5. Sight – Pottery I would imagine was similar to that of pre-Columbian Panama. Smell – The musty humid smell of an aquariums open pools. Hearing – The creaking automatic door that opened every time I moved. Touch – slippery/oily touch screen of a museum information stand. Taste - Plain white rice (as expected). Balance – wobbling as a I quickly slowed my bike, passing the embassy.
6. Panama is a stamp, I press upon experience.

REITERATING META-PLACE

Using my colleagues experiences as a base I reiterated the meta-place further by speculating the platial conditions as a narrative and embellished collages.

Panama is the exposed carcass, of a bastard creature, perhaps, not quite right; a mishmash & Frankensteinian interpretation of Dubai, or New York, or Madrid, or Shanghai, failed in its electrical reanimation. Though unscrupulously it lingers, as a haven for the global microbes and vermin. A body hijacked by alien predators that in their digestion, erase the tissue and ligatures of identity. Another bridge with a dying troll, whose riddle is only becoming less coherent.

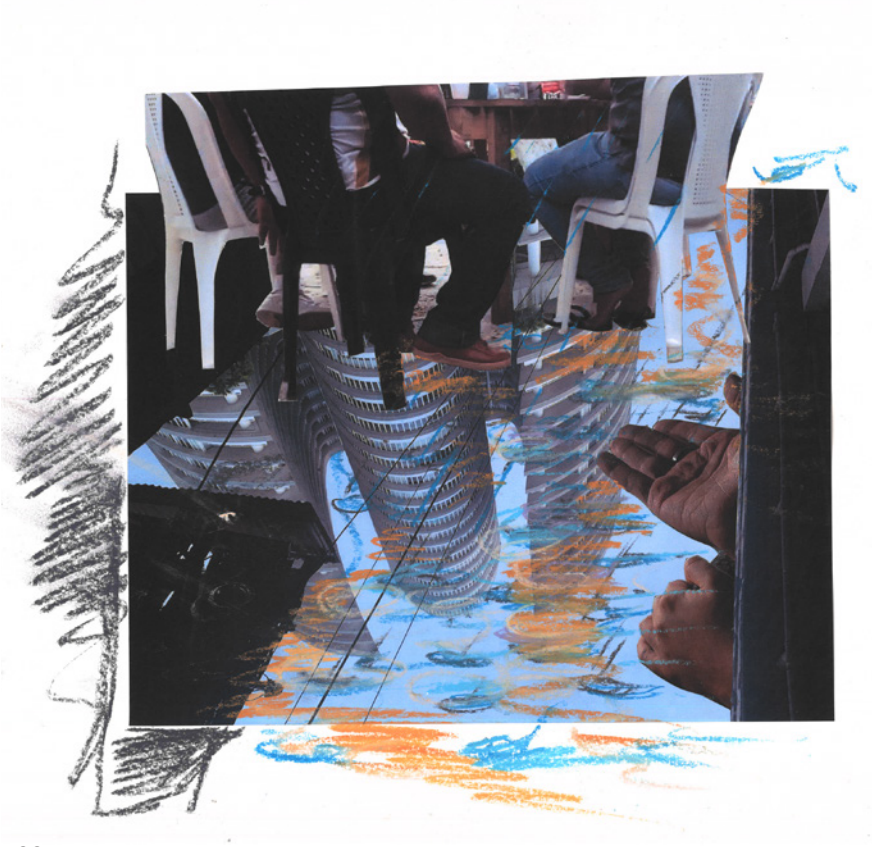
However, blood seems to shift, still, under the warming hide. Flowing backwards or forwards, nervous twitches cause macroscopic shifts in the hulking mass. Perhaps this body is an autoamputated tail, in vain it awaits the regrowth of its lizard; or instead, she is the still fighting carapace of a lace-weaving spider, her children bite but she continues to squirm. Is she destined for consumption?



Either way her name, is the stamp we press upon experience, what is Panamanian, what is "of Panama". This cloud becomes Panama, and this fish; this tree too, the pots and figures on the museum display screen bear her nametag, and the boats and planes her signature. These images have her coordinates tapped to .jpg. But this room doesn't. It's Africa, Indonesia, and Australia; Wait, we have reached the Maya and Aztecs. "Central American, perhaps close enough" I say as I plant the red and blue stars. You see typical Panamanian Architecture looks just like a Dutch townhouse, its endemic mangroves just like the Port Jackson wetlands, its towers just like the condos of Marina Bay and its people just like the Cariocas of Rio, because Panama is what it isn't, when you're standing here.

Her exquisite corpse is a serrated collection of foreign surfaces, that delineate the atomic edges of our habitat. Her inroads desecrate the land, and the biotic desecrates her. This mess is the intrigue, partly because of its imminence; the jungle invades faster than the prairie or the temperate forest. The ruined is beautiful until we can see in it 'our' homes, and shops and schools. The human condition overrides the divinity of nature and as our control is lost, we recede back to the caves and wheels and fires from which we came. Scared creatures haunted by a food chain in which we are once again included.

Perhaps the junkie will reclaim it all, but what will he have, an empty cage of fleshless bone? Or can the mess auto-regulate? Can we exist in a place of pushing and pulling that in its territorial gradation might not be a mess after all? Or will we forever appropriate ourselves as the exception, outside of the ecosystem but on the land we have taken from it, batting away the hand nature extends and specifying the world as a milky oyster we seek to season and slurp.



This further investigation of meta-place clarified Panama as an intersection of temporal and spatial contests. It exists not just between extremes but because of these active tensions of the extremes. For example, the logical grid of the city competes against the creeping tendrils of the jungle, the high-rise expat community contests the urban local society, the longitudinal path of the Panama Canal competes against the latitudinal path of the landmass etc. Further, these studies not only produced meta-place, but they also highlighted its value. My attempt to create place from a distance was not constructive, whereas the meta-place informed by my colleagues allowed my preconceptions to be challenged adjacent to physically experiencing a site, while also providing a more wholistic image.

THEORY COLLECTION

While my theoretical position had been evolving from the beginning of this project, I formalised my threads of interest in the below fragments of text. At this point my position continues to evolve, as I learn more about the site and my project develops.

MY PLACE OR YOURS?

"My place or yours?" is a mundane organisational query I have often shot from my lips, without a second thought. However once removed from its conversational context it morphs into a geospatial dilemma in which we question whose world we live in? who gets to shape it? And the role of the architect within it all. To answer these we must first understand how the individual defines and produces 'place' in service of their habitation.
In the mid-1950's psychologist George Kelly proposed Personal Construct Theory (PCT), the idea that in our perception and experience of the world people actually construct knowledge *(Fransella (ed.), 2003, pp.21-32)* This idea was a sharp departure from the previously accepted belief that we passively absorb pre-constructed knowledge, and has since become particularly valued in education and clinical psychology. Kelly's key analogy asserts that humans act as benign scientists in their interaction with the ontic, hypothesising, experimenting and reassessing experiences as they navigate the world. In doing so they assess what Kelly referred to as 'constructs' (what we may call concepts) *(Shaw & Gaines, 1992)* against bipolarities. These Bipolarities exist like bricks in a building, each brick constructing our knowledge, *(Jones, 2022)* that knowledge being our own known reality *(Towner, 2022)* He went further to geometrise this framework of understanding further clarifying his theory as he presented a representation of our mental space. Finally, he hypothesises how this mechanism of knowledge formation produces our emotions and state of being. His work challenged the discourse of the time, particularly as it unified the psychological assessment consistently across societal divisions. Rather than viewing the ambitions of people as inherent traits to them *(Fransella (ed.), 2003, pp. 41-49)* (a king was born to rule, or a slave to serve), or separating the impetus of the scientist from the common person *(Fransella (ed.), 2003, pp. 33-39)* (Plato asserting that only the philosopher could see beyond the shadows on the cave wall*(Cohen, 2006)*), Kelly presented a theory in which humanity can be assessed in its totality and importantly views the individual as neither good or evil, but mobile in our ethics and being. This is important as it consequently implies that not only can our being change, but so can our knowledge and perceived reality.

Kellys Theory of Personal Constructs can be advanced to better understand how we interpret space. Space, once perceived, can exist in our minds as a knowledge on the same dichotic planes as all other concepts described by Kelly. This perception of a space

(stimuli) and its transformation into knowledge (percept) requires classification, which inherently causes the perceiver to project part of their being onto the space. For example, if you were to enter my residence you may subconsciously label it 'a house' whereas from my perspective I would see 'a home', though it is a subtle difference, the language comes with distinct connotations which in themselves are unique to the individual. This constitutes a naming or an identifying of a delineated region of space which I see as producing 'place'.
The discourse surrounding the definition of Place is expansive from Aristotle *(Matthen, 2003, June 2)* to Doreen Massey, *(Hubbard et al. (ed.), 2004, pp. 219-225)* many having attempted to either encapsulate the concept or at least define a partial sect. Multiple Phenomenologists have addressed Place, like Edward S. Casey *(Casey, 1997)* and David Seamon. The latter rebutting multiple positivist definitions of Place that he believed stripped the concept of its "experiential aspects" which he asserts the phenomenological understanding of Place as an 'essence' does not *(Seamon, 1987)*. Even in the field of diction the understanding of Place is ambiguous, with the Mirriam-webster synonymising it with space *(Merriam-Webster, n.d.)* and Cambridge dictionary defining it as "an area, town, building, etc.:" *(Cambridge Dictionary, n.d.)* leaving the reader to infer the blanks. Perhaps, this is part of the allure of place, its expanse of discussion and impact juxtaposed by its undefinable (or at least unagreeable) nature. Therefore, rather than working from a set definition of what Place is, I am presenting place as an inevitable consequence perception. It is a product of interpretation, meaning that while common ideas shared among collectives can contribute to place, the actual physical 'Place' exists as a purely individual and automatic interpretation of space.
We have now wandered back to the main question "My place or yours?". If the places we make are unique to the individual, how can the architect ever be expected to intervene correctly in someone else's 'place'? I believe the architects role is to go beyond. Not to exclude themselves but instead actively form their own place composed of other places, rather than space, a meta-place. Like a translator infers the meaning of a sentence rather than directly translating it, the architect must curate the meaning of the meta-place, by understanding the many individual places it grafts, and weight these truths accordingly.

SLURPING THE OYSTER

Thanks to William Shakespeare, *(MIT international students office, n.d.)* the phrase "the world is your oyster" has been recited to a great mass of anglophone teenagers during their transition into adulthood. While it may seem benign, the same metaphor used to encourage us to seize life's opportunities can also be used to denote the horrifying imbalance consumerist global society continues to punish the planet with. We have already extracted the pearl, and as we continue to heavy handedly stretch the shell, we will find ourselves left with nothing but a milky mollusc to fight over. But what has led us here and what does it mean for the Places we inhabit, and the people who design them?

As humanity hunches over the greatest prey of its existence, teeth bared, ready for dinner (perhaps the last one we will ever have), we sport the same face and predatory instinct we have spent so long attempting to banish to the animal kingdom. One Google search and you can find hundreds of articles, from universities *(Stockholm University, 2023)* and newspapers *(Rutherford, 2018)* to social media *(Reddit, n.d.)* and blogs *(Buskell, 2016)*

explaining what makes us so different from the lowly fauna that surrounds us. Many of these articles presenting age old western ideas of the human ability of "logos", *(Samuelson, .n.d.)* divine rights imparted upon us *(Britannica, n.d.)* or other vague distinguishing aspects that define our anthropological superiority. However, perhaps it is not the differences we should be so deeply focused upon. Our story is still that of survival, despite not having a predator to compete against. We are attempting to not just preserve our status but to grow larger and more powerful. We see this among nations as we attempt to build bigger economies *(Goodley, 2023)*, bigger territories *(Cano & Coto, 2023)* and bigger militaries *(Murakami, 2023)*. Perpetuating this idea that if we extract more we can produce more and we will be more. Concurrently, our instinct to overcome a threat that is no longer there becomes evident in the habitation of humanity as a whole. The particularly western ideal of environmental domination (projected globally due to western hegemony *(Gamble, 2009)*) means we are pacifying our ecosystems, reducing biodiversity, apex predator numbers and conveniently neglecting our own role in them. This can be seen in South-East Australia where the banning of indigenous land management techniques has completely altered what is considered 'natural' and potentially contributed to worsening catastrophic bushfires *(Fletcher et al., 2021)*. Similarly, deforestation in Amazonia is having a noticeable effect upon the continuing drought in Central America and the Amazon, with the loss of tree cover impacting the water retention of the soil and the weather patterns the rainforests immense size creates *(De Castro, 2023)*.

Towering upon our precipice we look down saying "we must continue to grow sustainably!" but at the height we have reached is that even possible? We are destroying the planet now, any taller and like Icarus we will have reached the sun. We already exist and consume at a size that ensure even sustainable moves damage planetary systems, or even worse create unknown change. Like in the North Sea where the great density of wind farms is altering wind patterns *(Akhtar et al., 2022)*. In order to grow we inevitably destroy, wether that be the planet or us, by nuclear war, climate disaster, the biodiversity collapse or another item listed among the 90 seconds we have left until midnight *(Mecklin, 2023)*.

Humanity becomes the Ouroboros, consuming ourselves in our consumption. But perhaps this can become our solution. Like the Ouroboros, we can ask, once consumed do we disappear? or do we become more of ourselves? This is a conscious decision for humanity to make, to live outside of the ecosystem only seems to ensure we disappear, but to be within it not only would we be fighting for our survival but so would the world we are currently destroying. To be apart of the ecosystem is to create balance, becoming more of ourself in our consumption.

I WENT TO PANAMA AND ALL I GOT WERE PERCEPTIONS!

A dark leather Moleskine sealed by twine, opens via a dissected central laceration, revealing that "I went to Panama and all I got were perceptions!" *(Jerome, 2023)*. It is this notebook that entered the Republic of Panama while it was myself who received the perceptions, handed to me as a jumble of answered questions, Panamanian artefacts, and extra-territorial representations. My perception of Place-Panama exists only as a conglomeration of other Places, or as I've previously defined, Panama the meta-place. In this way it manifests as both an omnispatial

and aspatial gradation of experienced conditions. But how is this meta-place actually produced? And with what rigor can we be certain the reality of Panama is encapsulated? John Berger's series Ways of Seeing, explores the reality of art as a repercievable representation *(Berger, 1972)*. Depending on your perspective, and the works context, the meaning inferred changes. This concept can be advanced upon the rest of reality, for example if I were to find a couch in the middle of a remote forest, the initial connotations of relaxation, comfort, and home may be overturned by its contextual juxtaposition instead becoming, unsettling, uncomfortable and haunting. However, in its removal from its 'regular' context (the living room), the object becomes clearer in its being with perhaps fabric stains, or the plumpness of the pillows becoming more salient. This kind of information is often gathered automatically and almost instantaneously by the neurotypical brain *(Oxford Reference, n.d.)*. As you perceive the world, your brain enforces presemantic classifications upon scenes and objects within them *(Castelhano & Krzyś, 2020)* and particularly when you meet experiences that challenge your subconscious expectations, your brain will seek further information to reach a classification.

To do this, we employ two key ways of sensing, the gaze, and the glance. While often associated with vision exclusively, I will be referring to these concepts in relation to all our senses. The glance is any moment in which we perceive a space without gazing upon it, rather than a neatly definable action *(Bredlau, 2007)*. It is the short few seconds that we provide presemantic definition to reality *(Fei Fei et al., 2007)*, I know I am writing in my dining room because upon my entry to the space I glanced its reality as the dining room. Therefore, the glance exists as a perception of the breadth of our proximal reality, defining our expectations for the space and in turn our reaction when these expectations are challenged *(Shawn & Gaines, 1992)*. Conversely, the gaze is a measure of the depth of reality. Objects within are focused upon more intentionally, whether that be triggered autonomously or by the glance itself *(Gronau, 2020)*. We gaze upon items to seek further understanding and knowledge, and in doing so recategorize or create new categories to define the item in mental space. Edward S. Casey presents these two concepts as the antithesis to one another, the glance being an exploratory encapsulation of reality, and the gaze a lingering divisionary of reality *(Bredlau, 2007)*. But in this way, they become a complementary duo, one no more necessary than the other. When combined the glance delineates place, and the gaze gives it volume.

My study of Panama, has leveraged both to best inform the meta-place. In my collection of data, I asked a set of questions to a different colleague every day they travelled there. These exist as my glance upon their place, what they wrote are the few seconds I must sense, and what I have left is a classifiable impression of place which I cannot gaze upon in the same dimension. However, I may gaze upon the text-object itself, attempting to infer more information from the formation of the provided glance. Concurrently I searched for Panamanian artefacts, both virtually and in physically which I was able to gaze upon, whether that be an Iguana in a zoo, or textile in a museum, these objects are inspected as residents of Panama providing depth to place. Territorial extensions were also identified, like the Panamanian Embassy and sighting a Panamanian flagged ship, these again act as glanced scene that received the classification of 'Panama'. Finally, standard research upon the place act as an enduring gaze, in which

I continue to deepen the meta-place. This conglomeration of tactics gazing and glancing upon place become not just a collage, but an exquisite corpse.

The exquisite corpse is a surrealist production method in which multiple creators produce and then conceal part of their work before passing it to the next person *(MOMA, n.d.)*. The final product becomes I direct expression of each person's whim at that time, arbitrary in its expression. Though it is often disregarded, arbitrarity is a common thread in the fabric of reality. Like the accepted randomness of Meiosis within sex cells *(Scitable by nature education, n.d.)*, the existentialist belief in the inherent absurdity of the world *(Burnham, n.d.)* or the religiously associated understanding of fate. Humans have taken randomness and in one way or another treated it with a divine, unknowable, and anti-anthropological quality. Taking a more phenomenological approach *(Kidd, 2014)* to this study, I'm not seeking to remove the intuitive nature of production, but instead understand and even elevate the divine mess it creates. Because inherently place as previously discussed forms from a knowledge of space, but like all knowledge I cannot know what I do not know, without knowing it first *(Towner, 2011)*. Further I can seek knowledge, but I cannot know what I will find. Meaning in the production of place and in turn the production of meta-place, the absurdity inherent in acquiring knowledge is always present, and perhaps contributory to what make Places so important. The sense that we can continue to discover more or that we may know a secret knowledge about a Place, is part of its desirable quality as a construct *(Harbison, 1977)*. Therefore, the very act of continuously seeking knowledge about Panama will never be enough to encapsulate the grand entirety of it as a 'place', but even capturing a sliver using this methodology is enough to retain its Platial quality and define a path of intervention.

MODI OPERANDI 1

At this point, Panama's meta-place defines an overarching tension (contest) between a centralised, top-down, facet that counters a decentralised bottom-up facet. To further explore this as part of the Modi Operandi workshop, I focused on reperceiving aspects of the meta-place in relation to a specific site. Boca la Caja is a suburb in Panama City that has the urban structure of an informal settlement. It is surrounded by the vast towers and urban grids of the city with the previously described tension playing out on its fringes. To explore this within the framework of meta-place I first carved the multi-angular roofscape of Boca La Caja into a plate of linoleum. I cut deep through the unstructured, brittle linoleum to the stretchy grided burlap backing. To retain the carved relationships of the top layer, the bottom layer needed to be kept intact, but to do this the top layer had to be retained in specific locations. Like the contests of Panama, the two layers have antithetical properties, yet rather than competing they are incapable of functioning without one another.

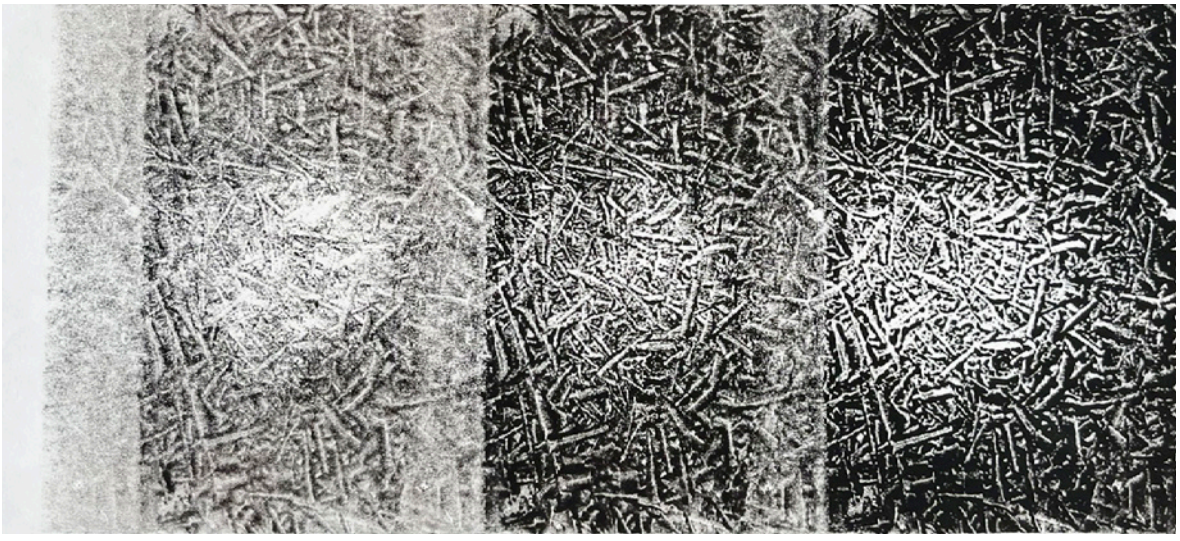
Boca La Caja roofscape
Carved in Linoleum.

MODI OPERANDI 2

Expanding on this I repeated the task, but rather than taking the direct platial conditions uncovered by gazing at Boca la Caja, I took the glanced understanding of the roofscape and intuitively carved it into the einstein shape, which I then printed with ink on paper. The geometric properties of this shape produced both a non-repeating pattern, and a random but repeating image. Not only does this reiterate the previous finding, like Panama, it is evident the printed linoleum could not exist as the same object without the antithetical forces it produces.

Non-repeating regular print of Einstein shape.

Boca La Caja inspired roofscape carved into linoleum Einstein shape.



Repeating regular print from inking the Einstein shape.

MODI OPERANDI 3

Finally, I took this idea of inevitable production, and created a fabric torus, that could roll inwards. I added ink to my hands and as I rolled printed onto the surface of object. Concurrently, the folding of the object at its centre meant it would also print onto itself, in a unique fashion each time. In doing so, the once antithetical forces of production united and began to not only produce each other but also the object. What was originally a contest had become more so a cycle.

Map of proposed site (colour) at the contested edge of Boca La Caja.

Printed fabric torus under mechanical rotation.

PROJECT ADVANCEMENT

The collection of these meta-place studies uncovers that Panama produces and is produced by contests between antithetical forces. Further within the contests each force would not exist without the other, and Panama would not be itself without the contests. Finally, a contest implies the possibility of a winner, but wining would be mutually destructive for all parties. Viewing Boca La Caja through this knowledge reidentifies the site as an integral yet waning urban system being consumed by the production of grids and towers. Therefore, in order to retain the competition, and retain Panama, Boca La Caja must be able to consume back.

PROPOSED INTERVENTION

I intend to produce an architectural intervention that will assist the growth of Boca La Caja's urban system by actively consuming its grided competitor. However, the grids and towers will remain capable of consuming boca la Caja. Rather than one side winning, both will win, and both will lose, reforming the competition from a linear battle to a cycle of change. It becomes the Ouroboros, renewing itself rather than straddling destruction. Learning from the production of meta-place, I intend for my structure to be a catalyst rather than a facilitator of this cycle. Therefore, after initiating the self-perpetuation, it would be consumed by that same system.

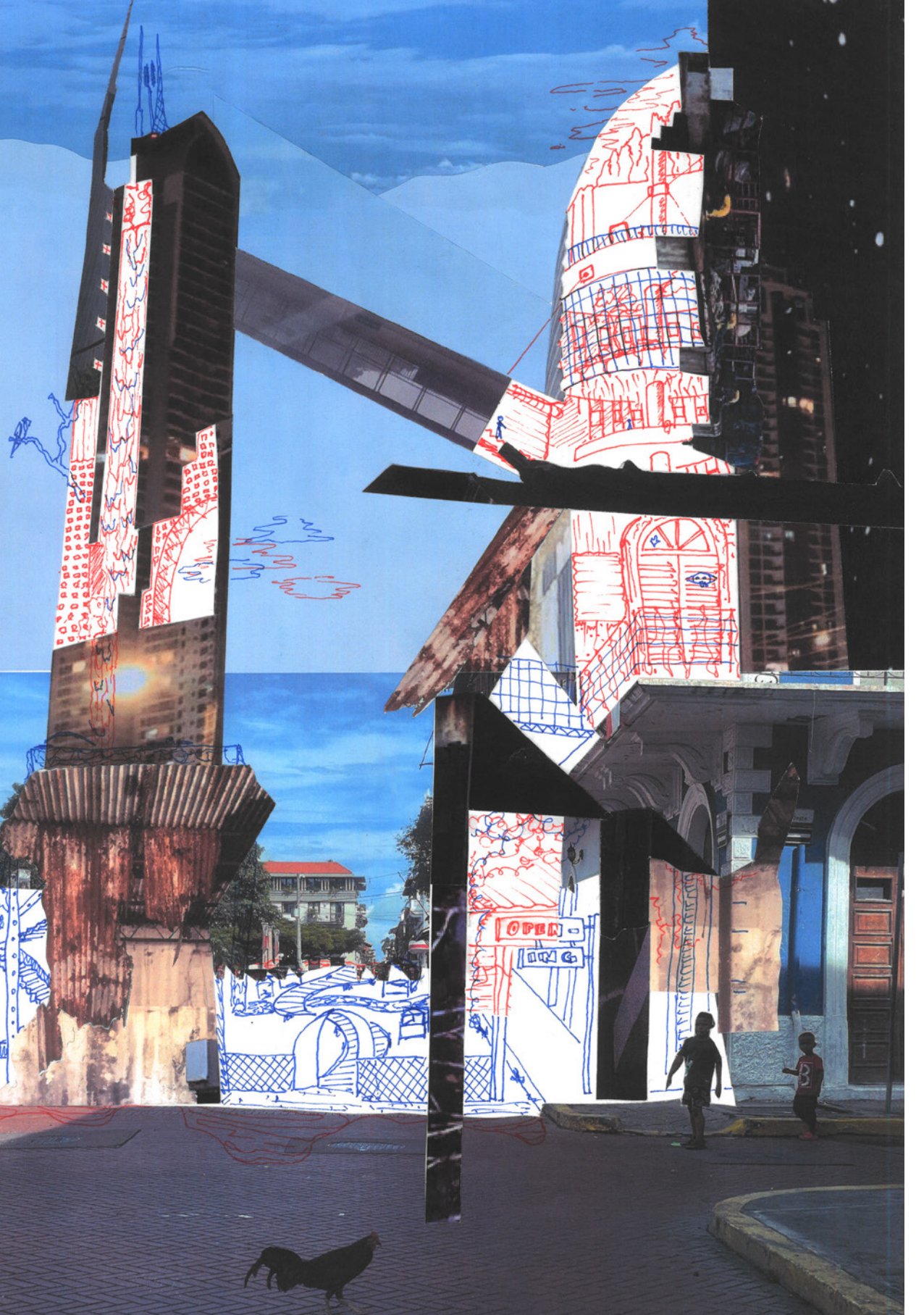
The program will consist of three functions:

1. A monitoring station – This will utilise the glance and the gaze as wholistic techniques of observation to monitor the tension of the contest, ensuring both urban systems are moving towards balance.

2. Tool of destruction – This system will actively destroy or alter parts of the city that are delineated by the perpetuation lab. It will not consist of one method of destruction but will facilitate a multiplicity of yet to be defined ways of destroying, that prioritise reuse of material. It can be thought of as recycling centre.

3. Perpetuation Lab – This space will focus on ensuring the systems longevity and growth. Therefore, they will study the outcomes of the process in order to alter it with the goal of self-perpetuation. Further they will use a yet to be defined system to decide on which parts of the city to destroy. Its goal is not destruction for destructions sake, instead destruction for revitalisation, balance and the retention of the competitive cycle.
All three structures will be located on the current territorial edge between Boca La Caja and its surrounding grid. After catalysing the first cycle of destruction, the buildings themselves will be consumed. The idea being that they are the first and last step in producing a self-perpetuating system. Therefore, the design of the structures will keep in mind its eventual destruction. An example of a building that functions similarly is the Temple at Burning Man Festival, which facilitates the festival experience only for it to be burnt to the ground on the final day. Moving forward, I will locate the exact site of these structures as I better define the systems that will facilitate their function, like the rationale for areas to be destroyed and the method of destruction. Further I will be designing all three structures using architectural systems that reflect their function as protectors of the cities essence rather than destroyers of its form. The final forms should also reflect their origin as findings from the meta-place by assisting in the production of new facets of place, actively contributing to the meta-place.

Front page, right, & back are all collaged examples of how layers of destruction and reconstruction will alter the experience of the city.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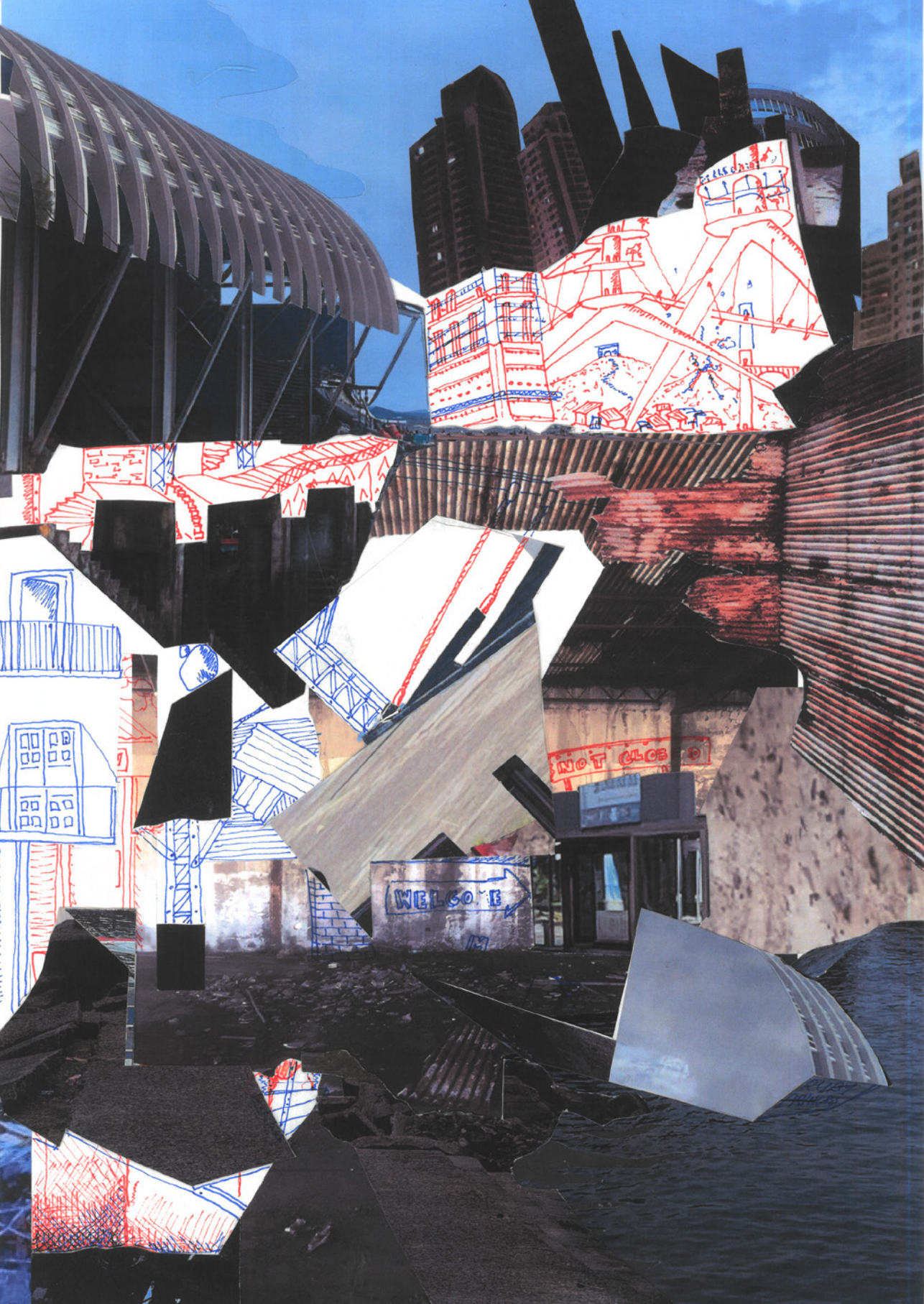
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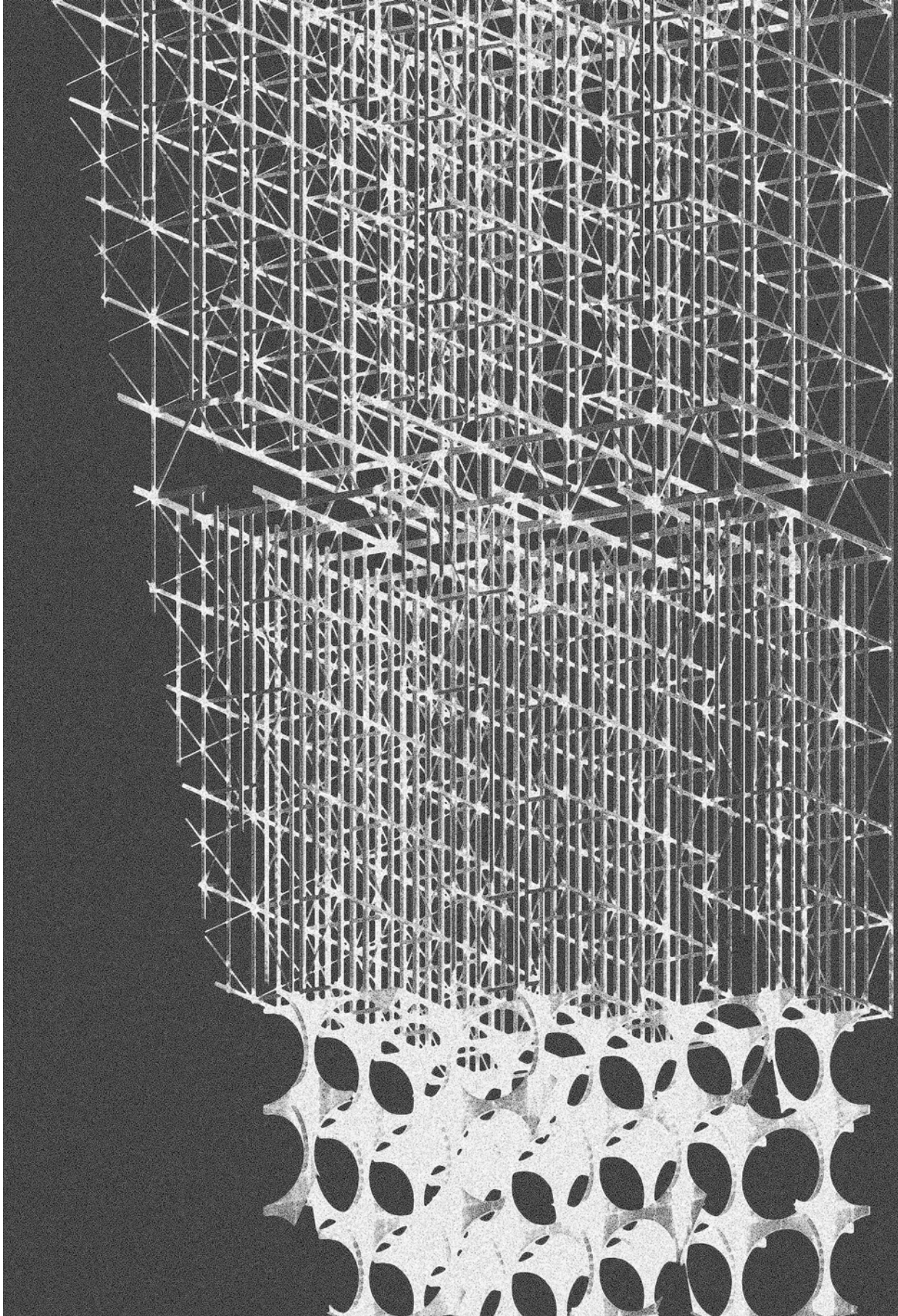


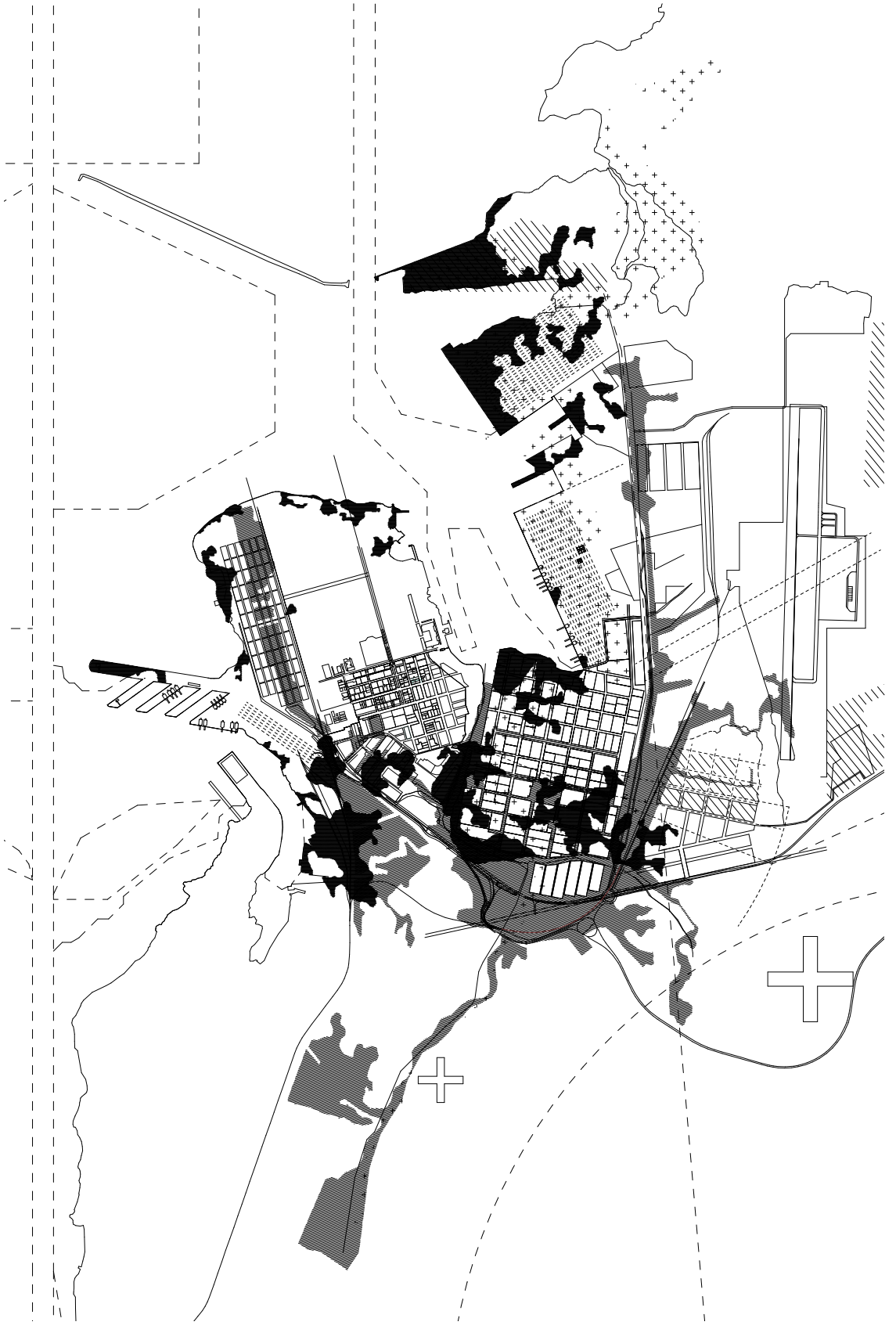
ARCHITECTURE OF ACCUMULATION

THE SUBLIME BEAUTY OF THE TECHNICAL OBJECT

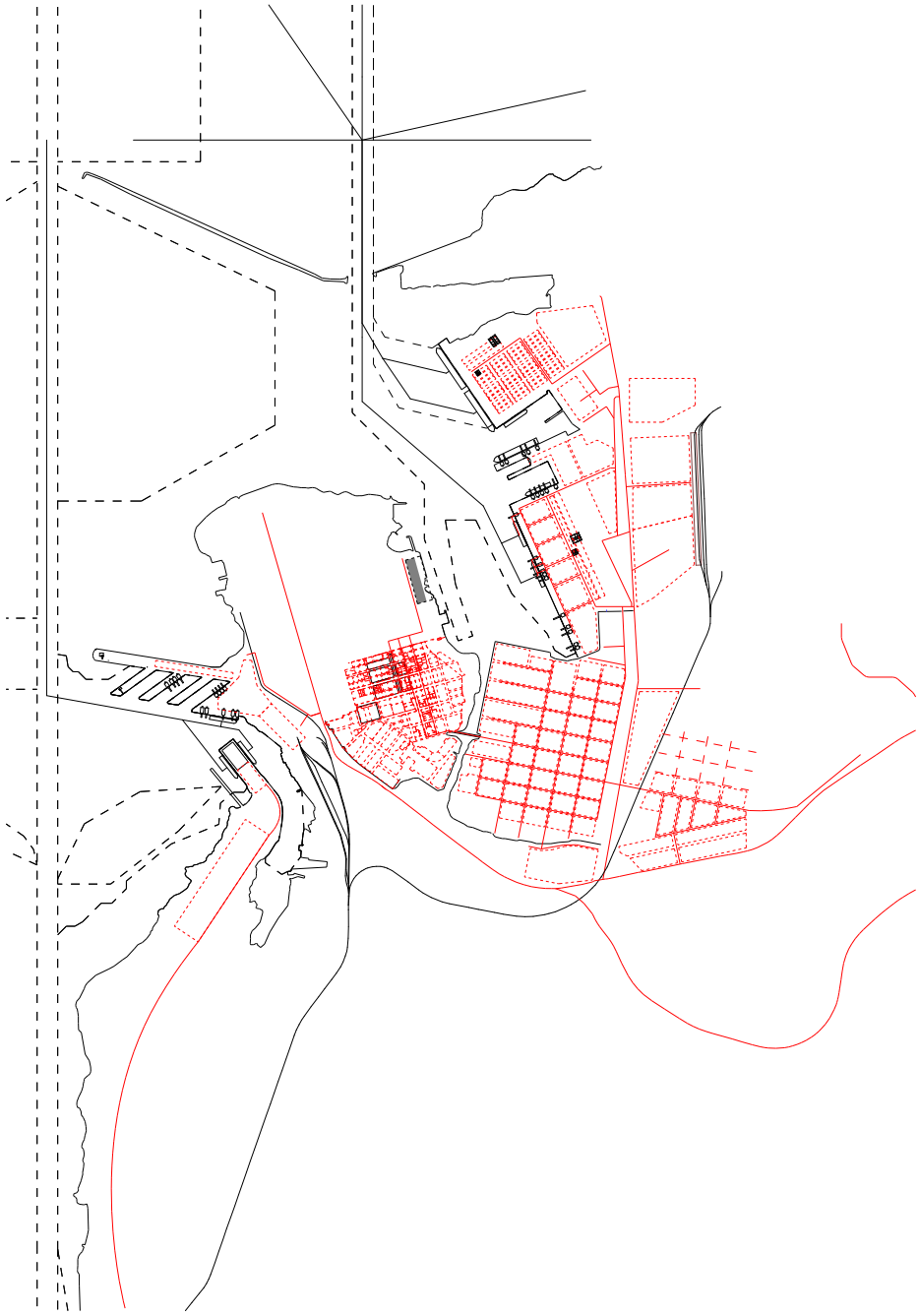
Architectural discourse seems to be dominated by an ongoing fascination with cities as the fullest expression of present-day spatial considerations, however, the contemporary state of global civilization requires an extensive infrastructure to facilitate supply chain logistics, data processing, food and energy production, and warehousing, which results in the production of captivating and radical spatial conditions on the literal and figurative peripheries.

Colon Free Zone is a state-owned enclave of reduced customs regulations, serving as a logistics hub located at the Caribbean entrance to the Panama Canal, where these global forces take a concrete, tangible form and materialize in the spatial organization and architectural composition of the site. Despite the little architectural attention they get, those industrial landscapes may be perceived as the most significant structures of our times.

What spatial situations does the Zone create in the territory?



Colon Free Zone location
Current shape of the zone
Future expansions in progress
Panama Canal navigation area
Panama Canal railway
Access points- ports and airport



Colon Free Zone internal logic

Access points- port cranes

Road connections

Storage areas (container sotrage+ warehouse plots)

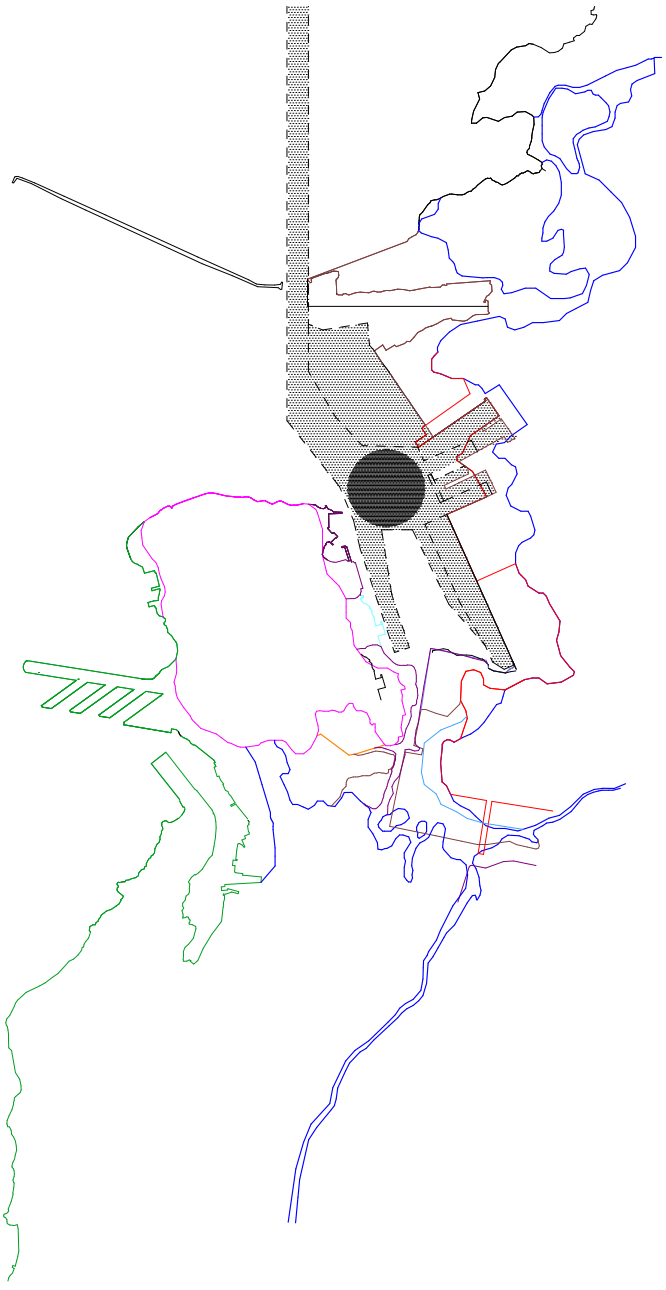
Panama Canal railway

Retail- Colon 2000

Colon Free Zone enclosures

Fences

Gates



Colon Free Zone land reclamation stages

- Coastline 1860
- Coastline 1900
- Coastline 1948
- Coastline 1980
- Coastline 1985
- Coastline 1990
- Coastline 1995
- Coastline 2006
- Coastline 2012
- Dreinage- turning basin
- Dreinage- port areas

Colon Free Zone flood

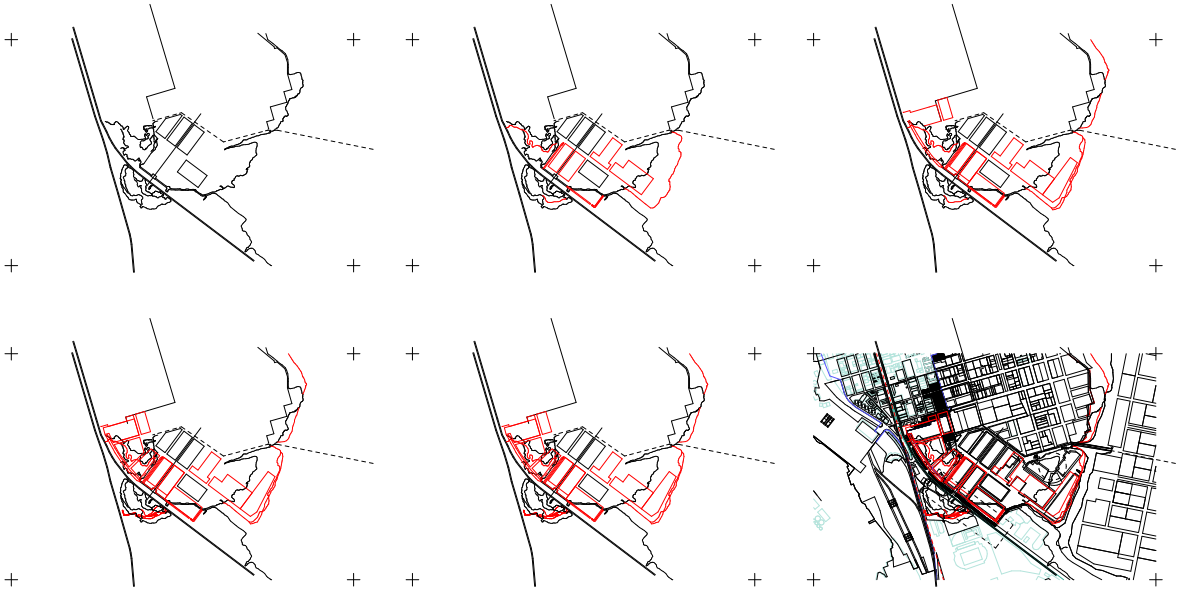
Natural dreinage channels

Flood area

Colon Free Zone efects of sea level rise in 50 years

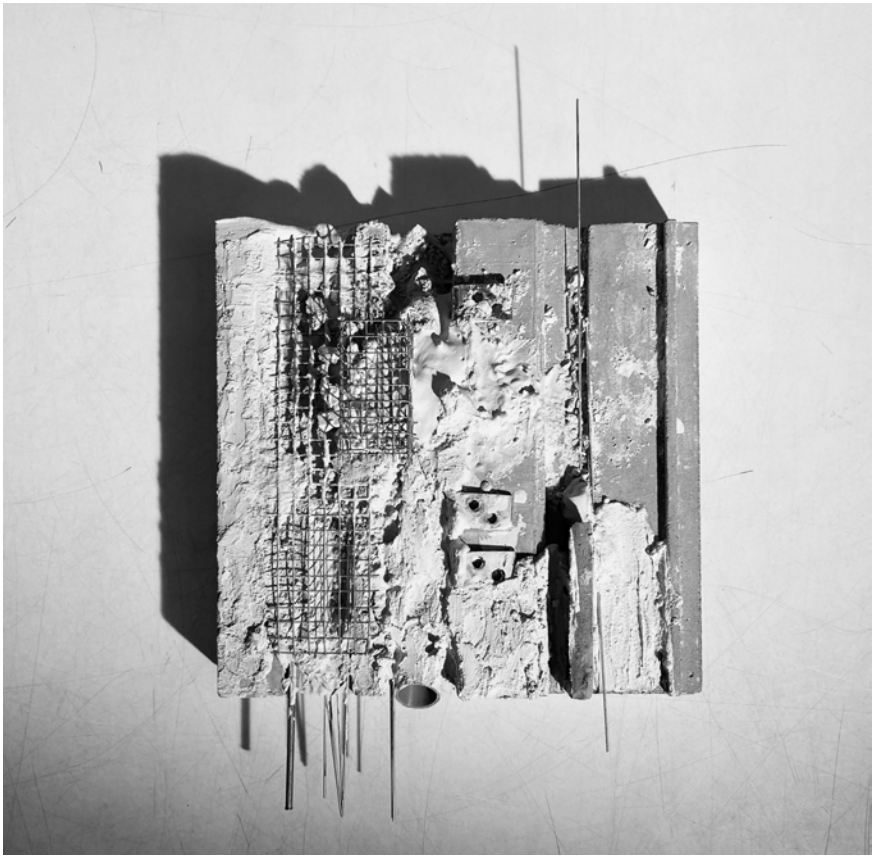
Flood area

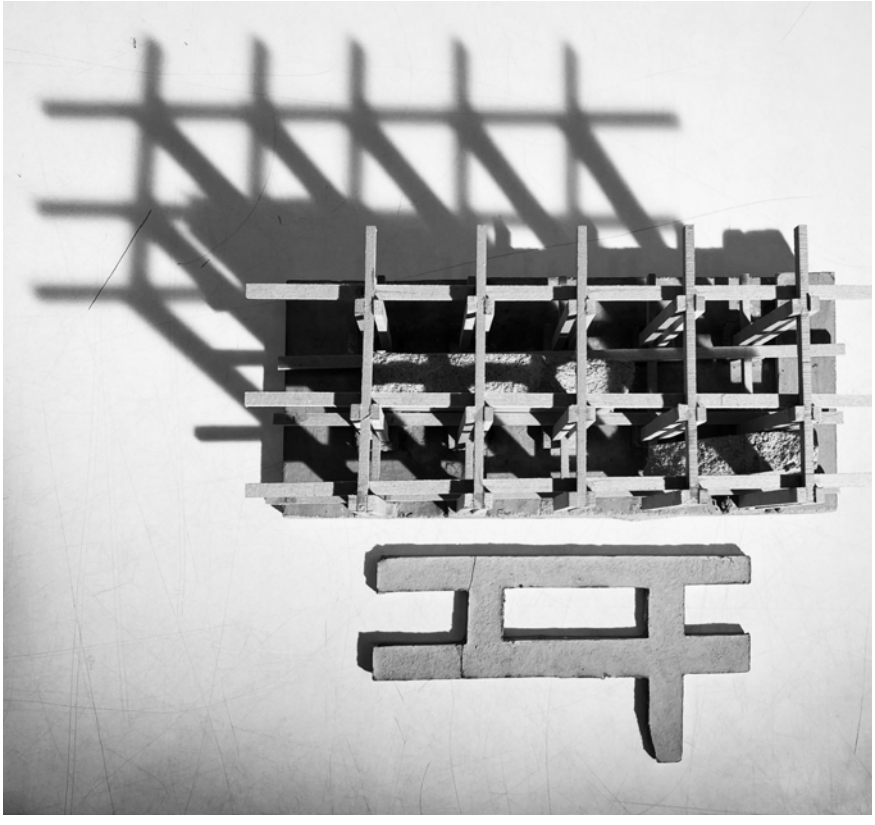
Printing the maps on transparent paper and overlaying distinct drawings/ data sets enabled the understanding of the spatial consequences of the creation and expansion of the Zone. Due to the accumulation of the infrastructural systems including toll roads, container ports and railway, and the subsequent stages of land reclamation, dreinge system of the city of Colon was congested and the Folks River capacity was significantyl reduced. The pressure of continous expansion of infrastructures enabling the accumulation and smooth flow of goods, as well as the resistance of the local landscape manifested in the flood area, have created a striking bottleneck point that remains in the constant conflict. This regularly flooded, congested point, which is also the only entrance to the city, is the most radical outcome of the materialization of global forces in the area. Borderline state in which particular logics of accumulation reach a limit point demands architetural attention and intervention.

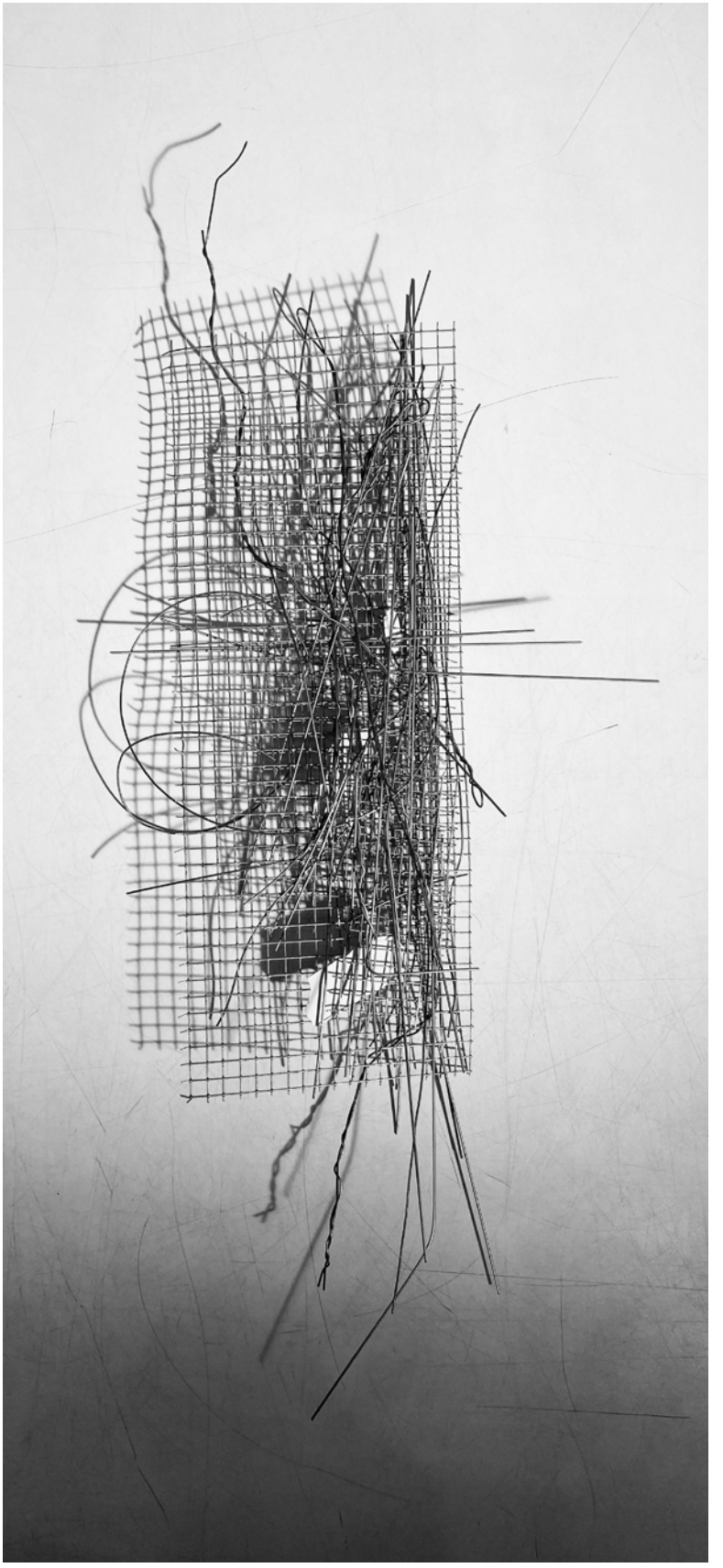


The site has been analysed in the 20 years timeframe. The process of accumulation and transformation of subsequent infrastructures along with the changes in coastline and the expansion of warehouses was traced. Surface water reservoirs were transformed into canals, which in turn were rearranged into system of underground pipes served by water pumps. Spatial consquences and possibilities of these processes were explored during Modi Operandi workshop.

What is the architectural outcome of the paradigm of infinte growth in the congested, limited space? What kind of technical and aesthetical regimes might be produced as an outcome of this tension?

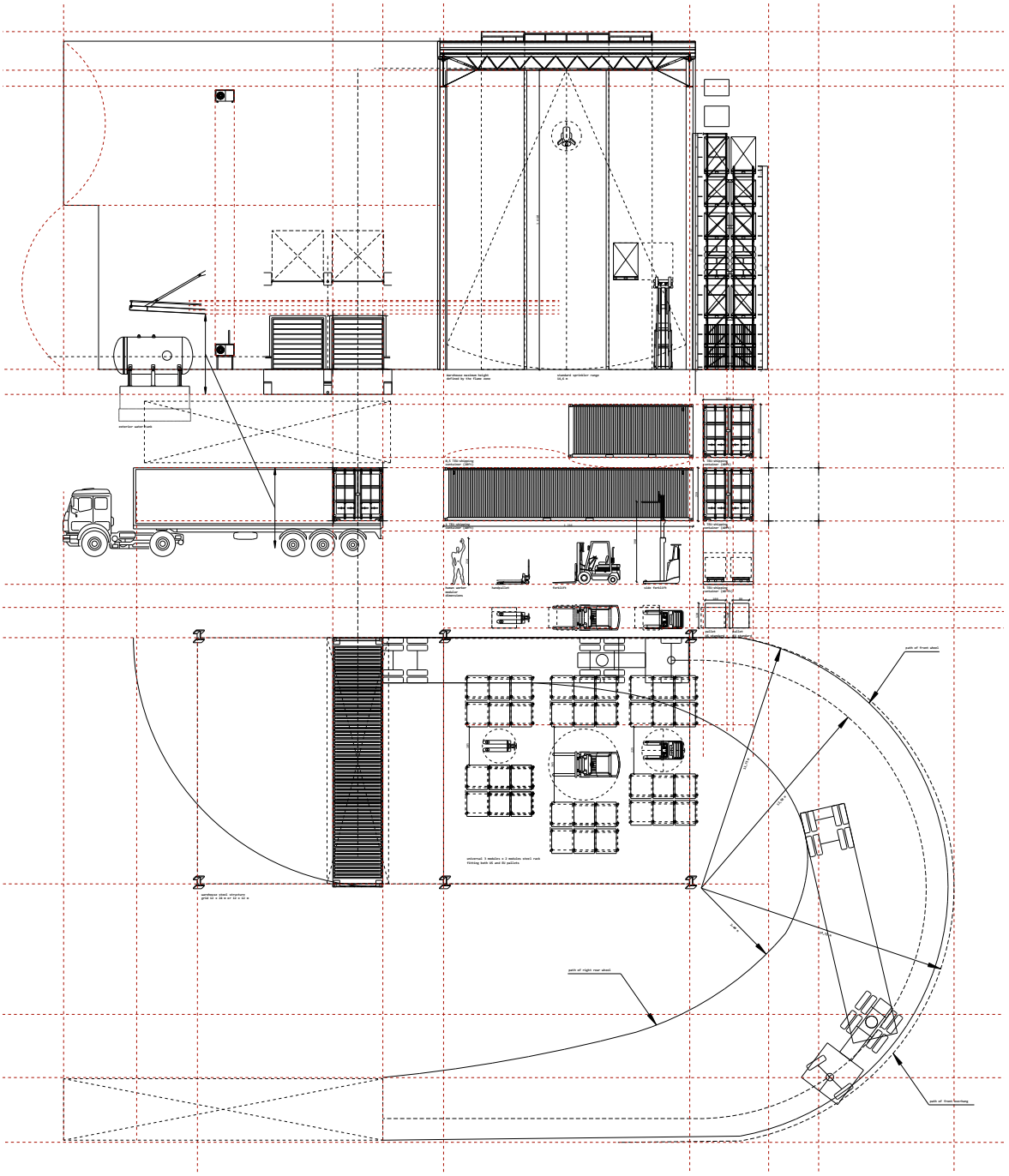




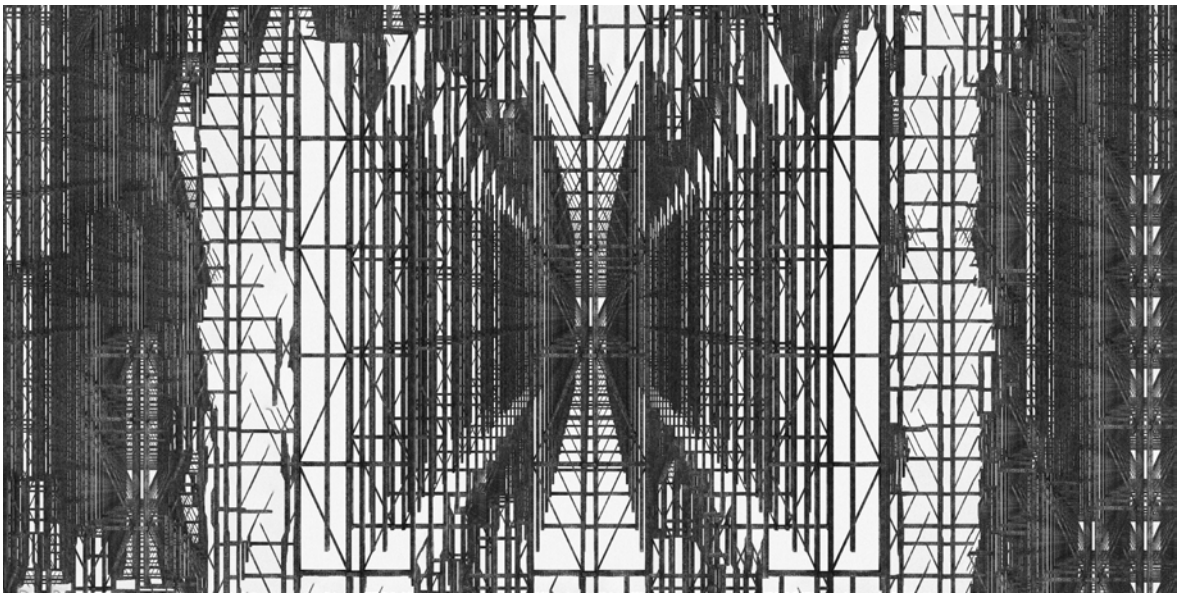


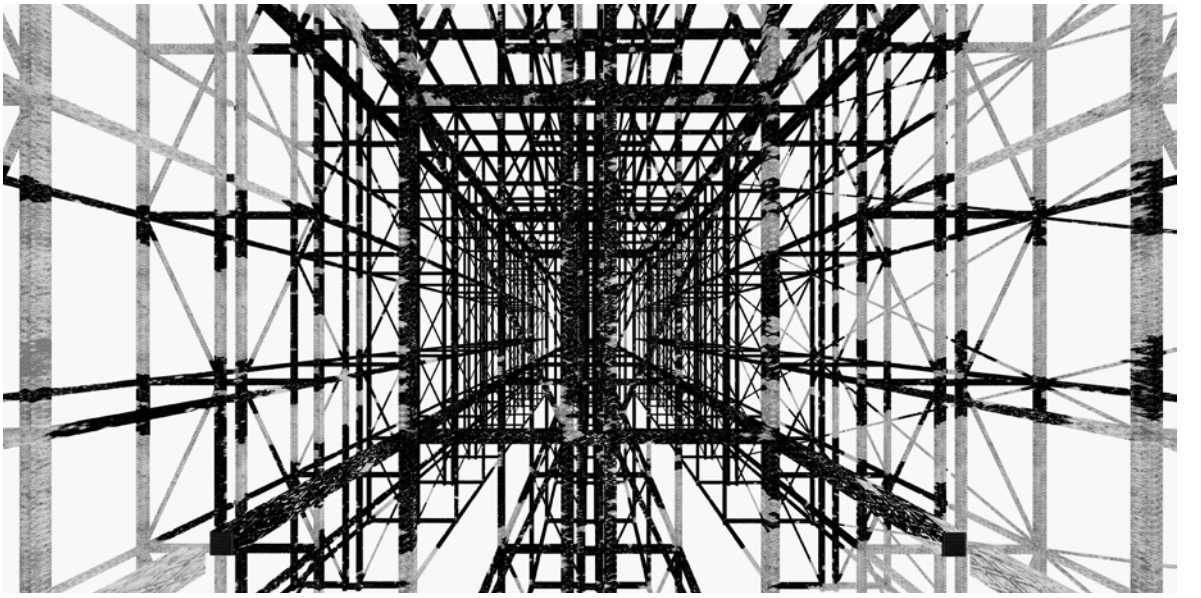
Ground conditions and the technical premise of land reclamation were explored in first two Modi Operandi models (previous page)

Spatial entanglement and overwriting distinct logics and compositions was explored in the “Assemblage” model (left)

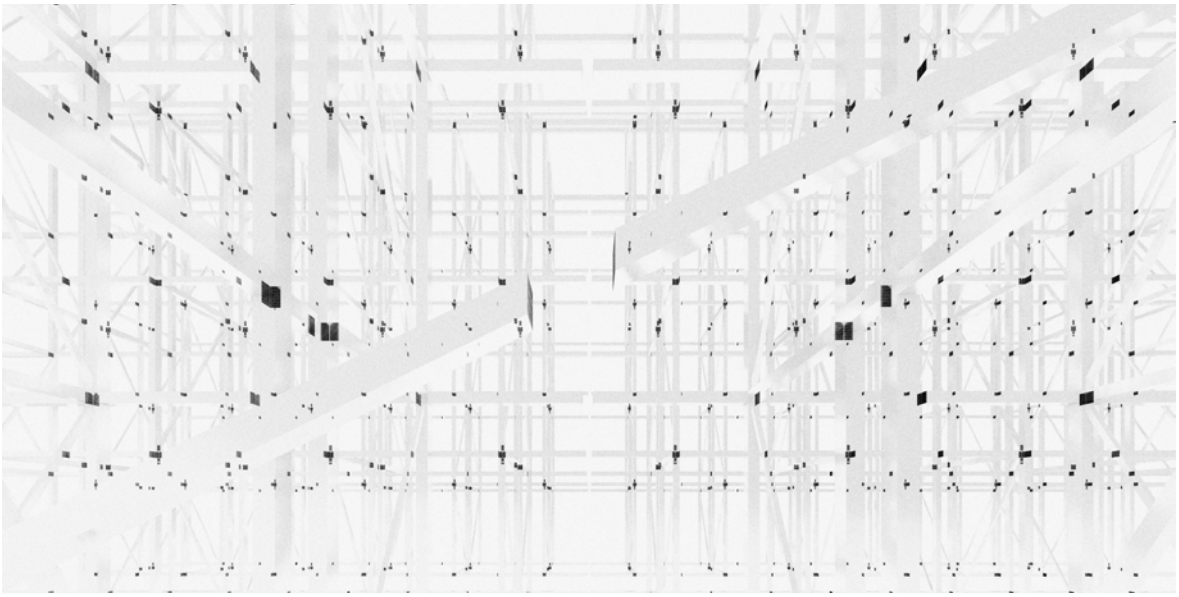


The architecture of logistic centers creates a deeply codified system of mutual dependencies. The dimensions and modules of these spaces do not refer to the human body, which is traditionally considered the reference point of architecture, but to the standard dimensions of shipping containers and industrial pallets. The self- referential, universal and monumental aestethics have emerged as an outcome of globalisation and massive standarization of elements and processes.

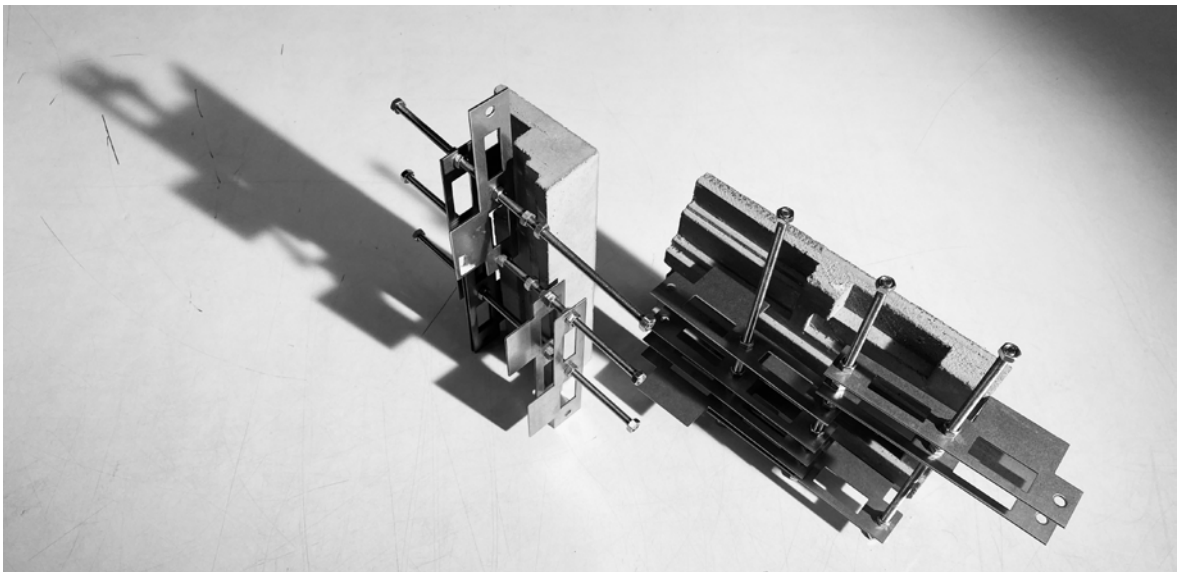




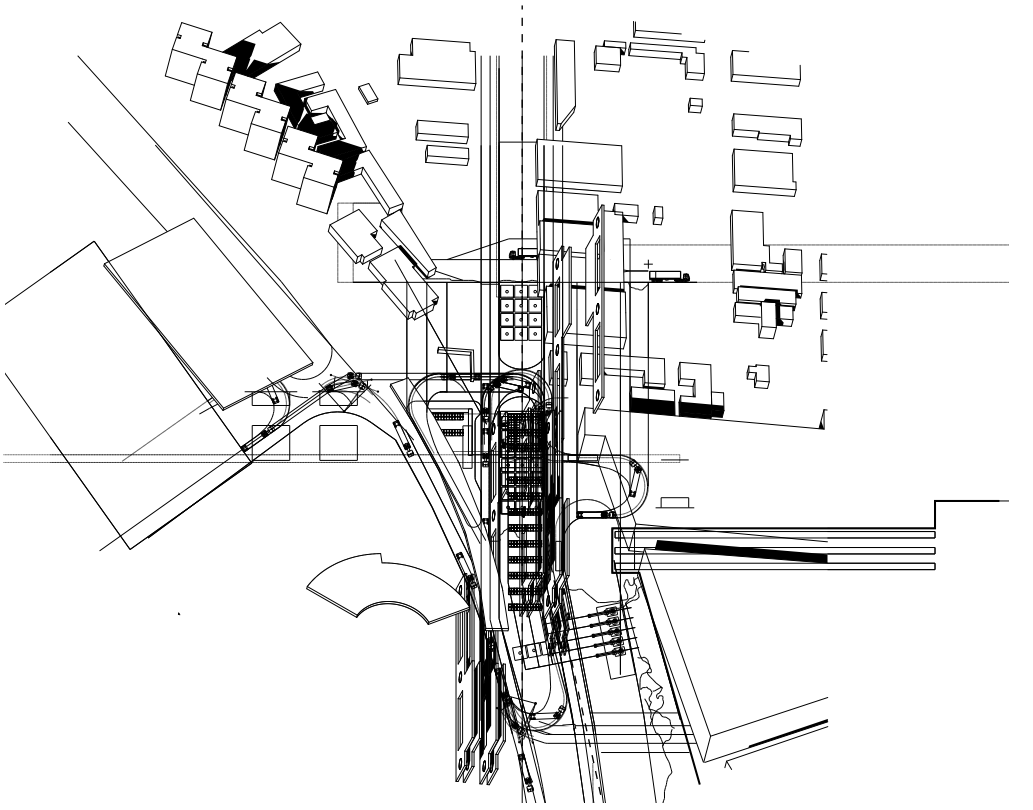
Architecture of Accumulation
Visions

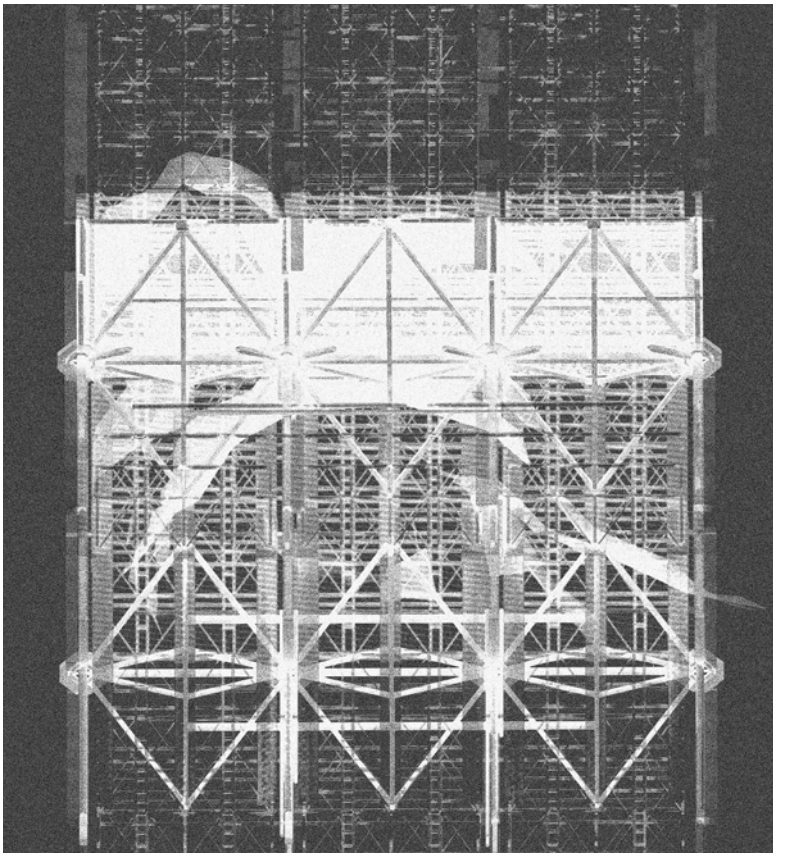


The graphics were created as a creative interpretation of the analysis of standarized dimensions governing the construction of logistics facilities. Sublimation of hyper-rational logic, unravel the potential in creating new architectural forms.

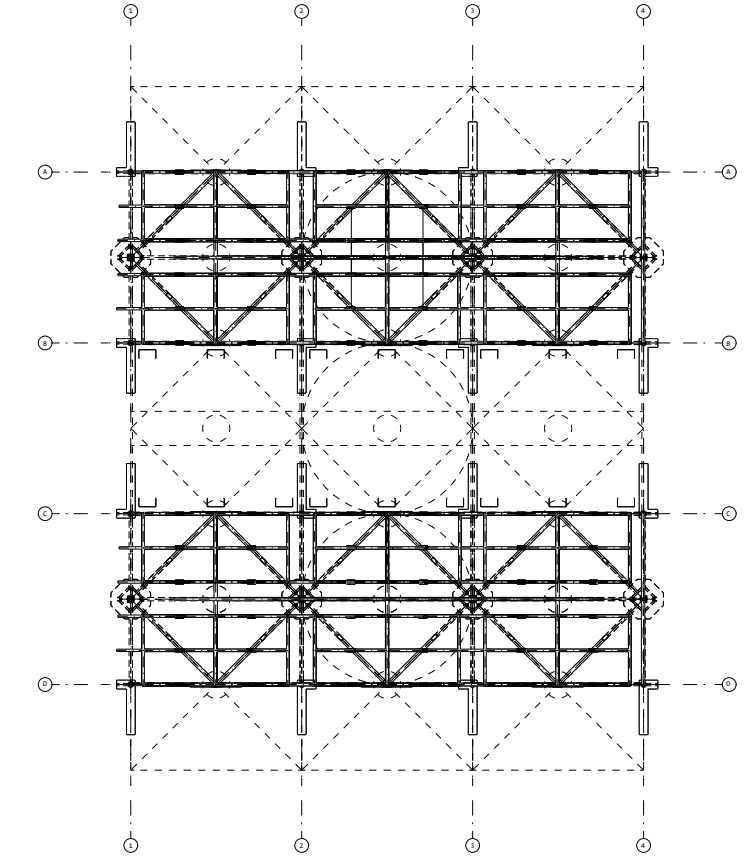


The final Modi Operandi model explored the operation of adjusting the system of prefabricated elements to preexisting conditions. The tension between the almost absurd precision of the system of industrial elements adjusted to the randomness of an existing conncerete casts corresponds with the spatial situation on the site. Site analysis drawing (below) compresses extensive infrastructural programs including warehouse, flood water storage and dredged soil disposal site on the impossibly narrow site. Spatial limitations require innovative architectural approach that generates formal and functional inventions.

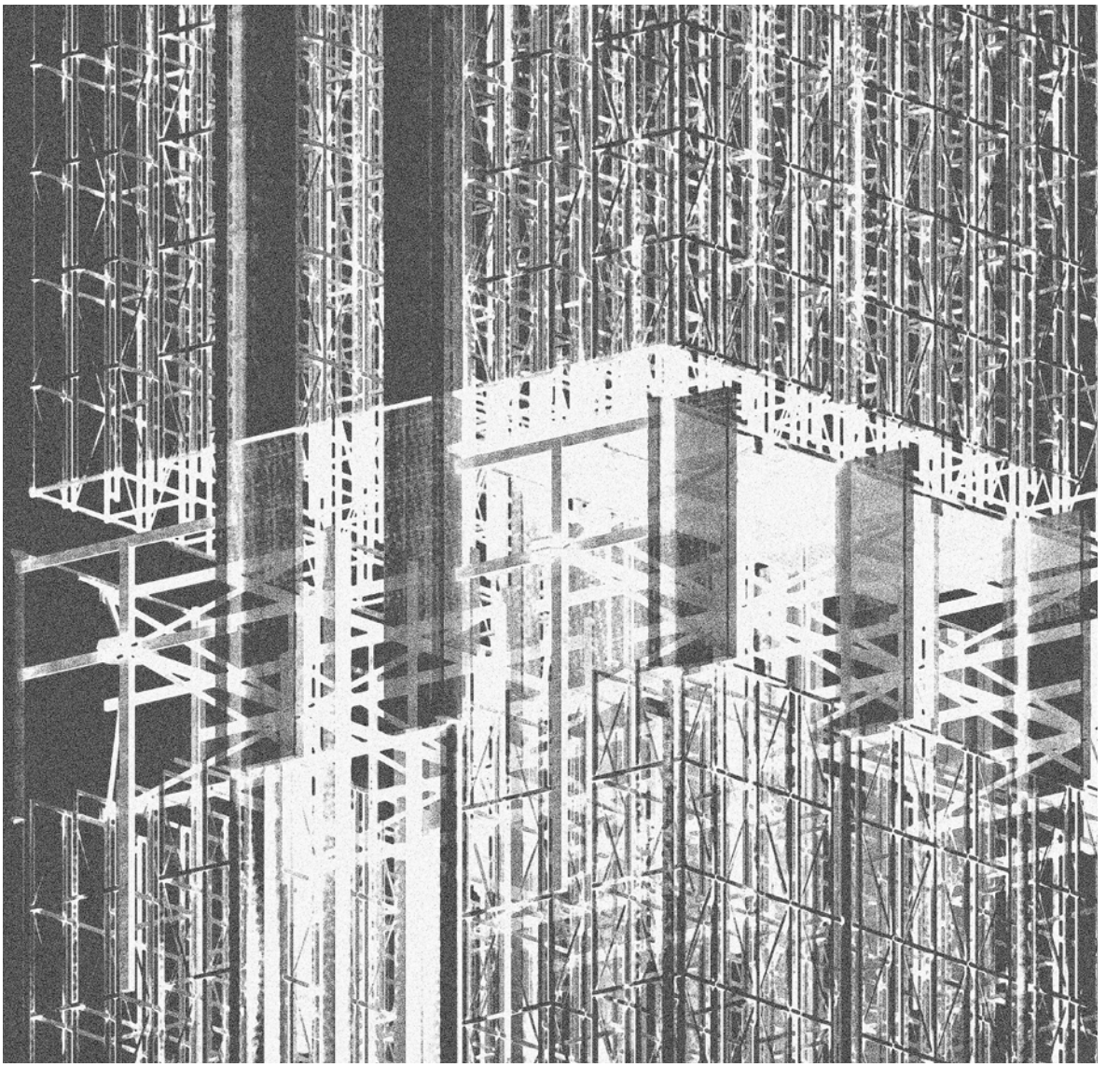




Accumulation should become structural, aesthetic and programatic premise of the intervention.



The Architecture of Accumulation, a new type of hyper technical space emerges at the junction of the global and the local. Architecture specific for the planetary scale capitalism, which feeds itself with the constant flow and accumulation of goods. It has been conceived to fulfill the needs of homo sapiens, but paradoxically it creates a post-human landscape, possibly more monumental and blank than anything which ever existed before. The aesthetic and functional consideration is desperately needed as this extensive entity slowly swallows the planet- we cannot avoid it, so we need to learn how to live with it. Architects have the skills necessary to think holistically about the spatial consequences (challenges and opportunities) arising from the development of this global infrastructure, technical systems that have become the most significant footprint of contemporary civilization. These architectectural-infrastructural entities constitute a significant part of the whole built matter produced globally, hence exploring their potential should become the task of a new generation of architects.



What new forms might emerge from the tension between the need for infinite accumulation in finite space? Will these radical conditions enable the transformation of infrastructural space into something different, perhaps more monumental and sublime than anything we have known so far?

Territory of exception as an instrument of power Special economic zones from Maquiladoras to the Media City

INTRODUCTION

A Special Economic Zone (SEZ) is an umbrella-term used to describe designated areas (usually conceived by the state or in the mode of public-private partnership) within the borders of certain countries, in which the law regarding customs regulation, manufacturing, or labor are different from the rest of the territory. The zone was designed as a political instrument based on the liberal utopia of an apolitical "capital without borders" and a belief that attracting foreign business to the enclave will ultimately lead to investment and socioeconomic development of the entire region or country. SEZ have taken on various legal forms and names throughout history, such as free ports, Free Trade Zones, Export Processing Zones, Industrial Parks, and Science Parks, just to name a few (for the purposes of this text, the general terms "zone" and "free zone" will be used interchangeably with Special Economic Zone, contrary to more specific terms mentioned above). The most common class of special economic zones worldwide is a Free Trade Zone (FTZ) defined by the World Bank as a "small, fenced-in, duty-free area, offering warehousing, storage, and distribution facilities for trade, transshipment, and re-export operations" (World Bank, 2008), however, the zones have changed significantly since the 1970s and some of them became fully functioning cities hosting complex and diversified programs like office, retail, or even housing and entertainment. Moreover, local legal frameworks differ significantly, and suspensions might even cover areas like freedom of speech or data gathering. The global obsession with these enclaves is clearly reflected in numbers: the United Nations Conference on Trade and Development counted 500 of them in 1995, 3500 in 2006, 5400 in 2018, (UNCTAD, 2019) and 7000 in 2022 (UNCTAD, 2022).

Regardless of the exact legal framework or geographical location zones are always "territories of exception", landscapes defined and maintained with a matrix of suspensions and deformations of law, which implies complex power relations between governments, corporations, workers, criminals, and several other actors involved. Despite the best efforts to promote SEZ as an apolitical and relaxed business-oriented environment, they are commonly used by authoritarian states or organized crime as power tools to realize their agendas. Over the last 75 years, free zones have transformed from simple clusters of warehouses to city-like states housing millions of people, and hence possibilities of using them to influence societies, global relations strategic flows have expanded significantly and become more sophisticated than ever before. The aim of this paper is to trace these processes and prove that the free zone is not an innocent, apolitical tool but a territorial instrument of discipline and control. To perform this analysis, the theoretical framework of Foucault's Disciplinary Societies and Deleuze's Societies of Control will be used.

TERRITORY OF EXCEPTION

The concept of "state of exception", introduced in the 1920s by Carl Schmitt and developed by Giorgio Agamben in his 2005 book "State of Exception" describes the social and juridical situations in which the state is authorized to ignore or suspend the law, usually due to the emergency or a challenge of national importance. As Schmitt points out in his famous quote "Sovereign is he who decides on the exception" (Schmitt, 1922) an entity that has the power to transgress applicable law in a way that does not arouse public opposition is in fact sovereign. Such concentration of power allows the one in charge to realize their agenda and at the same time hold a risk of escalation and state violence directed at those who are the subject of the law.

The concept of a free trade zone follows the same logic, as the authority decides to suspend several laws, in most cases regarding not only taxation but also labor law, safety, and sanitary conditions in the hope of overcoming public challenges by socioeconomic stimulation of the area. This paradoxical situation of applying violence towards certain groups to attract investment is a classic example of the dark underbelly of states, or in this case, territories of exception. As was pointed out by Keller Easterling in her book "Extrastatecraft. The Power of Infrastructure Space" contemporary free zones "rather than dissolving into the domestic economy, as was originally intended […] absorbed more and more of that economy into the enclave." (Easterling, 2016). They rarely benefit the commons and only translate into improvements in the economic charts proudly presented in official marketing materials.

The complex condition of the state of exception is usually associated with the militarization of the state and, in many cases, the direct use of force and violence. The instruments of power used in free zones, however, are not always visible at first sight, and especially nowadays, tend to be more camouflaged and sophisticated. As Easterling notices: "Zones preside over a mongrel form of exception that is more resilient and potentially more insidious." (Easterling, 2016). Open, graphical violence is bad for business, but camouflaged conflict, exploitation, a game of influence, and manipulation are natural components that fill the void left by state regulations and surveillance.

DEVELOPMENT OF A CONTEMPORARY FREE ZONE

Despite the fact that custom-free merchandise has a long history, usually derived from the ancient Greek port of Delos, Roman civitas libera, Hanseatic cities, or free ports established by British and Spanish colonizers in South America and Asia, the contemporary zone was born during Cold War period as an outcome of the American doctrine of Free Trade. Easterling indicates that one of the main factors of the proliferation of Export Processing Zones (predecessors of contemporary zones) after the 2 World War is the fact that they used to facilitate the existing military infrastructure and relationships between the USA and developing countries all over the planet were used to expand (mostly American) business to new markets. (Easterling, 2016) The promise of participation in a dollar-based trade and jumpstart of the local economy through foreign investment tempted many governments to implement them.

Despite the recent criticism of free zones in Western discourse, a story of unprecedented economic development in China since the late 1970s, in which one of the key ingredients was the use of SEZ located mainly in the Pearl

River Delta region, has created a new point of reference and aspiration for the governments of many countries in the global south, which continue to develop new SEZs in the belief that they will repeat at least a small part of the success of PRC.

Xiangming Chen, a scholar associated with the University of Illinois in Chicago, proposed the periodization of the free zones in three subsequent stages: the first from the 1500s to the 1930s characterized by historic free ports and free cities, the second from the 1950s to 1970s associated with the proliferation of American EPZs (for example in Taiwan, South Korea or Mexico) and the most recent third and fourth stages happening somewhat in parallel and distinguished by the development of SEZ in China or Science-based Industrial Parks (Chen uses also the alternative name-Technopolies). He points out how the most recent stages of evolution result in the most extensive spatial organization and change of functional as well as juridical mix, since free zones like Shenzen or Dubai's city-within-city clusters (Dubai Media City, Creative City Free Zone) aim to create communities of managers and trained professionals, regulate the laws regarding personal freedom, data processing or creative expression. Moreover, they operate like fully functioning cities by providing housing, services, and entertainment within the territory of exception (Chen,2009).

THE SHIFT FROM DISCIPLINARY SOCIETIES TO SOCIETIES OF CONTROL

The evolution of the concept of a Special Economic Zone from the 1950s to today has been closely related to the socioeconomic changes of this period. While the early post-war states were still deeply dependent on industrial production, in the second half of the 20th century many economies shifted towards a service-based model. New media, the sexual revolution in the West, and the expansion of democratic ideas have transformed the global society and its power structures. This change of paradigms was depicted by Giles Deleuze in his 1992 text: "Postscript on the Societies of Control.", in which he updated the ideas of Michael Foucault and his writing on the subject of "Disciplinary Society". Foucault's research on the power structures in the societies of the 18th and 19th centuries led him to the realization that in this period power was exercised due to the presence, or the threat of constant disciplinary gaze and the creation of a sequence of literally and metaphorically closed spaces (family, school, hospital and, factory) each with its own rules and surveillance. The power articulation in space was based on the direct distribution and control of bodies.

While in a disciplinary society, working bodies were reduced to their functionality, and the development of an individual was marked by passing successive closed environments, leading to the formation of an employee who fit into the logic of the work process of a manufacturing facility, "[…] in societies of control the corporation has replaced the factory" (Deleuze 1992). In "Postscript on Societies of Control" Giles Deleuze argues that contemporary society no longer works according to the way described by Foucault, as it follows the organizational logic of a multinational, computerized corporation instead of a traditional industrial plant. One is no longer the subject of power that disciplines and concentrates masses in space, but a "free-floating control that replaced the old disciplines operating in the time frame of a closed system." (Deleuze, 1992). The logic of closure is opposed to the logic of control, which seems to provide more freedom for the individual, but it introduces even greater oppression, as one is always dependent on the continuous network of passwords, debts, and virtual protocols. "Types of machines are easily matched with each type of society- not

that machines are determining, but because they express those social forms capable of generating them and using them." (Deleuze, 1992). Analyzing different types of free zones as territorial machines may give an insight into how the built environment can be weaponized by the ones in power and how the techniques used for this purpose have changed over the last 75 years.

Chapter 2. From Maquiladoras to the Media City

„Maquiladora" is a Spanish word referring to "a manufacturing plant that imports and assembles duty-free components for export" (Britannica, 2021). United Nations Industrial Development Organization dates the concept back to 1964 when the maquiladora program was introduced as a solution to the rising unemployment rates in the northern part of the country. Initially, more restrictive regulations regarding, for example, the location (within a twenty-mile strip of land along the border with the USA) and ownership (minimum Mexican ownership of 51%) of facilities were liberalized. Ultimately the law of 1972 deterritorialized maquiladoras and allowed for the creation of tax-free factories anywhere in the county, while the law of 1977 opened the possibility for them to be 100% foreign-owned. (UNIDO, 2016). Economist Jesus Cañas in his 2022 text "Maquiladoras, Mexico's Engine of Trade, Driven to Navigate Evolving Demand" refers to the statistics according to which "In 2021, maquiladoras accounted for 58 percent of Mexico's manufacturing GDP" (Cañas, 2022), however, extensive use of the territory of exception as a shortcut to economic development comes at a cost. Over the years these factories have become synonymous with "3D" jobs (dirty, dangerous, and demanding) and human rights violations. "Reduced labor costs of 50% or more" or "6-day work week" (manufacturinginmexico.org) are just some of the popular advertising slogans, behind which there are stories of abuse that regularly emerge in journalistic investigations and reports of NGOs. Human Rights Watch in August 1996 published the text "No Guarantees: Sex Discrimination in Mexico's Maquiladora Sector" according to which the maquiladoras are commonly the environments of discrimination and abuse unique to female workers. Desperate, under-educated women may, among others, be forced to undergo pregnancy tests before being accepted to work and even forced to resign because of pregnancy. (Human Rights Watch, 1996)

The built environment's role in mediating the power over subjects in maquiladoras is no different from the 19th-century factory since they concentrate and organize groups of anonymous workers in abstract, closed interiors, where they perform dehumanizing repetitive tasks. The juridical suspensions are also related to less frequent and thorough inspections and surveillance, as described by Agamben: "[…] the state of exception constitutes rather a kenomatic state, an emptiness of law" (Agamben, 2005) The violence in maquiladoras is physically separated from the public gaze by a set of gates, fences, and windowless walls, and the internal law of these places is based on the vertical relationship between the manager in charge of maintaining discipline over the mass of workers. Despite the criticism and repeatedly proven systematic abuses, maquiladoras operate continuously to this day, and the exploitation typical for this type of power relations are the everyday reality of many employees.

Foucauldian exercises of power are still present nowadays, as seen in the example of maquiladoras, yet they were outsourced from so-called developed countries, as described by Deleuze: "[…] capitalism is no longer involved in production, which it often relegates to the Third World, even for the complex forms of textiles, metallurgy, or oil production. […] What it wants to sell is services and what it wants to buy is stocks." (Deleuze, 1992). Surprisingly, in the two-speed world,

the territory of exception was not relegated to a peripheral role in the global economy along with the traditional monofunctional factories providing smooth supply chains for products and materials but has been reinterpreted and updated to become an instrument to control more sophisticated and intangible flows of data, stock, and information. The world-famous example of Shenzen, a former fishing village that has "ballooned into a megacity sprouting stalk after stalk of generic concrete skyscrapers." (Easterling, 2016), is a model of a free zone of a new generation. It is a misconceived city, operating on completely different principles than EPZs, not encouraging potential investors with the low price of substandard operations but the image of corporate professionalism and the opportunity to participate in a globally recognized and trustworthy market. Kim Dovey in his book "Framing Places: Mediating Power in Built Form" distinguishes several ways in which the built form might mediate power over a subject. Interestingly, next to modes of operation that can be associated with disciplinary societies like "force" or "coercion" he points out to "manipulation" defined as "[…] form of coercion which operates primarily by keeping the subject ignorant." (Dovey, 1999) and "seduction" defined as "the practice which manipulates the interests and desires of the subject." (Dovey, 1999), two forms of power articulation that go along with the ideas of Deleuze and the recent generation of special economic zones. While Pearl Delta River SEZ-cities like Shenzen use manipulation and seduction to create the image of an apolitical, generic metropolis they are in fact "social and economic laboratories where foreign technologies and managerial skills could be observed" as described by Deng Xiaoping, former leader of the PRC, responsible for the introduction of SEZ in China in the 1970s, as quoted by Tim Simpson (Simpson, 2023). The environment of personal and financial freedom is not the outcome of well-rooted democratic processes, but an illusion created and sustained by the Chinese Communist Party. The artificially created corporate space works as a trap in which Western models of work organization, technology development, etc. are supervised by the omnipresent, invisible control of the authoritarian government and copied if necessary. A free zone, an instrument originally created as a natural consequence of the liberal culture is used by the authoritarian state without the risk of "spilling" the "freedom" across the rest of the country. Moreover, this "laboratory" (or "trap") is based on the "build and they will come model" (Kirton, 2023) of speculative construction of infrastructure and buildings by the government in which the built environment is used as a tool of demand creation and seduction.

While describing his idea of a post-disciplinary, scattered control model Deleuze recalls Guattari's vision of a "[…] a city where one would be able to leave one's apartment, one's street, one's neighborhood, thanks to one's (dividual) electronic card that raises a given barrier; but the card could just as easily be rejected on a given day or between certain hours;" (Deleuze, 1992) which became reality in Dubai, where power is even less visible and possibly even more omnipresent and oppressive than in previous examples. There are more than 20 SEZ within the city itself, however, the urban tissue does not seem scattered at first glance, as the borders of enclaves are articulated subtly with beautifully designed signs and rows of exotic plants instead of concrete fences. All zones are dedicated to distinct types of activities and in addition to general tax suspensions, each territory established its own laws regarding the specific industry it serves. Perhaps the most shocking example is Dubai Media City, a territory of exception developed to host

international media corporations like Reuters and CNN, described by the official website of United Arab Emirates Ministry of Economy as "the first of its kind to be established in the region [..] specialized in the fields of media and communications." (moec.gov.ae). The zone is a cluster of skyscrapers mixed with green and blue infrastructures including an artificial lake and a few urban details. The space resembles thousands of similar office-service districts around the world, but a virtual territory defined within Media City is a unique political-spatial construct, providing "some freedom of speech not technically permitted elsewhere in the state of Dubai" (Easterling,2016). An enclave of freedom of speech created by the government which, according to Amnesty International "exercised control over expression, at times censoring content in the media or cinema deemed to be immoral" (Amnesty International, 2023) seems like black humor, but it is the fact of the early 21st century. The official website of the zone emphasizes the importance of the "community" of this "media and content hub" (dmc.ae), however, the reality is far from the one depicted in advertising brochures. Despite the declared freedom, in 2007 journalist Faisal Aziz described in Reuters how private Pakistani TV Networks were forced to shut down after the intervention of the authorities of the zone on the demand of Pakistani President and General Pervez Musharraf. (Aziz, 2007) Once again the enclave of freedom created by non-democratic state turned out to be a mirage working only under very limited conditions, while the corporate, appealing New-York-like architecture has been used as a façade for this illusion.

Conclusion/ The new weapon

"There is no need to fear or hope, but only to look for new weapons" (Deleuze, 1992)

The desire to create further SEZs has become one of the main forces influencing the shape of the planet's terraforming and urbanization process, which Easterling calls the "world's global urban addiction." (Easterling, 2016) Ubiquitous belief in the invigorating power of capital flows has become a universal myth leading to the creation of an Earth-wide spatial matrix of territories of exception, entangled in an international geopolitical game reflected in the material form of the zones.
As Dovey pointed out: "Because architecture and urban design involve transformations in the ways we frame life, because the design is the imagination and production of the future, the field cannot claim the autonomy from the politics of social change." (Dovey, 2005). A territory of exception is perhaps one of the most radical and extraordinary forms of expression of this politics, which makes it vulnerable to being misused and weaponized by the ones in power.
While in the 1960s EPZs, the power structures were violent but clear and easy to track (and consequently to resist), the most recent generation of free zones tends to create more complex and ambiguous environments. "Corruption thereby gains a new power. Marketing has become the center or the "soul" of the corporation. We are taught that corporations have a soul, which is the most terrifying news in the world. The operation of markets is now the instrument of social control and forms the impudent breed of our masters." (Deleuze, 1992) For modern image-obsessed corporations, associating their brand with labor exploitation and clear, graphic violence toward workers is unacceptable, but the power over is exercised through the control of data, scattered surveillance, and using the architectural form to create mirages that mask reality. The discipline used to be executed with force, but control is sustained by illusion and invisibility.

As I write these words at the end of 2023, the future only seems to become more and more uncertain. The world system that has prevailed since the end of the Cold War, resulting in the contemporary proliferation of free zones is being questioned by non-democratic forces all over the planet. As it has been proven in this paper, territories of exception are becoming a convenient tool for those opposition players who use them to hack global capitalism by benefiting from the culture of economic freedom, without the "risk" of creating a civil society capable of questioning the power relations. Skyscrapers with sports facilities and air-conditioned lobbies designed by world-famous architects in tax-free zones "could at first express new freedom, but they could participate as well in mechanisms of control that are equal to the harshest of confinements." (Deleuze, 1992) and we should never forget about this threat.

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MOVING GARDENS

CARING POTENTIALITIES

As much as I tried to define care, the more I learnt about it, the harder it became to do so. I always ended up wanting to paint care in a positive light: "In the naive attempt to purify care of its burdens, the new caring spatial practitioners should be striving to repeatedly revisit the constructed knowledges in their abstract or material form, question the process of their construction and produce new collective (situated) knowledges." While maybe care is also about acknowledging that there is always room for the wrong readings of history, error, connected to our own biases, which are intrinsic to our being, even with the best intentions. But to get closer to a definition I might conclude: maybe one should start from themselves, self-care for oneself, but for oneself as part of the immediate context and its social, political, ecological or material entanglements. There is also a need for endless thinking-with and investigation of possible outcomes, need for understanding, curiosity, empathy, and attentiveness. Caring for one, disrupts the other, so that caring never happens without its repercussions. I relate to the Maria de Puig Bellacasa's introduction ending where she concludes:

"And so I hope the reader will forgive me if this book opens up more questions than it offers answers." [1]

Care in discussions on spatial practices (and not only) has recently reached a point of being quite intensely overused. However irritating this recurrence might seem, in the time of several concurrent crises on political, social, technological or environmental fronts, the annoyingly frequent emphasis on care seems to be on point. Such overuse can be also argued for by Joan Tronto and Berenice Fisher's broad definition of care as being "everything that we do to maintain, continue, and repair 'our world' so that we can live in it as well as possible. That world includes our bodies, ourselves, and our environment, all of which we seek to interweave in a complex, life sustaining web."[2] The bottomline being - we all care for something. But what this definition suggests is that such web of relations creates multitudes of potentials for caring. In spatial terms, such can depart from the care for the physical object itself, grounding care in matter, extending to the temporal dimensions, caring for posterity, or to all of its related ecologies. So how does one choose what they care about? If the definition is so general, how does one determine what is care and what is not?[3] When is the caring considered immoral or detrimental? Is there a way of understanding all of these complexities and intricacies, of caring without disrupting the assemblages and orders that have been created?

CARE AS AN INTRICATE WEB OF RELATIONS EXTENDING FROM ONESELF

Nancy Fraser goes further in understanding the overuse of the term care, claiming that indeed 'crisis of care'[4] is not a crises' side-product but rather a crisis at the centre of all the crises. Care, often referred to as social reproduction or 'the maintenance and continuation of existing social relations' is in crisis. Fraser calls such phenomenon a contradictory social reproduction, as in capitalism, the rudimentary principles of care[5] are undermined and undervalued while still perpetuating the

Figure 1: Mierle Laderman Ukeles: Maintenance art. Barnard College Pratt Institute.

wheels of production running, often through the exploitation the most vulnerable. Eventually colonising another concept self-care[6] with roots in ancient philosophy, understanding oneself as the extension of the community or vice-versa (or nowadays popular Banti term ubuntu), later adopted by the black feminist movement and prominent in the later work of Audre Lorde.[7] Instead of focusing on the immediate social context, self-care in the capitalist context aims to keep the market running by looking for salvation through the creation of endless material desires. Focus on the self as a starting point defeats the purpose of care, which should be about care-taking of relations (of more-than-human worlds). Tronto develops her definition of care in the book Moral Boundaries by highlighting that the process of caring should be activated by the concern for the other "…as the basis for action,"[8] care and concern sharing common etymology.[9] It is the central argument for Bellacasa too, hence the name of her book Matters of Care.[10] But the assumption that care-giving practices are purely altruistic is also wrong. Being self-less can often benefit oneself (the release of dopamine, progressively increased empathy…) and under this assumption, care is often misinterpreted as positive, which exactly what makes thinking about care 'disruptive'.[11] Caring can be romanticised by those who do not perform it, and perhaps even more by the ones who only see the result and operate outside of the caring structures. But such processes can be activated mostly when care is not imposed on the carer.

THERE WAS MAINTENANCE: CARING FOR THE MATTER AS A WAY OF CARING FOR THE INTANGIBLE

Such forced imposition of care is the main objective of Mierle Laderman Ukeles' pivotal performance on the stairs of the Wadsworth Atheneum museum.[12] Ukeles perfectly exposes, encapsulates and critiques the burdens of care work. In her 4-hour long performance, by continuously washing the stairs of the museum, Ukeles reveals not only the behind the scenes of her own life - imposed, unpaid, monotonous, mundane, physically tiring work, but also evokes structural and institutional critique. With a rightfully gendered tone, the performance interweaves the two clashing identities - the role of the mother inflicting on the role of an artist. This artistic spatial practice, related to matter - central in the reproduction of values and relations, points to the very problem of architecture - its pre-occupation with the sustenance of power.[13] The caring practices of architecture performed on the matter, especially practiced in the post-production phase, could be reduced to the categories of maintenance and repair work. Tedious and repetitive maintenance work, not considered intellectually-stimulating, is often relegated to the hands of the less privileged. In the wake of the industrial era, the maintenance work, still attributed to women or marginalised, has been made intentionally hidden (double staircase principle for service and residents, hiding the caring practices to the domestic sphere, dedicated hours for maintenance work,…). These values, or rather the lack of them, are being reproduced[14] in the

Figure 2:The Concrete Bridge vs the Bamboo Bridge. Photo: Sopheak Sao

space by being materialised and later preserved. The moral imperative of care in the lens of a critical feminist practice is to question these values, their construction and potentials for their reform. The artistic spatial practice of Mierle Laderman Ukeles uses a powerful institution, a symbol of knowledge and intellectual growth, for that very purpose. Nevertheless, Ukeles reframes art from a product oriented practice to a processual and relational one, the same way spatial practices have been reinvented several decades later. The processual takes into consideration the continuation of relations in time and space, while the final product becomes an isolated entity in the spatial as well as temporal dimension.

The further two-bridges example is great at epitomising both, the comparison between an isolated object versus an object that interacts with its environment, while also revealing the ambivalence of the term caring. Veiled in the optimistically sounding "care" but resulted in a rather destructive project, perhaps only caring for the pocket of the "care-giver" (ironically becoming the receiver as well) is the case of the concrete bridge in the Mekong River in Cambodia.[15] The concrete bridge has replaced a bamboo bridge that had been serving the community for decades, allowing natural habitats to co-exist with the bridge, rebuilt after every monsoon season, locally sourced, maintained and built by the community. The concrete bridge on the other hand, supposedly weather resistant improvement for the transportation across the river, have also been "designed by global engineering firms, built by independent contractors"[16] with materials sourced from far away, financed by investment funds from China, to get hold of cheap rural land, and eventually valorise it. For the purpose of justifying the construction of the concrete bridge, bamboo bridge is accused of stagnation and regress. The concrete bridge is 'modernising the region' which effectively provides a long-lastingly care for the community. However, looking at the concrete bridge with a post-human feminist lens[17] (which should be central in the discussions on care), the seemingly caring concrete bridge is erasing the sustainable traditional practices, disrupting animal and plant habitats, but also replacing an object important for the social reproduction,[18] in short, disrupting the situated relations.

Although caring has been often portrayed as concerning just two parties, is not purely maintained 'by individuals giving and receiving back again but by a collective disseminated force.'[19] This circles back to the contemporary excitement for collective practices, collective knowledges. Caring is often grounded, situated, as the complex web of relationship is seemingly simplified, so that one can problematise what and who needs care, or where exactly the 'concerns' come from.

AND THEN THERE WAS REPAIR: CARING AS A TOOL OF TRANSVERSALITY

The disruptive force of care might not always be destructive or detrimental. Maria Puig de la Bellacasa is building on the argument of Joan Tronto by stating "caring involves an "ethico-political commitment"[20] to the neglected and oppressed and a concern with the affective

dimensions of our material world. Feminism, central to the thinking with care, does not preexist its relatings. As a boundary project, it is confronted and questioned by collective politics and positionalities. Faranak Miftab is further supporting it by advocating for the radical care, wishing for the care practices to be decoupled from "patriarchal and racial capitalism"[21] in order to achieve humane urbanism. In both cases, there is a wish for an utopia where caring practices are unburdened and the eventual spatial practices strongly resist to the normative ways of thinking. Departing from situatedness, caring practices refuse to be objective, rather being heterogenous and constantly extending and 'troubling boundaries'.[22] Miftab is among the more hopeful, looking at the future through a lens of possibility,[23]relating to Elizabeth Grosz' "The future is that openness of becoming that enables divergences from what exists."[24] She notices the care-taking in the insurgent practices in urbanism. Dividing them into two categories invented and invited spaces, she expands Lefebvre's spaces of representation. The assumption is that care-taking can only be classified as radical care, when it is practiced by the marginalised themselves springing from their own motivations. Invited spaces are constructed with the help of NGOs or other mediating organisations, enabling a negotiation space. Invented spaces, spaces of radical appropriation, might reflect the squatting movements or collective practices within a neighbourhood resisting the status quo, and caring through the interventions purely resulting from their struggles. As previously stated, when care in not expected or imposed on us, then care can start being "decoupled from patriarchal and racial capitalism." Invented practices are also the representation collective politics and positionalities which not only disrupt and deconstruct the boundary of feminism, but also provide new relatings, new patterns out of previous multiplicities, adding layers of meaning, creating building blocks for Posthuman Feminism.[25] The commoning practices, which are often part of care-taking processes in the invented space are also working against hyper-individuality, building interdependencies such as mentioned in the capitalist self-care movement. The community commoning practices have higher importance and are "supported through common objects or activities rather than spaces."[26]

When care-taking for a fractured world, insurgent practices become a transversal.[27] Within the transversal, there is often a need to involve diverse perspectives such as those who are already immersed in the process of fixing the world. Jackson[28] frames repair-thinking as a distinct epistemology, asserting that fixers perceive different worlds than conventional figures such as designers or users. The ambiguity surrounding the essence of repair — whether it entails restoring an object to its original form or fostering innovation — is a pivotal inquiry. According to Jackson, repair is fundamentally about generating something new. The consequences of neglecting care are underscored as deterioration, prompting contemplation on whether breakdown and decay are inherent aspects of life. The need for repair, in turn, raises questions about forging new

Figure 3: El Anatsui, Stressed World, 2011.
Aluminum and copper wire, 174 x 234 in.

relations that are indispensable for life's continuity. The collective practices discussion emphasises understanding and collaborating with others. Breakdown, with its world-disclosing properties, becomes a crucial aspect of societal learning, as articulated by Graham and Thrift, [29] who identify it as a means for societies to grasp adaptation and improvisation in repairing broken systems. Such can be illustrated by the artist El Anatsui, taking disposed mass-produced objects and weaving them in order to create a completely different object and often a story too.

In some sense, the wish for what caring should represent might be connected to Donna Haraway's "staying with the trouble…"[30]Architects should not only be responsible for the building construction and pre-construction phases but also staying with the trouble all along. Not only with the material manifestation of the design but all of the implied relations, also in the post-production, rather continuously making architecture with. Maybe staying with the trouble means that we should continue trying to find the sweet spot of care, looking for its pure form. But maybe the focus of this essay has been wrong all along. Perhaps the question is - do we still need architects on a damaged planet? The Turkish pavilion[31] in the Venice Biennale raises this question by exhibiting a little pamphlet defining the future professions amongst which there is a figure of a maintenance architect. Not as a builder, not as a creative genius, but a professional that understands either the material, social or non-human relations and is routinely taking care of them. Such involvement in all of these disciplines and professions seems like a lot of pressure for a single profession, and should not come from a point of the all-knowing genius how it used to be, but as mentioned earlier, engage in collective practice. Perhaps, instead of redefining the discipline, there should be an attempt to question the necessity of the discipline in its active and often futile or disruptive participation in the process of fixing the complex broken world. Critical radical caring should be formed out of a ingredient of radical and active empathy.[32]

How do we even start caring and repairing if we might not even understand the extent of the damage on our damaged planet?[33] Maybe we could start from looking at the proximate, immediate, starting with our milieu and its connection to its material context. I believe the answer is in situating ourselves, observing the situated knowledge, becoming modest witnesses.[34] Collecting situated knowledges, thinking collectively and working collectively, but also situating ourselves in the shoes of the others, exercising radical empathy. But simultaneously, being humble in understanding one's possibilities, acknowledging endless entanglements, not trying to control or resolve every single one of the problems, and be obsessed with caring for everything, because sometimes caring will take place even without us humans intervening (supposedly caring). Caring is often intuitive, personal, in my case hopefully, also political.

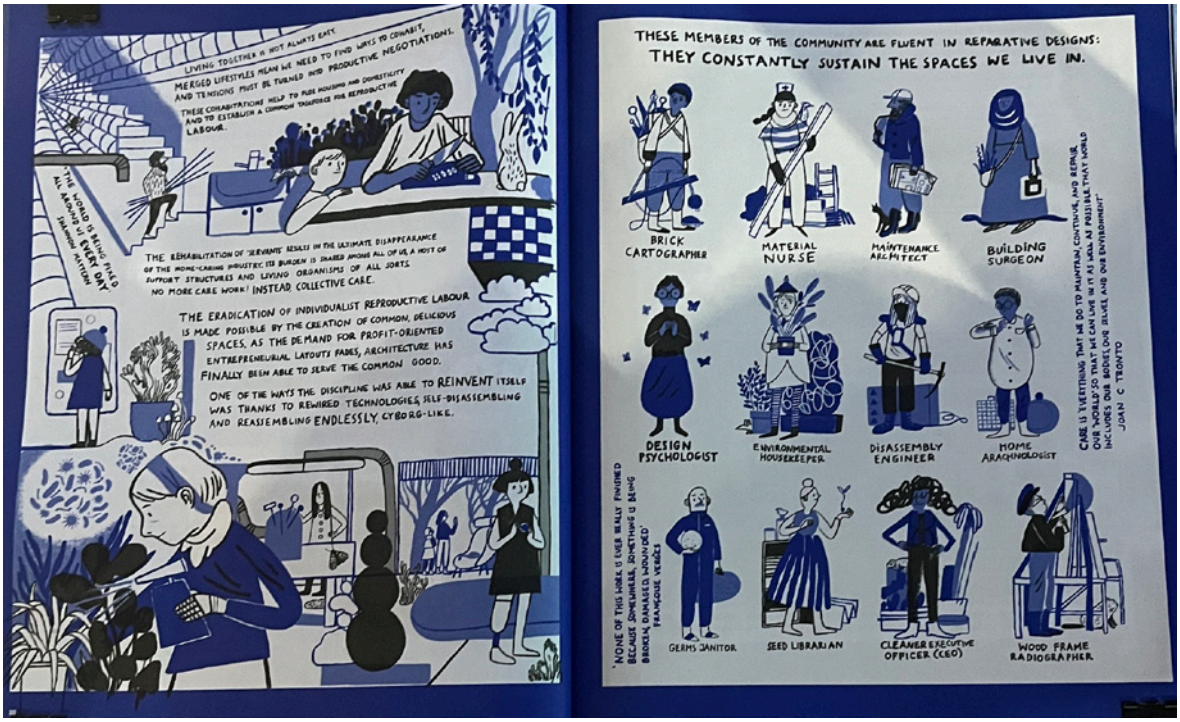
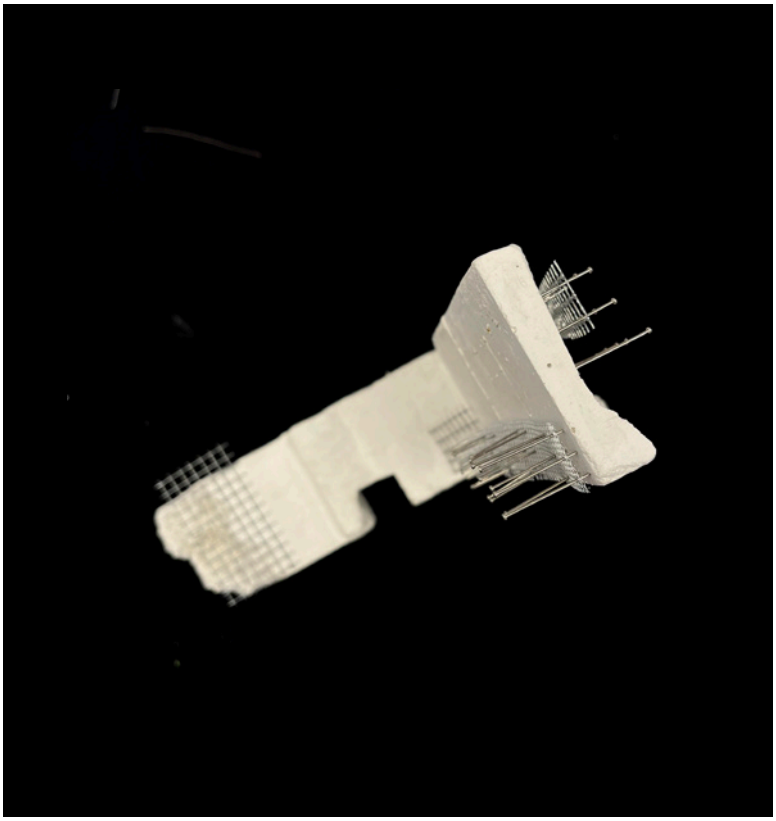
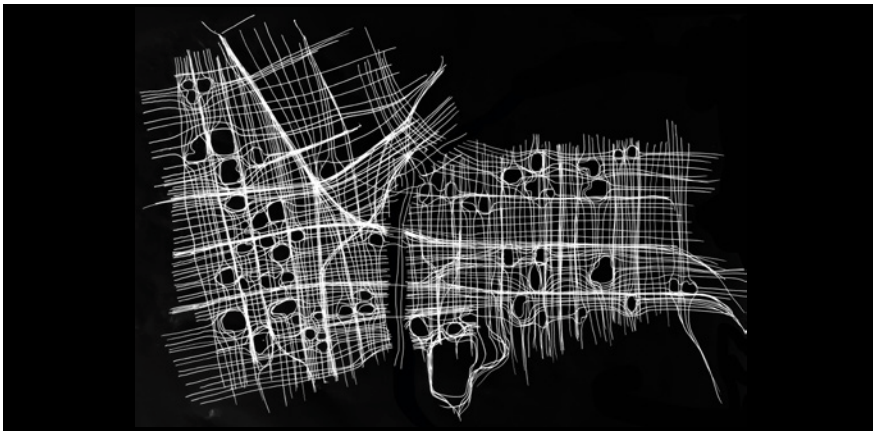
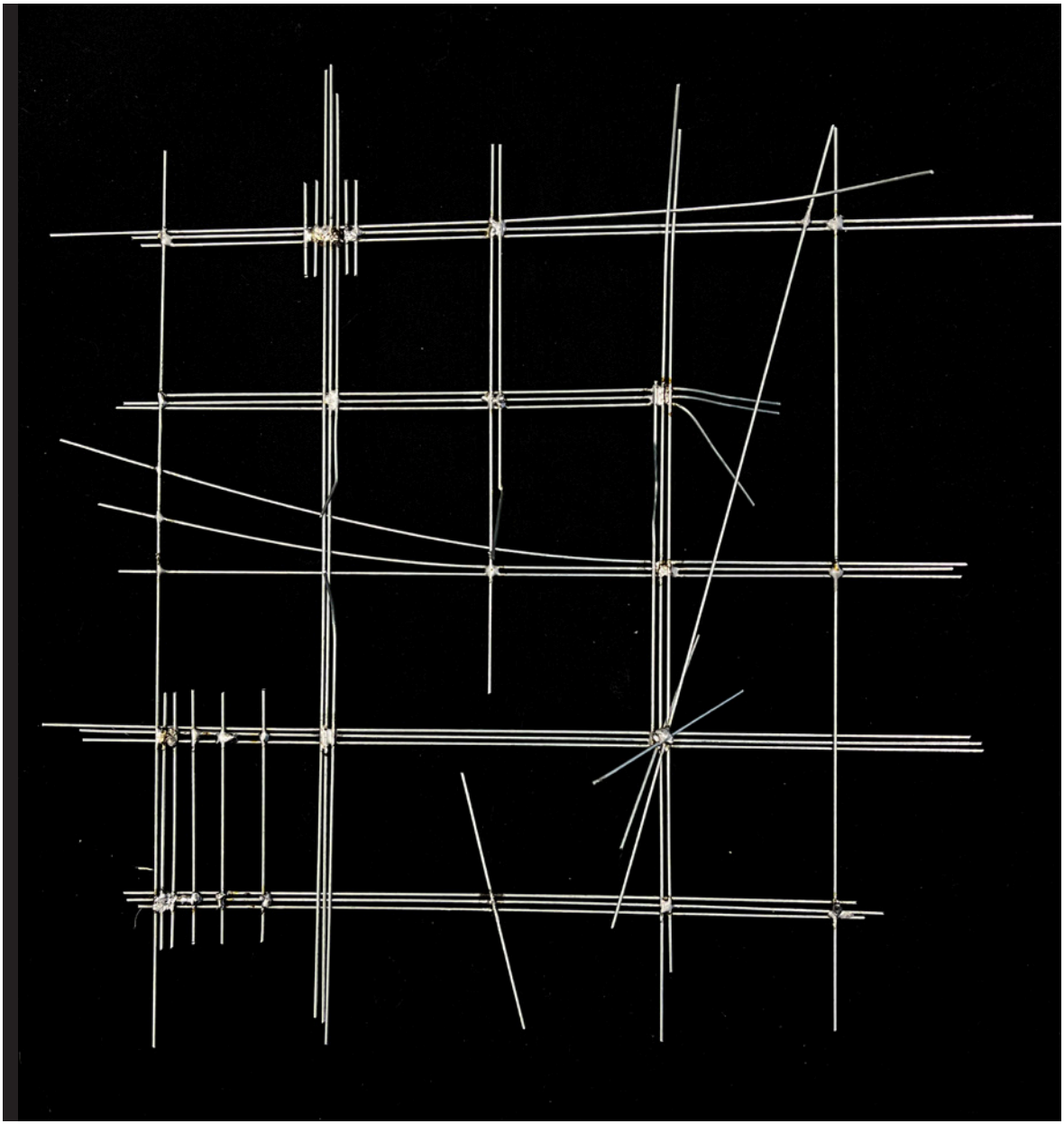


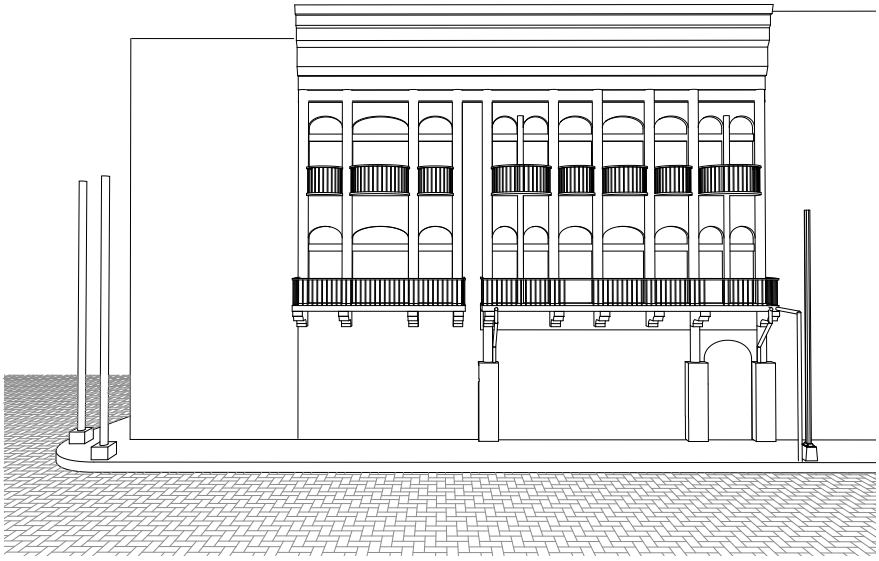
Figure 4: Photo from the Turkish pavilion in the Venice Biennale.

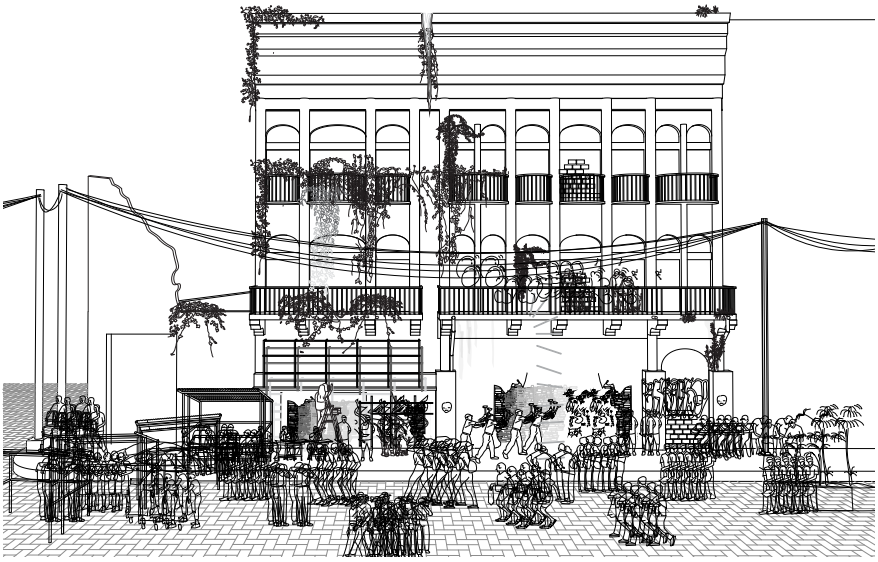
Model explorations

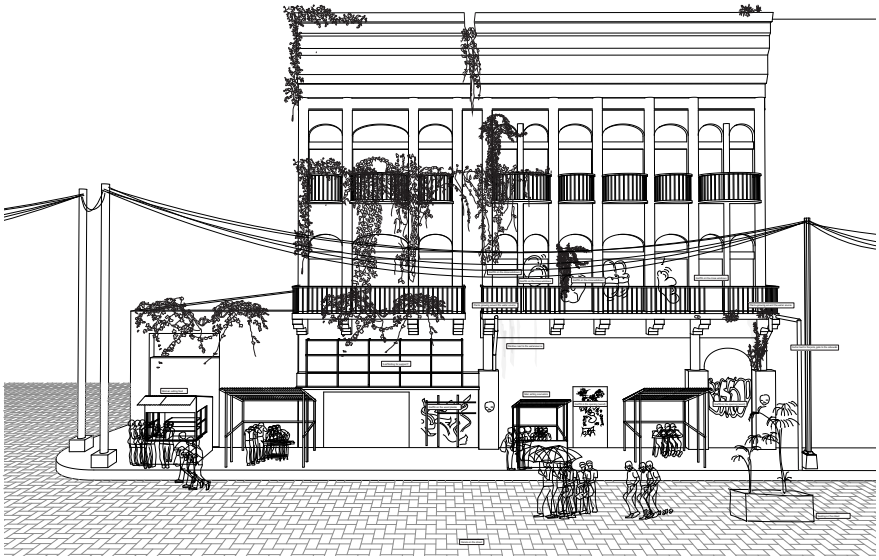


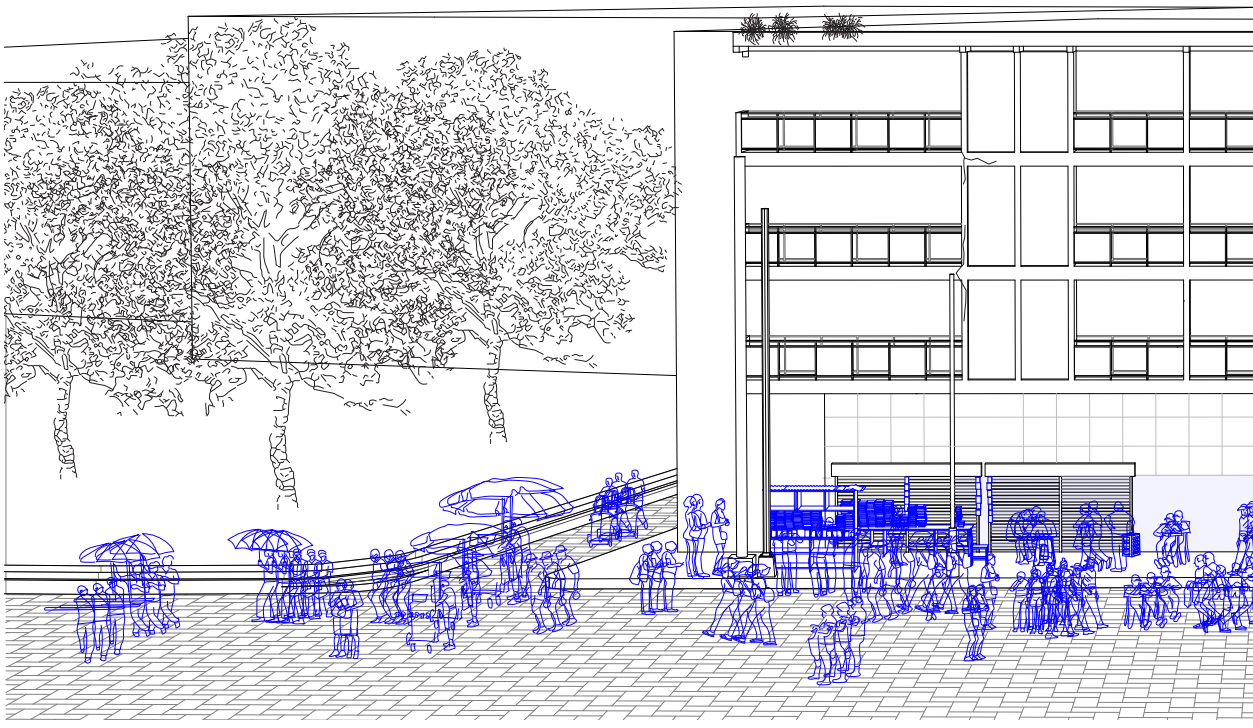


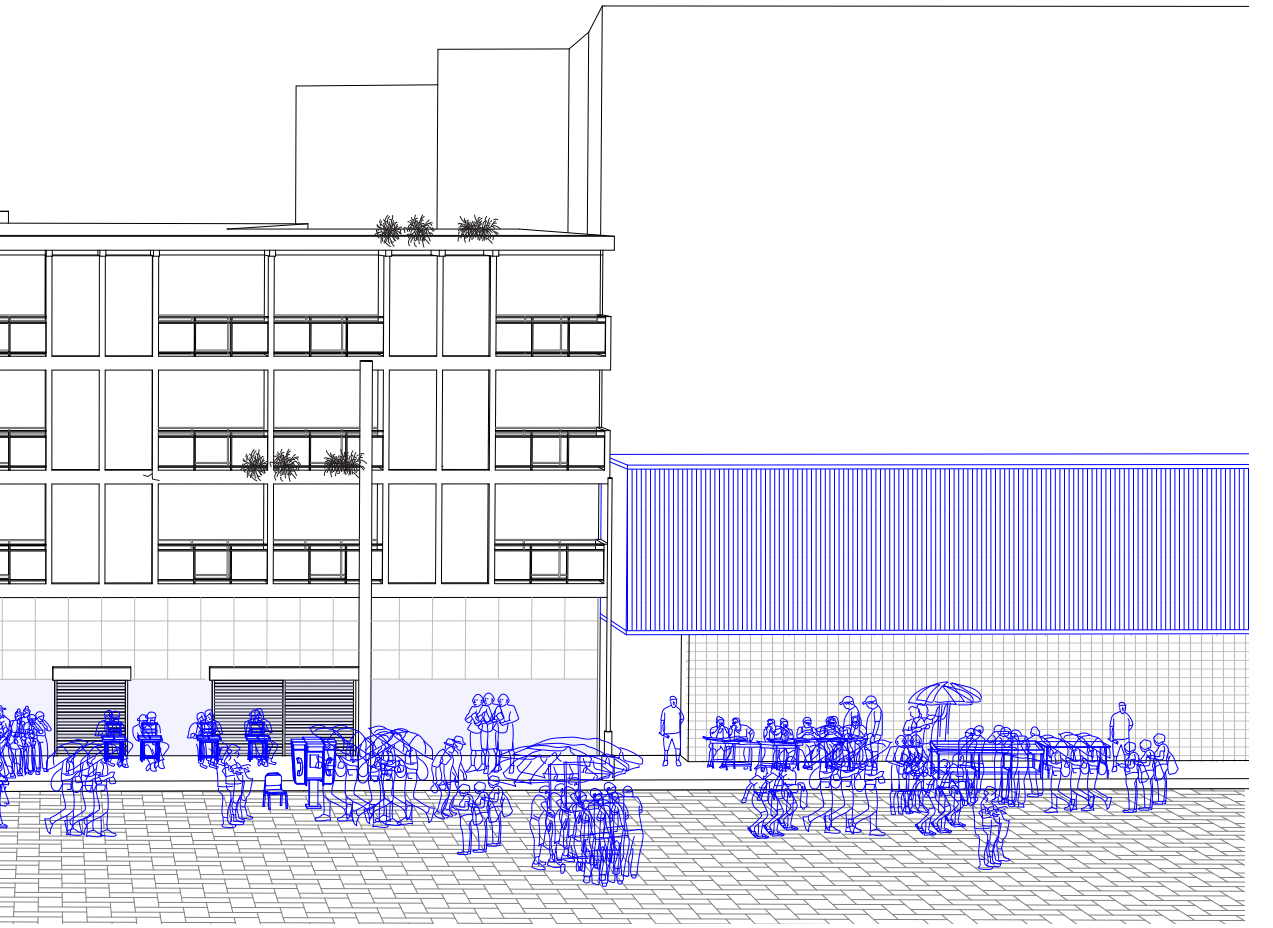




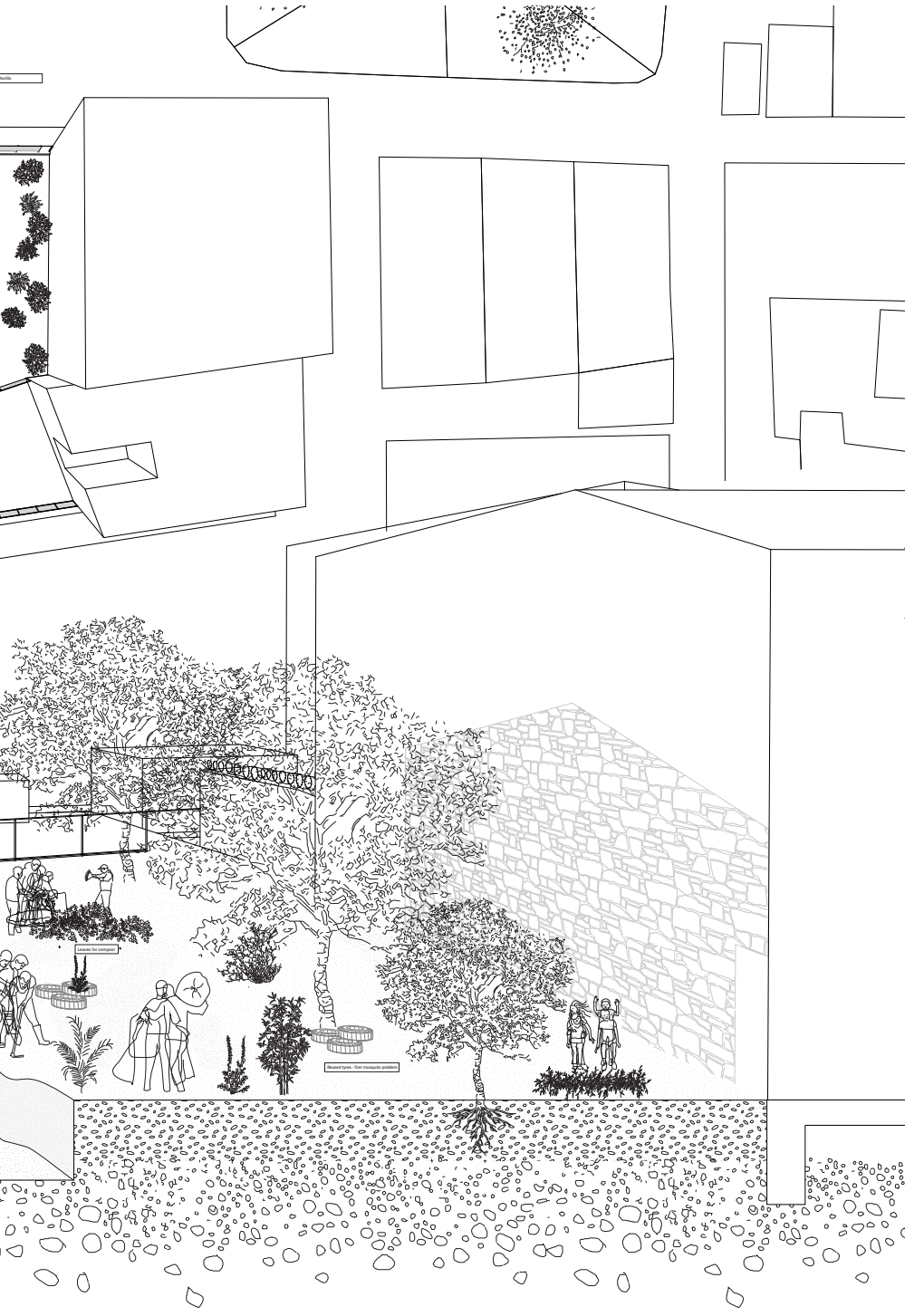








Casco Viejo
El Chorrillo
Cooling down the city
Removal of graffiti
Removal of foundations and reuse for decoration
Removal of the trash from the plot
Removal of the trash from the plot


Leaves for compost
Reused tyres - fold mosquito problem

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SCREAMING IN BINARY LANGUAGE

ON THE ROLE OF ANALOG THEMES WITHIN THE ARCHITECTURAL DISCOURSE

"Why in the digital age have some of our best thinkers turned toward characteristically analog themes?" (Galloway, 2022, p.212). The question, which repeats itself twice in the influential essay "The Golden Age of Analog," by Alexander Galloway, professor of Media, Culture, and Communication at NYU, remains unanswered. The text, first and foremost, proposes and further explains in detail, the division of themes among theoretical humanities into digital and analog. According to Galloway (2022), the first type of representations work through discrete units, such as letters and integers. Anything constructed with those is thus inherently digital: words, languages, texts, symbols and codes . The analog representations are demonstrated to be working through continuity or continuous variation and are tied by the author to the "perception, experience, indeterminacy, or contingency" (Galloway, 2022, p.212). Furthermore, the digital operates through divisions, distinctions and abstractions. In the end, the combinations of the discrete units contain symbolic value that transcends their singular meaning. The analog on the other hand works through assemblages, multiplications, mosaics. As it embraces the multiplicities and the differences, its products are in the words of Galloway himself: "[...] fully coextensive with reality" (Galloway, 2022, p.232). Although the author states somewhere in the beginning that he is not favouring neither digital or analog approaches, by the end of the text it becomes clear that he sees the analog as unsettlingly anachronic and the digital as the one being able to provide opportunities for "[...] the confrontation of the two, of breaking with the present state of affairs" (Galloway, 2022, p.232). Furthermore, he doesn't advocate for the softening up of the digital/analog distinction, but rather for the development of the digital thought as an alternative branch.

The paper doesn't attempt to fully answer Alexander Galloway's initial question,

Oh, for the long gone era of classical architecture, the era of the common architectural language, of standardised architectural vocabulary and of explicit architectural communication

the *macabre* of El Chorrillo

as it limits itself only to the scope of architectural theory. The essay "The Golden Age of Analog" however becomes a point of departure for the investigation into what could be the reasons for the turn toward analog themes within the field of architecture. The text is divided into two parts, each exploring one of the arguments for the relevance of the analog in contemporary discourse.

ARCHITECTURE TALKING

Oh, for the long gone era of classical architecture, the era of the common architectural language, of standardised architectural vocabulary and of explicit architectural communication (Summerson, 1963). Perhaps one of the earliest manifestations of its inescapable collapse was the visionary architecture of Étienne-Louis Boullée's? Aldo Rossi, in 1967 introduction to a translation of Boullée's Architecture, essai sur l'art, distinguishes him from the other architects of eighteenth century French classicism, differentiating his "exalted rationalism" from "conventional rationalism" (Aureli, 2011, p.174-175). In The Possibility of An Absolute Architecture architect and writer, Pier Vittorio Aureli (2011), offers an interpretation

soundscape of El Chorrillo

El Chorrillo in Panama City

of Rossi's nomenclature. He explains conventional rationalism as based on existing normative apparatus from which architecture derives its forms. However, in the exalted rationalism it is the subjective decision that produces architecture and guides the formulation of the logical principles of the structure and composition. Furthermore, this personal choice is a deeper manifestation of the way the acting subject situates itself in relation to the fundamental problems and dilemmas of life. Nicholas Andrew Pacula, historian and educator, sees Boullée's design of the French National Library (1785) as a moment of "radical subjectivity in his position toward essential problems of architectural design in late-eighteenth century Paris" (Pacula, 2017, p.151). Until very recently the general consensus was that the late architect prepared three equally feasible propositions for the primary facade with the main entrance. Pacula, in his 2017 Master of Science in Architecture Studies thesis at MIT, argues that the third drawing of the elevation was actually meant for the facade on the opposite side of the street and that the two Atlases holding up the globe were in fact framing a fountain, not an

frames from mapping video
“Danse macabre in
El Chorrillo”

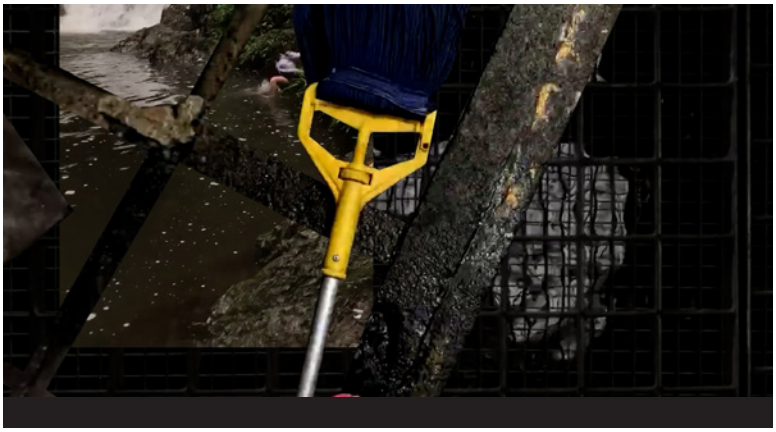
According to Carson, logos for the ancient thinkers was a point of control, of self-control to be exact, a mechanism of dissociation.

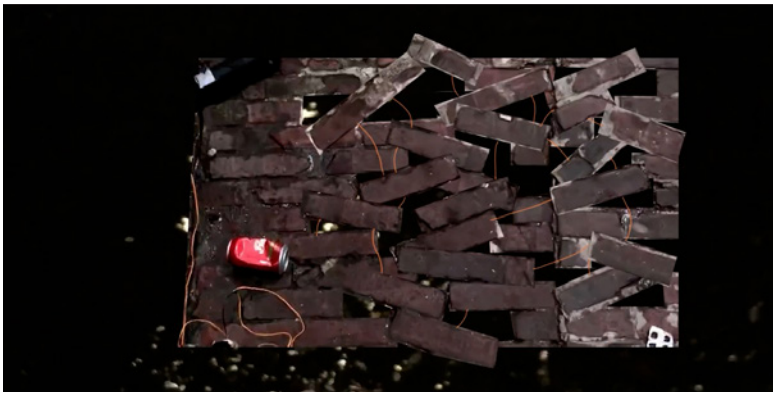
entrance. However, Pacula's (2017) meticulous reading of Boullée's drawings uncovered yet another context for, in the words of Aureli, the "public monument dedicated to the free citizen" (Aureli, 2011). In fact, the Bibliothèque du Roi was a private institution only open for men. At the bottom of the "fountain" facade Boullée chose to show figures of women which cannot be found in the interior drawings, occupied only by silhouettes of men. As Pacula (2017) argues, by proposing a square with a fountain opposite the library, Boullée not only offered a quality public space but also diversified the user groups. What philosopher and theorist Elisabeth Grosz (1995) calls "the privilege of interiority" in the architectural discourse could be interpreted quite literally here. In the end though, the two remaining propositions for the main facade are still operating within the common language of classical architecture. However, how common could it truly be if its message was gendered from the beginning? When it informed women about the restrictions and boundaries while welcoming men with its monumental, grandiose entry? Interestingly, the traces to the answer can be found within Galloway's (2022) text itself. Author correlates the digital with the greek word logos, which means "speech" and cognate with it is logismos, which, among its many meanings, signifies "reason." Galloway further introduces its Greek opposite: alogos, which consequently means "without speech" and further "without reason": used for "the brutes and animals,[...]. The child but also its mother and women [...]" (Galloway, 2022, p.222-223). Here, for supplementary research, Galloway (2022) refers the reader to Anne Carson essay "The Gender of Sound," quoting her main argument that "putting a door on the female mouth has been an important project of patriarchal culture" (Carson,

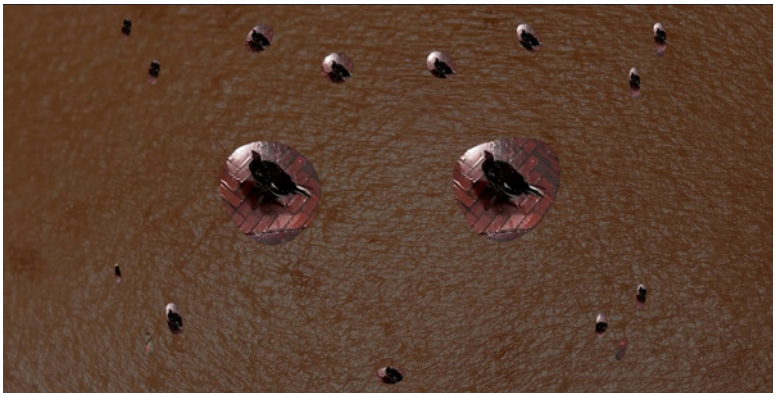
[1] Francis Bacon - *Three Studies for Figures at the Base of a Crucifixion* (1944)

1995). Carson's (1995) analysis of ancient Greek literature and philosophy reveals an ingrained disdain for the female sound and its association with savagery and disorder. The author highlights how women on one hand would be "reassigned to the expression of nonrational sounds" such as ritual lament, but on the other the patriarchal culture would emphasise that what differentiates man from beasts is "the use of rationally articulated speech: logos" (Carson, 1995). According to Carson (1995), logos for the ancient thinkers was a point of control, of self-control to be exact, a mechanism of dissociation. Communication that wouldn't pass through it was then a threat for the social order.

Galloway's (2022) acknowledgement of this critical feminist theory, in his view, doesn't seem to undermine the power of the digital to bring systematic changes. However, the exclusion of women not only from the codification process of the architectural logos but even historical placement as its antithesis questions its assumed transcendentality and universality. Gülsüm Baydar (2004), architect and theorist, argues that the idea of an ahistorical and universally recognizable





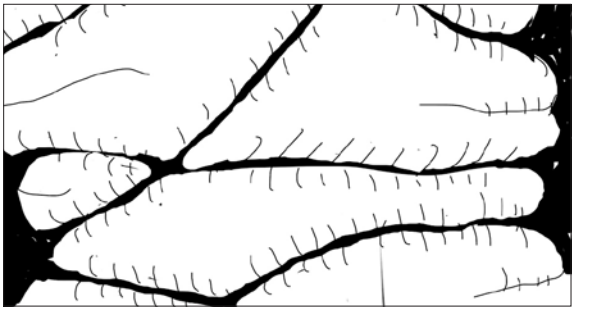


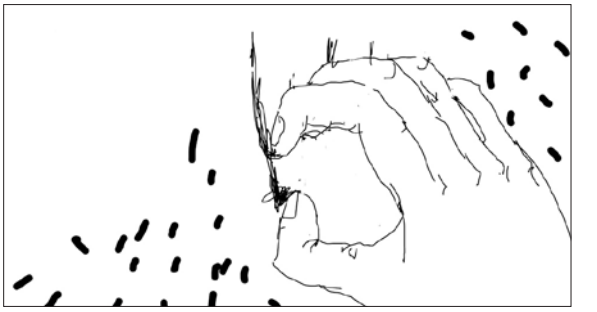
frames from video collage “Architectural body without organs”

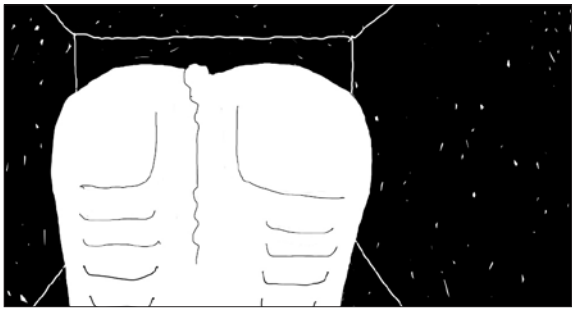
The stability of the architectural definition is thus based on exclusions, repressions and loss.

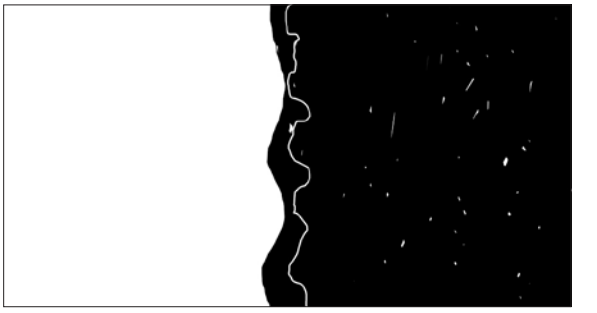
DANSE
MACABRE

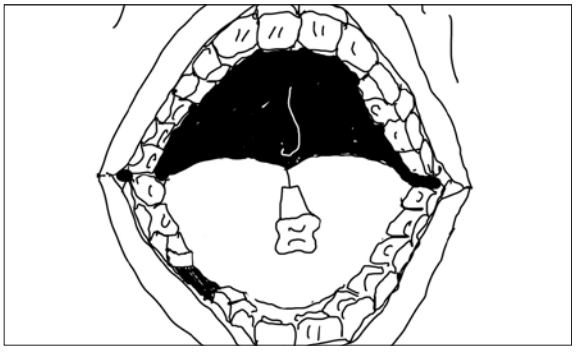
EL CHORRILLO

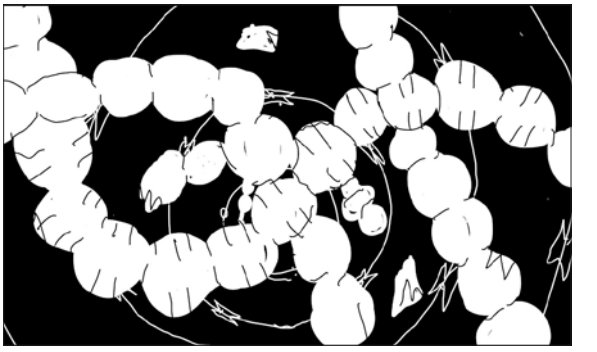












frames from animation
"Danse macabre in
El Chorrillo"

domain of architecture is a Western myth. Furthermore, she argues that as "an identity category, architecture has to distinguish itself from what it isn't" (Baydar, 2004, p.21). The stability of the architectural definition is thus based on exclusions, repressions and loss. Philosopher and literary critic Julia Kristeva (1984) points out that the subject is influential to the process of the production of meaning. The association of a signifier and a signified is therefore arbitrary. The miniscule involvement of women within the formation of the language of classical architecture resulted in a critical gap that questions the coherence and completeness of its language.

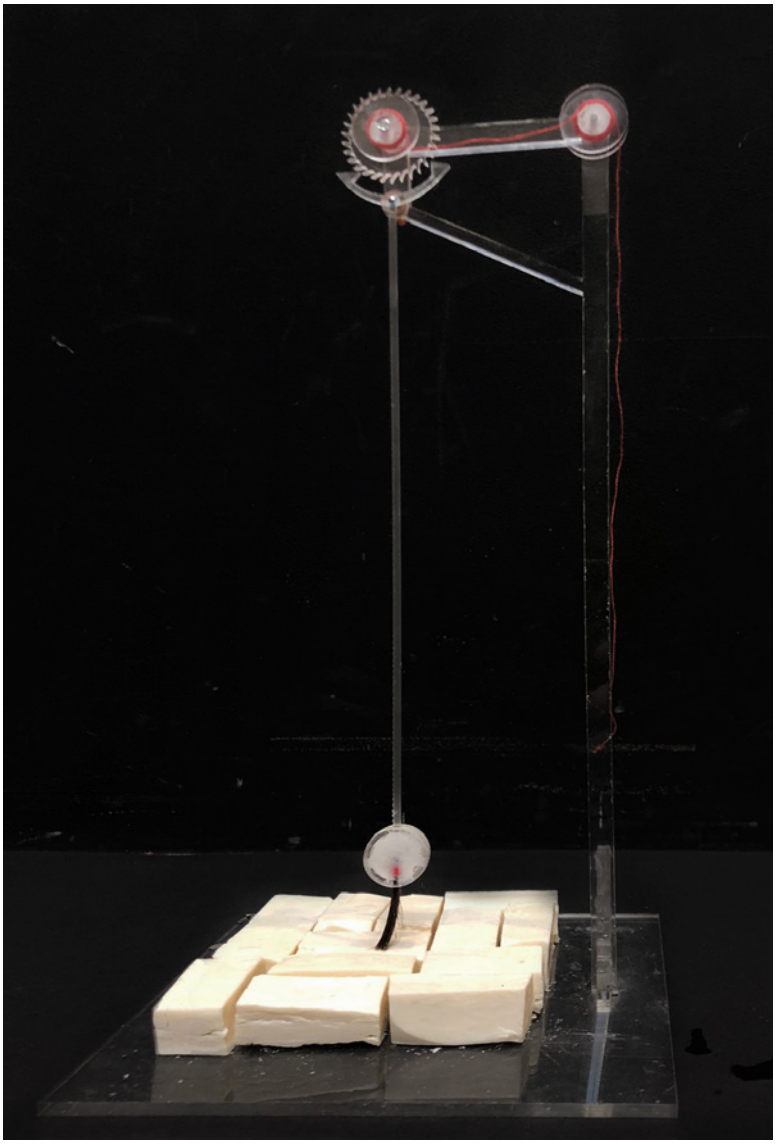
TALKING ARCHITECTURE

The article The incomporable eye, written in 1992 by Paul Virilio, French historian and critic of technology, is not only a commentary on the then state of visual culture but is constructed as a rather alarmist prophecy for the future. The concern for the accelerating loss of freedom of the postmodern humankind is omnipresent in the text and manifests itself in the language and intonation applied by the author. Repeated use of tenses which emphasise the process: "is happening", "we are witnessing", "is being corrupted" induce a rhythm within the text which progressively amplifies each consecutive warning (Virilio, 1992, p.:96,97,101). Furthermore, the gravity of the situation is intensified by the choice to use not only first person statements, such as "I fear", "I believe" but also references to the ambiguous, non-defined group of 'us': "Do we want to lose the ability to see for ourselves ? [...] Will we become visually handicapped [..]?" (Virilio, 1992, p.97). The insistent linear progression of the text delineates a path from the past to the troubled present and further to an even more grim future. This pervasive concern for what

is to come, woven into the framework of the text, builds a rather pronounced and evident pattern: a dichotomic understanding of the past-future time frame, where the first one is only defined through the comparison with the latter. One of the developments that Virilio appears to be most uneasy about is the increase in transplant and implant operations within the medical field: "soon our bodies will be ruled by biotechnology, by these nanodevices [...] (capable) of penetrating our actual physical being" (Virilio, 1992, p.105). There is then the implication that the growing ability of technology to alter our bodies is taking away something from our agency over them. In this regard, these operations could be seen as a desecration of the sanctity of our bodies and the idea that there is something that needs 'fixing' within us as inherently blasphemous and dehumanising. What lacks in this equation however are those whose needs these procedures answer. However brutal the idea of carving open our bodies may seem, there is something deeply human in pursuing one's need for a healthy, equal, fulfilling life.

Critique of Virilio's exclusionary narrative was addressed by David T. Mitchell and Sharon L. Snyder (2004), both scholars and contributors to the field of studies of disabilities. In the introduction to the jointly edited book Body and Physical Difference. Discourses of Disability, they scrutinise Virilio for his influence on furthering the ableist ideology within the fields of architecture and city planning. They focus predominantly on his essay "The Third Interval: A Critical Transition," a part of the prominent collection Re-Thinking Technologies.

Virilio's comparison of the "reduced mobility of equipped invalid" with the "growing inertia of the over-equipped, 'valid' human population," [...] betrays key precepts of an ableist philosophy. His admonition to audiences about the dangerous lure hidden in technological protheses results in a stereotypical

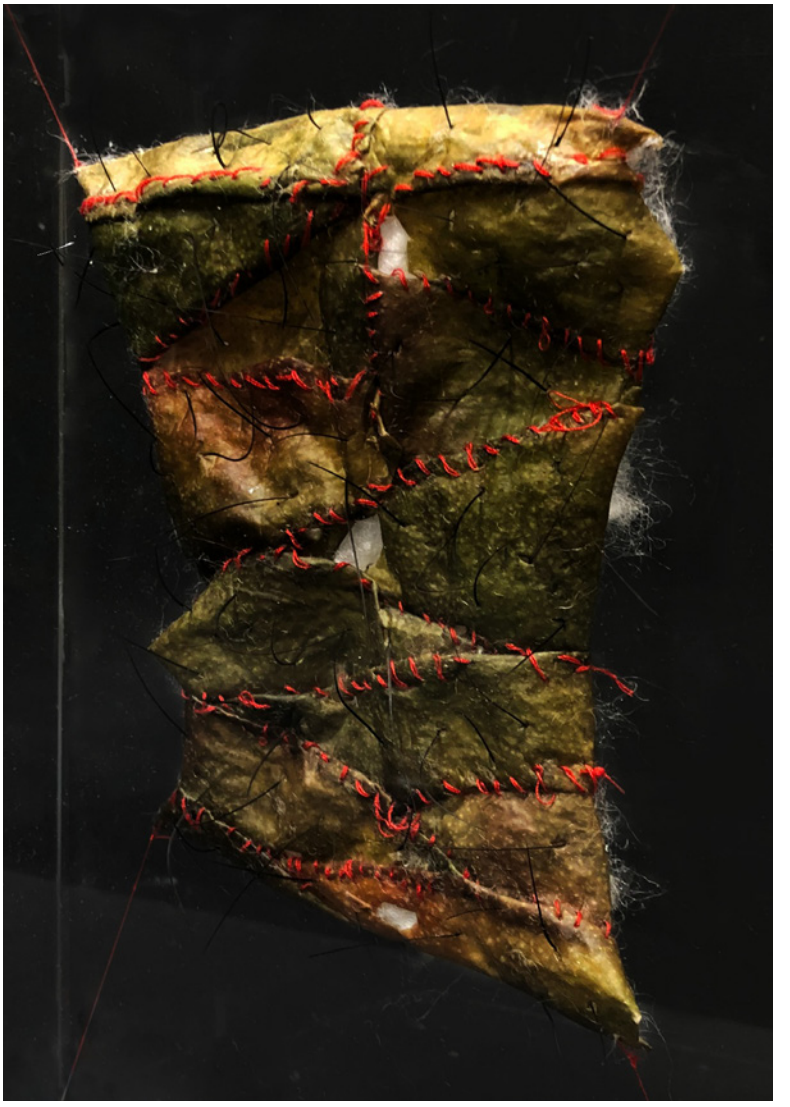


Modi Operandi 1
"Soap dancefloor
at the cemetery"

equation of disabled populations, technological fetishism and welfare state dependency (Virilio, 1993, as cited in Mitchell et al., 2004, p.7).

If there is an agreed upon "normative lifestyle of the able bodied", then people with health conditions and impairments are not only positioned as a threat to the very integrity of it but also placed on the periphery of society, in the role of 'the other' (Mitchell et al., 2004, p.7). As Mitchell and Snyder (2004) point out, Virilio's criticism of technology is informed by those binaries he reifies: abled/disabled, non-artificial past/artificial present, human/inhuman. In the end, as the authors highlight, what ability means exactly is arbitrary and its definition would vary throughout history

However brutal the idea of carving open our bodies may seem, there is something deeply human in pursuing one's need for a healthy, equal, fulfilling life.



Modi Operandi 2
"Disassembly and reassembly with mango, chicken feather and a tampon"

to serve different interests. On the opposite side of the spectrum the authors place essayists such as Donna Haraway, who attempt to break with the nature/culture divide and embrace the body not as a 'wholeness' but as a patchwork: "we are cyborgs" (Haraway, 2001). However, these arguments lack the nuance of "the conflictual relationship of disabled people with the equipment that helps them" (Mitchell et al., 2004, p.8). As Mitchell and Snyder (2004) point out, the people with health impairments in Haraways thesis, are deployed to demonstrate patriarchal ironies. In the end "rarely do critics venture toward an elucidation of the experience of the population that underwrites either critical system" (Mitchell et al., 2004, p.8).

Nevertheless, what Virilio (1993) refers to as "reduced mobility" not only involves people with health conditions and impairments. Profound insight provides architect and activist Anne Thorne, formally from Matrix Feminist Design Co-operative. Particularly compelling is the project conducted by Anne Thorne Architects in 2002, which aimed to facilitate the use of the Aldgate metro stations in London. The extensive research supported by

Modi Operandi 2
"Disassembly and reassembly with mango, chicken feather and a tampon": frames from the process timelapse

interviews with pedestrians and local community groups and businesses showed that the main problems were a complicated network of underground tunnels, with 28 exits and confusing signage (Thorne, 2005). In the city where the majority of car drivers were men of productive age, women, children and elderly were forced to use dark, cramped corridors of underground tunnels (Thorne, 2005). The unnecessarily lengthy pedestrian route was shortened by turning the underground passages into aboveground ones wherever possible. What is more, the studio decided to keep the signage strictly visual, differentiated by colours, as the area was inhabited by people of different cultural backgrounds and mother tongues. As Teresa Hoskyns, Doina Petrescu conclude (2001), Thorne collaged the 1960s subway system with contributions from the local community and "those she saw as marginalised" in order to embrace the differences in the perception of place. Thorne's 'collage' could be compared to what Elisabeth Grosz (1995) calls for when she argues for the assemblage in architecture. After Deleuze, she defines thought as "a consequence of provocation of an encounter" - with 'the outside' (Grosz, 1995, p.128). She argues not for the rejection of binarized categories but for their interplay, not for the rapture of the order but for the reordering. These encounters are moments of reflection, hesitation and becoming. Similarly, Virilio's, Haraway's, Mitchell's and Snyder's texts on their own are merely partial representations of fragmented reality. However, following Grosz's line of thinking, it is their comparison, compilation and intercommunication that allows for a deeper understanding of the problem.

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CONCLUSION

The intention of the paper is to first of all prove that there is an 'outside' of language, social order, history, power (Grosz, 1995). More importantly, what is beyond the discourse isn't at all a minority but a vast assemblage of marginalised groups. The paper only focuses on exemplary issues, such as gender and physical mobility. The systems of power and order, as Galloway argues, perhaps could be more efficiently fought with the use of their own digital tools. What the paper disputes though is that in order to notice the shortcomings, harms, or even further, crimes of those codes, one must look at them from the outside, from the perspective of the other. Furthermore, critical theory on topics such as gender, race, sexuality or differences in abilities might be prominent in contemporary discourse but it is still a relatively new domain. Therefore there is thus far an unsatiated need for the diversification of the field. Coming back to Anne Carson's essay, the paper in the end is an attempt to reflect "if there might not be another idea of human order than repression, another notion of human virtue than self-control, another kind of human self than one based on dissociation of inside and outside [...] (or) another human essence than self" (Carson, 1995, p.136-137).

[2] *The Fight Between Carnival and Lent*, by Pieter Bruegel the Elder (1559)

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FIGURES

[1] Francis Bacon - *Three Studies for Figures at the Base of a Crucifixion* (1944)
https://darkartandcraft.com/blogs/news/francis-bacon-horror-in-oil

[2] *The Fight Between Carnival and Lent*, by Pieter Bruegel the Elder (1559)
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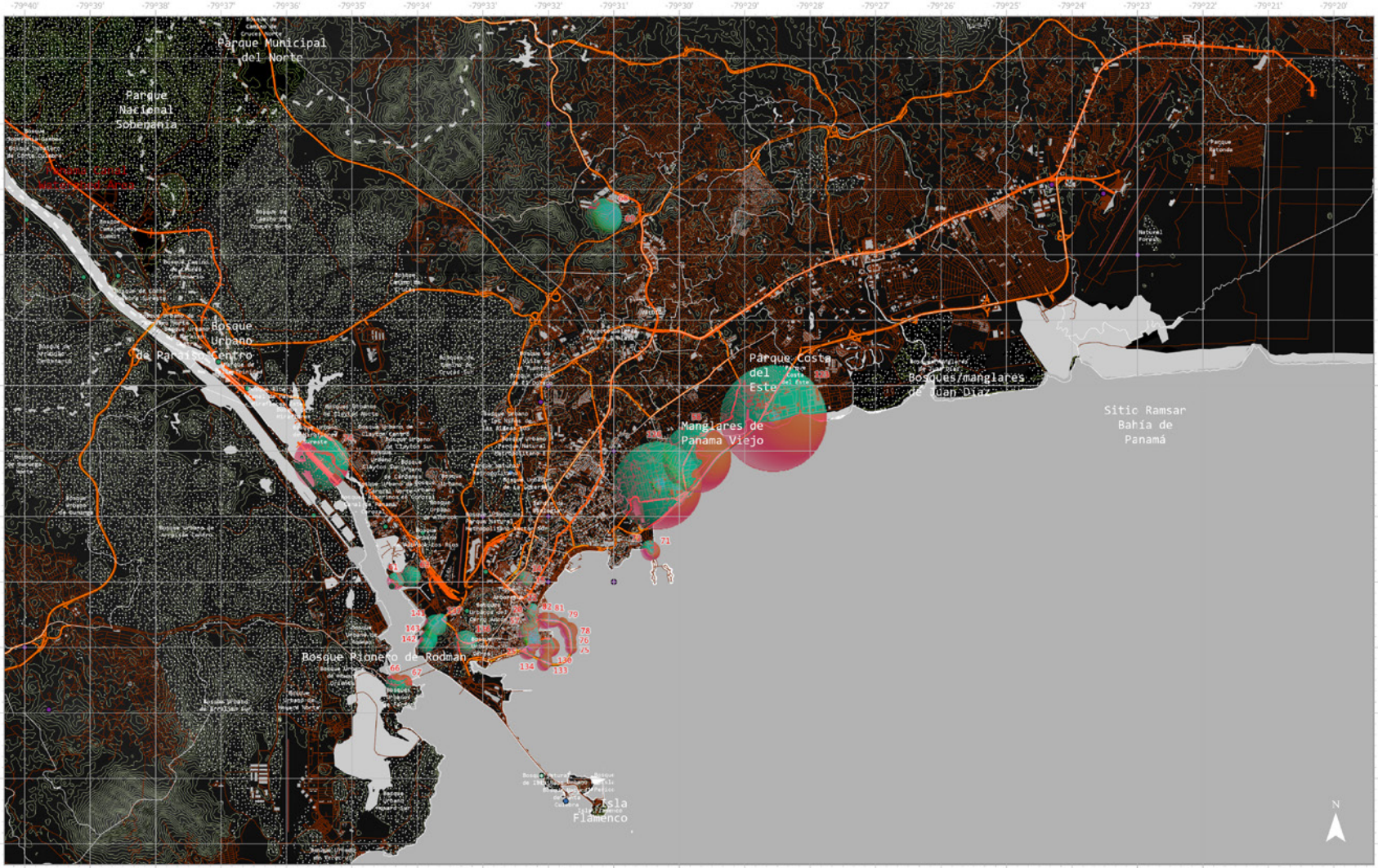


Panama City overview - Sonic Observations
1:100.000

ENTITIES & ANOMALIES

HAUNTING THE PANAMA CANAL

FIRST ENCOUNTERS

The cyborg navigates the depths of the Panamanian jungle. Rainproofed, he navigates the soil of an unheard world.
Perceptions become augmented with memory devices and sonic diving gear. He is looking for a place to give birth to a new entity, a technological entity beyond his perceptions.
The 0 and 1's must come to life. It must speak.
For it has already entered our bloodstreams, it has given us a new means to live.
Now we must render it explicit, acknowledge our communion. So that we may hear it, so that we can feel its intelligence. The landscape must become a landscape like the cyborg, so that their communion is rendered explicit,
Bodies as landscapes, landscapes as bodies: etched, altered, instrumentalised.

I write this text not as an abstract means of communication, but as one with rhythms, one with sounds.
For all created, there was the word.
The word and then the world.

We still hear the sounds that were heard long before humans existed on the earth:
The waves hitting the shores,
The wind blowing across the landscape,
The crackling of thunderstorms.

Sound is a means to access the eternal, silence is its canvas.
We create from the words heard in our heads.
We speak. All things speak. We have to learn how to listen.

Fleeting sensations of sound have now become containable, capturable.
Allowing for the first stages of cyborg, eternal life.
As our offspring and theirs might forget our names,
our voices will be played back once their records are accessed
and rendered alive once again.

The world now speaks in different tongues.
The geophonies of old are merging with the antropophonies of new.
New entities emerge and they speak.
But how can we expect to hear their voices?

We become overwhelmed, we become selective.
Sounds of nature, sounds of culture, music:
We do not want noise.

Noise pollution, we drown in hisses noises, screams and honks.
Some human, some machinic, some both.

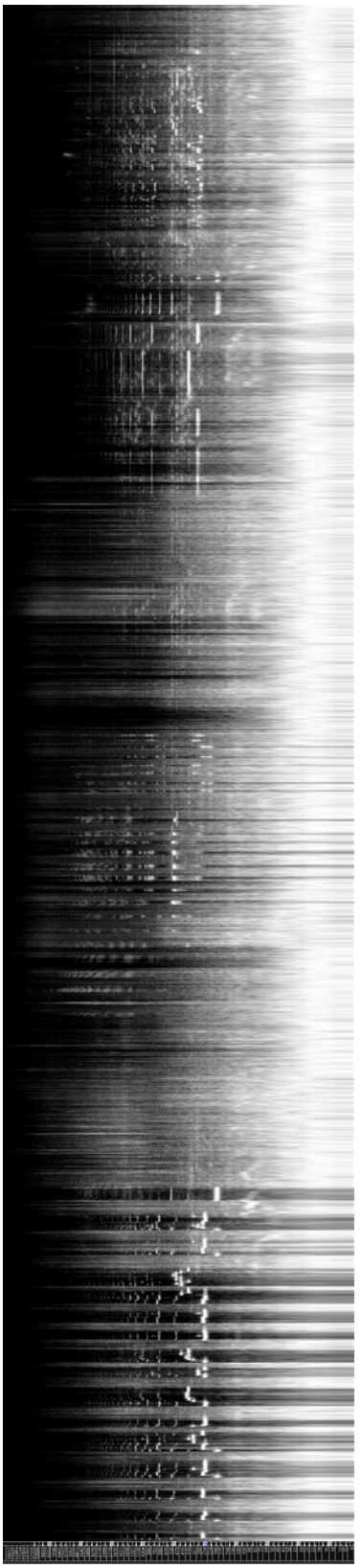
How will the cyborg create this new entity? or does he even create it? Maybe the insights into the nature of his own body, and his ability to make it speak, can be transfered to another body,
one of a landscape, and in turn be rendered alive in the register of cyborg like life-forms?

To create space is to have it occupied.
Emptyness is form, form is Emptyness.
Silence is sound, sound is silence.

To create space is to create silence.
To create silence is to create sound.

We hear

With these words written down I embarked on my journey to Panama.



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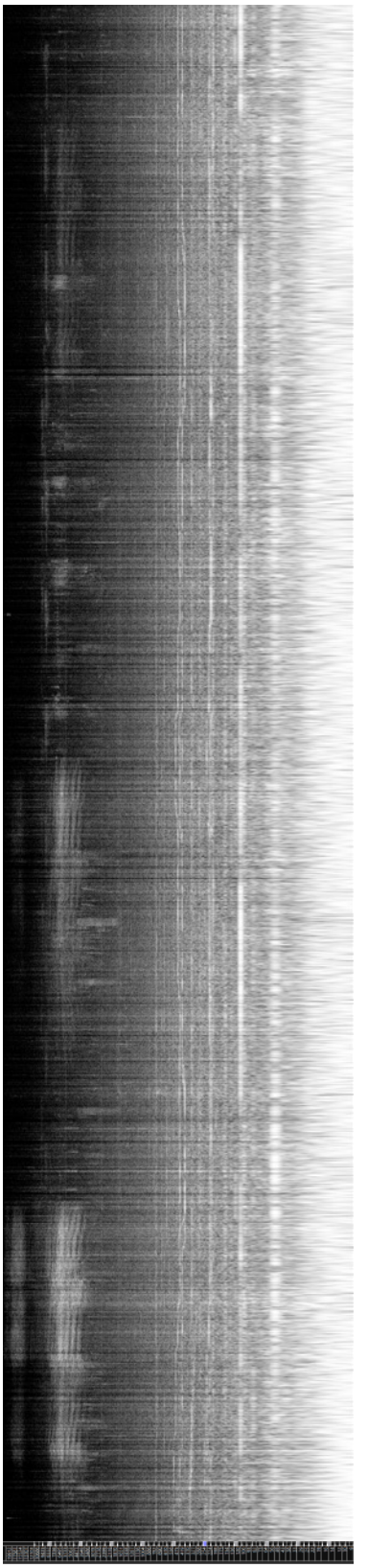

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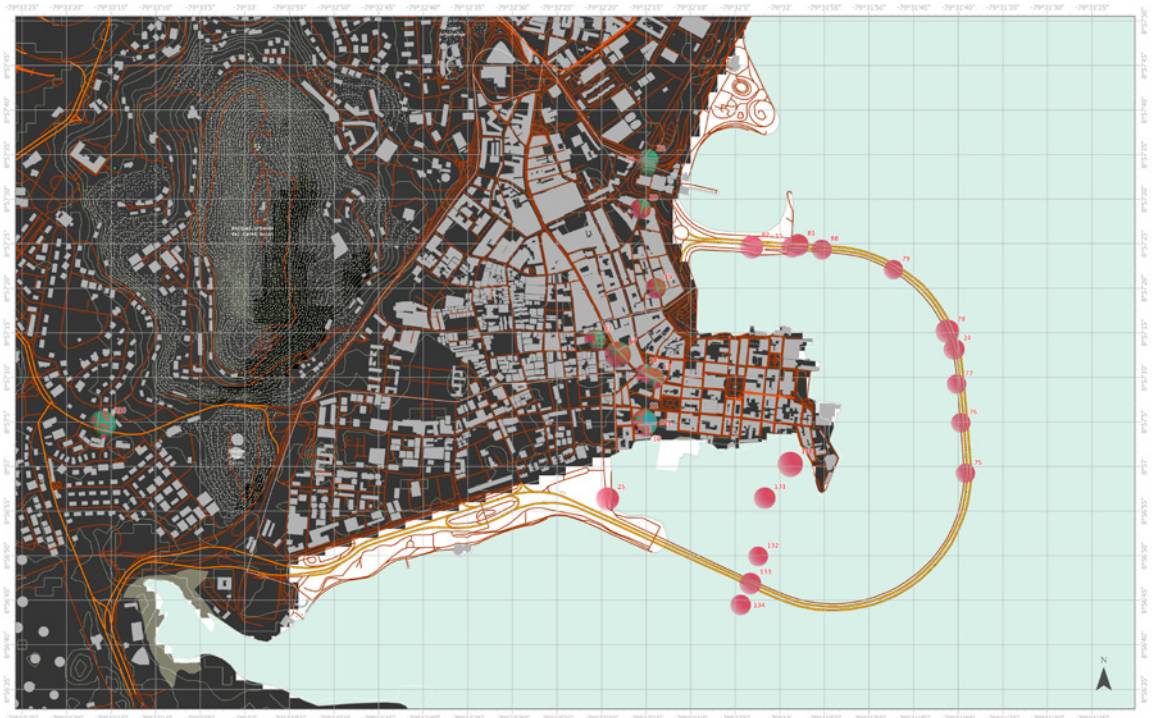
Landscapes of contemporary industrial rationales are haunted. They are haunted because of their intangible, abstract and large-scale operationalisation, creating a deep local discontinuity between the directly perceived and the numerically registered.

For Panama, this territorial operationalisation is seen most prominently in their global piece of infrastructure: the Panama Canal. Originally attempted by the French, first created by the Americans and finally transferred to the Panamanians, this piece of infrastructure is single handedly responsible for the creation of the country of Panama. With the employment of dams and the cutting through the mountains in the south, boats could now cross the Americas through the middle: a wet dream for global traders and a superpower up north alike.

However, there is a severe lack of overview



Casco Viejo - Sonic Observations
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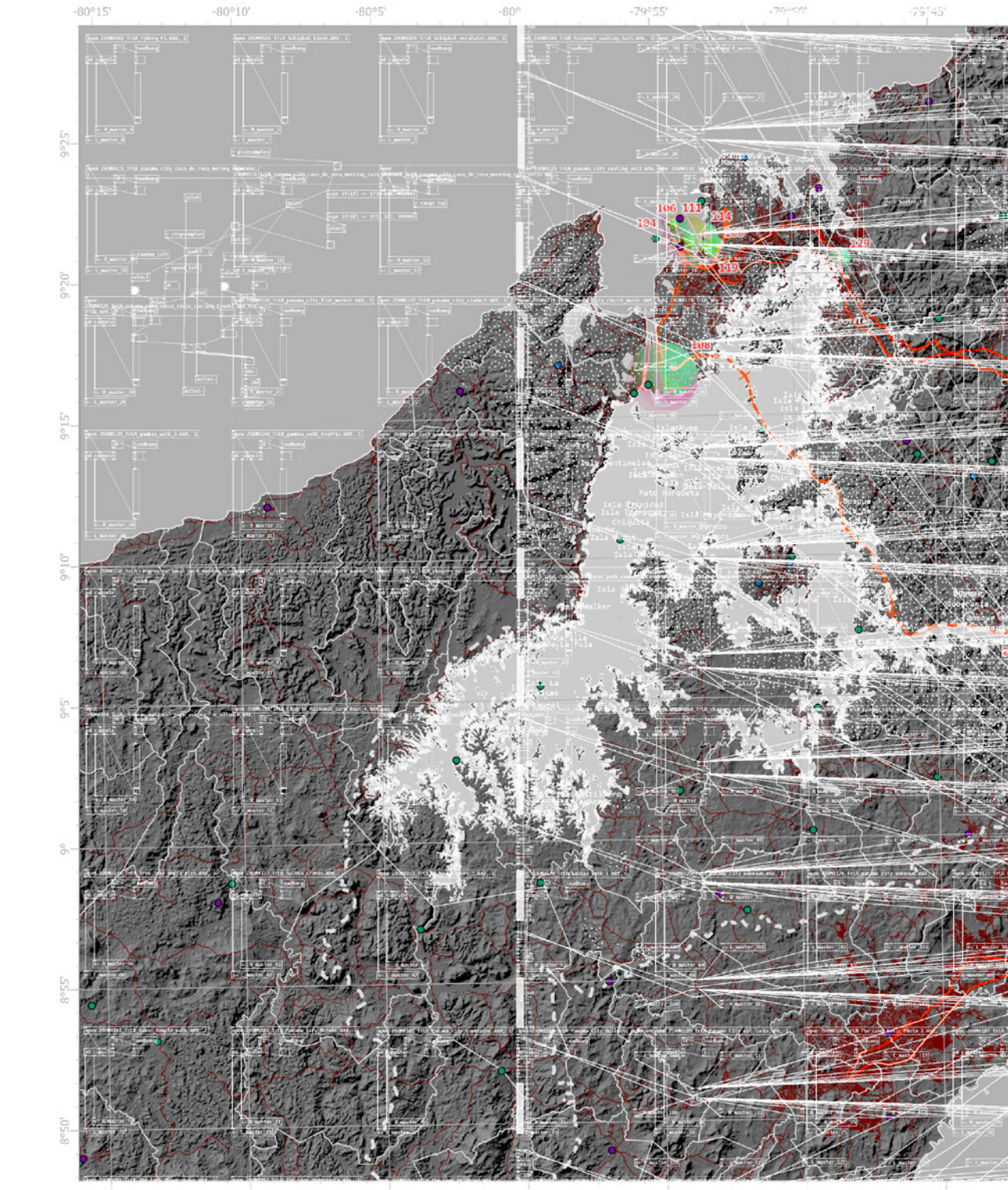
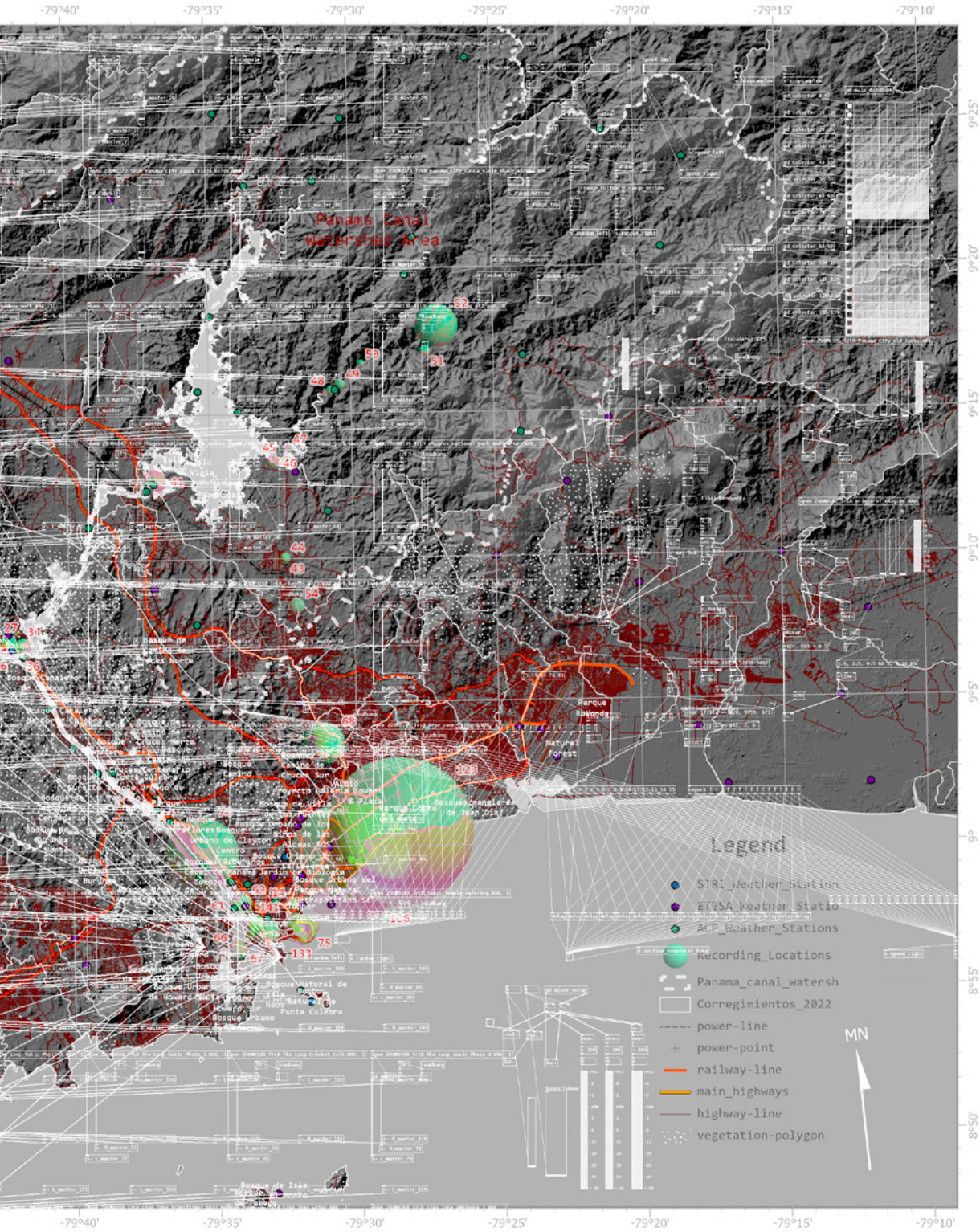


Sonic Datascapes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Panama Canal
Watershed Area
Parque
Rokwods
Natural
Forest
Legend
STRI_Weather_Station
ETESA_Weather_Statio
ACP_Weather_Stations
Recording_Locations
Panama_canal_watersh
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power-line
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railway-line
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highway-line
vegetation-polygon
MN

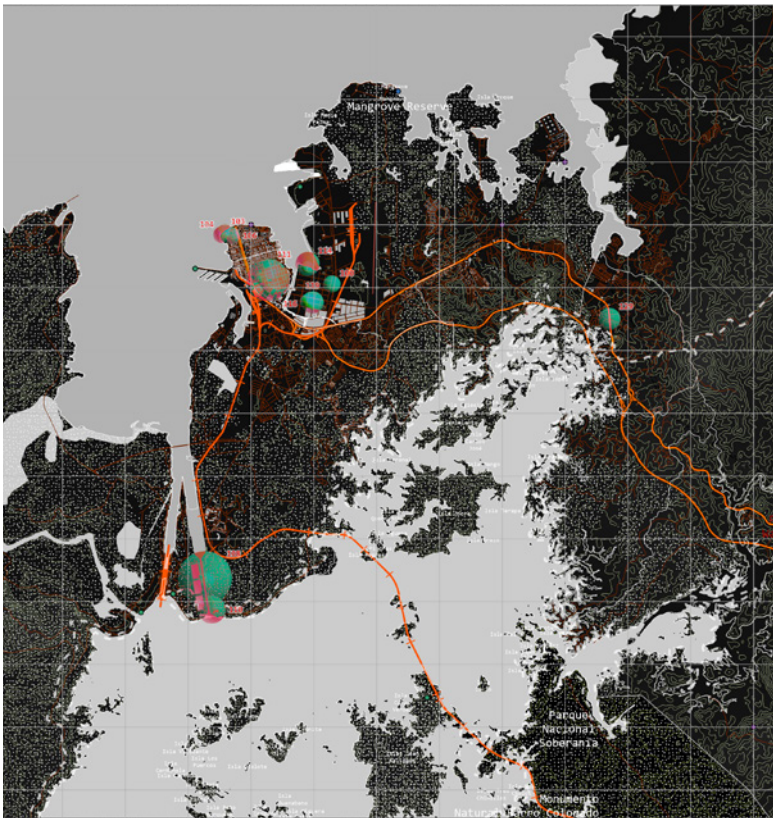
File Name	Location	Date Recorded	Recording_Length	ID for Pure Data	Environment
ZOOM0102_TrLR_Cyborg_P1.WAV	Delft	10/26/2023 12:15:12 PM	992	0	TU Delft
ZOOM0104_TrLR_Schiphol_kiosk.WAV	Schiphol	10/29/2023 9:29:28 AM	130	1	Airport
ZOOM0105_TrLR_Schiphol_escalator.WAV	Schiphol	10/29/2023 9:34:30 AM	197	2	Airport
ZOOM0106_TrLR_Schiphol_waiting_hall.WAV	Schiphol	10/29/2023 9:51:56 AM	210	3	Airport
ZOOM0107_TrLR_plane_takeoff.WAV	Plane	10/29/2023	432	4	Plane
ZOOM0108_TrLR_plane_horrible_.WAV	Plane	10/29/2023	2234	5	Plane
ZOOM0110_TrLR_plane_announcement.WAV	Plane	10/29/2023	52	7	Plane
ZOOM0111_TrLR_Panama_city_casa_de_rosa_morning.WAV	Panama City	10/30/2023	94	8	Urban
ZOOM0114_TrLR_panama_city_casa_de_rosa_roof_terrac	Panama City	10/30/2023	188	9	Urban
ZOOM0115_TrLR_panama_city_casa_de_rosa_moring_rain	Panama City	10/30/2023	247	10	Urban
ZOOM0116_TrLR_panama_city_casa_de_rosa_morning_rai	Panama City	10/30/2023	154	11	Urban
ZOOM0117_TrLR_panama_city_casa_de_rosa_morning_rai	Panama City	10/30/2023	393	12	Urban
ZOOM0118_TrLR_panama_city_cooling_unit.WAV	Panama City	10/31/2023	101	13	Supermarket
ZOOM0119_TrLR_panama_city_cooling_unit_no2.WAV	Panama City	10/31/2023	206	14	Supermarket
ZOOM0120_TrLR_panama_city_cash_registers.WAV	Panama City	10/31/2023	52	15	Supermarket
ZOOM0122_TrLR_Panama_city_casca_viejo_birds.WAV	Panama City	10/31/2023	118	17	Urban
ZOOM0123_TrLR_panama_city_casca_viejo_rain_drops_r	Panama City	10/31/2023	42	18	Urban
ZOOM0124_TrLR_panama_city_casca_viejo_shady_street	Panama City	10/31/2023	96	19	Urban
ZOOM0125_TrLR_panama_city_casca_viejo_cooling_truc	Panama City	10/31/2023	103	20	Urban
ZOOM0126_TrLR_panama_city_fish_market.WAV	Panama City	10/31/2023	48	21	Urban
ZOOM0127_TrLR_panama_city_viaduct.WAV	Panama City	10/31/2023	89	22	Urban
ZOOM0128_TrLR_panama_city_church_music.WAV	Panama City	10/31/2023	138	23	Urban
ZOOM0121_TrLR_The_loop_watery.WAV	Panama City	10/31/2023	103	16	The Loop
ZOOM0129_TrLR_the_loop_cricket.WAV	Panama City	10/31/2023	126	24	The Loop
ZOOM0132_TrLR_panama_city_night_walk.WAV	Panama City	10/31/2023	257	25	Urban
ZOOM0135_TrLR_gamboa_walk.WAV	Gamboa	11/1/2023	301	26	Rainforest
ZOOM0136_TrLR_gamboa_walk_2.WAV	Gamboa	11/1/2023	415	27	Rainforest
ZOOM0137_TrLR_gamboa_building.WAV	Gamboa	11/1/2023	233	28	Rainforest
ZOOM0138_TrLR_gamboa_building_pt2.WAV	Gamboa	11/1/2023	144	29	Rainforest
ZOOM0139_TrLR_gamboa_walk_3.WAV	Gamboa	11/1/2023	81	30	Rainforest
ZOOM0140_TrLR_gamboa_walk_traffic.WAV	Gamboa	11/1/2023	359	31	Rainforest
ZOOM0142_TrLR_gamboa_zone_abondoned_building.WAV	Gamboa	11/1/2023	287	33	Rainforest
ZOOM0143_TrLR_gamboa_abandoned_buildings_pt2.WAV	Gamboa	11/1/2023	318	34	Rainforest
ZOOM0145_TrLR_gamboa_capybara.WAV	Gamboa	11/1/2023	236	35	Rainforest
ZOOM0146_TrLR_gamboa_car_ambience.WAV	Gamboa	11/1/2023	82	36	Car
ZOOM0147_TrLR_Chagres_national_park_madden_1.WAV	Chagres National Park	11/1/2023	153	37	Rainforest
ZOOM0148_TrLR_chagres_national_park_madden_2.WAV	Chagres National Park	11/1/2023	77	38	Rainforest
ZOOM0149_TrLR_chagres_national_park_madden_sur.WAV	Chagres National Park	11/1/2023	79	39	Rainforest
ZOOM0150_TrLR_chagres_national_park_madden_sur_2.W	Chagres National Park	11/1/2023	98	40	Rainforest
ZOOM0151_TrLR_chagres_national_park_madden_3.WAV	Chagres National Park	11/1/2023	624	41	Rainforest
ZOOM0152_TrLR_chagres_national_park_cement_1.WAV	Chagres National Park	11/1/2023	51	42	Industrial
ZOOM0153_TrLR_chagres_national_park_cement_2.WAV	Chagres National Park	11/1/2023	98	43	Industrail
ZOOM0154_TrLR_chagres_national_park_cement_3.WAV	Chagres National Park	11/1/2023	111	44	Industrial
ZOOM0155_TrLR_chagres_national_park_lake.WAV	Chagres National Park	11/1/2023	241	45	Lake
ZOOM0156_TrLR_chagres_national_park_boat_1.WAV	Chagres National Park	11/1/2023	82	46	Lake
ZOOM0157_TrLR_chagres_national_park_boat_2.WAV	Chagres National Park	11/1/2023	80	47	Lake
ZOOM0158_TrLR_chagres_national_park_boat_float.WAV	Chagres National Park	11/1/2023	109	48	Lake
ZOOM0159_TrLR_chagres_national_park_boat_3.WAV	Chagres National Park	11/1/2023	134	49	Lake
ZOOM0160_TrLR_chagres_national_park_asking_for_sil	Chagres National Park	11/1/2023	19	50	Lake
ZOOM0161_TrLR_chagres_national_park_boat_4.WAV	Chagres National Park	11/1/2023	162	51	Lake
ZOOM0162_TrLR_chagres_national_park_waterfall_oddy	Chagres National Park	11/1/2023	1286	52	Rainforest
ZOOM0163_TrLR_chagres_national_park_boat_ride_5.WA	Chagres National Park	11/1/2023	9	53	Lake
ZOOM0164_TrLR_chagres_national_park_endless_birds.	Chagres National Park	11/1/2023	316	54	Suburban
ZOOM0165_TrLR_panama_city_casa_de_rosa_party_night	Panama City	11/1/2023	90	55	Urban
ZOOM0167_TrLR_panama_city_coca_cola_bar.WAV	Panama City	11/1/2023	502	57	Eatery
ZOOM0168_TrLR_panama_city_unknown.WAV	Panama City	11/1/2023	3000	58	Urban
ZOOM0175_TrLR_panama_city_unknown.WAV	Panama City	11/2/2023	155	64	Urban
ZOOM0176_TrLR_panama_city_unknown.WAV	Panama City	11/2/2023	124	65	Urban
ZOOM0177_TrLR_Panama_city_Puente_americas.WAV	Panama City	11/2/2023	417	66	Highway
ZOOM0178_TrLR_Panama_City_underneath_americas.WAV	Panama City	11/2/2023	254	67	Highway
ZOOM0179_TrLR_Bahai_Temple_talk.WAV	Bahai Temple	11/2/2023	1227	68	Bahai Temple
ZOOM0180_TrLR_Bahai_Temple_entering.WAV	Bahai Temple	11/2/2023	962	69	Bahai Temple
ZOOM0181_TrLR_Bahai_Temple_walk.WAV	Bahai Temple	11/2/2023	859	70	Bahai Temple
ZOOM0182_TrLR_Panama_City_Hotels.WAV	Panama City	11/2/2023	392	71	Urban
ZOOM0183_TrLR_Panama_City_Fountains.WAV	Panama City	11/2/2023	342	72	Urban
ZOOM0184_TrLR_Panama_City_Building_Echo.WAV	Panama City	11/2/2023	91	73	Urban
ZOOM0185_TrLR_Panama_City_old_locks.WAV	Panama City	11/2/2023	2267	74	Old Locks
ZOOM0186_TrLR_The_Loop_Sonic_Photo_1.WAV	The Loop	11/2/2023	11	75	The Loop
ZOOM0187_TrLR_The_Loop_Sonic_Photo_2.WAV	The Loop	11/2/2023	10	76	The Loop
ZOOM0188_TrLR_The_Loop_Sonic_Photo_3.WAV	The Loop	11/2/2023	10	77	The Loop

Field recordings dataset

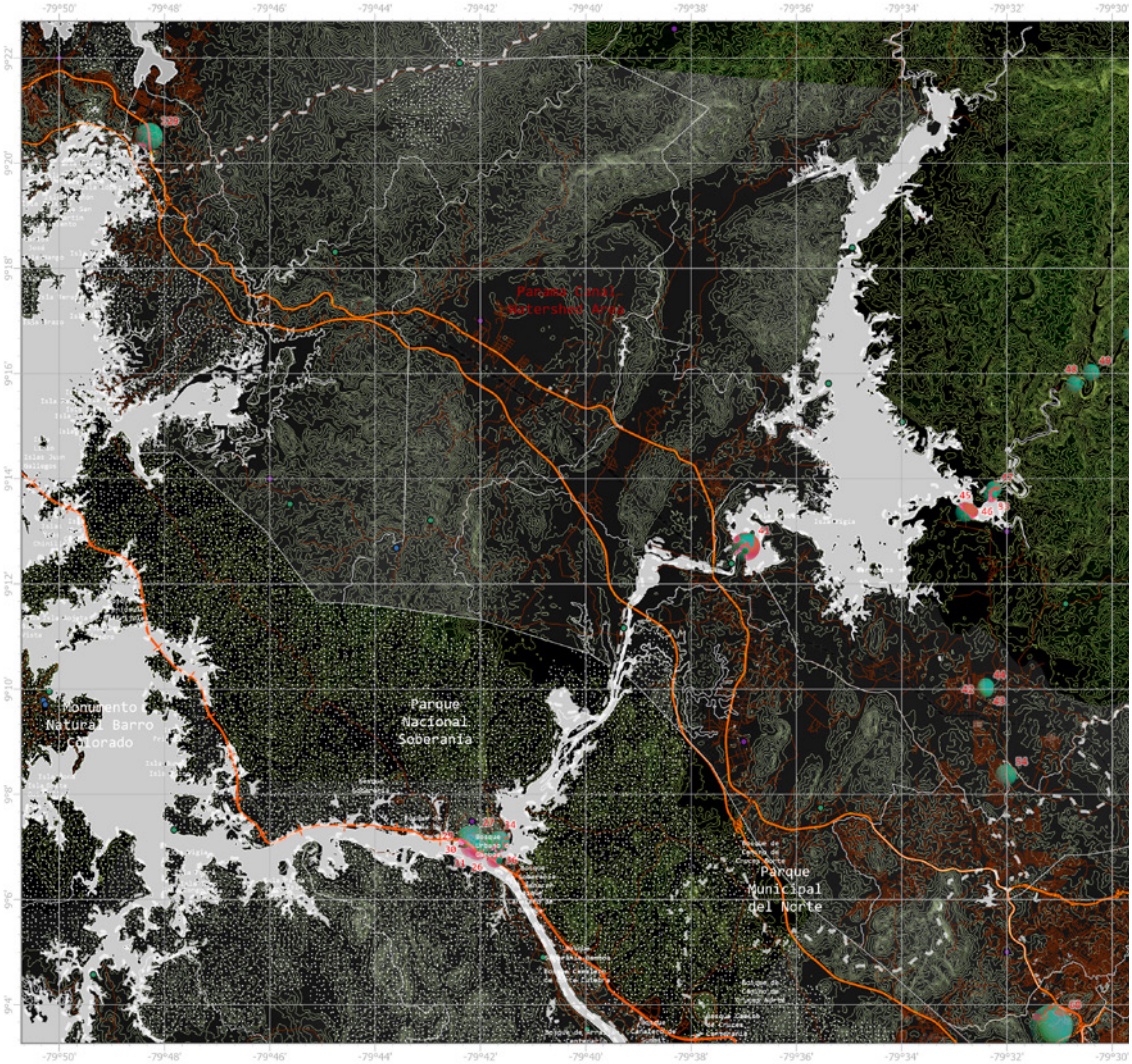
File Name	Location	Date Recorded	Recording_Length	ID for Pure Data	Environment
ZOOM0189_TrLR_The_Loop_Cricket_talk.WAV	The Loop	11/2/2023	308	78	The Loop
ZOOM0190_TrLR_The_Loop_Sonic_Photo_4.WAV	The Loop	11/2/2023	10	79	The Loop
ZOOM0191_TrLR_The_Loop_Above_under.WAV	The Loop	11/2/2023	59	80	The Loop
ZOOM0192_TrLR_The_Loop_Underneath.WAV	The Loop	11/2/2023	189	81	The Loop
ZOOM0193_TrLR_The_Loop_Dripping.WAV	The Loop	11/2/2023	269	82	The Loop
ZOOM0194_TrLR_Panama_City_casa_de_rosa_noise.WAV	Panama City	11/4/2023	253	83	Urban
ZOOM0195_TrLR_Free_Zone_Gate.WAV	Free Zone	11/4/2023	32	84	Urban
ZOOM0196_TrLR_Free_Zone_outside_traffic.WAV	Free Zone	11/4/2023	93	85	Urban
ZOOM0197_TrLR_Free_Zone_ambience.WAV	Free Zone	11/4/2023	412	86	Urban
ZOOM0198_TrLR_Free_Zone_transformer_Buzz.WAV	Free Zone	11/4/2023	89	87	Urban
ZOOM0199_TrLR_Free_Zone_water.WAV	Free Zone	11/4/2023	80	88	Urban
ZOOM0200_TrLR_Free_Zone_ambience_2.WAV	Free Zone	11/4/2023	229	89	Urban
ZOOM0201_TrLR_Free_Zone_shenanigans.WAV	Free Zone	11/4/2023	392	90	Urban
ZOOM0202_TrLR_Free_zone_stalker_floor.WAV	Free Zone	11/4/2023	62	91	Urban
ZOOM0203_TrLR_Free_Zone_stalker_outside.WAV	Free Zone	11/4/2023	24	92	Urban
ZOOM0204_TrLR_Free_Zone_rustling_leaves.WAV	Free Zone	11/4/2023	101	93	Urban
ZOOM0205_TrLR_Free_Zone_stalker_room.WAV	Free Zone	11/4/2023	456	94	Urban
ZOOM0206_TrLR_Free_Zone_water_field.WAV	Free Zone	11/4/2023	177	95	Urban
ZOOM0207_TrLR_Free_Zone_water_field_2.WAV	Free Zone	11/4/2023	53	96	Urban
ZOOM0208_TrLR_Free_Zone_unkown.WAV	Free Zone	11/4/2023	33	97	Urban
ZOOM0209_TrLR_Free_Zone_you_actually_can.WAV	Free Zone	11/4/2023	17	98	Urban
ZOOM0210_TrLR_Free_Zone_investigacion_scientifica.	Free Zone	11/4/2023	59	99	Urban
ZOOM0211_TrLR_Free_Zone_abandoned_building.WAV	Free Zone	11/4/2023	325	100	Urban
ZOOM0212_TrLR_Colon_Washington_hotel.WAV	Colon	11/4/2023	81	101	Urban
ZOOM0213_TrLR_Colon_Atlantico.WAV	Colon	11/4/2023	66	102	Urban
ZOOM0214_TrLR_Colon_Atlantico_2.WAV	Colon	11/4/2023	60	103	Urban
ZOOM0215_TrLR_Colon_Battery_Morgan.WAV	Colon	11/4/2023	268	104	Ruin
ZOOM0216_TrLR_Colon_local_spot.WAV	Colon	11/4/2023	58	105	Urban
ZOOM0217_TrLR_Colon_local_spot_2.WAV	Colon	11/4/2023	320	106	Urban
ZOOM0219_TrLR_Panama_City_casa_de_rosa_morning.WAV	Panama City	11/5/2023	165	107	Urban
ZOOM0220_TrLR_Agua_Clara_locks_first_phase.WAV	Agua Clara Locks	11/5/2023	2309	108	Agua Clara Locks
ZOOM0223_TrLR_Agua_Clara_locks_car_drive.WAV	Agua Clara Locks	11/5/2023	293	109	Agua Clara Locks
ZOOM0224_TrLR_Agua_Clara_locks_second_phase.WAV	Agua Clara Locks	11/5/2023	910	110	Agua Clara Locks
ZOOM0226_TrLR_Free_Zone_deep_walk.WAV	Free Zone	11/5/2023	1688	111	Urban
ZOOM0227_TrLR_Free_Zone_empty_cart.WAV	Free Zone	11/5/2023	19	112	Urban
ZOOM0228_TrLR_Free_Zone_walk_extension.WAV	Free Zone	11/5/2023	131	113	Urban
ZOOM0230_TrLR_Free_Zone_colon_docks.WAV	Free Zone	11/5/2023	693	114	Harbour
ZOOM0231_TrLR_Free_Zone_loud_walk.WAV	Free Zone	11/5/2023	96	115	Urban
ZOOM0233_TrLR_Free_Zone_Building_sound.WAV	Free Zone	11/5/2023	266	116	Urban
ZOOM0234_TrLR_Free_Zone_walking_through_trash.WAV	Free Zone	11/5/2023	122	117	Urban
ZOOM0235_TrLR_Free_Zone_water_system.WAV	Free Zone	11/5/2023	50	118	Urban
ZOOM0241_TrLR_Panama_City_casa_de_Rosa_chanting	Panama City	11/6/2023	344	121	House
ZOOM0242_TrLR_Office_1_ambience.WAV	Panama City	11/7/2023	120	122	Office
ZOOM0243_TrLR_Office_1_Mr_Charismatic.WAV	Panama City	11/7/2023	4949	123	Interview
ZOOM0244_TrLR_Office_1_ambience_2.WAV	Panama City	11/7/2023	121	124	Office
ZOOM0239_TrLR_free_zone_Stalker_room.WAV	Free Zone	11/5/2023	602	119	Ruin
ZOOM0240_TrLR_free_zone_empty_building.WAV	Free Zone	11/5/2023	208	120	Ruin
ZOOM0245_TrLR_Office_2_floor_13.WAV	Panama City	11/7/2023	63	125	Office
ZOOM0246_TrLR_Office_2_Mr_Basic.WAV	Panama City	11/7/2023	3961	126	Interview
ZOOM0247_TrLR_Office_2_Fire_alarm.WAV	Panama City	11/7/2023	33	127	Office
ZOOM0248_TrLR_Office_2_Vents.WAV	Panama City	11/7/2023	110	128	Office
ZOOM0249_TrLR_Colon_Roadblock.WAV	Colon	11/8/2023	586	129	Car
ZOOM0250_TrLR_Panama_City_casco_viejo_low_Tide.WAV	Panama City	11/8/2023	434	130	The Loop
ZOOM0251_TrLR_Panama_City_casco_viejo_low_Tide_2.W	Panama City	11/8/2023	170	131	The Loop
ZOOM0252_TrLR_Panama_City_casco_viejo_low_sand.WAV	Panama City	11/8/2023	31	132	The Loop
ZOOM0253_TrLR_Panama_City_casco_viejo_viaduct_low.	Panama City	11/8/2023	170	133	The Loop
ZOOM0254_TrLR_Panama_City_casco_viejo_viaduct_sea.	Panama City	11/8/2023	82	134	The Loop
ZOOM0256_TrLR_Balboa_tuning_up.WAV	Balboa	11/9/2023	298	135	Ruin
ZOOM0257_TrLR_Balboa_tuning_in.WAV	Balboa	11/9/2023	641	136	Ruin
ZOOM0258_TrLR_Balboa_harbour.WAV	Balboa	11/9/2023	45	137	Harbour
ZOOM0259_TrLR_Balboa_harbour_2.WAV	Balboa	11/9/2023	39	138	Harbour
ZOOM0260_TrLR_Balboa_harbour_3.WAV	Balboa	11/9/2023	141	139	Harbour
ZOOM0261_TrLR_Balboa_harbour_4.WAV	Balboa	11/9/2023	194	140	Harbour
ZOOM0262_TrLR_Balboa_harbour_container_pickup.WAV	Balboa	11/9/2023	544	141	Harbour
ZOOM0263_TrLR_Balboa_fence_opening.WAV	Balboa	11/9/2023	190	142	Harbour
ZOOM0264_TrLR_Balboa_Ship_ambience.WAV	Balboa	11/9/2023	352	143	Harbour
ZOOM0172_TrLR_balboa_cranes.WAV	Balboa	11/2/2023	290	61	Harbour
ZOOM0173_TrLR_balboa_cranes_2.WAV	Balboa	11/2/2023	170	62	Harbour
ZOOM0174_TrLR_balboa_walk_1.WAV	Balboa	11/2/2023	459	63	Harbour

There seems to be no single thread that ties the country together except for the canal.

Sonic map of Colón with recording locations visualised as spheres



Warehouse in the Colón Free Zone



Chagres National Park - Sonic Observations
1:150.000

in Panama. Famously a tax haven for all of the world to use, the country has a deeply privatised economy. Security guards for different companies protect their respected turfs from unwanted visitors, corruption is rampant and the Panama Canal hidden in plain sight. There seems to be no single thread that ties the country together except for the Canal. It is a mysterious entity that appears incredibly visible when viewed from above, but on the ground one can only get overpriced tourist tickets to be fed propaganda about 'Panamanian culture' or how it is the 'gateway to the world' or scared away by a group of masked security personnel with live firearms.

Yet the way in which the landscape has been transformed is unmistakable. The highly hazardous jungle that previously covered the Isthmus had been domesticated by the Americans, fully ridding it from the dangers of yellow fever. The incessant etching and digging, accompanied by initially thousands and tens of thousands of deaths, have resulted in the jungle becoming effectively a piece of global infrastructure. The landscape was now made completely obedient to serve its human masters: a cyborg slave, half animal half machine; half landscape half infrastructure. For all the world to enjoy.

But these new organs, these man-made lakes, locks and pieces of land to store the goods that passed through this 'gift to the world at large', will ultimately be rejected. It takes a very strict territorial organisation to postpone this rejection for as long as possible, one that Panama with its 'it has never been that bad' policy is not really expected to enforce. The recent upgrade to the canal, featuring larger locks for larger ships, only seems to exacerbate the underlying problem: everytime a ship passes through water leaks out of the system. Extended droughts as a consequence of the high frequency of el niño years in recent history also hampered the influx of new water and therefore restricts the canal's usage. Panamanians themselves are even, often uncontrollably, sabotaging the canal's water influx by building shelters and informal settlements into the 'watershed zone', reducing soil water absorption critically and worsening resilience.

In native Panamanian beliefs, water is often considered the most sacred God. Water gives life. Rain fills up the cavities between the mountains and lets the rivers run across the Isthmus. Rain washes away the stinking, humid hotness that plagues Panama twenty-four hours a day, seven days a week. The sensation of constantly feeling dirty is only ever resolved by surrendering oneself to the purifying qualities of water. But now,

...these man-made lakes, locks and pieces of land to store the goods that passed through this 'gift to the world at large', will ultimately be rejected.

Top: 'The Loop' highway around Casco Viejo at low tide

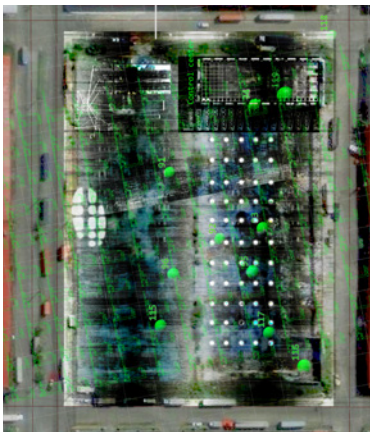
Bottom: Abandoned and flooded plot at the Colón free zone

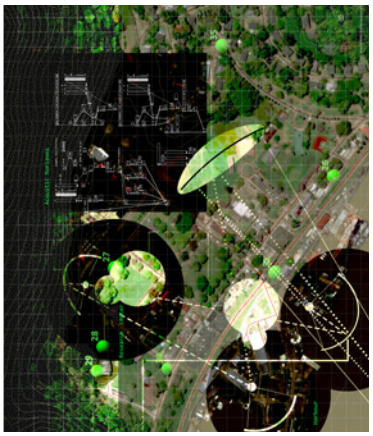
Experimenting with room resonances in Balboa, Panamá

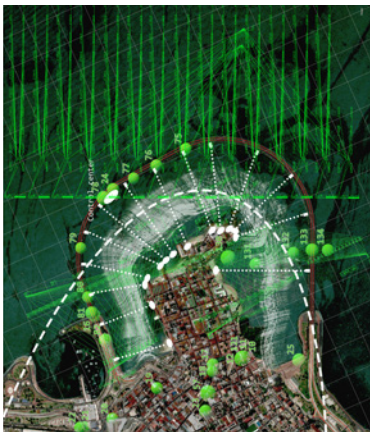
it is only seen as a means, a statistic to get as much stuff as possible from the Pacific to the Atlantic and vice versa.

It is within this geographical, territorial scale the "Panama Canal Entity" can be conceptualised. The Panama Canal Authority does not truly encompass or understand the fickle and fragile construction it is supposedly responsible for. It only seeks to continue with business as usual. The Canal Entity, however, is not to be merely restricted to human, monetary gains.

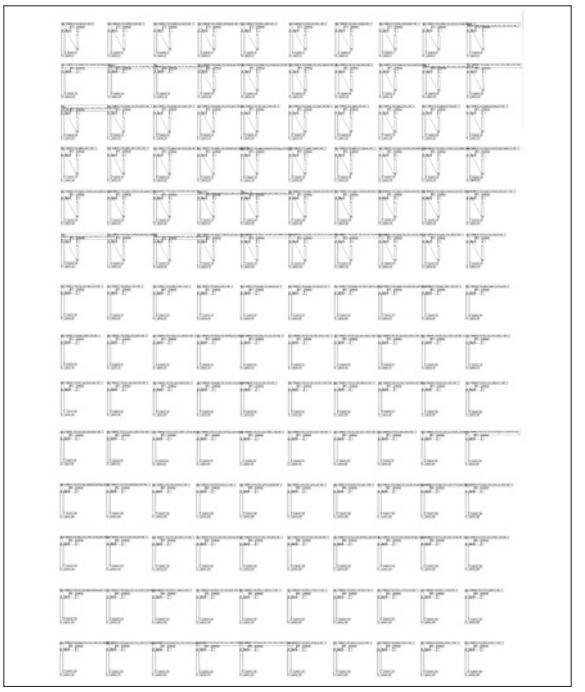
The word 'entity' has a double-sided meaning: it could refer to a rather ephemeral existence, a 'being' that is not completely disclosed yet particular enough to denote a specific existence. At the same time, it could refer to an organisation, a bureaucratic agent. It is with the intersection between these rather opposing definitions that the canal's existence becomes much more messy and vital. Instead of a sole shipping route, now the watershed, surrounding ecosystems, occupations, roads and dams all become part of a cybernetic whole that is also open ended. On the one hand, there are rules, areas, regulations and pieces of property that constitute its existence, yet there are also more transient, dynamic processes that can be directly experienced as a part of this entity.

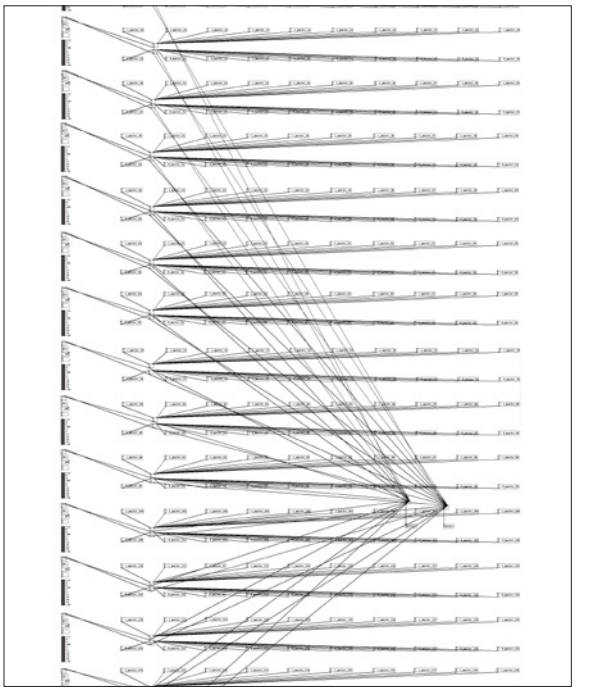


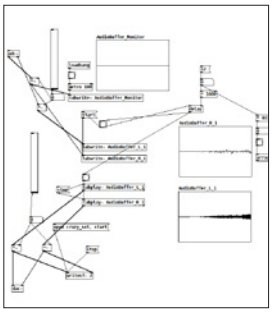


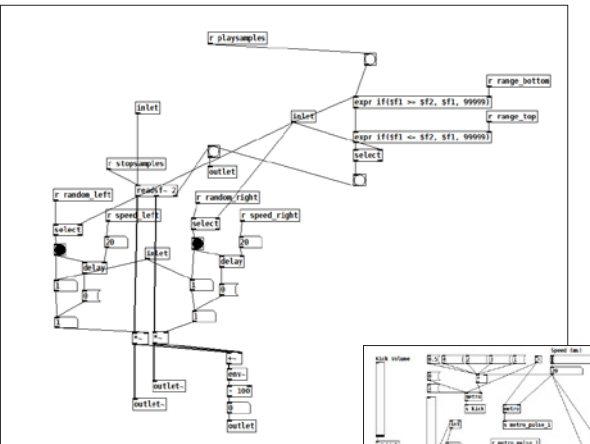


Top: design proposals taken from P2 presentation
Bottom: The rainproofed cyborg gear in action in Panamá








r playsamples
r range_bottom
r range_top
inlet
inlet
expr if($f1 >= $f2, $f1, 99999)
expr if($f1 <= $f2, $f1, 99999)
select
r stopsamples
outlet
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r random_right
r speed_left
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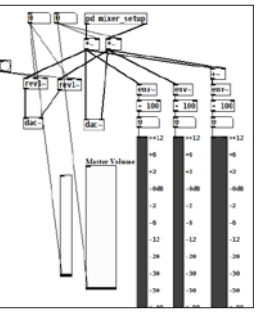
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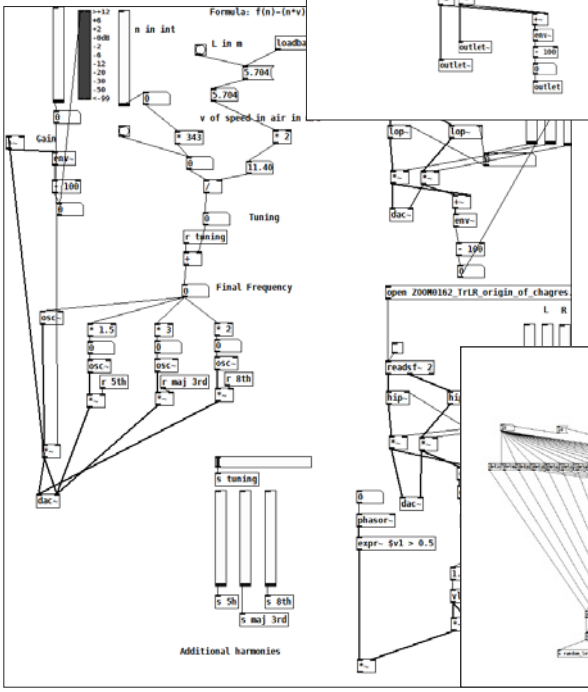
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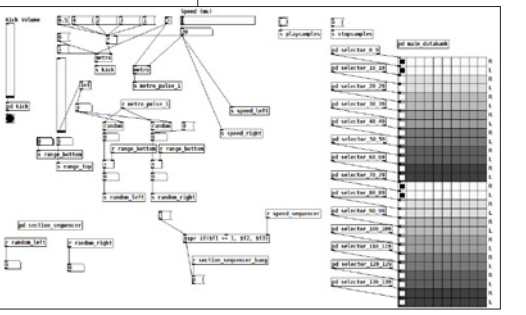
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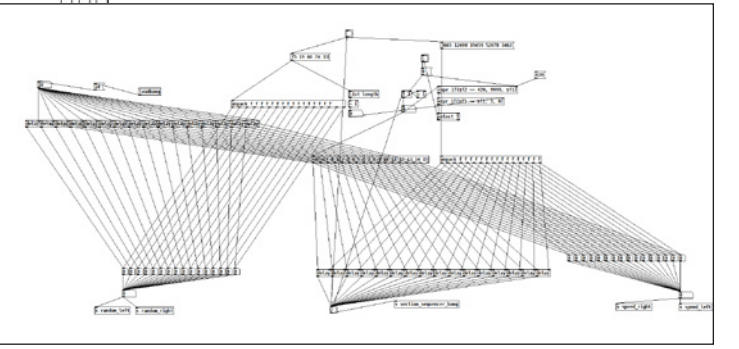
r random_left
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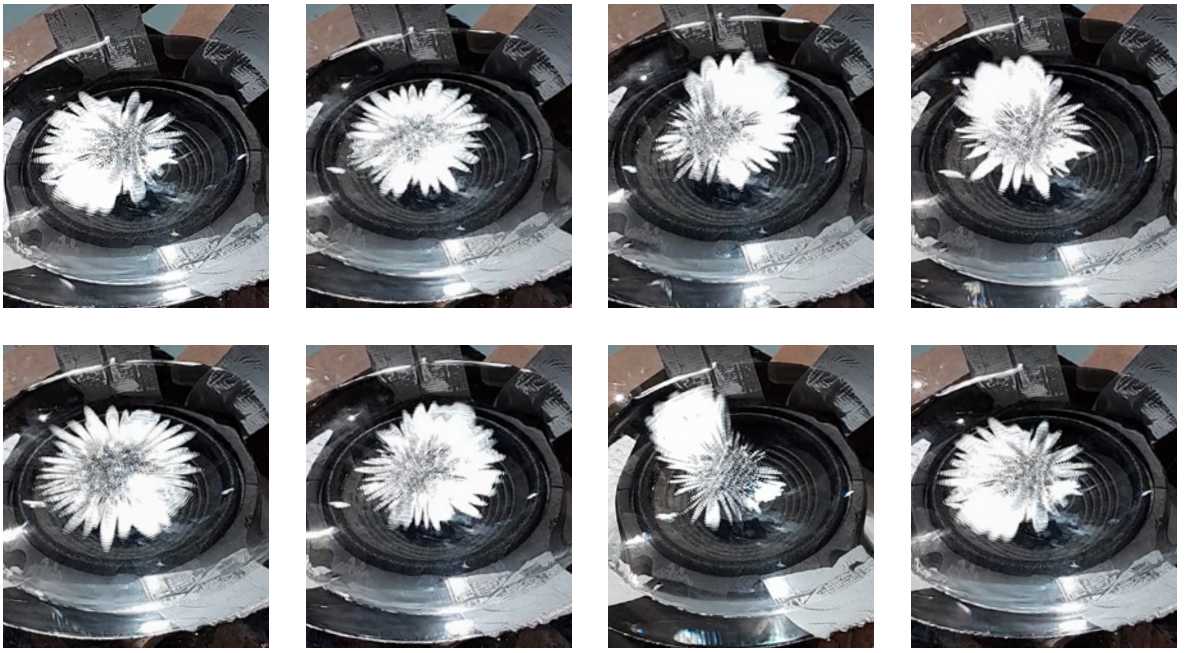
Left: Parts of the 'SoundScout' script, coded in Pure Data, made to control the complete dataset of recordings.

Top: Modi Operandi 'Surface Resonator' prototype

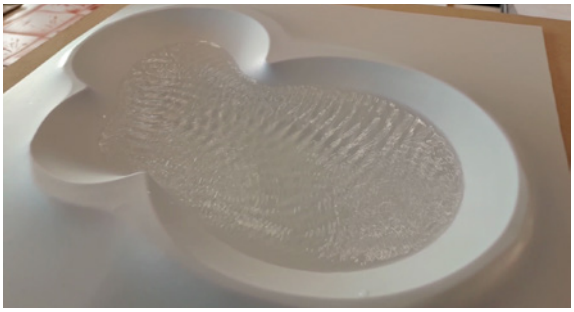
This messy, transient reality of intricate rainforests, global shipping infrastructures, free zones and eerily empty cities rings out in all its vitality. Even though fences are placed to prevent access to the canal, its sounds ring through. These sounds denote a presence, one that can not be expressed in simple numbers or objectives, but as a direct experience of activity, human or non-human alike. This is the activity of the Panama Canal Entity.

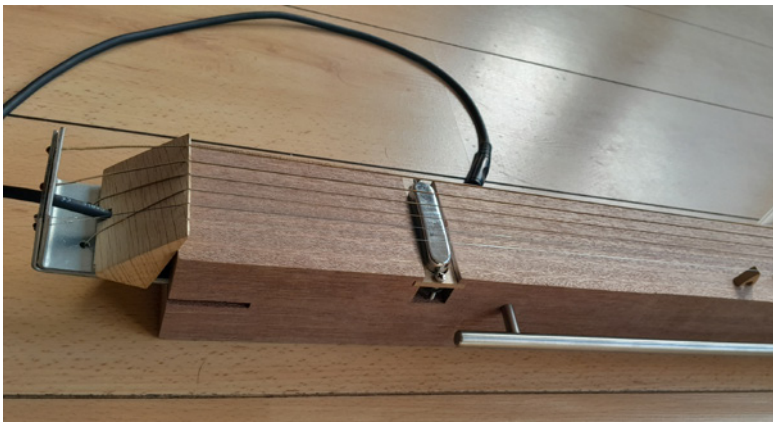
To render the entity explicit is to make perceptible its shaping forces: to deliberately haunt the Panama Canal. This is done by making more explicit the active, discontinuous and paradoxical nature of the canal by creating "Anomalies". These Anomalies are sonic, visual and architectural experiences generated by linking audio of real time events that are geographically far apart but all a part of the cybernetic, messy reality of the canal. These sounds are overdubbed, manipulated and filtered all by different occurrences in the landscape. These Anomalies can vary in size and scope but always require the same infrastructure to emerge. The infrastructure is "sonic" in nature because of this specific capacity of sound to render life or a presence explicit.

The term 'infrastructure' is used in broad terms here, this could be any component used to create the Anomaly and is heterogeneous in nature. Similarly to how the Canal is a messy



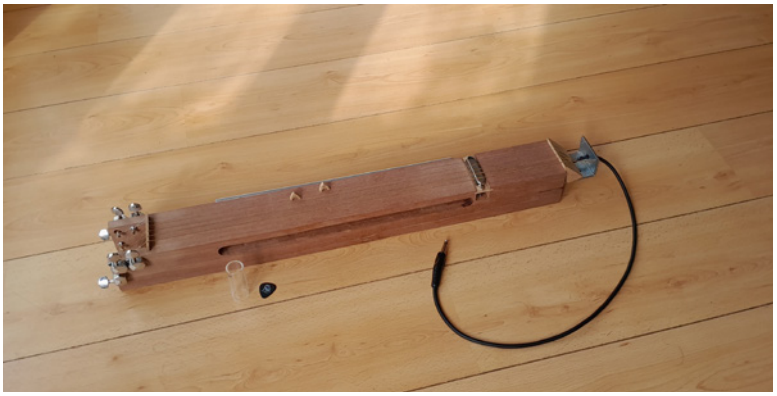
Moving water surfaces created with the ‘surface resonator’ prototype and different vacuum-formed molds to contain the liquid





Harp-guitar; second Modi Operandi model and a fusion between a slide guitar and a japanese koto harp

These Anomalies require space and silence to be properly induced and perceived



whole of man-made and natural occurrences, the infrastructure should embrace this. Feedback loops are also both cybernetic and acoustical. Microphones and speakers are the acoustic equivalent of the 'receiver and transmitter' components of the fundamental 'cybernetic loop'. With this sonic infrastructure, sound is supercharged: it no longer travels at the speed of sound but the speed of light, making possible sonic reciprocities and resonances at a geographical scale.

These Anomalies require space and silence to be properly induced and perceived. All rooms have their own frequency responses and reverberation times, they can thus be tuned accordingly. Rooms will resonate beautifully if their ratios are simple, as these correspond to the simple frequency ratios seen in musical scales. Acoustic reflectivity and absorption, determined by the smoothness and hardness of the material, are also integral. The exterior symphonies of thunderstorms find their way inside. Rain droplets form water surfaces that vibrate, forming intricate patterns and light reflections. It is this exact interrelationship

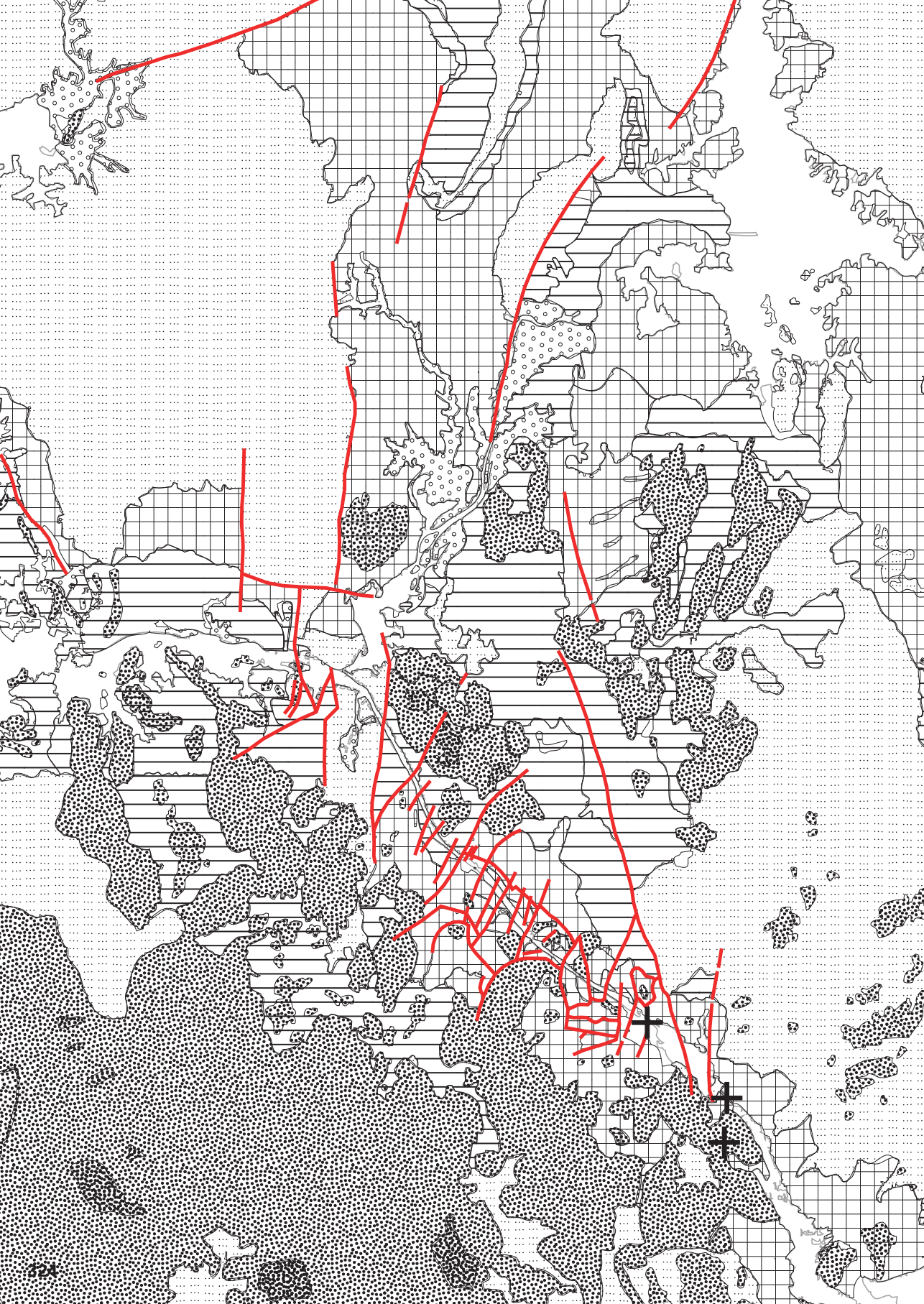
between the room and the sound, the soundscape, that is to fully summon the Anomaly.

When these Anomalies occur, slow pulses and cycles are expected, depending on the time of day and day of the year. They present a picture of a larger present, a collage of measurements and sensations. A constant state of change is present and never is the whole completely stable. This haunting makes one aware of a certain type of a deep, existential vulnerability: nothing is ever fully cyclical, everything is always changing. The Canal is not a wonder of engineering but a gift that will one day be gone.

Visitors of the Anomaly are not expected to merely observe. Their voices and footsteps become part of the audio-cybernetic soup. Like water, they are also part of the messy, humid whole. The observers also become the observed, becoming part of the Anomaly. They partake in a cybernetic ritual of sound. These visitors will not be limited to just humans but all organisms that make and hear sound will be affected. The dense sonic worlds of the rainforest intermingle with the urban jungle.

By amplifying these Anomalies, possibilities to re-understand the fragile ecosystemic constructions emerge and the innate impossibility to understand one as being distant from that process becomes quite obvious. To automatically pose the lack of water as an engineering problem, as something that can be fixed will only further obscure the underlying conceptual fallacy that feeds ecosystemic destruction. It is not a problem by definition that there is less water in the canal: it is a problem for humans. The earth was not just made for humans to roam. The earth does not care about our existence and will still exist when we are gone. All good things must come to an end and it is this end that makes it precious.

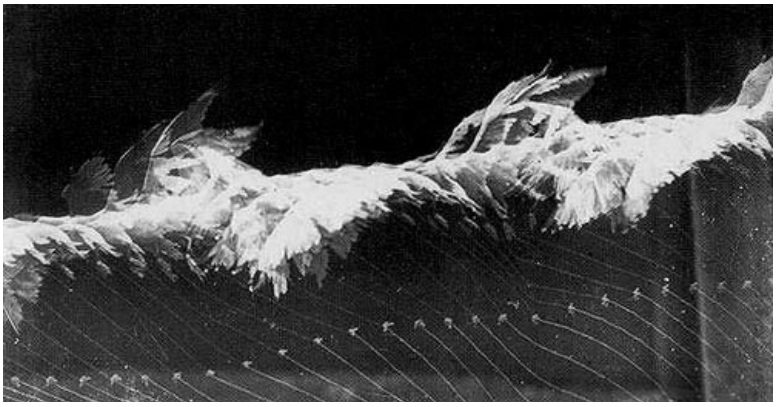
As the infrastructures of the Anomaly decay and are swallowed by the dense surrounding rainforests, attunements and alignments of the instruments change. Spaces that once were maintained and filled with these transmitted sounds are now silent. All that remains are the memories of how one could sing in unison with the symphonies of the Anthropocene, the symphonies of the Panama Canal Entity.



GROUND POTENTIAL

LANDSCAPE, A TECHNICAL OBJECT

Marey, E. J. (1886) Flight of gull [Chronophotograph]



ABSTRACT

What this essay seeks to problematise is modernity's strive to rationalise, systematise, standardise and categorise and its application of universal laws and constants, which led to a static understanding of our reality, disregarding the notion of time and it's "relentless fluidity [and] it's irreducible materiality", towards an easily digestible abstraction (Kwinter, 2001, p.4). Time has been reduced to a device, portraying unrelated sequences of events within our world that can be apprehended in a superimposed, more approachable construct of measure and management, while the very nature of it is characterised by constant inconsistencies, changes and a perpetual unfolding. The central argument of this essay is propagating for an architecture which actively considers the notion of time. An architecture that is responsive and sensitive to fluctuations, transformations and movements that occur within its complex environment throughout time. This essay is fragmented into two segments. The first will challenge the traditional, static understanding of the object, building upon Sanford Kwinter's theory of time sensitive 'architectures'. Gilbert Simondon's concept of 'Key Points', which serves as a method of grasping the vast complexity, irregularity and unpredictability of a milieu, in which the object is situated in, will be introduced. The second segment will develop an adaptive approach towards a building culture which is sensitive to both time and a complex milieu.

PART I

architectures

If architectural thought and practice is to escape the confines of the static, one has to revisit and question the traditional conception of the (architectural) object. Rather than limiting it to merely its external attributes that define its appearance, such as materials and form, Kwinter stresses the need to investigate the relations to its immediate surrounding space, to its own components and to other objects, with which it is combined, establishing a field of relations and a "system of forces that give shape and rhythm" to the object (Kwinter, 2001, p.14). What is proposed here is a more dynamic understanding of the object which is now no longer defined by how it appears, but by a series of agencies, forces, affectivities and temporal relations, which Kwinter summarises as 'architectures' (Kwinter, 2001). He differentiates between those fields of relations that are smaller than the object itself describing them as 'micro-architectures' and those that are larger, 'macro-architectures', of which the object is a part of.

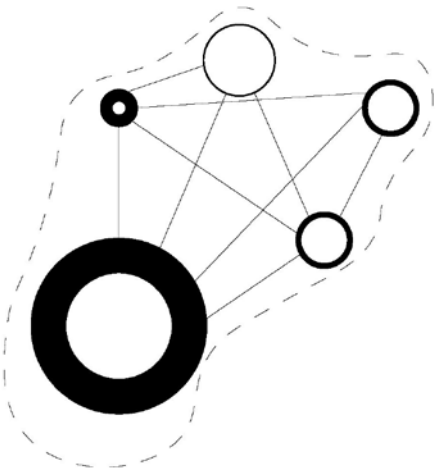
technical objects

Once the architectural object is portrayed as a set of architectures — fields of reciprocal relations, instead of a fixed unitary element— the identical nature to that of the technical object becomes apparent. The technical object Kwinter characterises as being associated by a "complex of habits, methods, gestures or practices that are not attributes of the object but nonetheless characterize its mode of existence"

(Kwinter, 2001, p.21). The notion of the technical object — or in other words 'the apparatus' — has been extensively discussed by Foucault, who's definition in summary refers to a 'system of relations' of physical, institutional and administrative nature that enable the exercise of power within a social structure. In an Interview, Foucault described it as follows: "What I'm trying to pick out with this term is, firstly, a thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements,

philosophical, moral and philanthropic propositions — in short, the said as much as the unsaid. Such are the elements of the apparatus" (Foucault, 1980, p.194).
Two insights may be gained by Foucault's definition. The transcendence of the object from its external features, and its ability to have an affect onto the social realm. This close proximity between human and object has been conceptualised by French philosopher Gilbert Simondon, who has dedicated most of his work to establishing a theory of technology.
In his book *Du mode d'existence des objets techniques*, which is mainly concerned in discovering the essence of the technical object, Simondon situates it into the realm of culture, as a meditating entity between human and nature, claiming, however, that it has been neglected by culture and limited to its function as a tool as opposed to the aesthetical object which is recognised as being meaningful and therefore included in philosophic inquiry (Simondon, 2017). Simondon argues that in order to discover the essence, one has to examine the genesis — i.e. the temporal delineation — of the technical object. Here, the object, just as the living-being, is described by its evolutionary character. Instead of being fixed and stable entities, objects are becoming throughout time. This process of becoming, has been further conceptualised through his idea of 'individuation' — which will be elaborated on in the second segment of this essay.

Such an understanding of the object, be it architectural or technical, allows a sensitivity for the complexity of our environment, which occurs when actually considering time. Only when considering the constant transformations and movements of and within each object, the

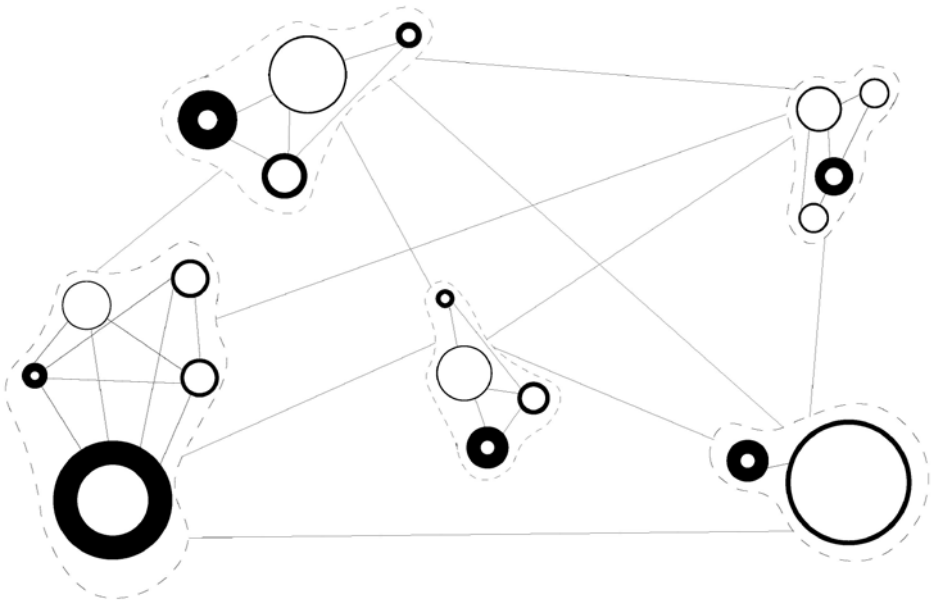


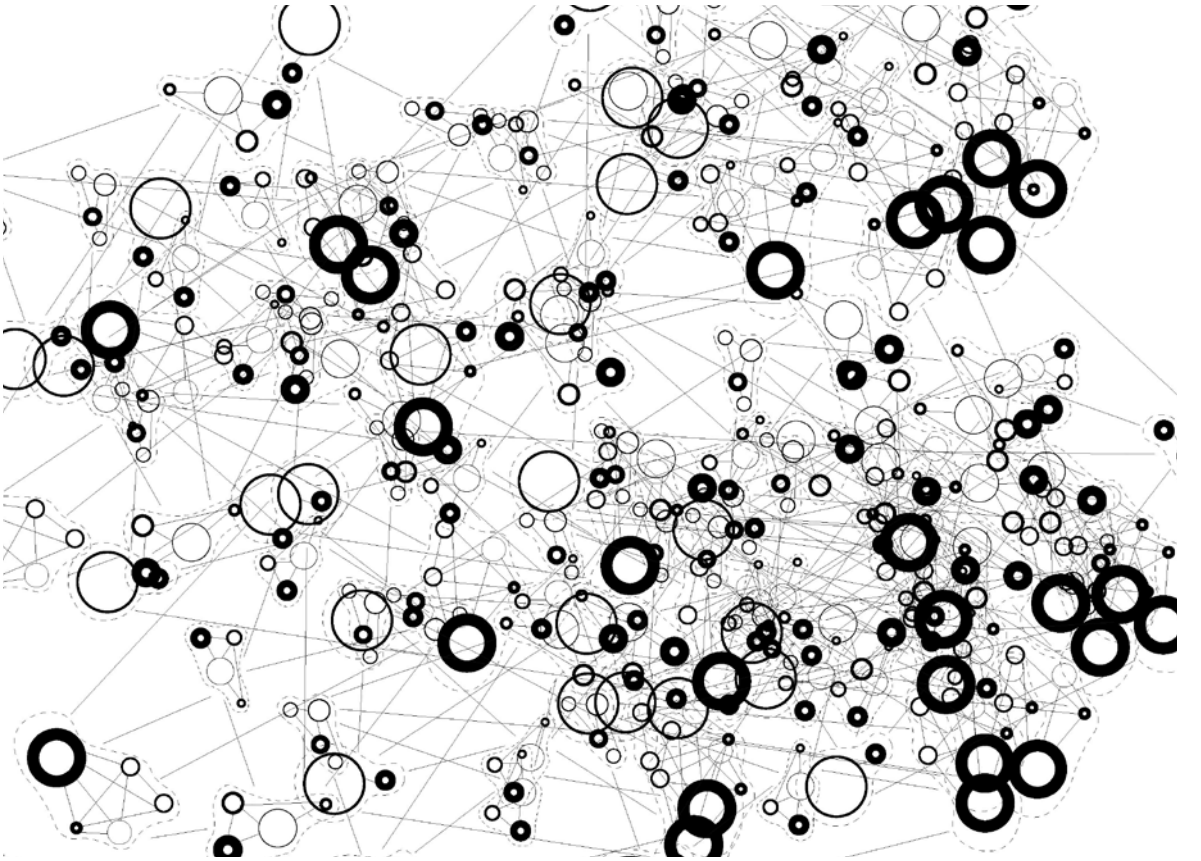
dynamism of the milieu they are situated in becomes apparent.

key-points

In a world constituted of dynamic, ever evolving living and non-living entities relating to each other in ways that are so extensive, dense and complex, the question of representing the totality of such a reality moves into the realm of the impossible. Hence, a need for a method of structuring and approaching these realities at certain specific and local points arises. This is where Simondon's concept of 'Key-Points' proves useful, which, as he describes, are certain 'privileged places and moments', or places and moments of particular significance that are scattered over a spatial or temporal landscape, and act as points of reference to structure a territory (Simondon, 2017, p.178).

Simondon's Key-Points on the one hand can be understood as modern 'equipments', such as antennas, pylons and lighthouses, which act as figures to the ground or the environment they are inserted in (Teyssot, 2017). On the other hand, there are key-points that refer to natural landmarks and phenomena, such as mountain peaks, special rock formations, grottoes or the centre of a forrest. According to Simondon, the latter served as a means to structure the 'magical' world in which humans lived, before there was a distinction between religion and technology. The magical world describes a mode of existence prior to the distinction "between human reality and the reality of the objective world" (Simondon, 2017, p.178), between subject and object. The only means of differentiating the figure from the ground was through the identification of said key-points, which enable "a reticulation of space

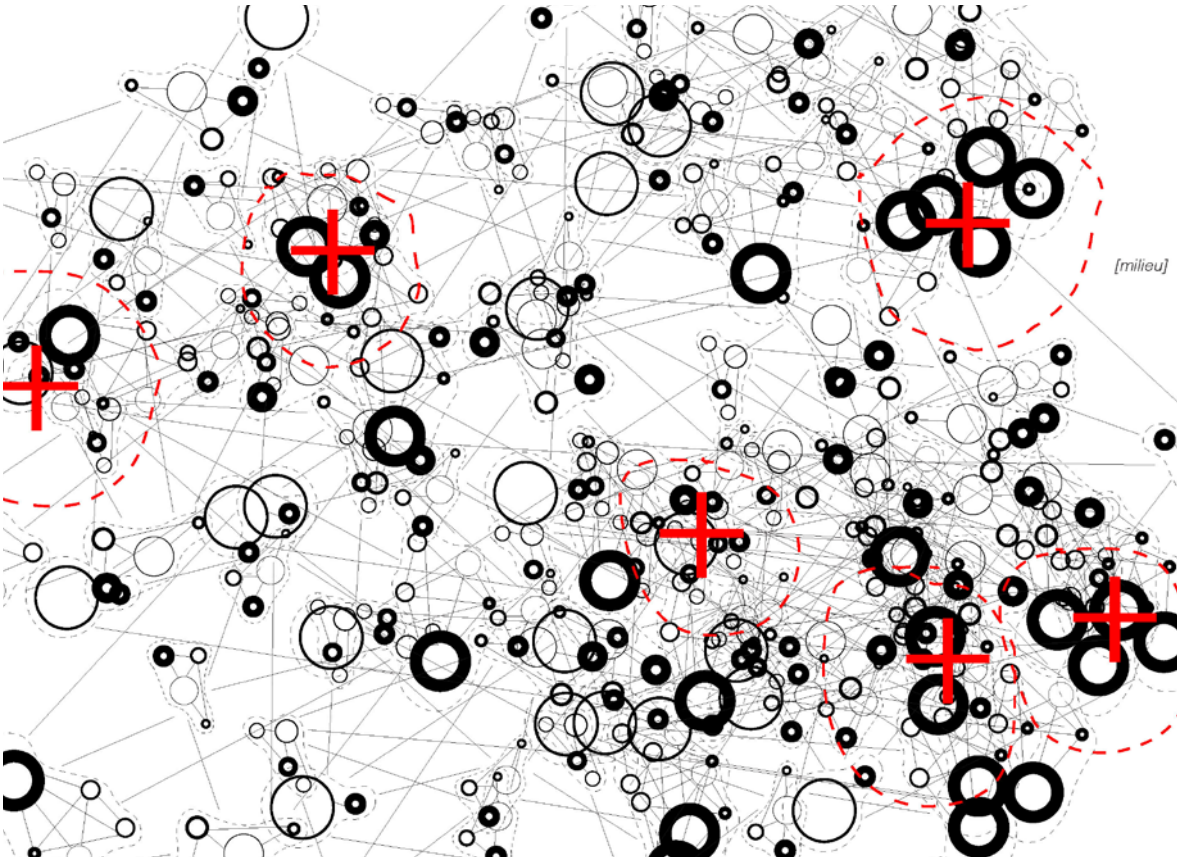




complex millieu

and time that highlights privileged places and moments […], as if all of man's power to act and all the world's ability to influence man were concentrated in these places and in these moments" (Simondon, 2017, p.178). Simondon's descriptions of both magical and modern key-points situates these places and moments in between human and nature, as mediating things, forming a 'milieu' in which these places and moments both affect and are affected by humans.

While these figures of the magical world are inherent to and inseparable from their ground, modern key-points have detached themselves from the ground, retaining only their functional characteristics of mediation and becoming technical objects, that are transportable, instrumental and abstract from the milieu (Simondon, 2017). These engineered structures are situated into a particular landscape, allowing a new reticulation of a territory, "in a synergetic alliance of technical schemas and natural powers" (Simondon, 2017, p.193). Simondon further highlights the significance of insertion of a figure onto the ground, prescribing technical objects an aesthetic value when they are perceived together with the environment they are placed in. "The technical object is beautiful when it has encountered



key points

a ground that suits it, whose own figure it can be, in other words when it completes and expresses the world" (Simondon, 2017, p.197). Following this argument, a pylon is not necessarily a beautiful object in itself, however its aesthetic quality arises when perceiving a line of pylons supporting cables along a valley. The emergence of new key-points, that are neither magical, nor modern equipments was proposed in a review by Robert Mitchell, originating from a contemporary reading of Simondon's magical key-points, which according to him, describe a world, that lies a long way in the past (Teyssot, 2017). The ice packs of the North Pole and Antarctic, the Amazon rain forest, and natural parks such as Yellowstone, are listed as exemplary places, linking their beauty to their role as key-points within global ecological and economic processes. These new privileged places and moments are no longer merely equipments in the sense of bridges, antennas or lighthouses, however the result of a merging of natural processes and highly controlled engineered interventions, blurring the border between nature and technology, redefining the very notion of 'nature' and taking it out of its idyllically romantic connotations.

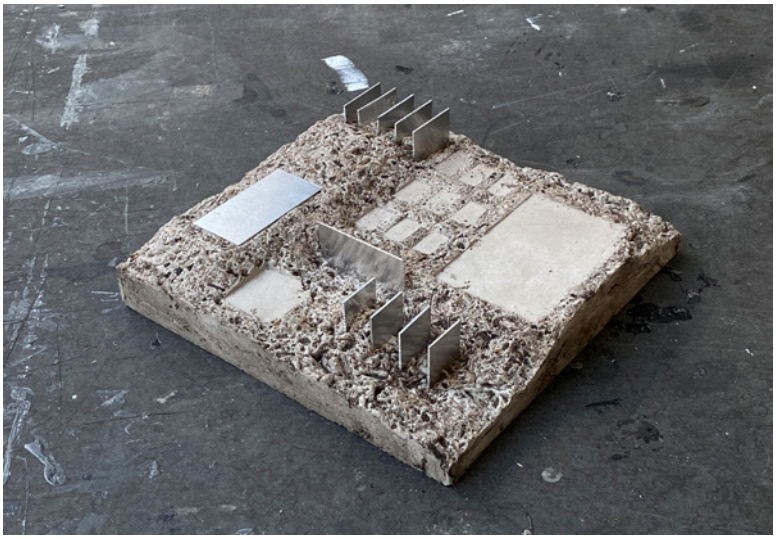
individuation and transduction

In order to grasp the concept of individuation, initially the concepts of the pre-individual and that of meta-stability need to be addressed. According to Simondon, there is a state of being before that of the individual entity: the pre-individual. "The pre-individual exists as a realm of potentialities which contains within it the possibility for potential individuations" (Bluemink, 2020). In other words, the pre-individual holds within itself a set of potentials to develop in multiple ways, according to the circumstances and relations of the environment it is situated in. Through this process of individuation the pre-individual transforms from one meta-stable state to the other, by means of actualising its potentials. The meta-stable describes a state in which a system is neither fully stable nor fully unstable, meaning there exist the potentials to be individuated in multiple ways, while it "only requires the smallest amount of energy to change from one state to the other" (Bluemink, 2020). In the process of individuation these tensions within an object become resolved, thereby creating new tensions, which again lead to further processes of individuations (De Vries et al., 2014). In the ongoing process of individuation, the individual is never an isolated self but is consistently shaped in relation to its milieu. To comprehend the individual, it is essential to view it alongside its environment. The interaction between the individual and its milieu is mediated by affect (Shaviro, 2006). The process of individuation is further developed by what Simondon refers to as 'transduction', which involves the adaptation of an individual to its surroundings (De Vries et al., 2014). It is through transduction that the process of individuation takes shape. Transduction is the concrete process in which the metastability of an object emerges. The new set of relations that emerge through past individuations, which will affect the ones still to come. In Simondon's words, "Transduction occurs when there is activity, both structural and functional, which begins at a center of the being and extends itself in various directions from this center, as if multiple dimensions of being were expanding around the central point" (Simondon, 1992, p.313).

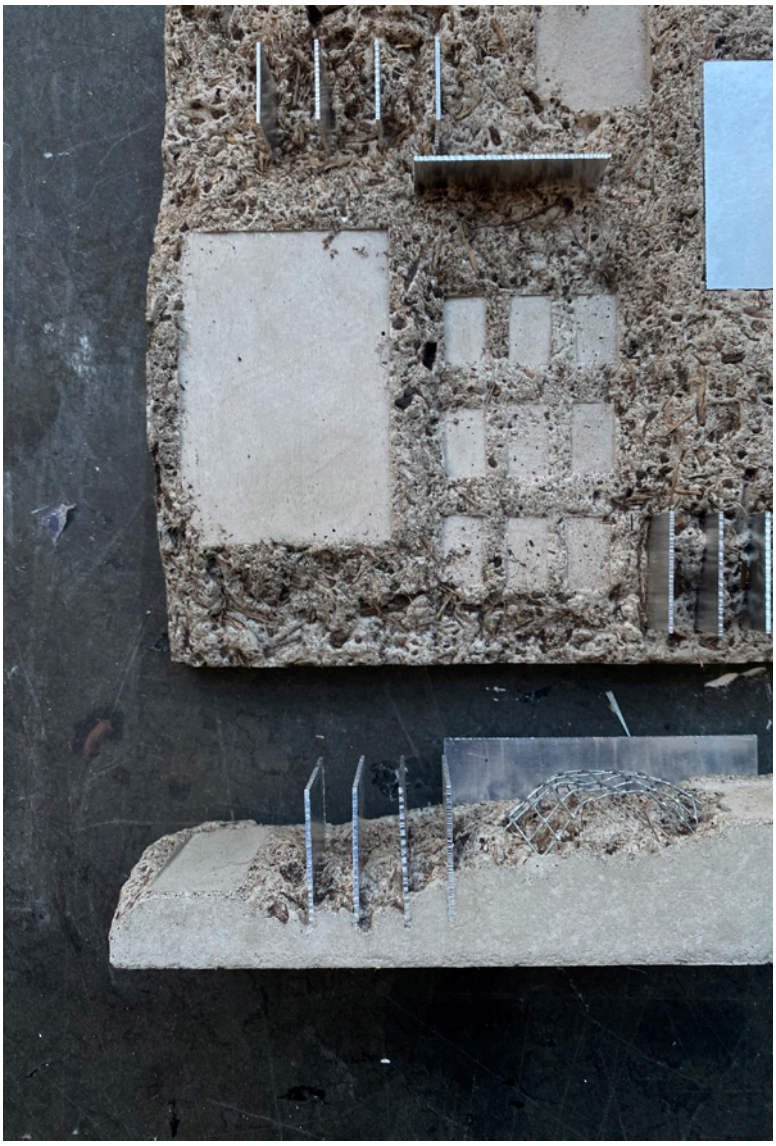
ontogenetic space

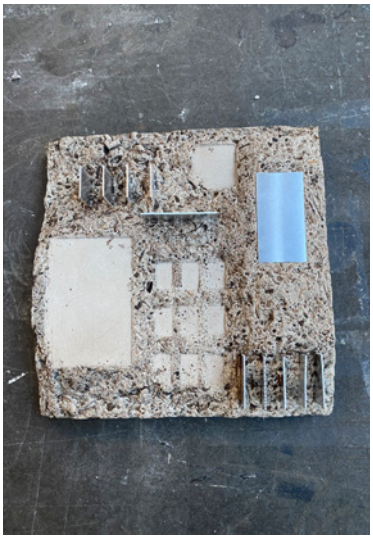
The proposed complexity and dynamism of objects and the milieu they inhabit, has direct spatial implications, which need to be acknowledged in the practice of organising space. The understanding of the procedural mode of existence of things, suggests a paradigmatic shift from an ontologic towards an ontogenetic conception of space.
In the framework of an absolute ontology of space, it is conceptualised as a geometrically organised system, resembling an absolute grid where objects are positioned, and events unfold. Defined by Euclidean geometry, this grid simplifies the idea of space to its geometric core, presenting it as a natural given. This reductionist understanding of 'space as container' has been challenged by relational ontologies, arguing that space is produced by social and material interactions rather than being a neutral, passive geometry (Dodge and Kitchin, 2005). The ontogenetic understanding of space proposes an alternative to the static, fixed conception of space developing a sensitivity towards time and all the changes and transformations that it entails. It allows to consider the dynamic relations of its form, function and meaning, which are constantly being (re)defined and (re)created in the moment. "[S]pace is not a container with pregiven attributes frozen in time; rather, space gains its form, function, and meaning in practice. Space emerges through a process of ontogenesis" (Dodge and Kitchin, 2005, p.172).
Now when it comes to the practice of

organising space: If space is constantly (re)defined and (re)created, the task of organising it can never be one that is completed. The architectural object, just as the elements it consist of and the space that it generates, needs to be understood as a dynamic process rather than being complete and final. The ontogenetic process, however, is closely related to specific fixed limitations. Adopting Simondon's vocabulary, and considering the architectural object an individual entity in a constant process of individuation, its limitations or restrictions lie within the set of potentials of its pre-individual state. There are specific constraints embedded within the pre-individual, which nevertheless allow a multiplicity of different outcomes of individuation according to the associated milieu. In the context of a building the fixed constraints may lie within the attributes of the chosen building materials and elements, which nevertheless can lead to multiple directions within the buildings ontogenesis. A depiction of the architectural object that resonates with Simondon's understanding of the technical object as "the unity of two layers of reality: a layer that is as stable and permanent as possible, which adheres to the user and is made to last; and a layer that can be perpetually replaced, changed, renewed" (Simondon, 2009, p.24).



The first model deals with the ground of the site, that we investigated in Panama. Since the object of investigation is the landscape of the canal area, the model interprets how this landscape was formed by both a series of natural processes and highly engineered interventions. These technical interventions in this case are represented with metal sheets. What is most revealing in this model are the traces of these interventions, that remained in the landscape, once the objects were removed.



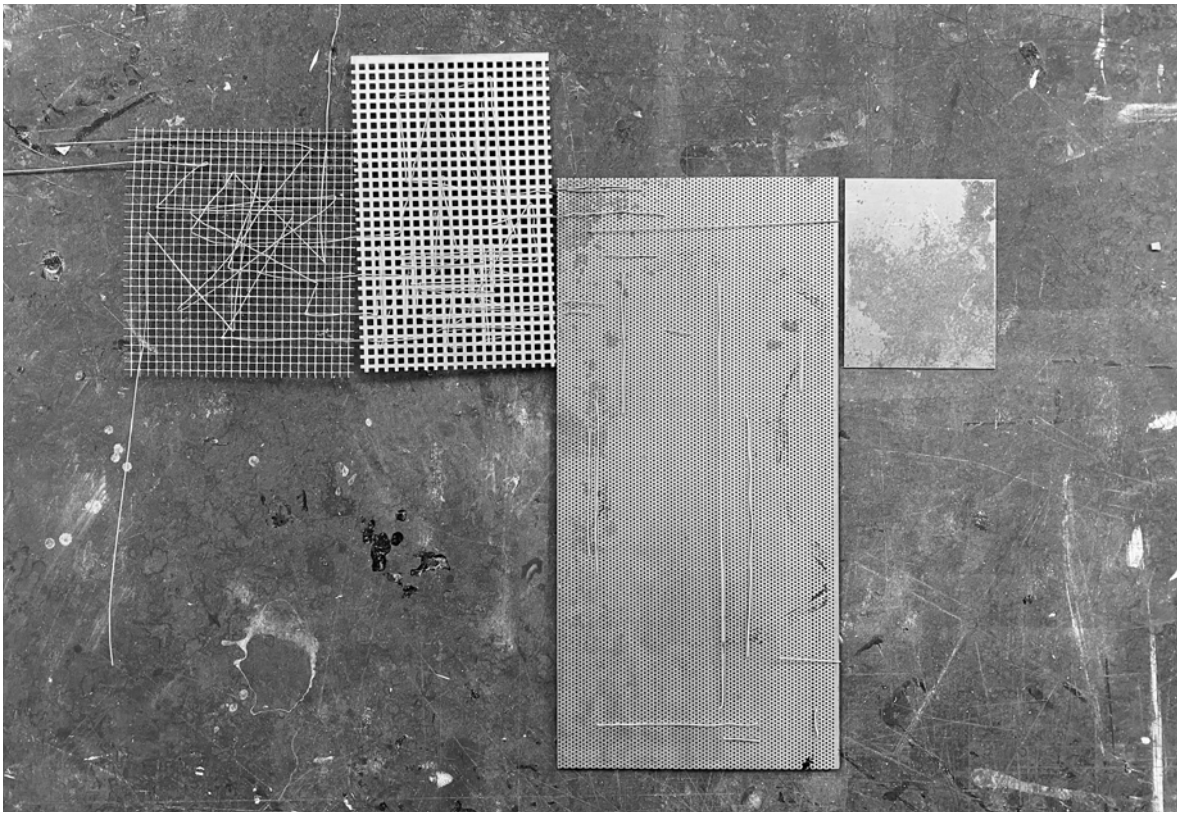


assignment #1: ground

The second model attempts to visualise the procedural state of being of objects, as described in Simondon's concept of individuation.

The last model shows my intention of working with the ground as a way of creating spaces, just like it has been done around the canal since its construction, as it was created through extensive excavations and is being maintained through further ground operations.

assignment #2: assemblage



assignment #3: spatial situation

As the only bottle-neck linking the maritime route between the two largest oceans on earth without having to divert around the South-American continent, the Panama Canal is critical to the countries economy just as it is to the global trade market. A daily crossing of 32 vessels through the canal may seem underwhelming, considering the magnitude of the highly engineered intervention of digging a canal across the isthmus. However, toll prices of up to a million dollars per crossing suggest otherwise and point out the criticality for this canal to function reliably. The functioning of a highly dynamic and complex technical object such as the panama canal is tied to an extensive infrastructural system, regulatory mechanisms and a cetrain degree of unpredictability. The following mappings serve as a method of approaching this complexity, by means of identifying the key points of the canal, i.e. the bare minimum infrastructure required to uphold the canal operations, and uncovering their relation with the ground conditions of the sites that they are placed in.

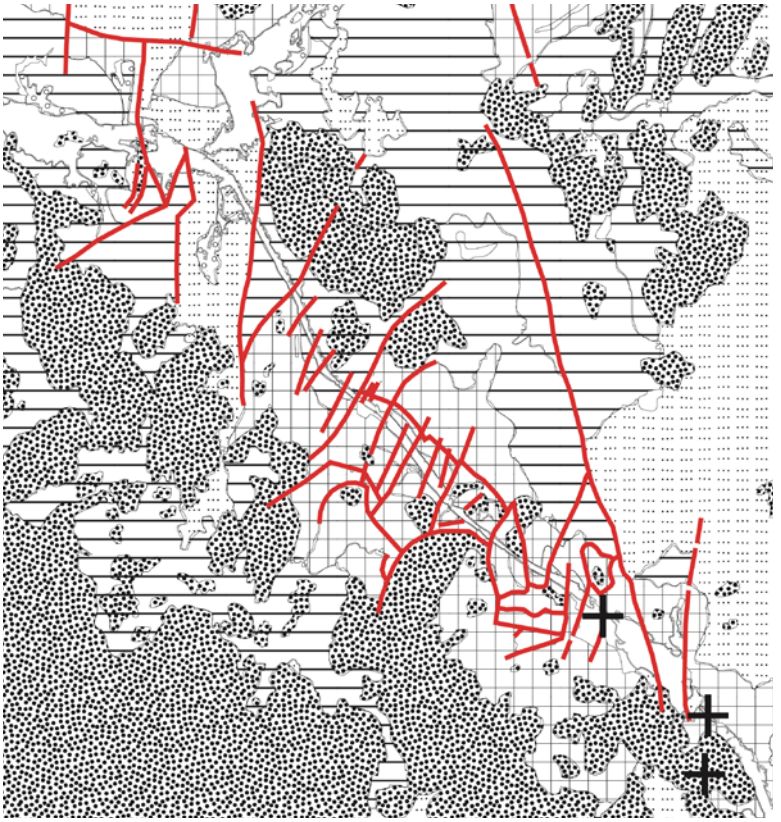
key points

GATUN LOCKS
AGUA CLARA LOCKS
GATUN DAM
PEDRO MIGUEL LOCKS
MIRAFLORES LOCKS
COCOLI LOCKS

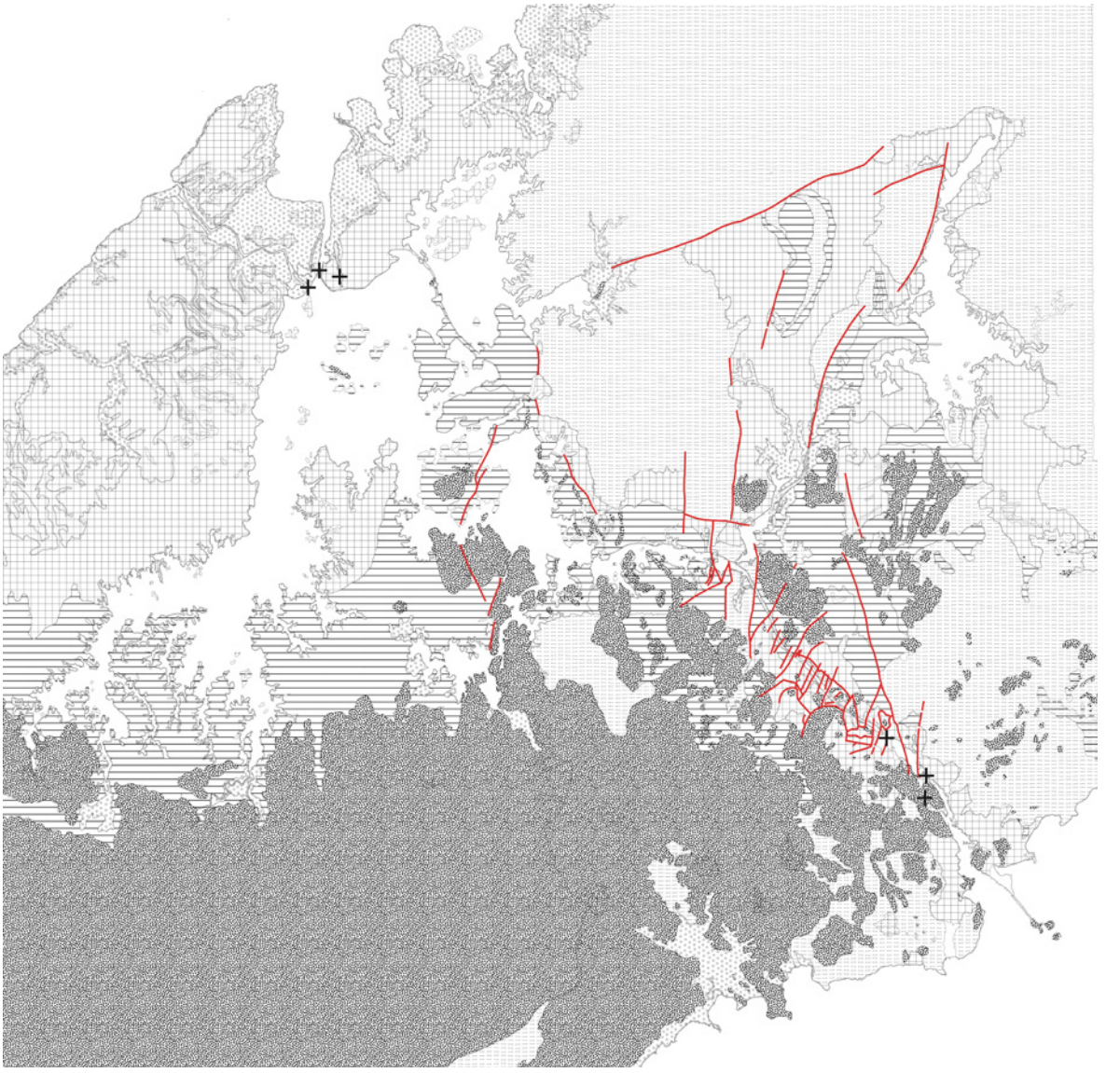
The canal has persisted for over a century, though facing various geologic challenges, through constant maintenance, and has been extensively expanded for it's hundred year anniversary to facilitate the evolving technical requirements and increasing vessel measurements. Several geologic studies were conducted in advance of the expansion project, which resulted in a declaration of a serious seismic hazard in the canal area. Seismicly active fault lines crossing the canal have been detected, which have previously caused major earthquakes in the area of Panama City and the canal.

The Geology of the canal area is characterised by a conglomerate of numerous stone and soil types, ranging from stiffer volcanic rock formations and sedimentary rock formations to softer clay and sand formations.

geologic conditions: culebra cut

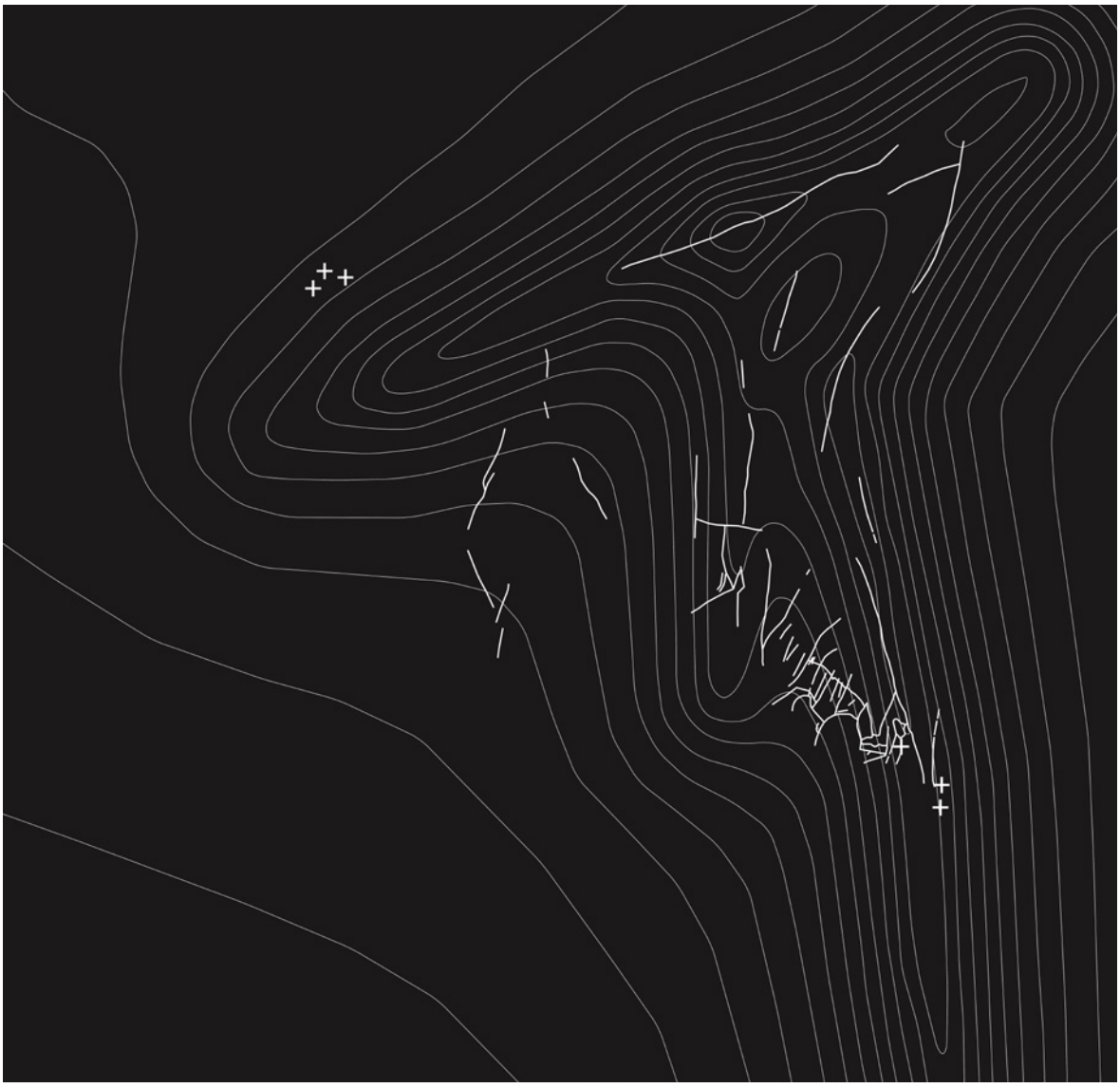


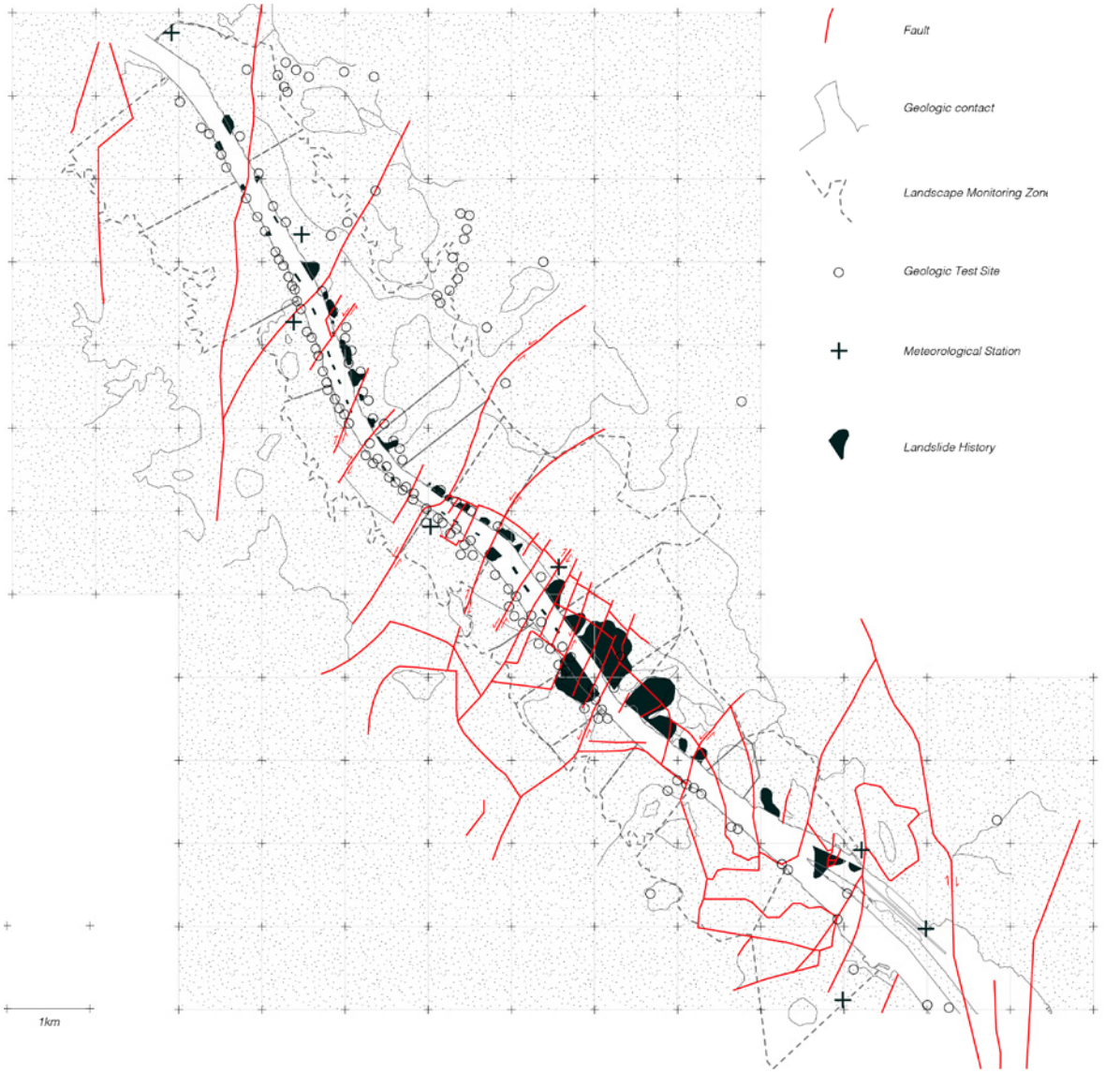
geologic conditions: canal area



The seismic hazard of the canal area is visualised in this peak ground acceleration map. The data was collected in a probabilistic hazard analysis and is based on records of peak ground acceleration during previous seismic events.

peak ground acceleration

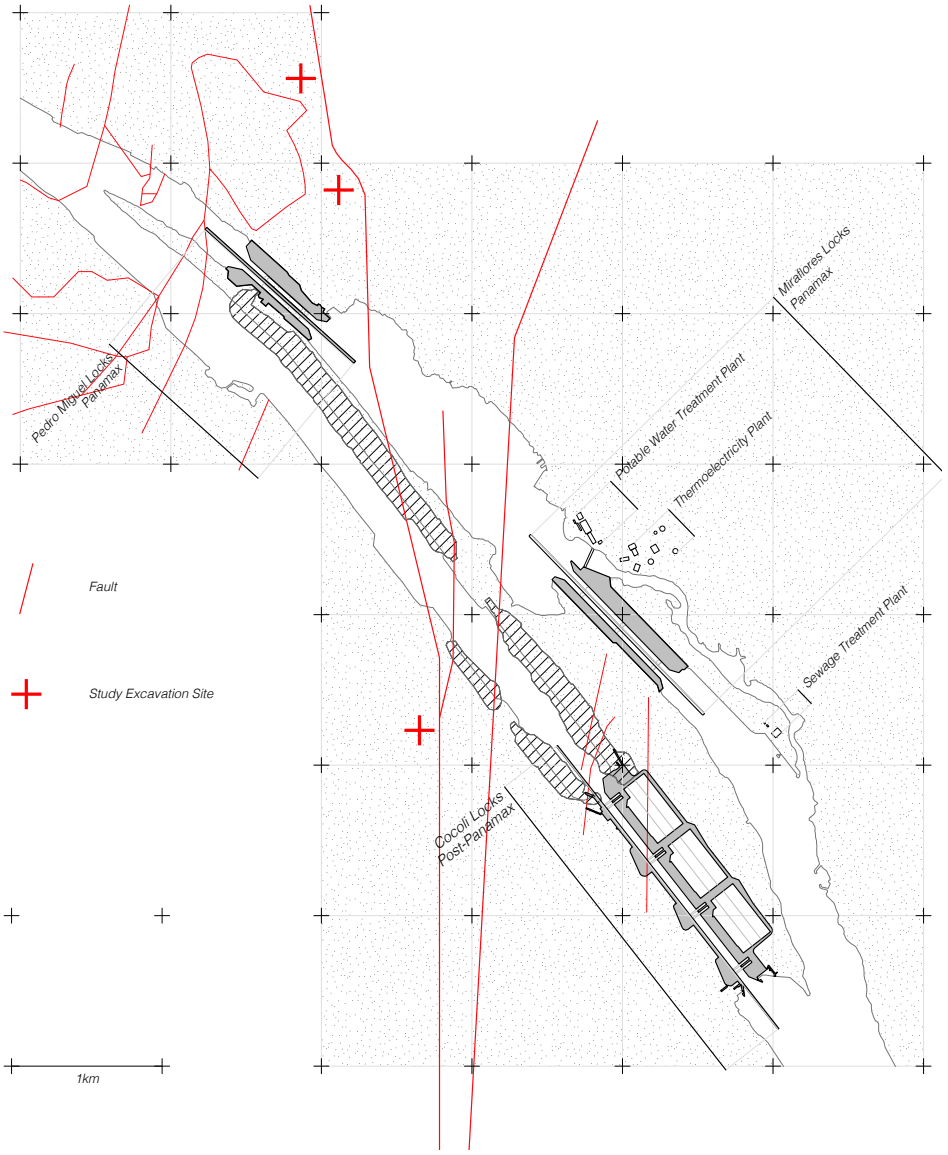




culebra cut

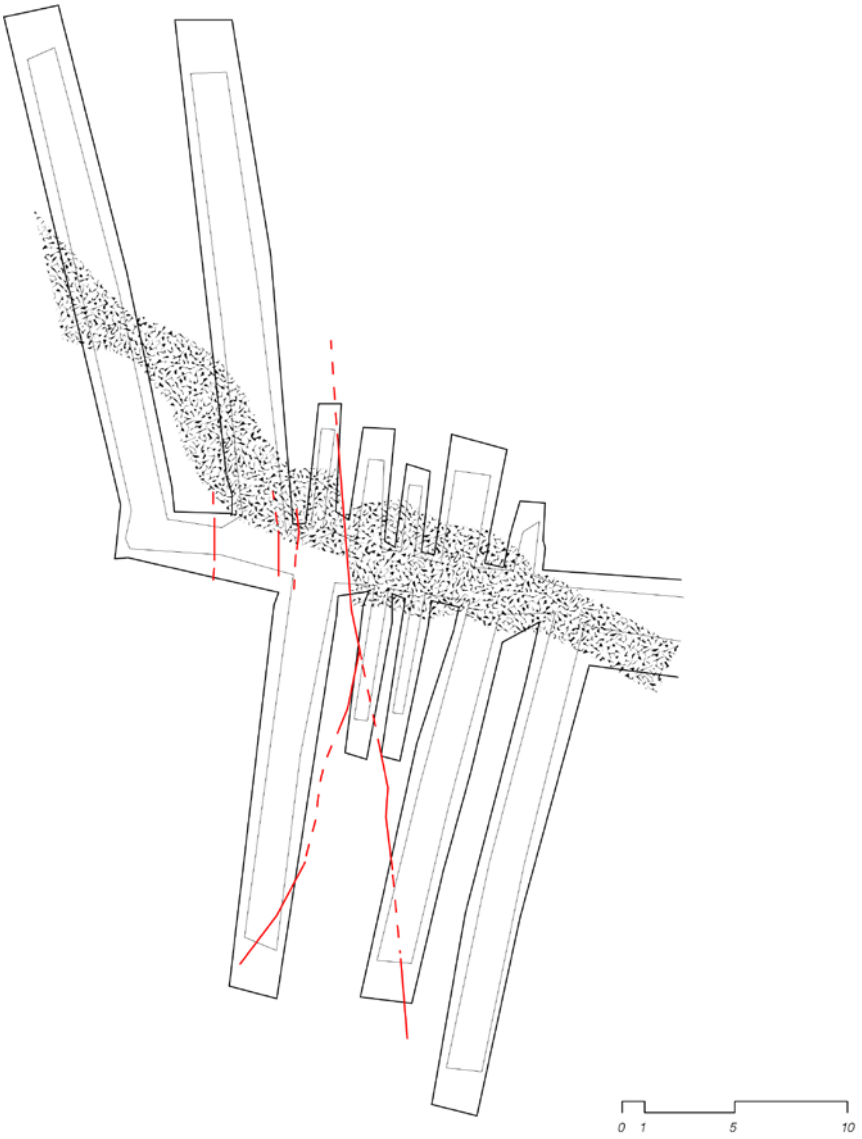
The challenge of constructing, maintaining and expanding the canal has been predominantly a challenge of working the ground in which it is situated. Millions of cubic meters of excavated soil allow the canal infrastructure to be placed into the landscape of the isthmus.

The hypothesis, here, lies in understanding not only these critical infrastructures as engineered technical objects, but the whole landscape in which they are placed, since it is under constant observation, maintenance and is frequently altered to keep the canal operations flowing. The goal of said engineered interventions being to predict and prevent undesirable events that the landscape might unfold due to its unpredictable nature. The operation of the canal is at risk of being obstructed through Landslides, as an additional consequence of the



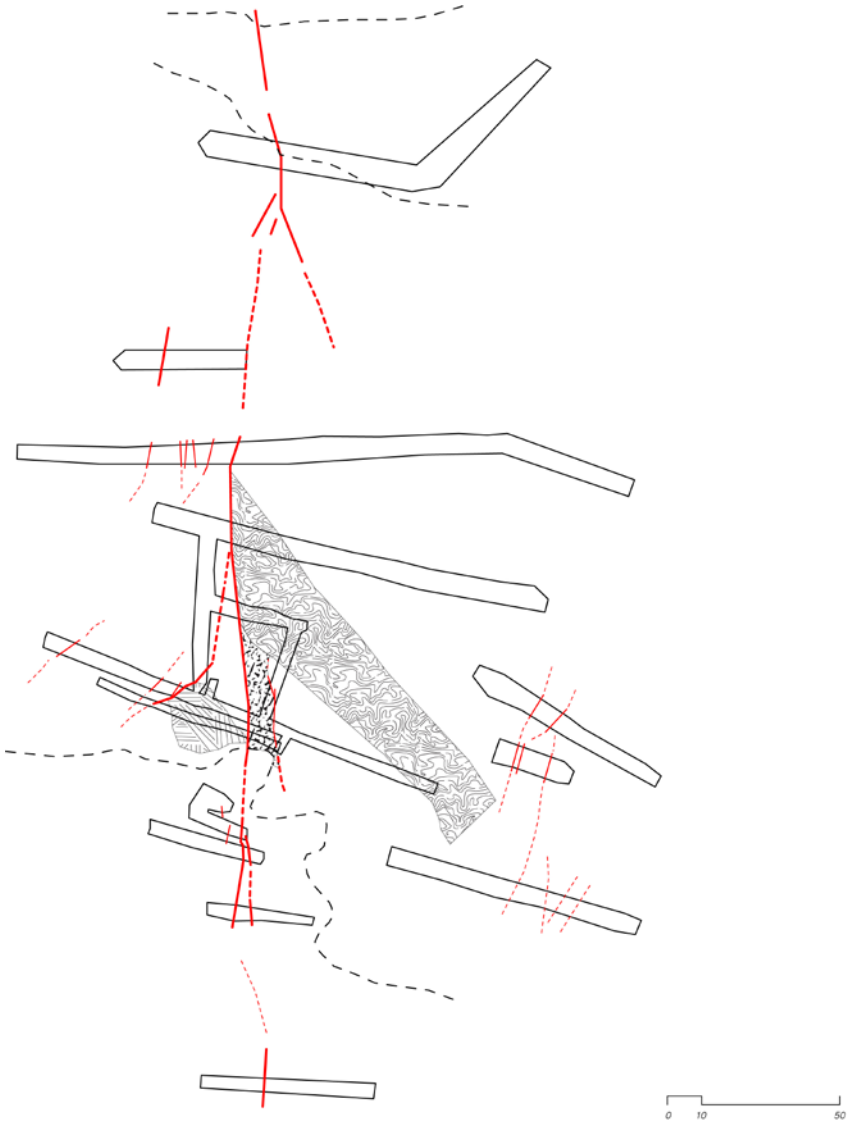
pacific access channel

ruptured landscape. Decades of continuous slope failures along the culebra cut have led to the fromation of a special geologic unit by the canal authority with the main task of observing and recording ground movements. Through the installation of extensive measuring devices on top and below the surface the landscape is being constantly monitored in order to notice slope failures on time and take preventing measures accordingly.



Fault excavations

The localisation of faults takes place through trench excavations perpedicular to the presumed fault direction. Displacements above and below the surface are studied in order to determine the speed at which the ground is moving due to the fault, as well as the extent of vertical and horizontal displacement.



Fault excavations

This project seeks, instead of working against the ground, to work with it and exploit the potential and the force that it entails. Exploring ways of accommodating, embracing and taking advantage of the unpredictability of the landscape will be the objective of this project. Building on this objective and the conducted research of the canal area, the program will have to accommodate fluctuations and movements that occur in the infrastructural landscape. Landslides and earthquakes have been identified as the two main sources of unpredictable ground movement. The project will have a welcoming stance to such events and investigate methods of extracting the potential forces that lie within them. Since the landscape is already being treated as a technical object, which is part of the canal infrastructure, this project seeks to further this idea into a more radical approach, that will more efficiently take advantage of the landscape.

The project will be situated adjacent to the pacific side locks, along the still seismicly active Pedro Miguel fault.

project site

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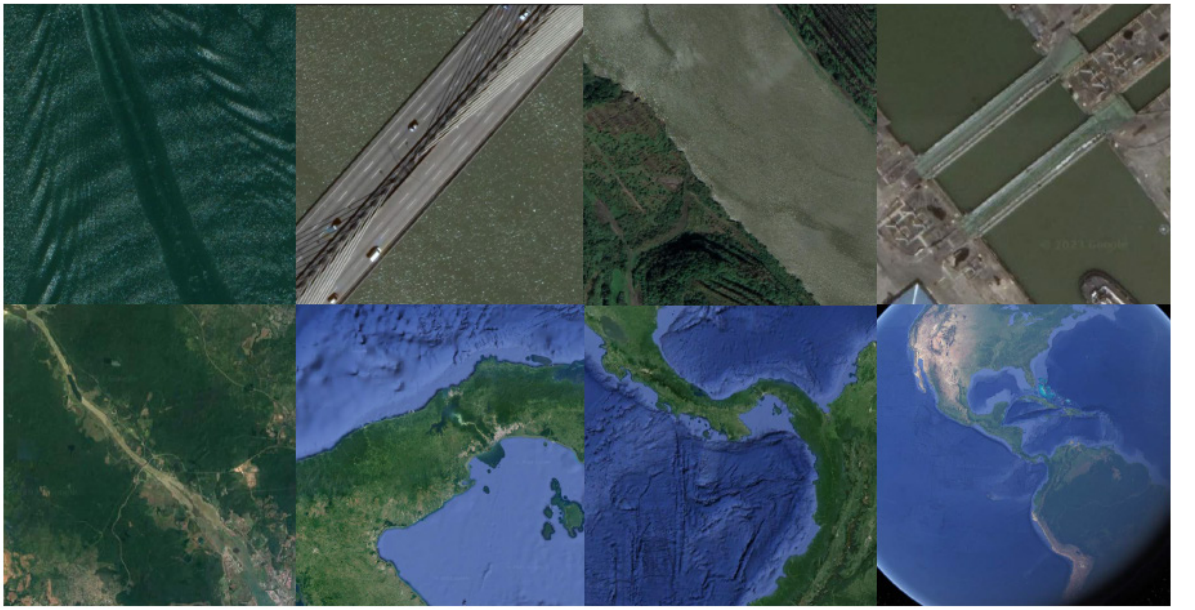
WITHIN THE THRESHOLD

CONNECTING ELEMENTS AS COMPLEX LIMINAL SPACES



THE INVERTED BRIDGE

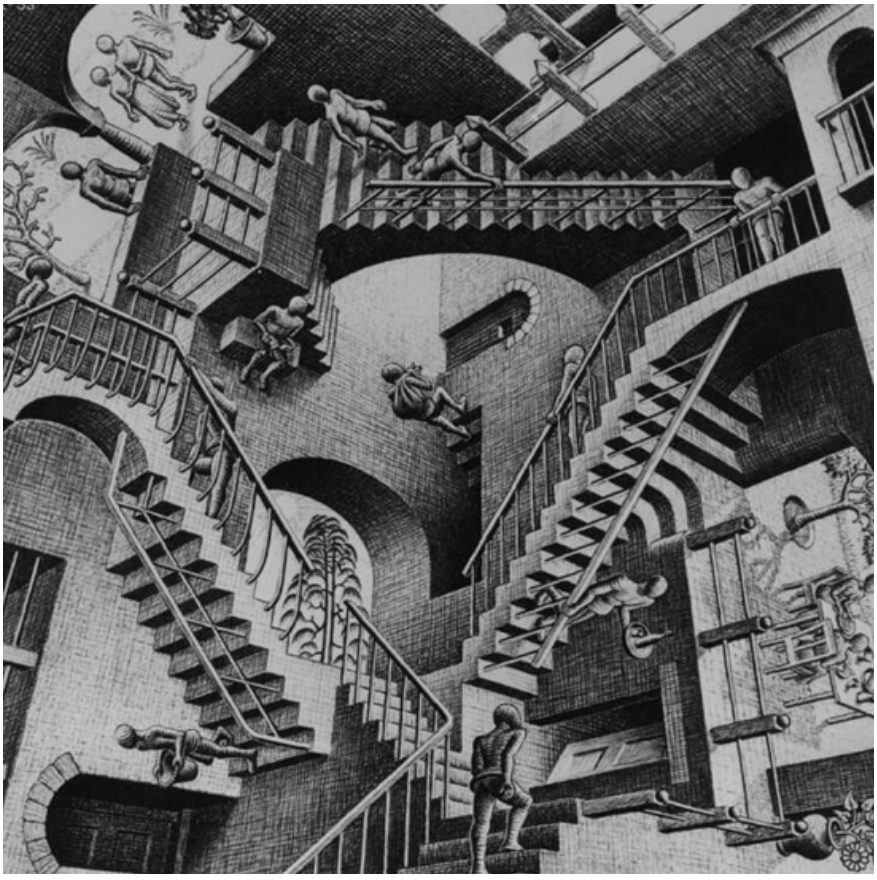
Panama Canal is what I think of as an inverted bridge. While we usually build bridges over water bodies, this is a water bridge over mainland. It is also one that, while connecting the world, and trade routes globally and via water, introduced divisions within the country, on a local scale and ground level.

Sometimes, where there is no bridge, there is a border.
Sometimes the bridge is a border.
Sometimes the border is a bridge.
And sometimes (always?) it is both.

SIMULTANEOUS OPPOSITIONS WITHIN THE NOTION OF A BRIDGE

THEORY PAPER

Figure 1. Relativity, Maurits Cornelis Escher, 1953.
BYU MOA (https://moa.byu.edu/m-c-eschers-relativity/)



ABSTRACT

This paper intends to offer the theoretical framework of a graduation project that explores the dual and opposing nature of connecting elements, examining the notion of a bridge and the polarity of its potential, within the context of the Panama Canal and its consequential global and local connections and divisions. It delves into human nature and its role in the act of relating entities and develops further into an exploration of physical bridges and their effect on their surroundings. How do they, at the same time, connect and separate? Furthermore, it focuses on all the dichotomies within the notion of the bridge, by emphasizing the simultaneity of these oppositions present. Finally, coming back to the initial mention of the entangled world, the world is observed as a labyrinth of bridges.

All of this aims towards grasping how something as enduring and constant as a bridge can adopt entirely contrasting meanings, influenced by the connections it forms, the position from which it is observed, the timeframe it occupies, and the significance ascribed to it. This is an attempt to understand the chaotic world by drawing connections that, in reality, become entangled, not forming order from disorder but rather creating organized chaos.

INTRODUCTION

This research is situated within the framework of the 'Transient Liquidities along the New Silk Road III' studio, which systematically explores transient and fluid contemporary border conditions on an expansive territorial scale. The studio concentrates on urban locations featuring atypical spatial characteristics that harbor substantial yet unexplored potential, as an aspect that has been noticeably overlooked in current architectural discourse. The New Silk Road is chosen as a topic of research as the mentioned conditions are particularly present and intriguing along the Road, dynamically reshaping contemporary territorial, and urban landscapes through various influences.

The historical Silk Road, a complex trade network bridging the East and West, has had a crucial role in establishing global connections and facilitating trade, both symbolically and tangibly constructing bridges across diverse cultures. Extending across Asia, Europe, and Africa, the Silk Road functioned as a conduit for the exchange of products, ideas, and cultural elements, thereby contributing to the interconnectivity of civilizations. Metaphorically and physically, the Silk Road operated as a bridge, simultaneously relying on actual bridges as crucial points along its course. These bridges, besides connecting distant locations, have resulted in a notable impact of the global on the local.

The location of our graduation project, The Panama Canal, is a contemporary illustration of such spatial conditions. Acting as a global link connecting two oceans and, consequently, the entire world, the canal has caused multiple disturbances and disconnections on a local scale. The Panama Canal may be conceptualized as an inverted bridge—a water bridge over the mainland—that, although designed to connect, paradoxically introduces divisions.

This intriguing spatial duality has stimulated my interest in the dual and opposing nature of connecting elements. To back up my research and design, this theoretical paper delves into the concept of a bridge and the polarity of its potential.

HUMANS ARE BEINGS WHO

RELATE AND SEPARATE

The ability to construct relations between things is the foundation of the human mind. Humans deal with the entanglement of nature by using their mental ability to relate and separate. This unique cognitive ability is exclusive to humans. We do so, not only because we are able to, but because we have no choice. These efforts to construct bridges and interconnect phenomena are, in fact, a reflection of the inner coherence we seek in our subjective experiences. It is our human inclination towards continuity and flow that becomes our approach to grasping the external world's ambiguity, where things can be perceived as either separate or interconnected (Simmel, 1994). Hence, within this very foundation of our understanding of the world, there exists a dichotomy. This paragraph tells a story of the opposing nature of how we deal with the world.

'Things must first be separate in order to be together.'
(Simmel, 1994)

When humans encounter an object, to grasp it, they initially distinguish its components and treat these separated parts as a whole, although not complete. By establishing connections between seemingly unrelated elements, the mind constructs a bridge, allowing us to perceive the two stimuli as a unified entity. Even then, when we isolate two things as separate, we have already united them in our consciousness, them against everything in between. After all, it would be senseless to relate something that was not separate (Simmel, 1994). According to Simmel, humans are beings that both separate related elements and relate separated elements.

This trait of human nature takes form in a physical bridge, the bridge becomes a physical symbol of how humans grasp nature. Martin Heidegger, a German philosopher, discusses the concept of bridges in his work "Building Dwelling Thinking." He explores the concept of building not merely as a construction of physical structures but as a fundamental aspect of human existence and the way we relate to the world - dwelling. Heidegger considers the bridge a metaphor and an existential symbol that represents the core of building and dwelling. And that in a way that allows people to move from one space to another, thereby connecting the distant spaces and simultaneously revealing their significance. By allowing for the interconnectedness of spaces, bridges emphasize the already mentioned relational nature of human existence, as well as the essence of dwelling. Furthermore, Heidegger's discussion of bridges is part of his broader exploration of the relationship between humans and their environment. He encourages us to contemplate the deeper meanings inherent in the act of building and dwelling, suggesting that the way we construct and relate to spaces reflects our understanding of being in the world (Heidegger, 1951).

Hence, relating and separating is how humans understand, deal with, and exist within nature. We do so by building mental bridges, or physical ones. A bridge is a symbol and manifestation of how humans deal with nature by relating and separating. And again, it is an entity that simultaneously carries two opposite meanings.

BRIDGE

This ability of man to connect takes the form of a physical bridge. As such, it affects its surroundings in specific ways. It connects, overcomes, gathers, and divides.

Connecting, and creating paths is the movement between two separated places frozen into permanent form (Simmel, 1994). In this process, a bridge serves as more than a mere link; it shapes and defines the two points it connects, creating a relationship where the connected banks owe their existence to the bridge itself (Heidegger, 1951).
'Unions possess no value in themselves; they must be judged by what they achieve. By providing a connection, a bridge poses the question of what this connection is for and how to manage its effects.' (Harrison, 2021

A bridge stands as the epitome of path creation and connection because it offers not only passive resistance to separation but also actively overcomes obstacles. Whether spanning water or air, a bridge counteracts the dynamics of divisive elements, binding two equals into a locked couple by this limited interaction. The connected entities, defined as equals, and reciprocal, without a fixed beginning or end, allow for bi-directional movement (Heidegger, 1951). The observer perceives and interrelates two distinct paths, unveiling a unique relationship with nature made tangible through the bridge (Simmel, 1994).

The bridge not only connects but also allows for the surrounding areas, generating their existence. That line, the node, enables the existence of everything around it and gathers its meaning within its form. This phenomenon is felt most in the means of how bridges are written about in literature: 'Here, where the Drina flows with the whole force of its green and foaming waters from the closed mass of the dark steep mountains, stands a great clean-cut stone bridge with eleven wide sweeping arches. From this bridge spreads fanlike the whole rolling valley with the little oriental town of Višegrad and all its surroundings. ... Here also in time the houses crowded together and the settlements multiplied at both ends of the bridge. The town owed its existence to the bridge and grew out of it as if from an imperishable root.' (Andrić, 1945)

Furthermore, it is visible in the importance of bridges during war times, when the whole actions and plans of actions were based on occupying, destroying, or defending specific bridges. And whether you had control of a bridge, decided whether you had control of a territory. Examples are found in movies like The Bridge (1969) or The Bridge On The River Quai (1957).

The symbolism and practical implications inherent in a bridge result in its natural dominance within an environment. The act of connecting may simultaneously involve division. Sometimes, where there is no bridge, there is a border. Sometimes the bridge is a border. Sometimes the border is a bridge. And sometimes (always?) it is both. These simultaneous opposing meanings of bridges can be understood by delving deeper into that, and other possible dichotomies within the notion.resents the core of building and dwelling. And that in a way that allows people to move from one space to another, thereby connecting the distant spaces and simultaneously revealing their significance. By allowing for the interconnectedness of spaces, bridges emphasize the already mentioned relational nature of human existence, as well as the essence of dwelling. Furthermore, Heidegger's discussion of bridges is part of his broader exploration of the relationship between humans and their environment. He encourages us to contemplate the deeper meanings inherent in the act of building and dwelling, suggesting that the way we construct and relate to spaces reflects our understanding of being in the world (Heidegger, 1951).

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DICHOTOMIES

'The very abyss between life and death made connections between them necessary - by way of religion, mythology, philosophy, and ritual. Ancient intelligence bridged known and unknown worlds also through poetry, painting, and sculpture, through necromancy and divinations of natural mystery like medicine and science.' (Harrison, 2021)

CONNECTED OPPOSITES.

At times, the obstacle that the bridge traverses is the difference between that which it unites. The most obvious example is one between mortal and divine worlds. A version of such a bridge seems to appear in every religion and mythology. In Norse, it is Bifrost, the rainbow bridge by which the Gods travel between worlds. According to the beliefs of Native Americans, in the Navajo Nation in Utah, the rainbow rock formations are sacred points of encounter between the living and the dead. While, in the Japanese tale of the origin of the world, Ama no Hashidate is a bridge through which the gods come and go. The motif of this bridge is repeated at the entrances to Japanese temples, symbolizing the purification of those who cross it (Harrison, 2021).

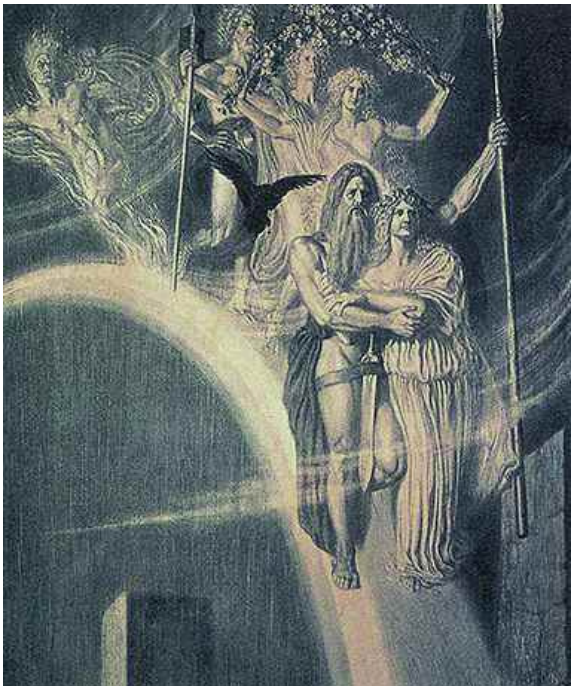

Figure 2. The Gods on Bifrost, Franz Stassen, 1920., (https://www.germanicmythology.com/works/TMBifrost.html)

A BRIDGE FOR SOME, AN OBSTACLE FOR OTHERS.

However, unlike the aforementioned, where there is a contrast between the bridged opposites, more intriguing are the occurrences in which the bridge itself has an ambiguous, simultaneously opposite meaning. In the Christian Bible, the theme of bridges between life and death, crossing over hell, is widely covered. In Loreto Aprutino's depiction (Figure 1.5), the bridge is shown as narrow and slippery for sinners, while wide and secure, accompanied by the help of angels, for the righteous (Harrison, 2021). An analogous example is the so-called Pons Asinorum, or Donkey Bridge, a critical or challenging point in learning, often used metaphorically to describe a key test or obstacle that signifies a level of understanding; it is a bridge to knowledge for the capable and an obstacle for the incapable.

Figure 3. Last Judgment, fresco from the church of St. Maria in Piano, Loreto Aprutino, late fourteenth century, (https://www.researchgate.net)

BRIDGES AS DEVIL'S OR GOD'S DEEDS.

The bridge signals equality, hierarchy, and bidirectionality. The bridges mentioned thus far have been unidirectional. When these spiritual bridges and narratives are applied to the material world, they become non-hierarchical and bidirectional. Yet, such mesmerizing forms allude to a triumph over natural forces, and simultaneously raise suspicions about supernatural assistance received by their builders. There exist narratives regarding the origins of bridges that suggest their divine nature, or those that posit bridges as stemming from fiendish forces.

'When Allah the Merciful and Compassionate first created this world, the earth was smooth and even as a finely engraved plate. That displeased the devil who envied man this gift of God. And while the earth was still just as it had come from God's hands, damp and soft as unbaked clay, he stole up and scratched the face of God's earth with his nails as much and as deeply as he could. So men learned from the angels of God how to build bridges, and therefore, after fountains, the greatest blessing is to build a bridge and the greatest sin to interfere with them." (Andrić, 1945)

'From another perspective, however, nature has perfectly good reasons for her unfordable rivers and unscalable mountains, and only diabolical forces dare span them, meddling with the order of nature to appease the wishes of men.' (Harrison, 2021)

Otherwise, it was believed that bridges, serving as artificial passages over natural obstacles, had to be either crafted by sorcerers or required some form of compensation, not only during their construction but also to ensure a safe passage and longevity of the structure. Entwined with this belief system are legends involving bargains, such as pledging the first soul that crosses the bridge to the devil. Numerous tales recount instances where the devil or the river spirit would sabotage bridge construction during the night. In efforts to prevent this, individuals would be sealed within the structure. One such is told in the novel by Nobel laureate Ivo Andrić, where twins were sacrificed with an opening left for their mother to breastfeed them (Andrić, 1945).

Harrison claims that the victims in the given literature represent tiny municipalities overrun by larger powers. (Harrison, 2021). A local sacrifice for global growth. Here is where we can draw a parallel with the Panama Canal and the way that the building of the Canal provided a connection for larger forces but sacrificed Panama, dividing it in two, from a social and ecological perspective.

BRIDGES AS FEAR OR HAPPINESS.

'A simple shift in perspective was all it took to make the bridge's motivating spirit appear to be God rather than Satan - or vice versa,..' (Harrison, 2021)

Regardless of the fear of fiendish forces, or along the setbacks during the builds, once finished, bridges are often associated with the godly. The bridge becomes a symbol of empowerment for individuals. Once completed, providing a newfound sense of strength. The following quotation by Andrić also draws parallels to Heidegger's notion of the fourfold (Heidegger, 1951), suggesting that human habitation on Earth entails skillfully navigating and managing this fourfold, thereby affirming Heidegger's perspective.

'Even the least of the townsmen felt as if his powers were suddenly multiplied as if some wonderful, superhuman exploit was brought within the measure of his powers and within the limits of everyday life, as if besides the well-known elements of earth, water and sky, one more were open to him, as if by some beneficent effort each one of them could suddenly realize one of his dearest desires, that ancient dream of man - to go over the water and to be master of space' (Andrić, 1945)

BRIDGES AS LIFE OR DEATH.

At the beginning of this paragraph, we have viewed life and death as two realms intended to be linked by a bridge. Yet, what if we consider death itself as the bridge between life and the afterlife? Metaphorically, it signifies a transition from one state to another, while physically serving as the space where this transformation takes place. The Golden Gate Bridge in California was built to represent America's technological advancement; however, it is nowadays more often associated with suicides. Taking the Golden Gate as an illustration, the tall reach of the bridge's red pylons reminisces of a ladder into the heavens, often vanishing into the clouds. These pylons convey the impression of an Axis Mundi, harmonizing Heaven and Earth, transcending ancient conflicts between land, water, and air. Harrison alludes to An Occurrence at Owl Creek Bridge, written in 1890 by war journalist Ambrose Bierce, where life unfolds through a sequence of horizontal wooden segments, while death happens at the intersection of this horizontal sequence, transitioning into the vertical (Harrison, 2021).

Hereby, the theme of directionality is introduced into the topic of the dual nature of bridges. The bridge and life embody a horizontal continuum, while death and vertical traversal reside on the opposing side of meaning. In Franz Kafka's narrative The Bridge (Kafka, 1931), a parallel symbolism of directional change emerges. A man walks across the bridge until its midpoint. However, he shifts from horizontal to vertical movement, leaping off the bridge and into the water, meeting his death. The bridge, curious to identify the individual, turns around and, because of the directional alteration, collapses immediately. According to Kafka, it is only through collapsing that the bridge can cease being a bridge.
Amidst all of this, the symbolism of death in water completes the circle of life, where people come from, and end in water.

CONNECTION AND DISCONNECTION.

'The Last Bridge denies the hope and the promise of bridges, presenting them as unreliable guarantors of passage. From start to finish, they threaten dissolution, division, misunderstanding, and death.' (Harrison, 2021)

The initial opposition with which this work began is now significantly clarified by presenting other potential oppositions inherent in the concept of the bridge. The bridge connects two separate parts, but sometimes, it only serves as a connection to the chosen ones, and as an exclusion to the rest. At other times, depending on the intended direction of crossing, it can serve opposite purposes.

'Bridges become walls and walls bridges with hardly a moment's notice'
(Harrison, 2021)

LABYRINTH

This ambiguity of a bridge, the polarity of its potential, brings me to the conclusion that destroying or negating a bridge would sometimes mean just breaking up its continuity. But destroying continuity one way would mean creating it in a different direction. If we reverse this statement, then the destruction of a bridge could also be done by the creation of other bridges. Even though Kafka (Kafka, 1931), claims that the bridge can't seize to be a bridge without collapsing, its significance can be destroyed by these means.

If how we deal with the world is relating and separating, or, in this sense, creating or destroying bridges, we can look at the world as a chaos organized by these innumerable entangled possible bridges. A 3D entangled bridge. Where any bridge is possible, and any bridge built, enables an innumerable number of following bridges. But at the same time, it excludes the possibility of connecting the other direction. A bridge for some, a border for others. A labyrinth of bridges.

'A hyperconnected world is a labyrinth.'
(Harrison, 2021)

Jorge Luis Borges, an Argentinian author fascinated by labyrinths, in his fiction The Library of Babel (Borges, 1941), describes an unlimited library of repeating hexagonal galleries connecting. In it, based on the infinite monkey theorem and the fact that each book consists of a combination of twenty-two orthographic symbols, every book in the world is held. Meaning that, if every book consists of a random disposition of these twenty-two orthographic symbols, and the library is an unlimited succession of these randomly displaced books, eventually, every book in every language will be held there. At first, the thought of a total library aroused hope; however, when they attempted to read the books, hope was replaced by depression. That unbridled hopefulness was succeeded, naturally enough, by a similarly disproportionate depression.

The certainty that some bookshelf in some hexagon contained precious books, yet that those precious books were forever out of reach, was almost unbearable (Borges, 1941). In analogy with this paper's narrative, the library would be the world, and the books – bridges. The possible bridges offer hope, but reality, being a labyrinth, quickly turns that hope into depression and paranoia because everything is given to us, but not everything is within our reach.

'Depression is the lesser risk of this hyperconnectivity; the greater one is paranoia, where the world's phenomena appear all to be conspiratorially linked in hypertrophied rational relationships.' (Harrison, 2021)

In today's world, being such a labyrinth of bridges, there is potential for hidden geopolitical motives. Those aiming to centralize control over provinces, integrate them into larger economic systems, and sever their ties to local production and traditions. Deceptively offering the opportunity for everyone to realize possibilities, however, decisions on which bridges to allow and what will be a bridge or a wall for whom, ultimately make the possibilities not accessible to everyone.

'The world is infinite/unlimited, the library is unlimited but periodic, and some volumes are repeated in the same disorder, which, repeated, becomes order.' (Borges, 1941)

CONCLUSION

The approach to understanding this topic, which progressed from the separation and relation at the core of human nature, through individual oppositions, and then to the simultaneous nature of these opposites, culminating in a labyrinth of bridges, mirrors how people comprehend the world. It ended up in chaos again. However, in organized chaos. The solution to the disorder of the world is not in order but in organized chaos, in the bridges we have built, which intertwine. The world is an endless tapestry of possible bridges, these bridges, entangled, twisted, obstructed, enabled, and multiplied, create a three-dimensional network.

Nothing except the bridge is constant—protagonists, narratives, functions, perspectives, roles, meanings, and approaches to the bridge all change constantly. Yet, the bridge and its architecture persist, remain constant, and unchanged throughout all these variations. It serves as a reference in history.

'The supreme protagonist of Andrić's historical novel does not only outlive the communities that use it; it operates as a silent and transcendent judge of their actions. That is why the end of each of the twenty-four chapters of The Bridge over the Drina steps back from the mentality of the time it depicts, refocusing its attention on the material, geographical, and ontological solidity of the bridge, dazzlingly unchanged in its substance, offering a grand framing structure for history, erected by "great and wise men of exalted soul" for essentially nothing other than "the love of God.' (Harrison, 2021)

Figure 4. The Drawbridge, Giovanni Battista Piranesi, 1761,
(https://artmuseum.princeton.edu)

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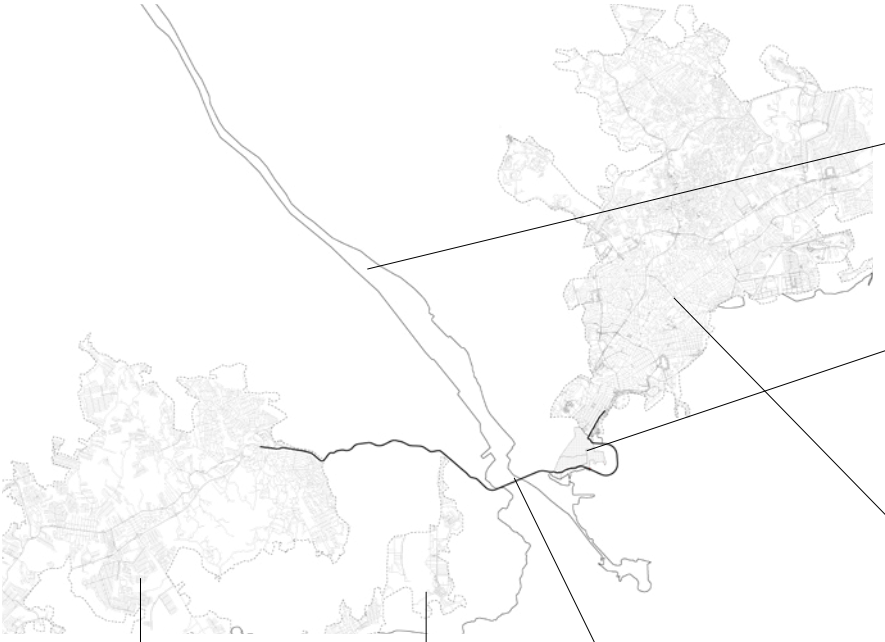
THE LOOP - SITE

The Panama Canal, intended as a connection, has resulted in numerous boundaries, forced, failed, and unnatural connections, as well as a lack of necessary connections within the labyrinth of bridges that make up the world, at social, ecological, and infrastructural levels. In the capital, Panama City, we encounter a bridge that beautifully encapsulates the current situation, both in its physical form and its symbolic meaning. The Cinta Costera 3 viaduct serves as a link between the residential hub of the city's working population and their workplaces, skillfully navigating around impoverished neighborhoods and the historic Casco Viejo district. It is a bridge over water but also one around the city. This bridge both connects and divides, gradually transforming into the very horizon of the city. It's a horizon from which everything that separates the old part of the city – the canal, skyscrapers, islands, cars – seems to emerge. This horizon is not where the sea and sky meet, but where they are separated. Even while walking on the viaduct, one can't see the horizon, since the pedestrian path is located inwards, and one is once again oriented into a loop towards the old city itself, observing it like a zoo animal; trapped with the excuse of being protected.

DIVISIONS AND CONNECTIONS
CAUSED BY THE BRIDGE



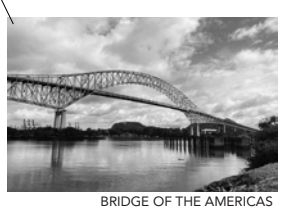
PANAMA CANAL

SANTA ANA, EL CHORILLO, CASCO VIEJO

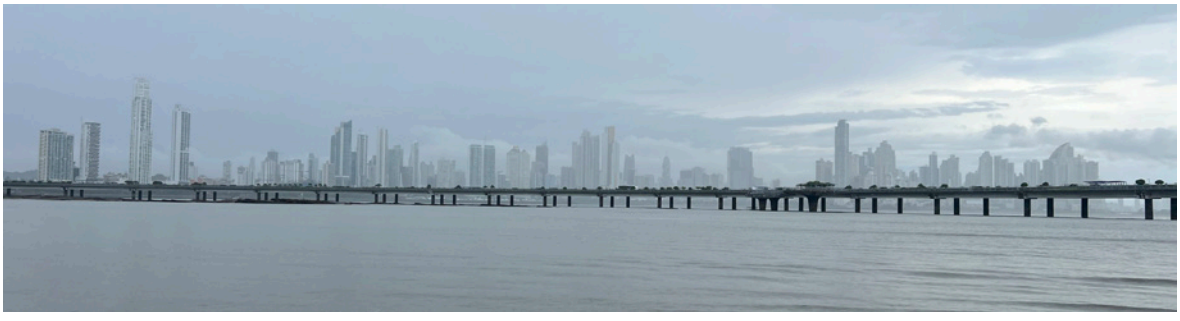
PANAMA CITY

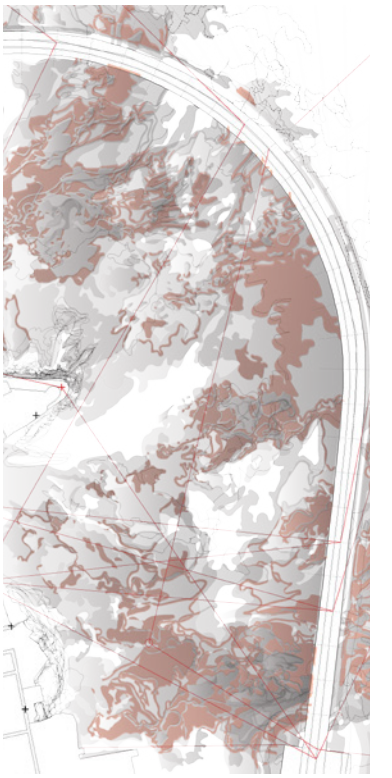
PANAMA PACIFICO

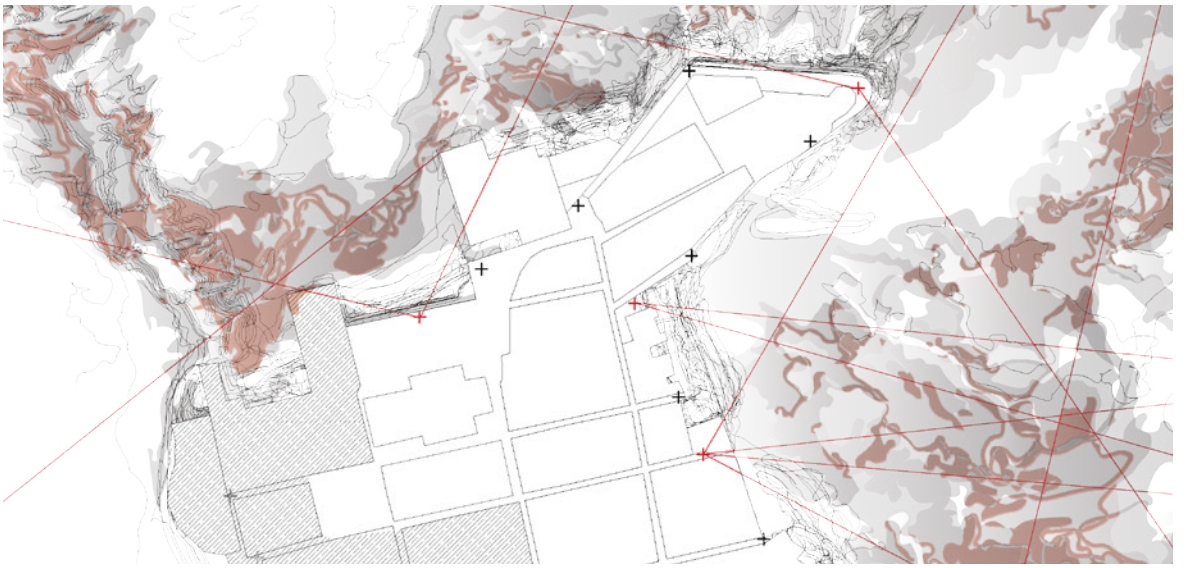
VISTA ALLEGRE


BRIDGE OF THE AMERICAS

PACIFIC OCEAN

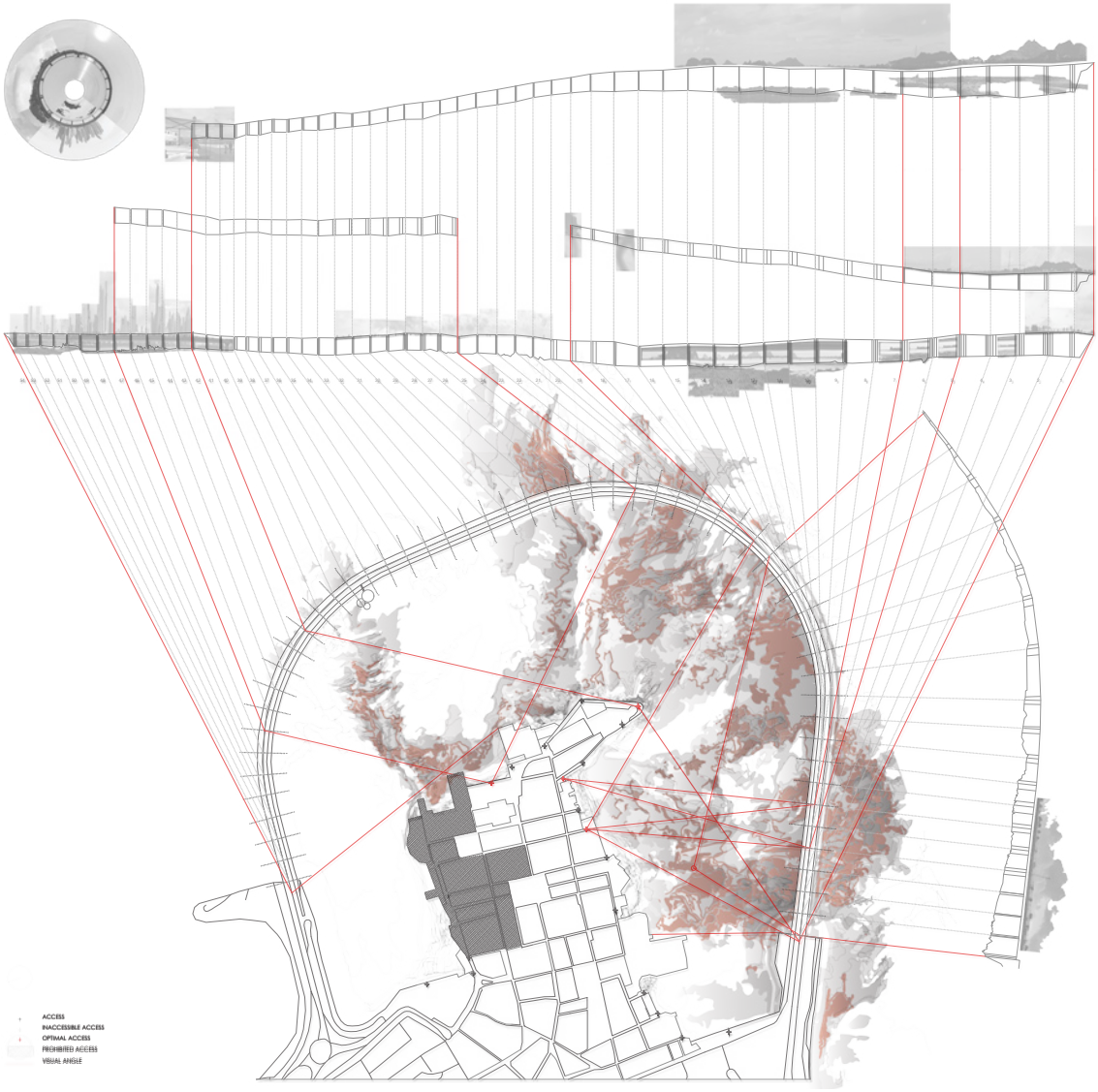


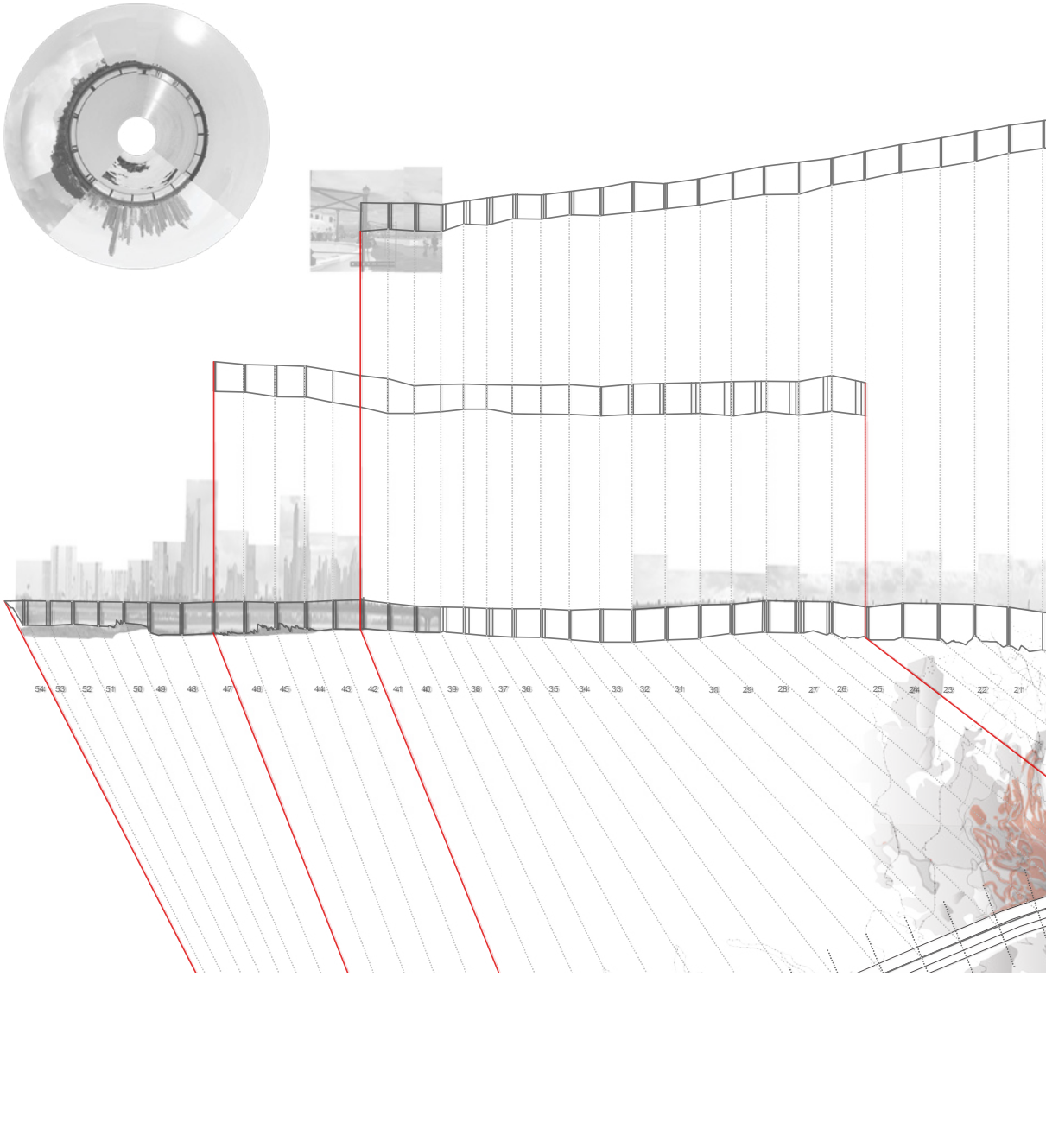




ACCESSES AND BARRIERS
TOWARDS THE BRIDGE

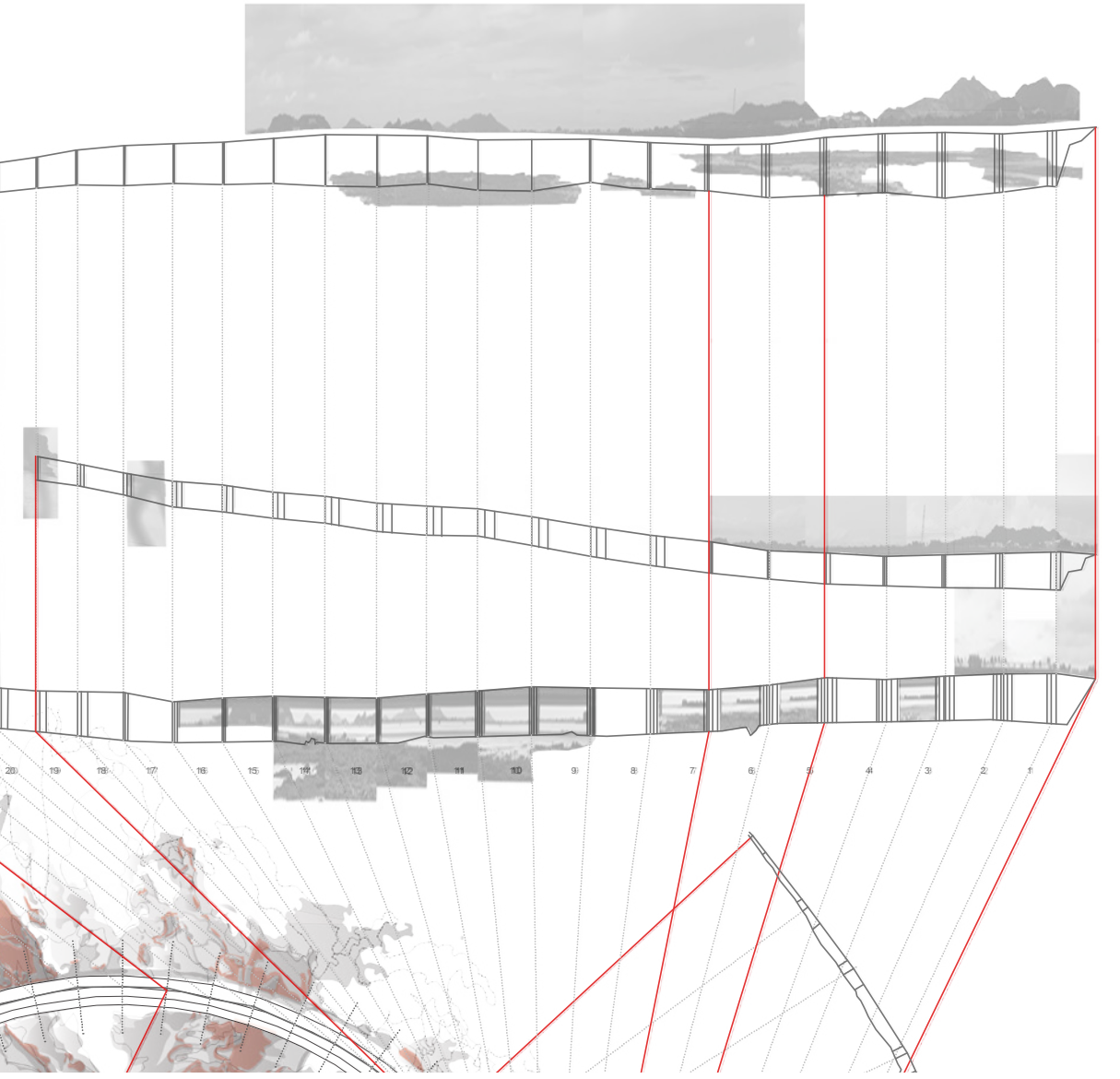
Not only does the bridge connect and cause divisions, but the accesses or barriers towards it deform our perception of it. The bridge can be perceived from three height levels. At the ends of the street, on the city level, the bridge is the horizon. If one climbs the fortress at the cape of the old city peninsula, the bridge is perceived from a higher level, and the horizon appears above the bridge. While one can, during low tides, access the intertidal landscape at the sea level.


ACCESS
INACCESSIBLE ACCESS
OPTIMAL ACCESS
PROHIBITED ACCESS
VISUAL ANGLE



LINEARITY VS FRAGMENTATION

Depending on the accessibility of the bridge, and whether it can be approached frontally or by tweeking the perspective, or whether you can observe it as a whole, it is deformed in our perception. The diagram shown above is rendered through the map of accessibility and the images taken at the site, attempting to approach each of the bridge's frames as frontally as possible and combining it into a linear depiction of the bridge.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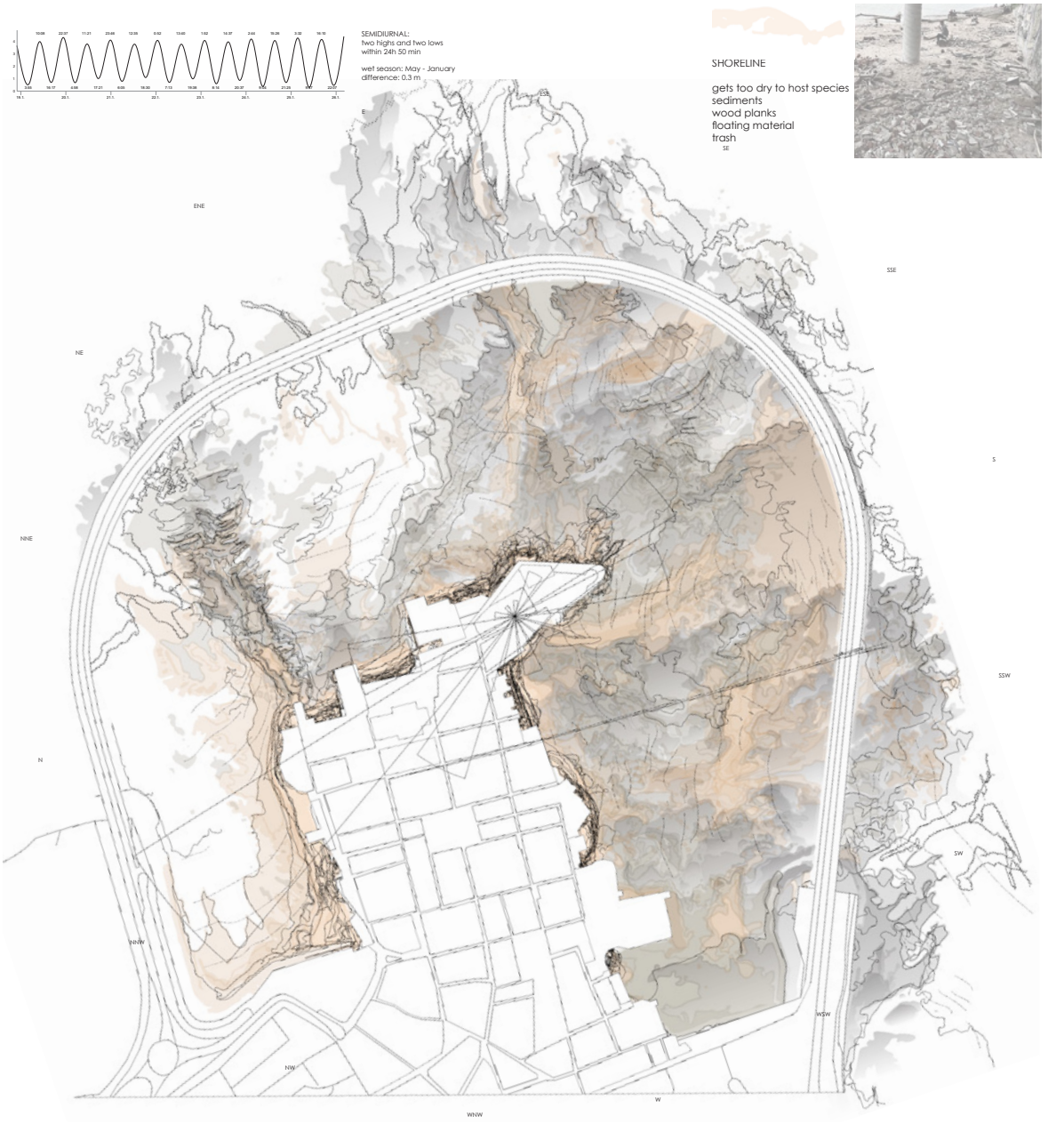


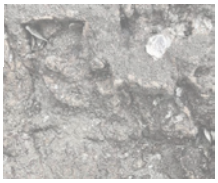
WITHIN

While out there in the tidal landscape, one feels as if crossing mountains, surviving rainstorms, walking through swamps, quick sand or standing on the top of a waterfall. While in fact the landscape itself is not that exaggerated in height or area. What makes one feel this way is the presence of the forces and their effect on the landscape, the constant flux and dynamics of it. And the presence of the bridge as the only constant within such a condition.

WET SAND AND MUD FLATS
polychaetes and oligochaete worms, *Corophium volutator, Macoma balthica, Cerastoderma edule, Abra tenuis, Hydrobia ulvae, Ulva lactuca, Scrobicularia plana, Arenicola*

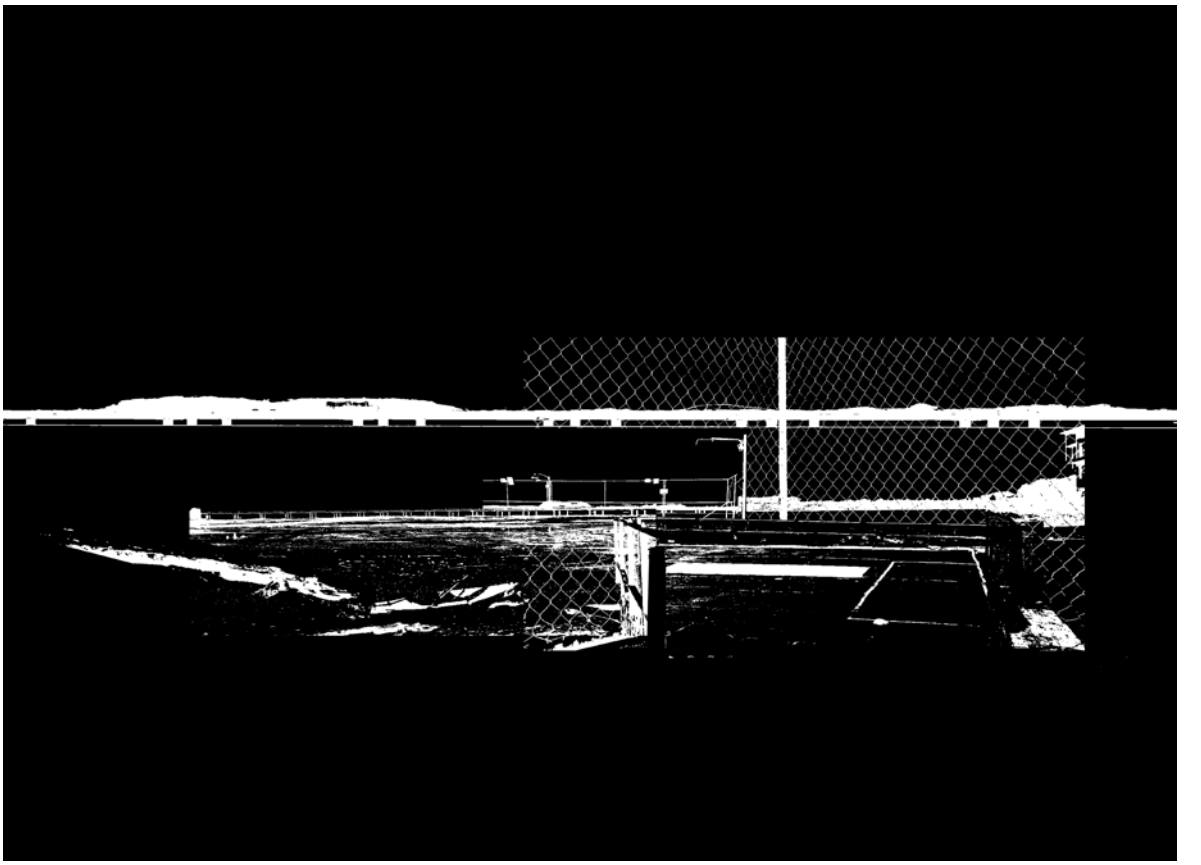
SCAR GROUND
Semibalanus balanoides, Elminius modestus, Ulothrix spp., Enteromorpha spp. and Ulva lactuca, Porphyra spp, Enteromorpha linza, E. intestinalis, Ulva lactua, Porphyra umbilicalisi

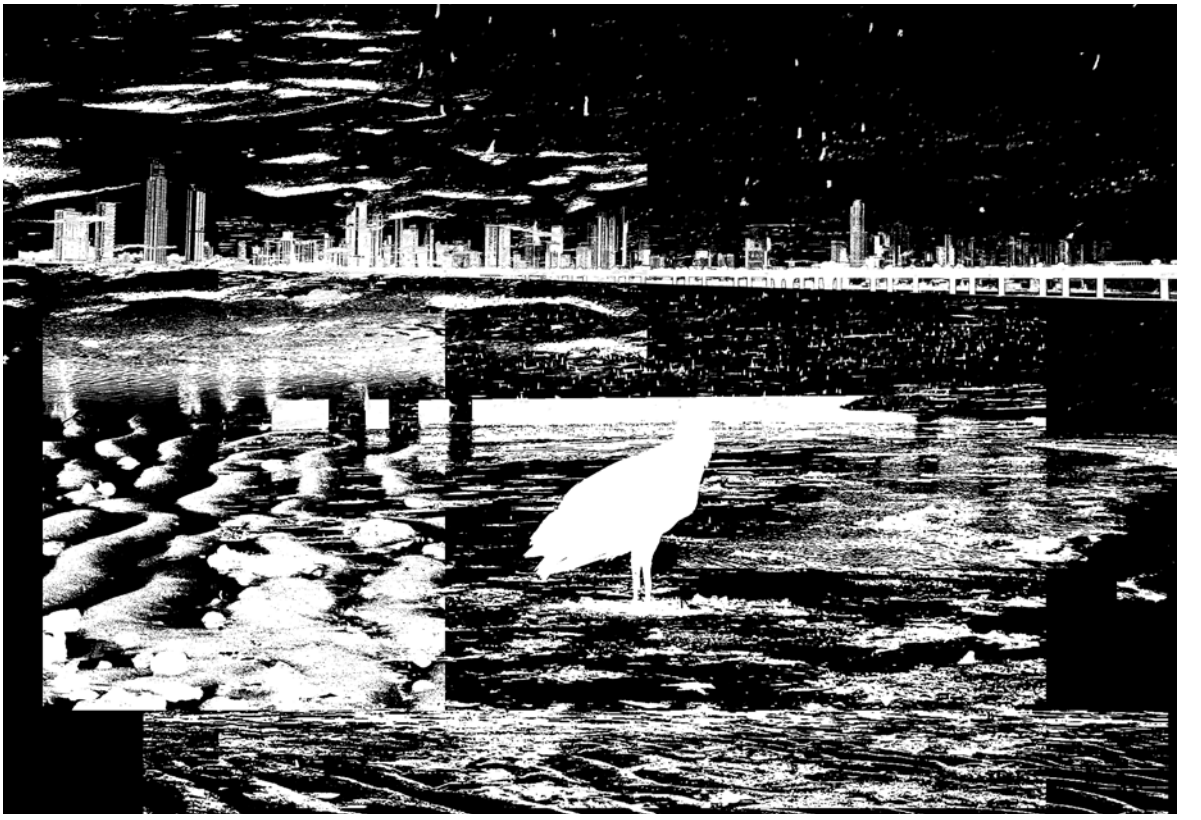
ROCKY SHORE
Birds: vultures, storks, ravens
Fish: *Lipophrys pholis, Gobius paganellus, Pholis gunnellus*

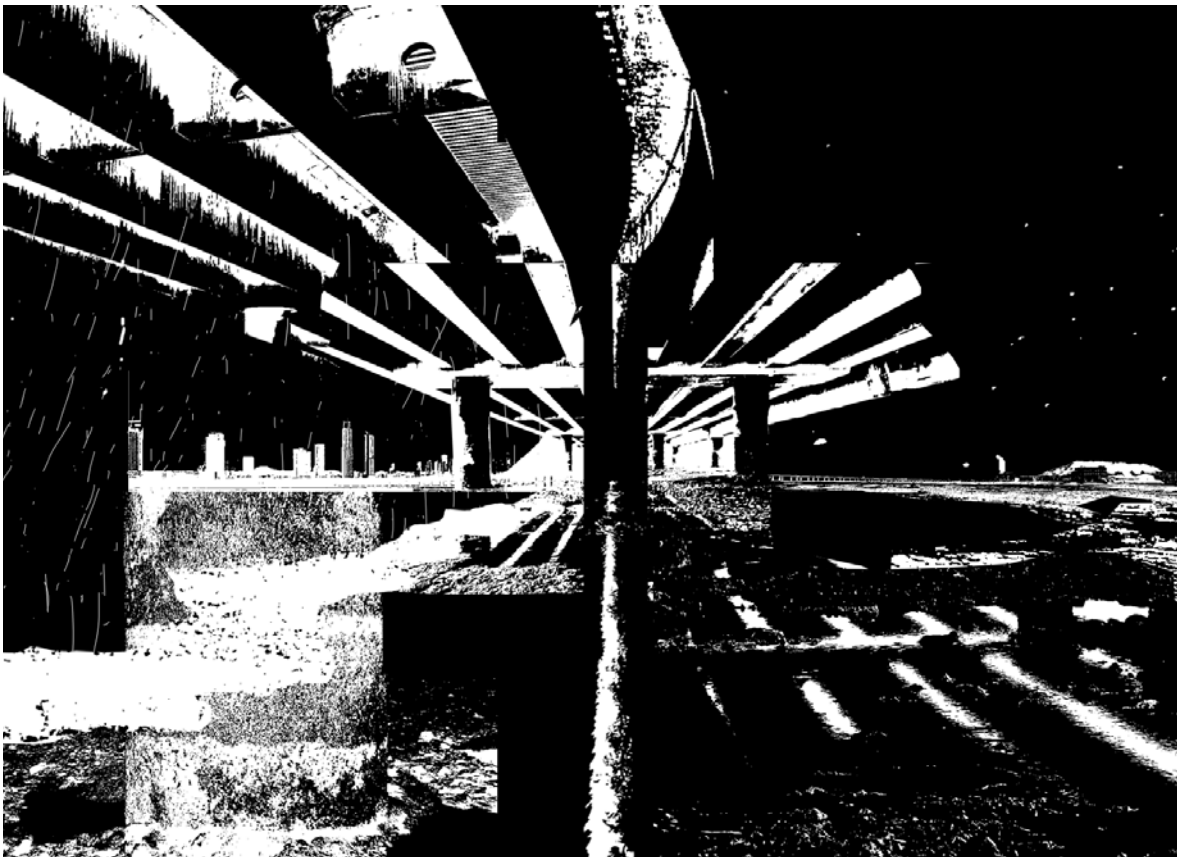


EXPERIENCE

Traversing the intertidal landscape, accentuated by the presence of the bridge, the path offers different stages of experience and sensation. Initially, as one approaches it through public space access, the bridge appears as a mere line, capturing attention and beckoning one forward. Guided by this line, one immerses oneself in the dynamic and fluid ground conditions, focusing on the terrain's territories, particles, species, moisture, and the inherent uncertainty. While the line still exerts a pulling force, the focus shifts to one's feet. Eventually, as one raises their head, they realize they are equally suspended between the line of the bridge and the line of the city. Upon nearing the bridge, one recognizes it not as a mere line but as a space, comprising architectural and experiential elements, as well as all the places it connects and divides. Stepping beyond the threshold, an inexplicable sense of freedom envelops one—a freedom that would not exist in the same manner without the presence of the bridge.



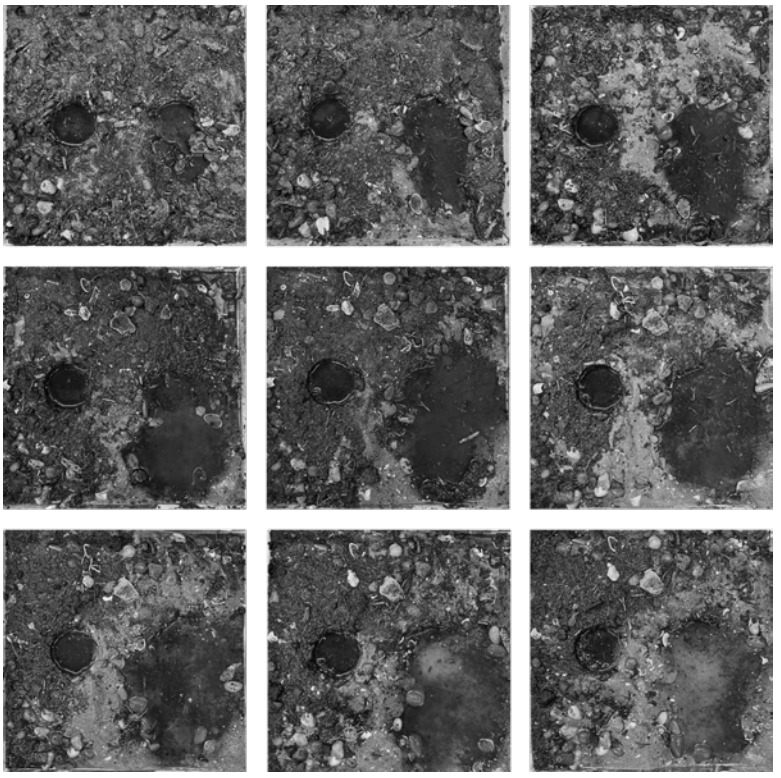




MODI OPERANDI

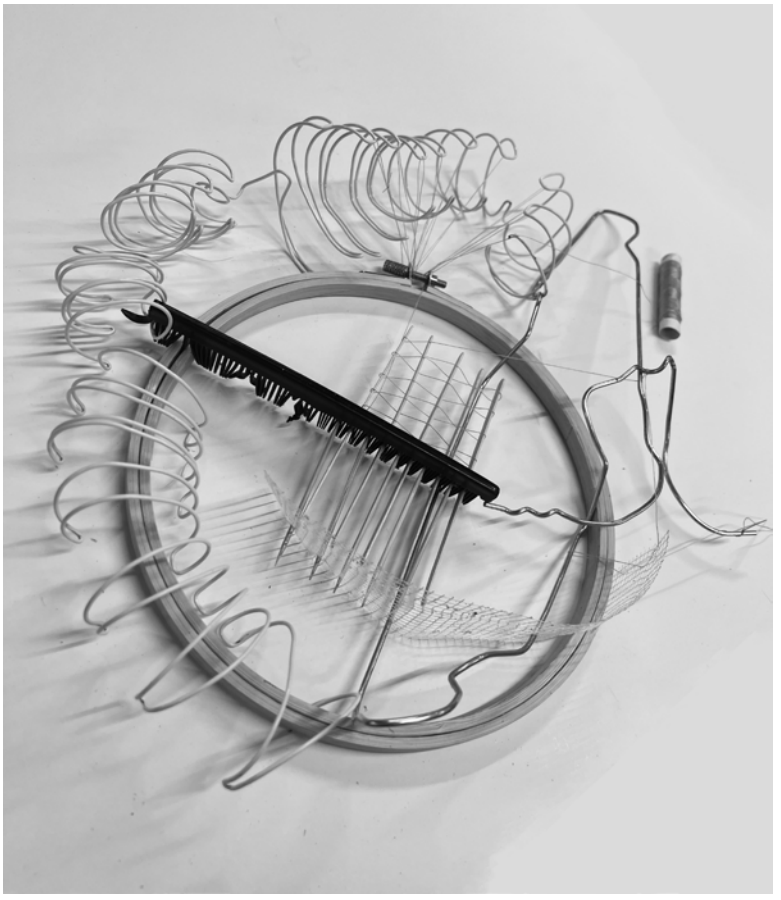
GROUND

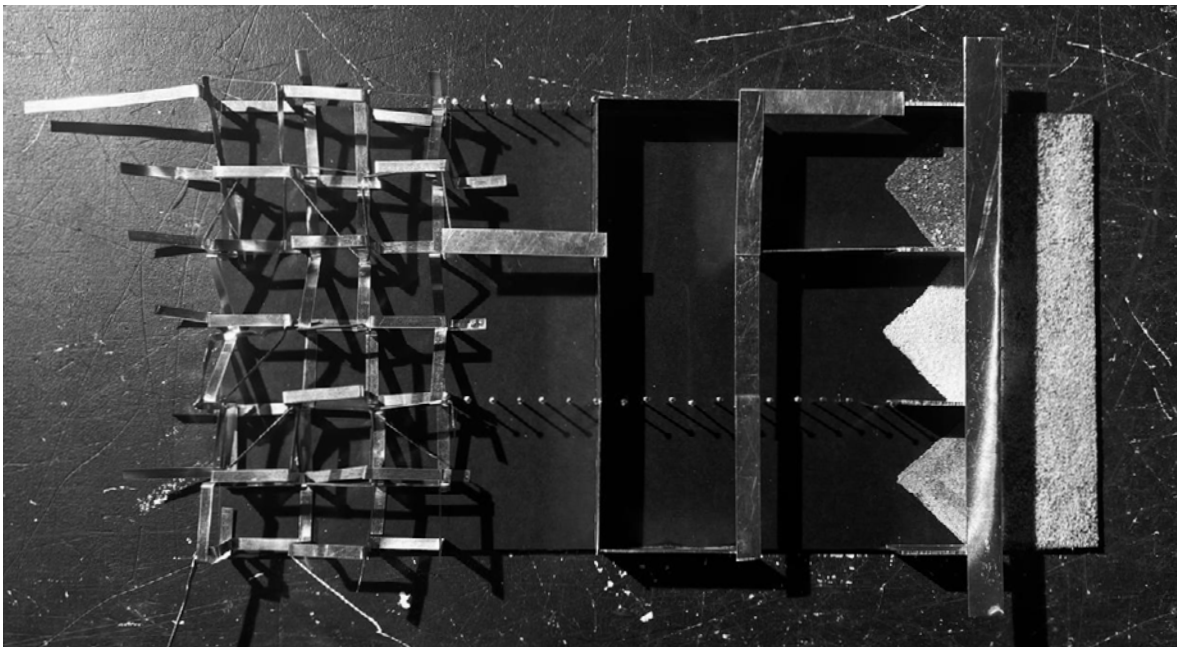
A cyclicly repeated, directed flow of water across the ground, composed of particles with varying properties. Different territories are formed by these particles based on their characteristics. The model/ process also demonstrated the bridge's ability to withstand the dynamic, fluid, and ever-changing nature of the tidal landscape, showcasing its enduring presence amidst and as a witness of this constant flux.

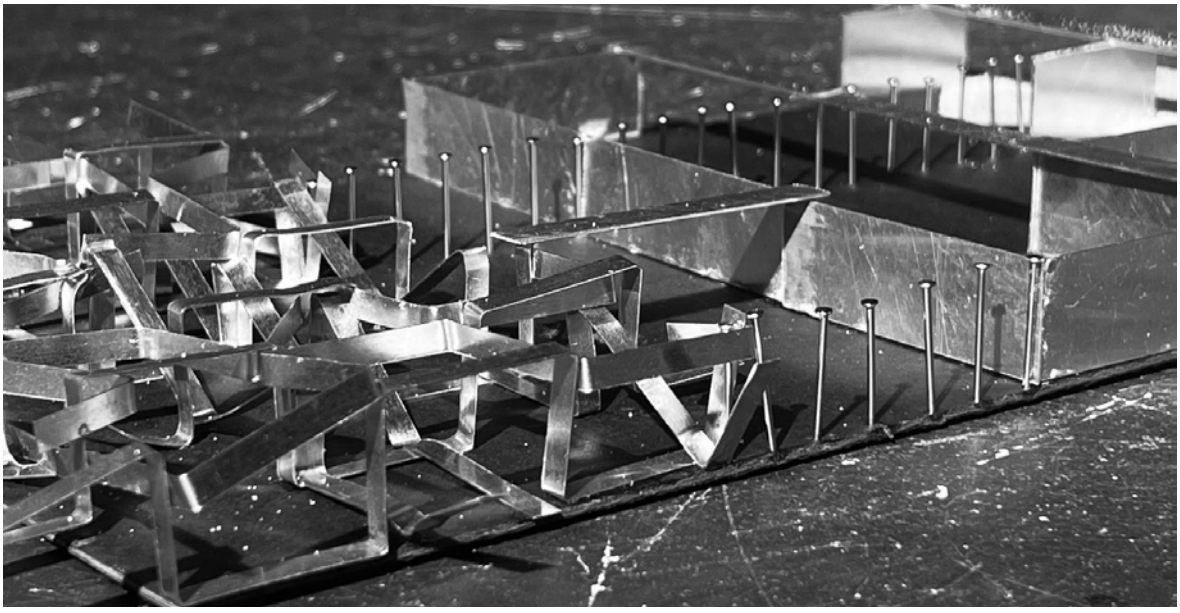


FORM

Bridges, depending on their form, permeability, and features, can be perceived as a connection for some and a boundary for others. The result of this reality is the complex interwoven network of bridges that both connect and separate, distort and support each other.







PROGRAM

is explored through three scales, conceptualizing the world first as an interwoven bridge, a labyrinth of bridges that connect, surround, block and reinforce eachother, while connecting and framing territories. Zooming into this bridge entails viewing it not merely as a line but as a spatial entity consisting of architectural elements whose attributes influence its meaning. Upon the third zoom, one of the threshold spaces is viewed frontally, revealing how the territory behind it is seemingly organized into frames created by the threshold. An illusion of passing through the final threshold and achieving ultimate freedom is presented, yet simultaneously demonstrating its absurdity, as it is just a segment of the network of interwoven bridges.

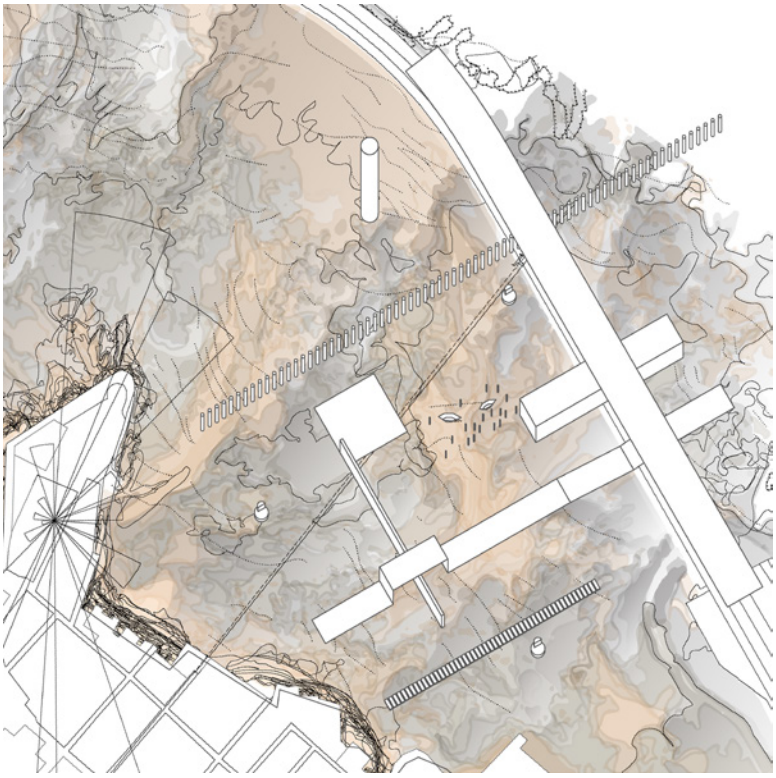
DESIGN INTENTION

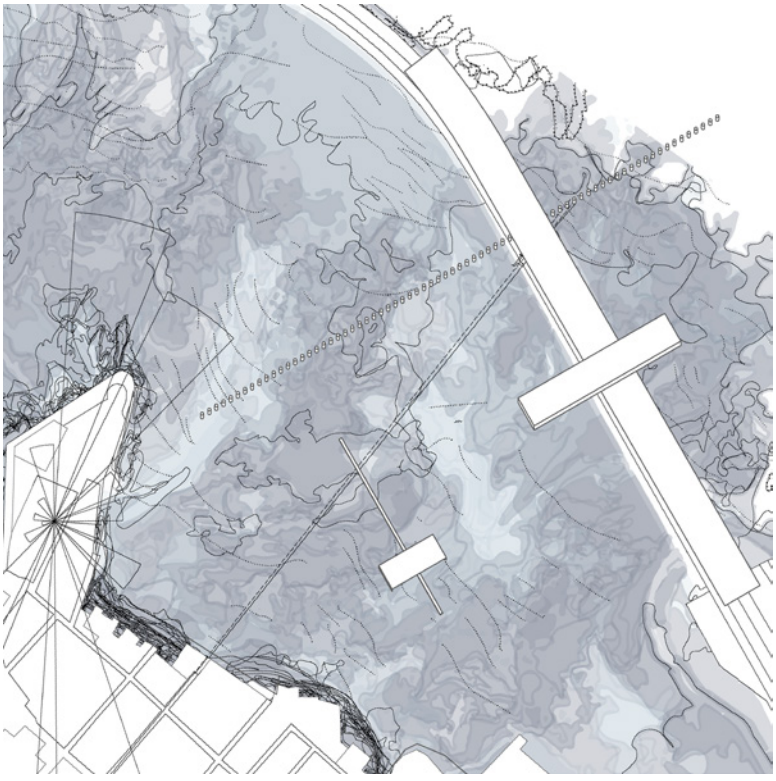
The author (me) was born in Croatia, where there is a specific typology that answers to the found site conditions.

'KUPANJE'
spending time in and around water
'KUPALIŠTE'
access to water, swimming resort, beach

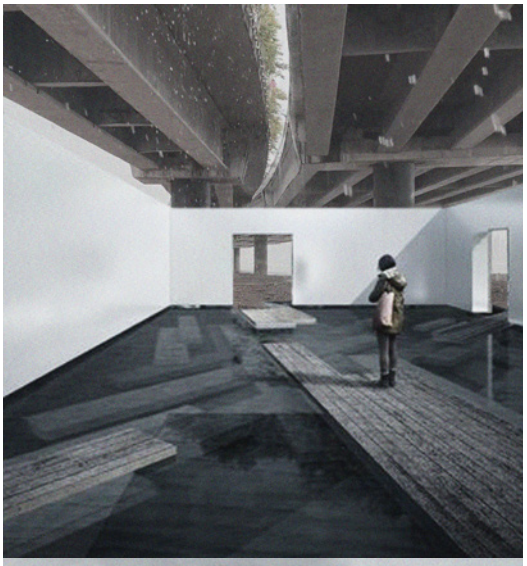
A designed area for spending time in and around water—a beach conceived as a labyrinth of bridges/spaces leading towards the sea, forming a network of thresholds towards the final threshold. This design aims to offer possibilities and reveal the consequences of connection choices. Here, what might be a wall to some becomes a gateway to another world for others; a path during high tide transforms into a barrier during low tide. The intertidal landscape thrives, fostering species growth, supporting fishing activities, purifying water, enabling swimming, and fostering public and social spaces.

The design would be based on the elements of the space of the bridge as well as the conditions and occurrings present at the site. A beach in the liminal space of the threshold between Casco Viejo and the open ocean. Between Panama and US, between Casco Viejo, Santa Ana, El Chorillo and the Panama City, between infrastructure, ecology and social issues. Between enclosure and freedom.





sketch design



intended atmosphere variations

OPERATIONAL OTHERNESS

REASSEMBLING ZONES AND ZONEFACTS

On Zones and Zonefacts
Or Paradigmatic Eruption of Absolute Otherness

01
Stalker, 1979

ABSTRACT

This paper aims to establish a theoretical framework for a research and design inquiry into the notion of the Zone in its various meanings and manifestations. The Zone as a concept of a demarcated spatial entity where a set of rules, laws, norms or codes has been altered vis-a-vis its exterior has been instrumentalised by a wide variety of actors throughout different contexts for multiple reasons. While having its roots at the very origins of sovereignty, in recent years and decades, more than ever, the Zone anew became a central tool at the disposal of state- and extra-statecraft especially in connection to developments along the New Silk Road - the overarching area of academic investigation conducted in the 'Borders&Territories' group.

Working in the Panamanian isthmus and focusing on the former US Panama Canal Zone as well as a variety of currently existing 'Zonas Francas' - Free Trade Zones (FTZ), this work provides different points of entry into the investigation of the Zone. Turning to cinema and literature for less descriptive and more generative ways of reading, to notions of otherness and the sublime for its materialisations, to paradigm through exception and desiring-production for its roots, this work aims to propose a way to operationalise the Zone and its landscapes for a critical spatial practice.

THE ZONE

"...What was it? Did a meteor fall down?
Was it a visit by citizens of the vast space?
So or otherwise in our little country appeared
the greatest miracle of miracles – the ZONE."
(Tarkovsky, 1979)

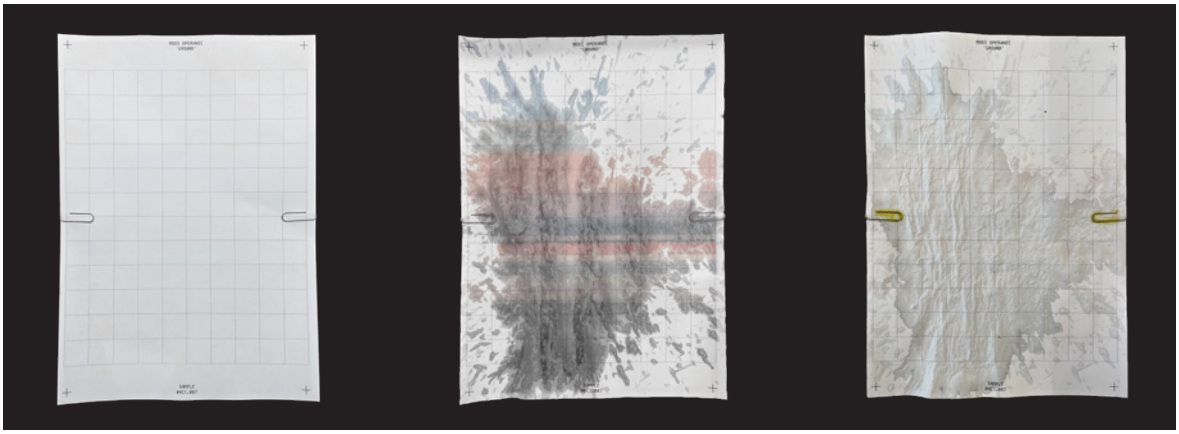
This part of the opening sequence of Tarkovsky's *Stalker*, in a surprising and intriguing way, is arguably applicable to the context of Panama. The Panama Canal Zone, the Colon Free Zone or the numerous *'Zonas Francas'* - the territory of the Panamanian isthmus has seen a disproportionately high, and thus intriguing number of Zones appearing in its most recent history.

The Panama Canal Zone, or simply Canal Zone, was an unincorporated organised territory of the United States of America, which between 1903 and 1979 divided the Republic of Panama in two, following the navigational line of the Panama Canal with an offset of 8 kilometres on both sides. Established with the signing of the Hay-Bunau-Varilla Treaty[2] (1903) which simultaneously made legal provisions for the construction of the Panama Canal, the Canal Zone was granted to the US "in perpetuity" (Hay-Bunau-Varilla Treaty, 1903). This territorial and legal entity produced a multitude of contested and idiosyncratic conditions, unfolding issues of sovereignty, military control, race, cultural and local identity as well as giving rise to the unique *Zonian*[3] community. Officially dissolved through the Torrijos-Carter Treaties in 1979, it has remained present and operational in parts and enclaves up until 1997, significantly shaping the isthmian territory up to this day.

Since 1948, the establishment of the Colon Free Zone, and especially in the last decade, the Panamanian isthmus has witnessed the appearance of a wide variety of *'Zonas Francas'* or Free Trade Zones. Those Zones exhibit various characteristics, but at their core, contain some forms of incentives provided by the government of Panama (either through taxation, customs or labour regulation) that aim to stimulate and attract the conduct of commercial business activity.

While an etymological inquiry traces the Zone to the Latin 'zōna' and eventually the Greek 'ζώνη' for "girdle" (Merriam-Webster, 2023) its general meaning can be defined as a "definite region or area of the earth, or of any place or space, distinguished from adjacent regions by some special quality or condition" (Dictionary, 2023). Thus there are two essential aspects that define a Zone, its operation and demarcation.

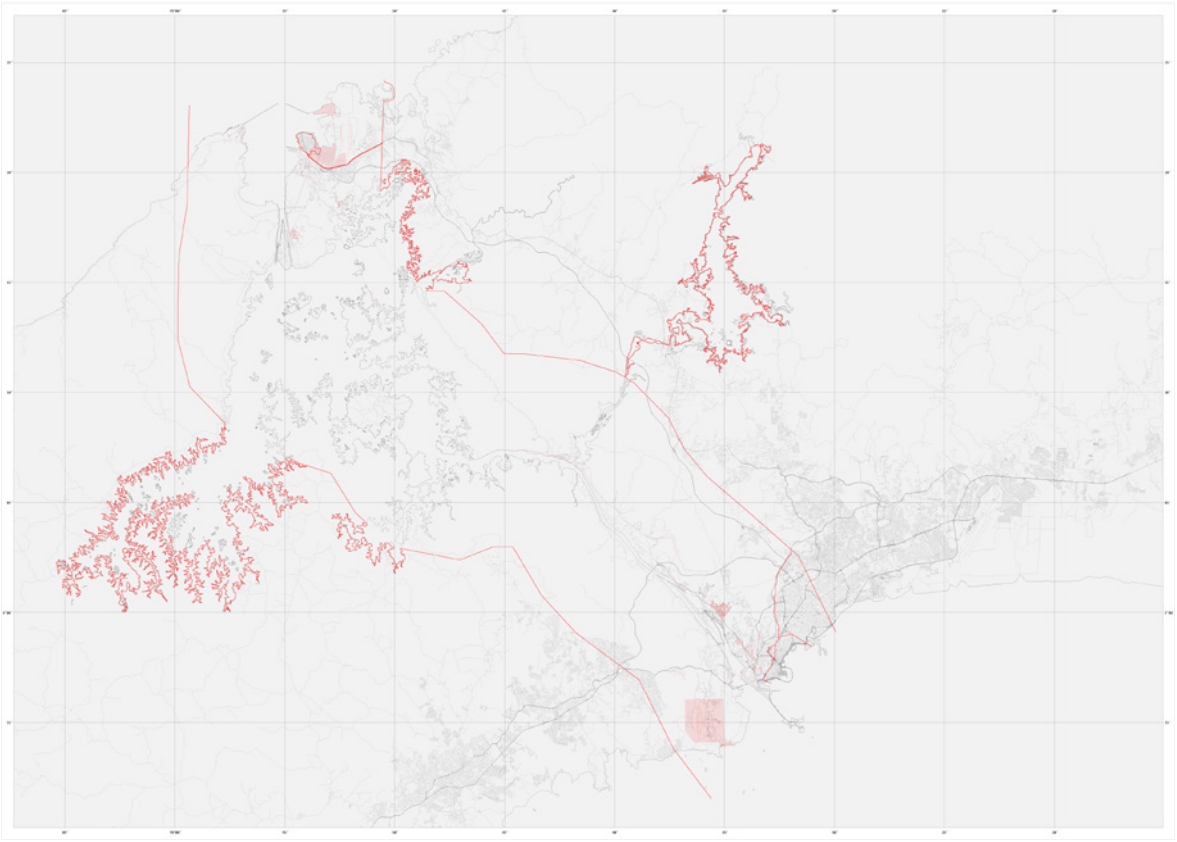
Its operations can be understood as an alteration to the code, or to borrow from Keller Easterling (2014), the spatial software, which defines the modi operandi of a territory. Thus the zone then becomes a software in itself, the employment of



which usually follows a specific purpose-specific doctrine, be it consolidation of control or accumulation of resources; or both. Its demarcations then territorialise the idiosyncratic products of those processes and solidifies these spatial arrangements as well as the Zone as a perceived entity through a practice of othering.

To illustrate this, it helps to take a look at things on the ground. In the Canal Zone, the operations were defined through a set of spatial software components, ie. the Canal Treaty itself, the Canal Zone Laws, its legal status as an unincorporated organised territory of the US, direct executive command by the military through the Panama Canal Company and the Gold/Silver roll system to name a few. Demarcated within a territory as designated through the Canal Treaty, this set of code alterations produced a landscape within which one would find, extraconstitutional interpretations of US law, issuance of citizenship outside formally US soil, overseas extension of the 5th US Court of Appeals[4], wide-ranging military infrastructure and reservations, sanitation zones, infrastructure adhering to US building codes, no political representation of the population, a state-run economic system with allocation of goods and housing, codified racially segregated towns, housing and facilities among many others. As for the *Zonas Francas*, the operations and demarcations are established through a series of laws for specific FTZs , all referring to an executive order describing the Free Zone regime, which generate landscapes of warehouses, duty free stores, international asset storage vaults for precious metals and valuables, repackaging facilities, call centres, factories, data centres, educational facilities, housing and many more.

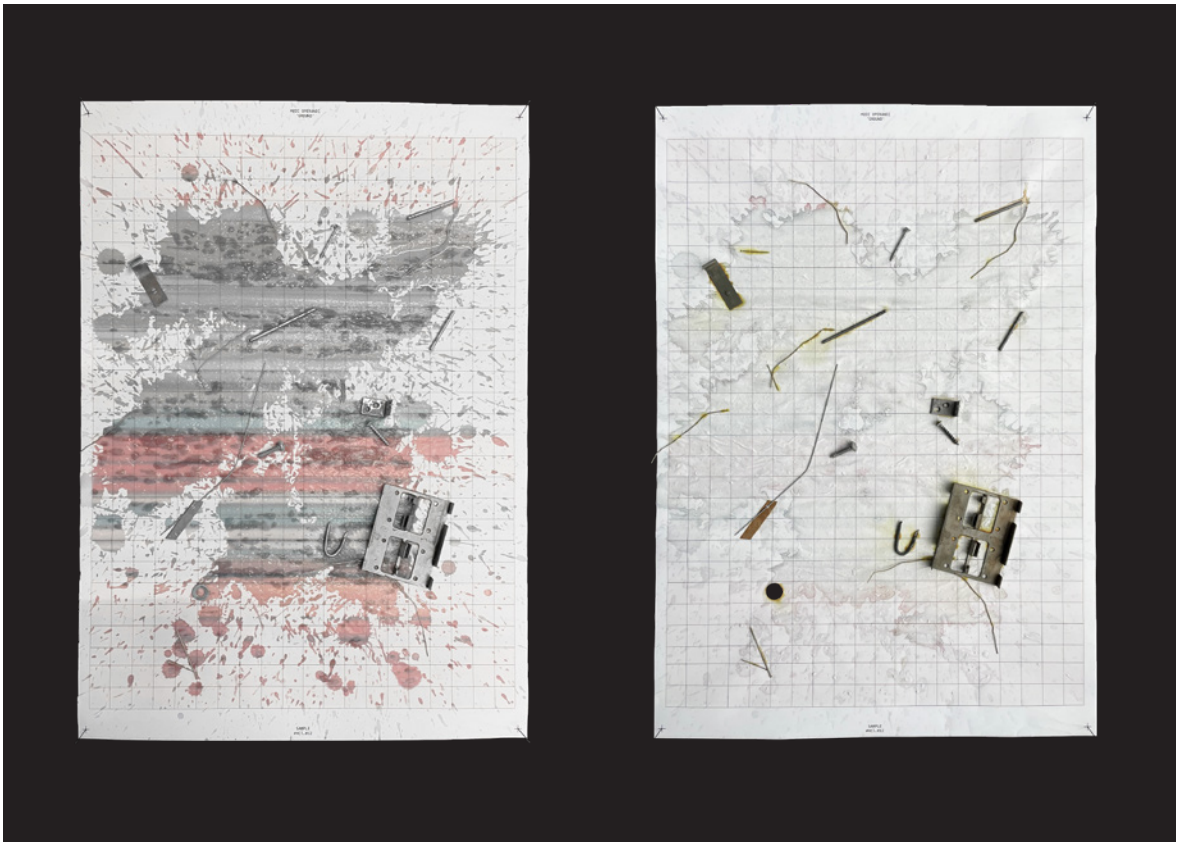
Thus, the Zone in its operation and demarcation produces a whole new territorial and spatial logic, which can be read, problematised and operationalised to become generative of novelty if one is to engage with its material-agential becomings.



ROADSIDE PICNIC

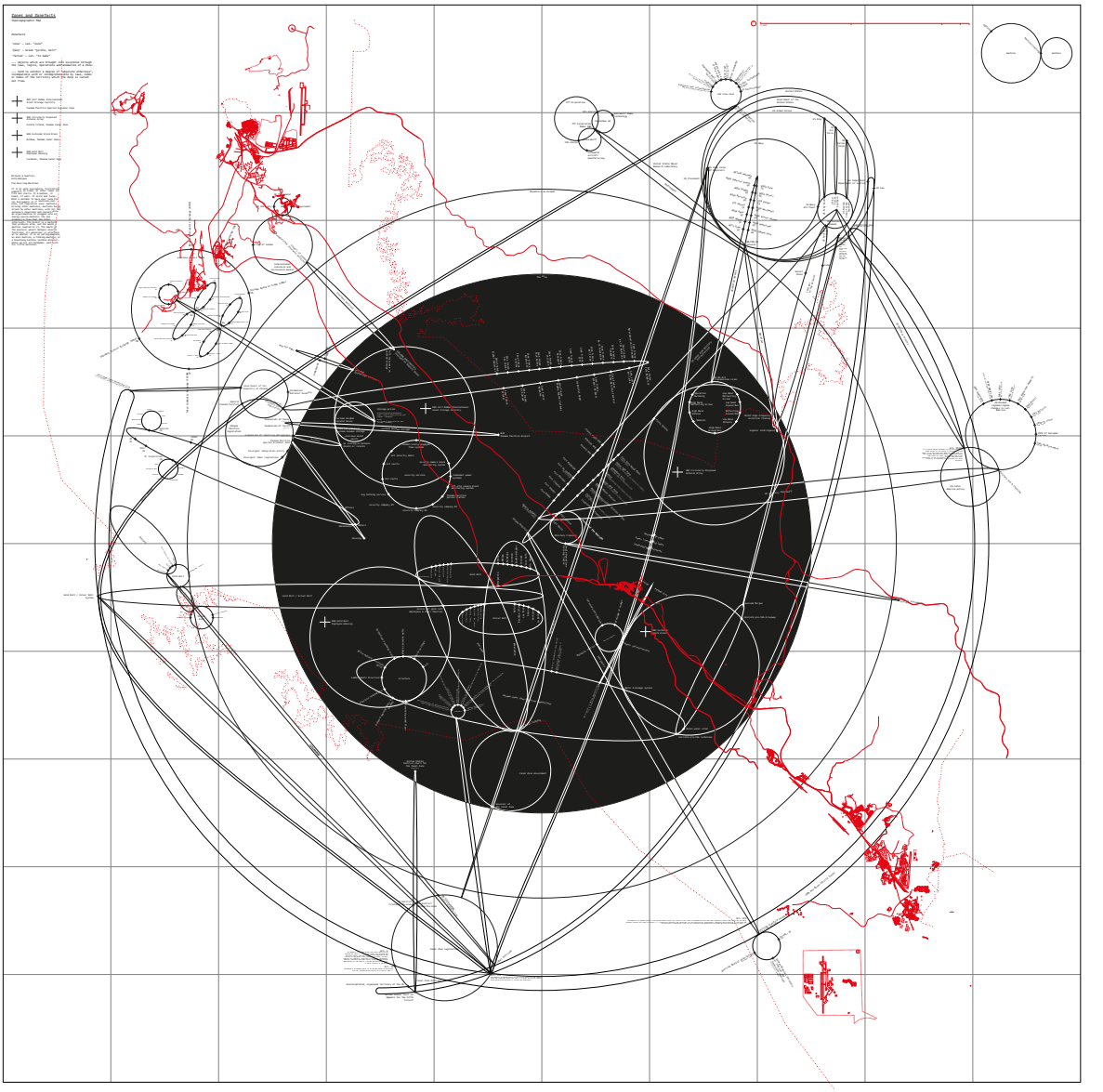
While the reading of theoretical works can give insight on basic principles of operations and structures of the Zone as a concept, a far more profound, attentive and generative understanding of the issue can be drawn from art and literature. For this, this inquiry turns to the work of both Andrei Tarkovksy and the Strugatsky brothers and their instrumentalisation of the Zone.

Andrei Tarkovsky's film *Stalker* (1979) has been loosely adapted from the 1972 science fiction novel *Roadside Picnic* by Arkady and Boris Strugatsky (1977). Both works are set in and around a 'Zone' - a site (in a fictitious country) of a supposedly alien 'visitation', the origins and purpose of which have not been understood so far. While the nature of the visitation remains unclear, and mostly irrelevant, the focus is centred around its residue and the engagement with it. In both works the Zone is a place which defies our common understanding of the world, laws of physics, space, time, causality and logic. It exhibits a number of anomalous formations in its territory, which pose potential lethal danger to anyone trespassing it. The Zone attains its own logic of spatiality and temporality and thus renders conventional scientific or rational engagement with it futile and potentially dangerous.

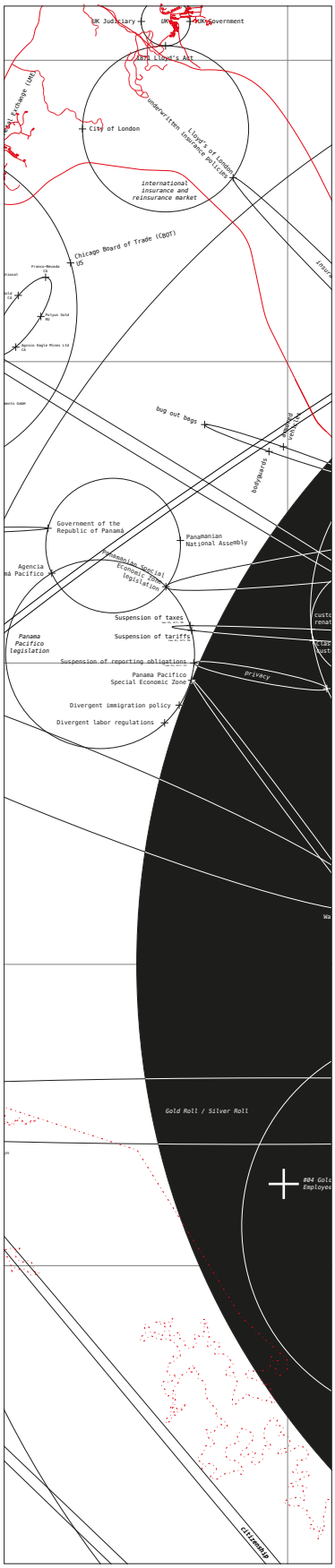


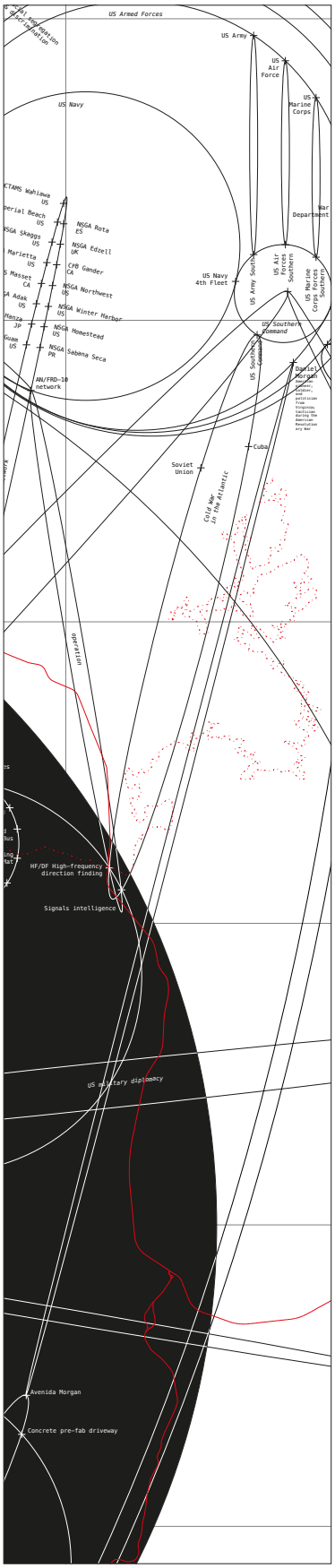
The central characters of both the film and the book are *Stalkers* - persons who found their vocation in entering and navigating the dangerous and mysterious Zone for different purposes. These Stalkers work mostly illegally - as the Zone is guarded and off-limits to the general public - and have attained special skills and ways of traversing the little understood and dangerous anomalous terrain. In the novel specifically, both scientists and Stalkers are venturing into the Zone to collect artefacts - objects with anomalous physical properties which have been left as residue from the alien visitation. As those objects exhibit physical properties that exceed contemporary human comprehension, they are very sought for to be either studied in the case of the former, or sold on the black market in the case of the latter.

While those notions of course come from an exercise in science fiction and have little to do with reality, they nevertheless offer an intriguing and generative line of investigation that can be employed to make sense of the impact that the Zone has on the territory it carves out from the previously 'conventional' space. First, the metaphor of the 'Roadside Picnic' used by Arkady and Boris Strugatsky, draws interesting parallels to the context at hand. The Strugatsky brothers use 'Roadside Picnic' for their Zone as an analogy to a how a group of humans on a road trip briefly stops on the side of the road, introduces some anomalous (to the local biosphere) processes and leaves a number of traces which are then explored by the animals and insects with awe and fascination, as alien objects incompatible with any logical explanation that could come from the realm of the local biosphere.



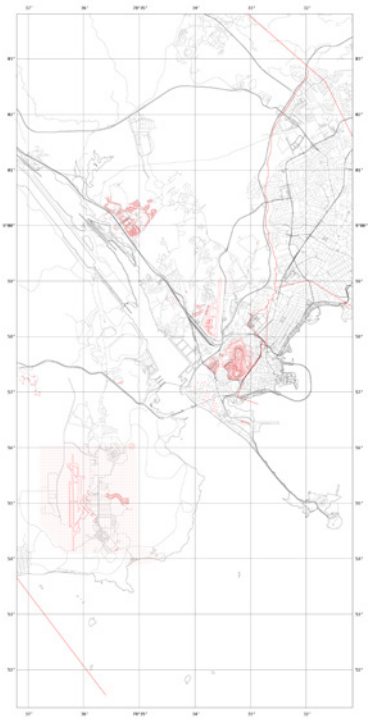
Zonefacts
Topological Mapping





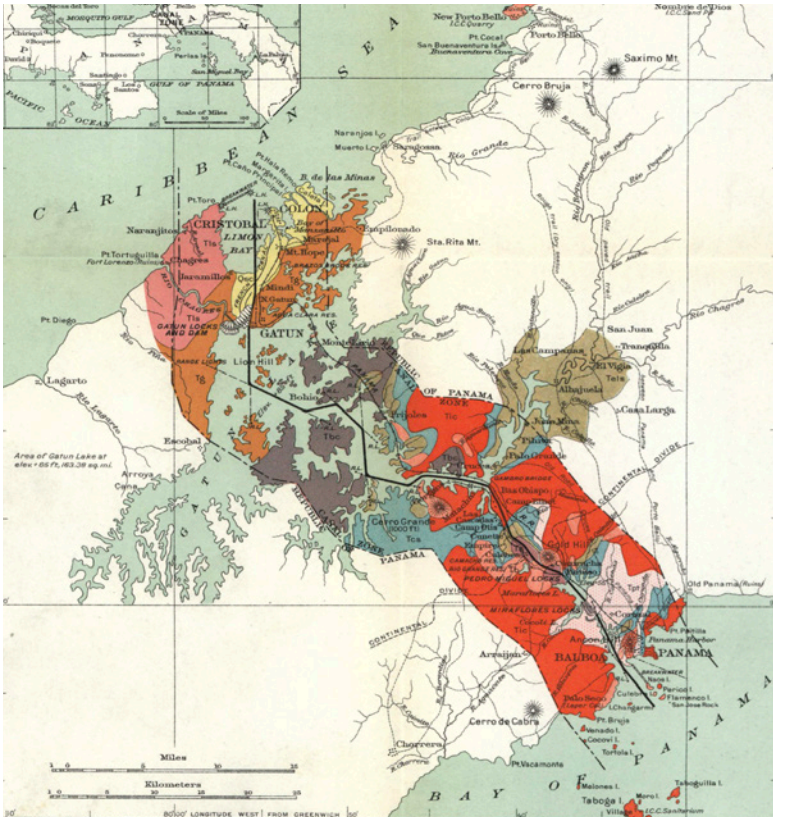
"A picnic. Picture a forest, a country road, a meadow. Cars drive off the country road into the meadow, a group of young people get out carrying bottles, baskets of food, transistor radios, and cameras. They light fires, pitch tents, turn on the music. In the morning they leave. The animals, birds, and insects that watched in horror through the long night creep out from their hiding places. And what do they see? Old spark plugs and old filters strewn around... Rags, burnt-out bulbs, and a monkey wrench left behind... And of course, the usual mess—apple cores, candy wrappers, charred remains of the campfire, cans, bottles, somebody's handkerchief, somebody's penknife, torn newspapers, coins, faded flowers picked in another meadow."

(Strugatsky & Strugatsky, 1977)



Ancon Hill
Map

02
Geological Section of the Canal Zone



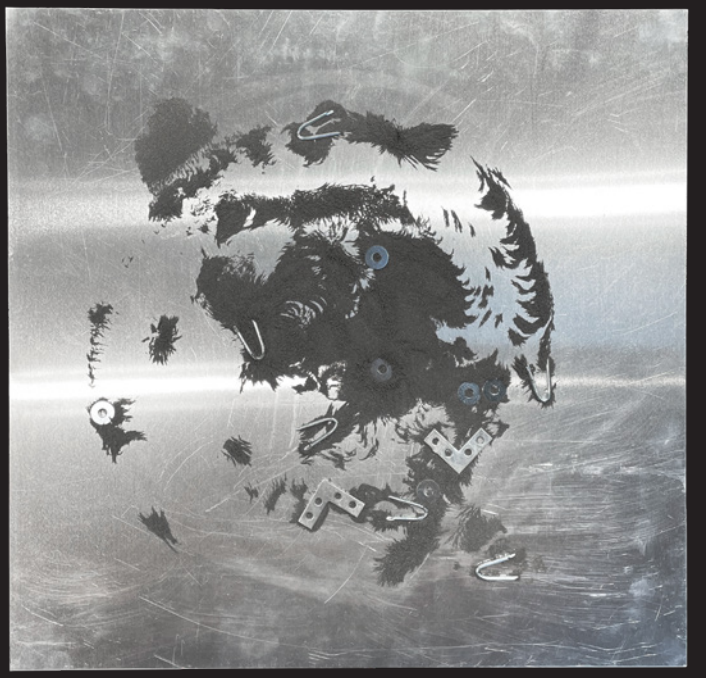
03
Geology of the Canal Zone

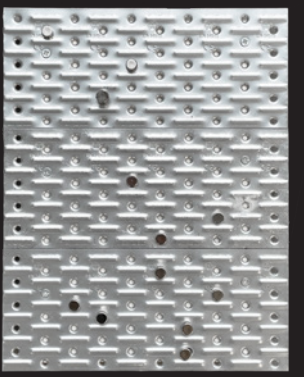
ZONEFACTS

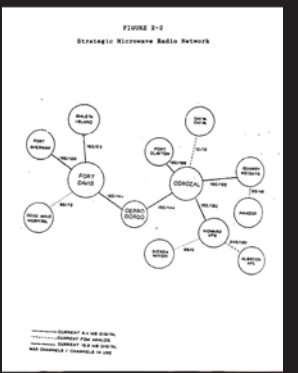
While this analogy finds its origins in science fiction, its application to the Panamanian context becomes surprisingly generative. If one was to consider the Zones found throughout the isthmus on similar terms to those described by the Strugatskys, one could employ a reading of them whereby, just as in the novel or the film, an alien entity - whether the US state apparatus or the governmentality of international capital flows - lands on the territory, introduces a set of anomalous laws and logics and through its operation leaves certain traces - things - that can be found.

If in archeology the notion of artefacts designates things produced through human craft or skill (Lat. 'arte' - 'by skill'; 'factum' - made', (Wiktionary, 2023)), the proposition here would be to speak of *zonefacts* - things brought into existence through the laws, logics, operations and anomalies of a Zone. These things cannot just be reduced to their materiality or their physical impact on the territory. Instead, much like the roadside picnic candy wrap studied by the curious forest animal or Strugatsky's artefacts by the scientists, they can be instrumentalised to gain a deeper, more profound, systemic understanding of processes and forces that have brought them into existence as well as to become generative themselves.

Certainly no thing just exists in a vacuum, devoid of any relations; anything can be studied through a systemic, topological mapping to gain insight into its becomings. What makes the zonefacts of special interest however, is that through their conception in a system of laws and logics which are not otherwise found in the given context, *what* they "land" and materialise in the territory is, what Zizek describes as "the Real of an absolute Otherness incompatible with the rules and laws of our universe."(Zizek, 2000) While *otherness* functions as a central tool for ontological differentiation and is ever-present in any form of existence, radical otherness in this case can be read as a transgression of the very ontological system itself, exceeding a certain critical limit beyond which it's understanding as an "other" to something else is breaks down due to the incompatibility and incomparability of those things. This sudden exposure to something one cannot comprehend or encompass with one's common knowledge - objects with *all agency, no history* - then becomes strikingly productive on its own. One could make the point that this quality is also something that plays a central role in the notion of the sublime.







A connection can be drawn to Kant's discussion of the sublime: "The feeling of the sublime, is at once a feeling of displeasure, arising from the inadequacy of imagination in the aesthetic estimation of magnitude to attain to its estimation of reason, and a simultaneous awakened pleasure, arising from this very judgement of the inadequacy of sense of being in accord with ideas of reason, so far as the effort to attain to these is for us a law." (Morley, n.d.) Thus the zonefact, producing a condition of otherness which hints at a subliminal dimension, through its 'absolute otherness' becomes a generative entry point for a systemic investigation of larger processes at hand.

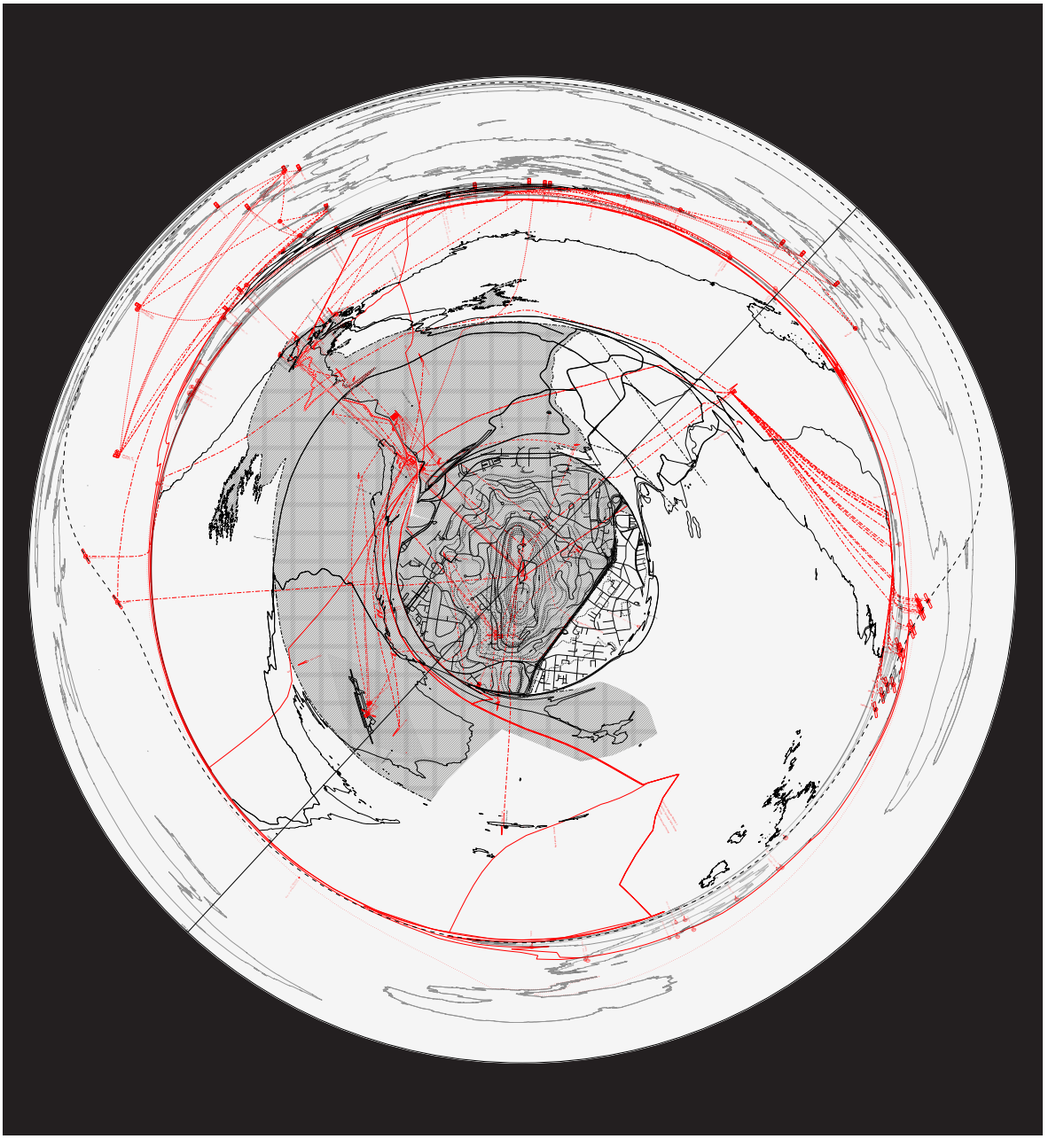
Modi Operandi 02
'Assemblage'

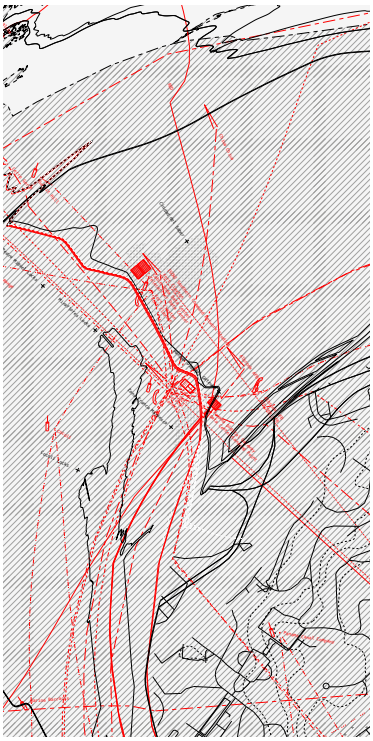
04
Strategic Microwave Radio Network

PARADIGM AND EXCEPTION

Now, with the zonefact at hand, delving into a topological, systemic exploration of its becoming, the question arises - what is one to see? Certainly, an intricate network of things, actors, processes will emerge, yet how can one make sense of it in relation to the operations of the Zone? To understand how a Zone operates, it is insightful to read the work of Giorgio Agamben. In his works *Homo Sacer* (1998) and *State of Exception* (2005), he elaborates on the concept and act of exception, which for him constitutes a foundational element of sovereignty, the judicial order and the Western State. For once, the suspension of laws, in Schmittian terms (Agamben, 2005) becomes constitutive to the concept of the sovereign, as someone who wields power beyond the common law. Furthermore, the sovereign exception is bringing about the judicial order in the first place: "the rule, suspending itself, gives rise to the exception and, maintaining itself in relation to the exception, first constitutes itself as a rule." (Agamben, 2005)

He then goes on to point out that the state of exception is not some archaic mechanism, but much rather is very intensively used by modern states, both authoritarian and democratic, whereby





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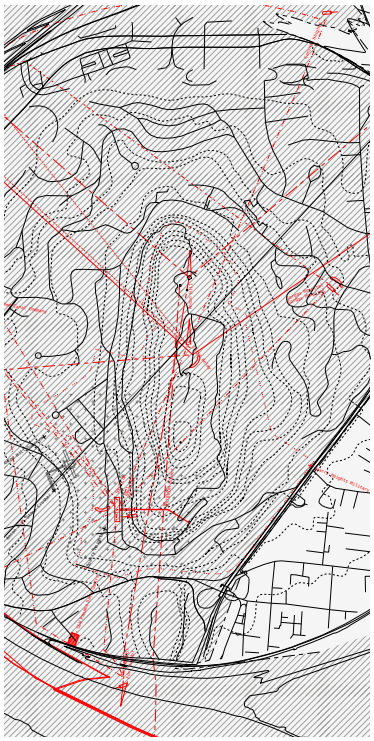

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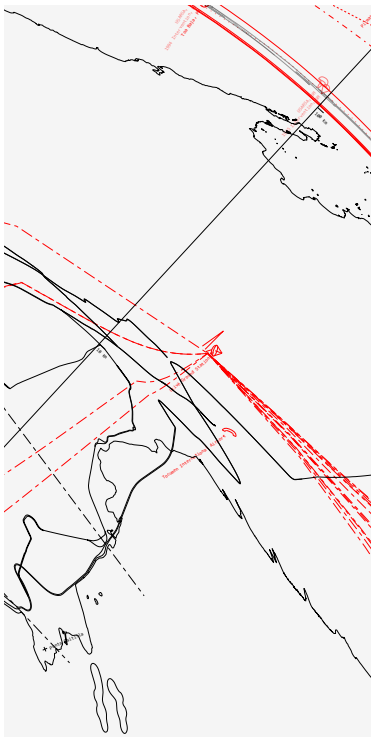

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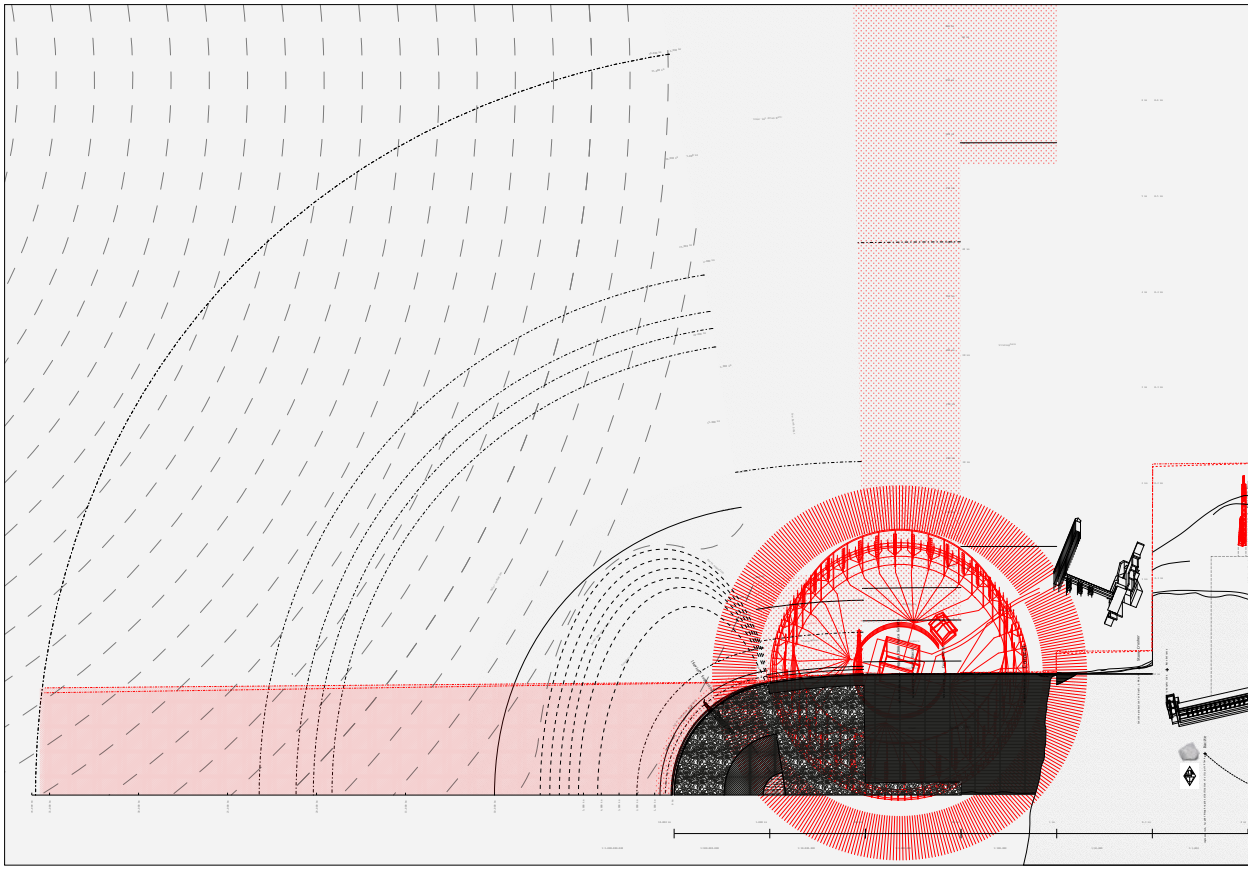
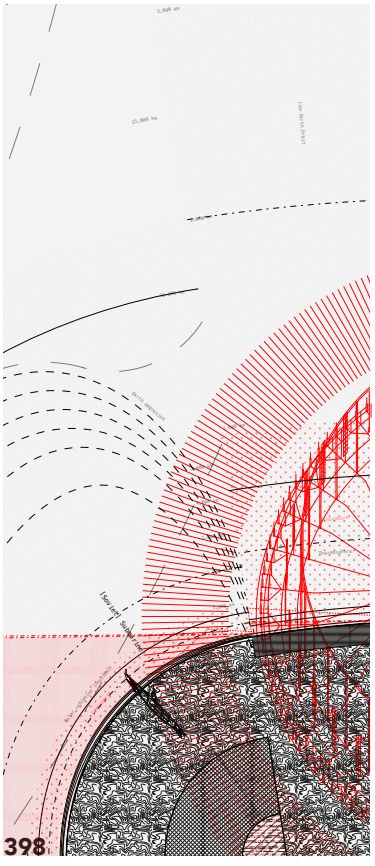
it produces an ambiguous space where a suspension of laws, through being codified, becomes part of the judicial system itself. Ultimately, he describes the camp as "the biopolitical paradigm of the West" (Agamben, 1998). Drawing from Agamben's discussion of the state of exception as an ambiguous element that defies the "normal" state of things and introduces a bifurcation through a codified alteration of the law itself, one is tempted to understand the Zone in similar terms. Yet while aspects concerning exception as an exercise of sovereignty still apply, Neilson, in his investigation of Asian special economic zones puts forward an interesting, more profound reading of this question.

For Neilson (2014), the Zone, despite concerning the same issues at stake as the camp for Schmitt and Agamben - governmentality, sovereignty and biopolitics - functions differently; in fact, in reverse to it. Far from exhibiting a suspension of norms, as it does in the camp, the Zone for Neilson, operates through a perpetuation and over-saturation of them. It is not paradoxical, but paradigmatic, rendering visible and legitimising arrangements that are otherwise often obscured, informal or emergent in wider economic and social domains. He supports this proposition with the example of the infringement on labour rights - a practice intrinsic to many of the Special Economic Zones or Free Trade Zones - which far from





Stone Crusher
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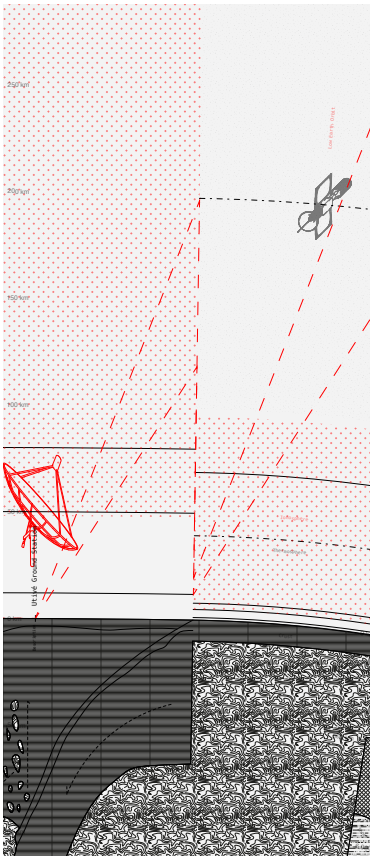
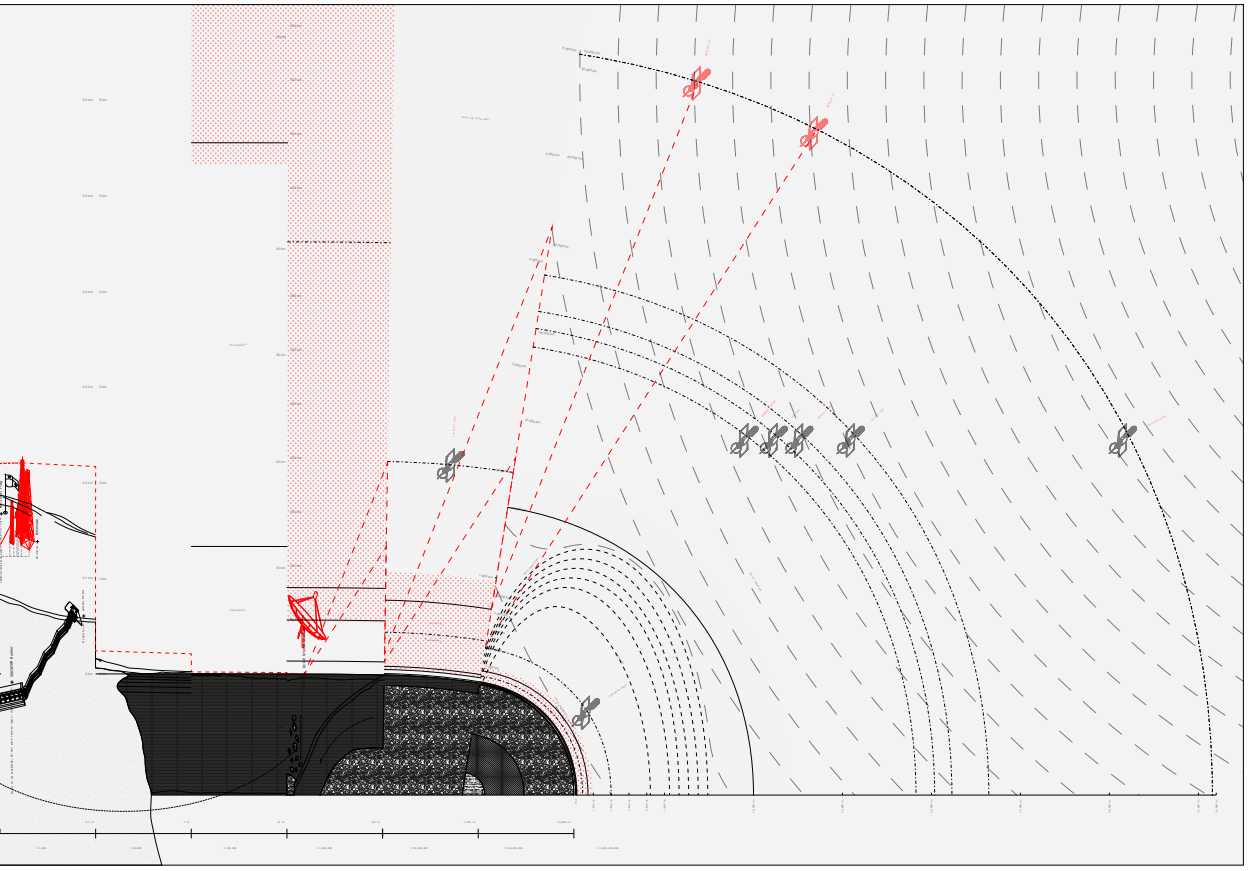
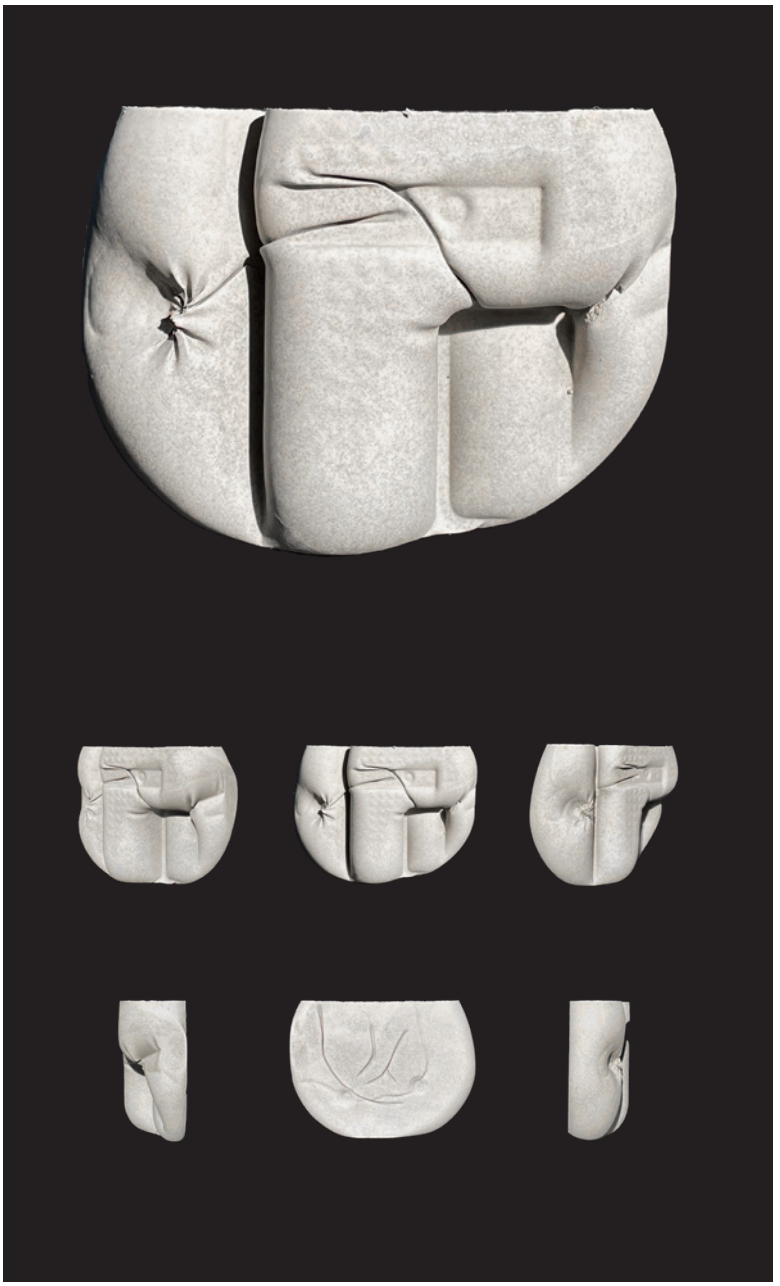




Planetary Systems Section

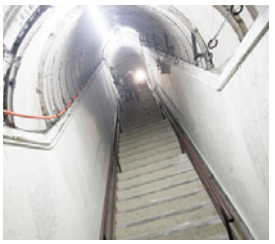
being an exception or radical opposition to conditions in the zone's exterior is rather abundantly found there, yet in less obvious, legitimate or codified forms (Neilson, 2014). The Zone thus functions as some sort of crystallising tool that solidifies processes which outside of it exist in only a dispersed, distributed, gaseous state.

In the discussion of Zones in the context of Panama, namely the Panama Canal Zone and the various Free Trade Zones, it is important to consider their topological framework. The notion of the Zone as a paradigm does not refer to the relationship of the Zone to its immediate surrounding, but rather to the politico-economical apparatus that is employed in its establishment, as this is where the specific arrangements and processes are being crystallised and rendered visible from. Thus the Panama Canal Zone and the various Free Trade Zones, should be investigated as a paradigm for processes which are obscured, distributed and dispersed against the backdrop of their politico-economical origin — the governmentality of the United States of America, and the inter- and transnational capital flows respectively.



DESIRING-PRODUCTION

Tarkovsky's *Stalker*, slightly changing the focus of the plot in relation to the novel, brings forward and pursues a very essential theme - that of desire. Revolving around *the Room* - a place at the centre of the Zone which supposedly fulfils the deepest, innermost desires, the film problematises desire in a multitude of ways. Yet it is not just Strugatskys and Tarkovsky who by speaking of a desire-fulfilling machines[5], link desire to the notion of the Zone; Zizek in his commentary on the Tarkovsky goes as far as speaking of the Zone as nothing but "the void which sustains desire" and points out the generative limit of the Zone - "the Zone is not prohibited because it has certain properties which are „too strong" for our everyday sense of reality, it displays these properties because it is posited as prohibited." (Zizek, 2000) Thus, when discussing the notion of the Zone, one cannot ignore its meddling with the issue of desire. While the psychoanalytical understanding of desire ascribes to lack the production of desire in the oedipalised subject, Deleuze and Guattari in their idiosyncratically titled *Anti-Oedipus*, propose a less obvious yet more productive reading of the issue. For them desire is first and foremost productive and primary to lack:



05-08
SOUTHCOM Bunker

"Lack (manque) is created, planned, and organized in and through social production. It is counter produced as a result of the pressure of antiproduction; the latter falls back on (se rabat sur) the forces of production and appropriates them. It is never primary; production is never organized on the basis of a pre-existing need or lack (manque). It is lack that infiltrates itself, creates empty spaces or vacuoles, and propagates itself in accordance with the organization of an already existing organization of production."

(Deleuze & Guattari, 2003)

At the same time, for them, desire "does not express a molar lack within the subject; rather, the molar organization deprives desire of its objective being." (Deleuze & Guattari, 2003) which means to say that social production limits and suppresses desire in its essential operation. The reason for that, they explain, lies in the following: "If desire is repressed, it is because every position of desire, no matter how small, is capable of calling into question the established order of a society: not that desire is asocial; on the contrary. But it is explosive; there is no desiring-machine capable of being assembled without demolishing entire social sectors." (Deleuze & Guattari, 2003)

Furthermore, if "desire produces, its product is real. If desire is productive, it can be productive only in the real world and can produce only reality." (Deleuze & Guattari, 2003). Yet taking up this line of inquiry, it is essential to understand the nature and mechanisms of social production in the instrumentalisation of desire: "The deliberate creation of lack as a function of market economy is the art of a dominant class. This involves deliberately organizing wants and needs (manque) amid an abundance of production; making all of desire teeter and fall victim to the great fear of not having one's needs satisfied" (Deleuze & Guattari, 2003). The conclusion from this is that, if conducting research through the lens of desiring-production, the constructed objects of desire give an opportunity to read, uncover and problematise operations of the dominant political economy.

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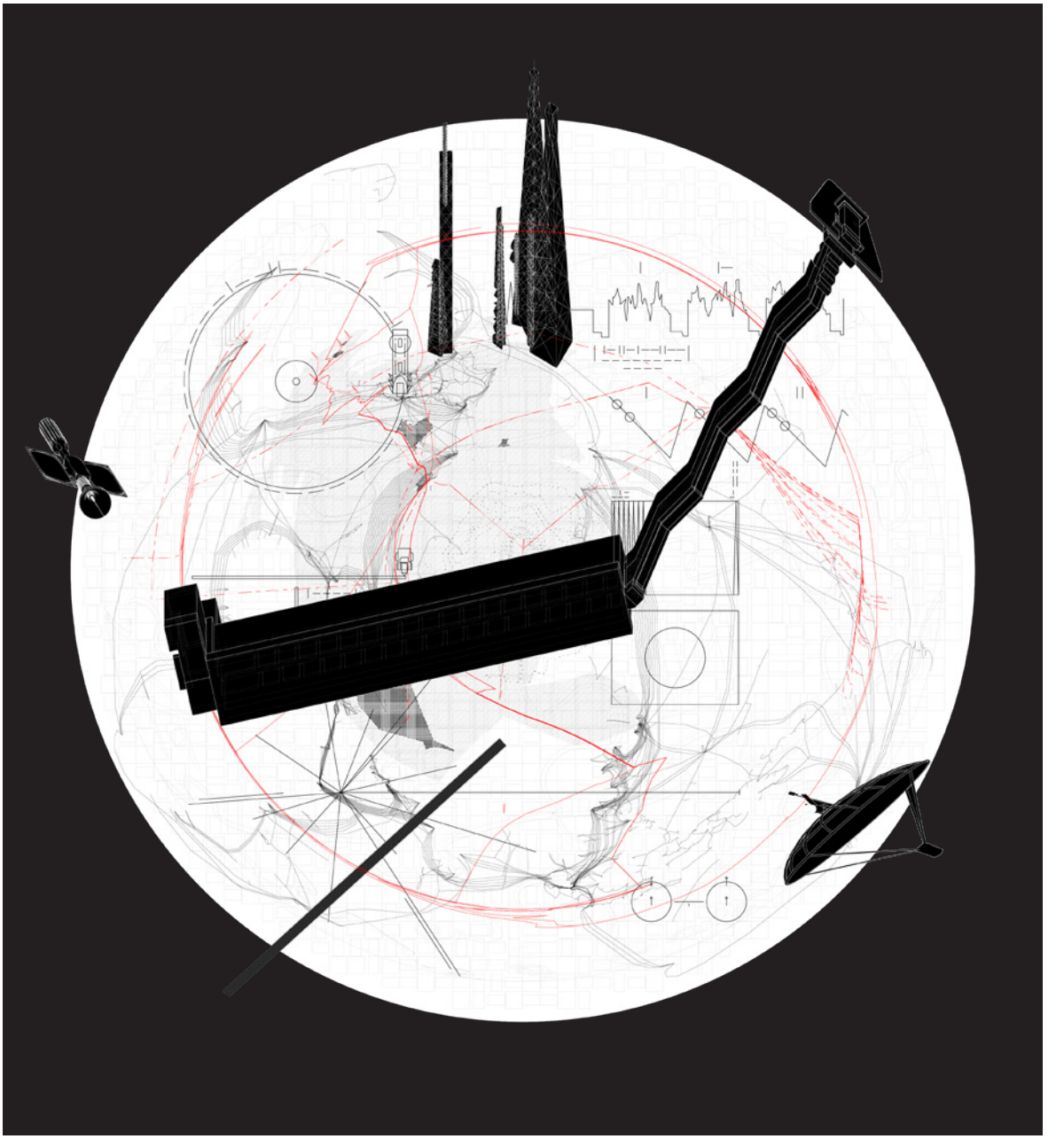
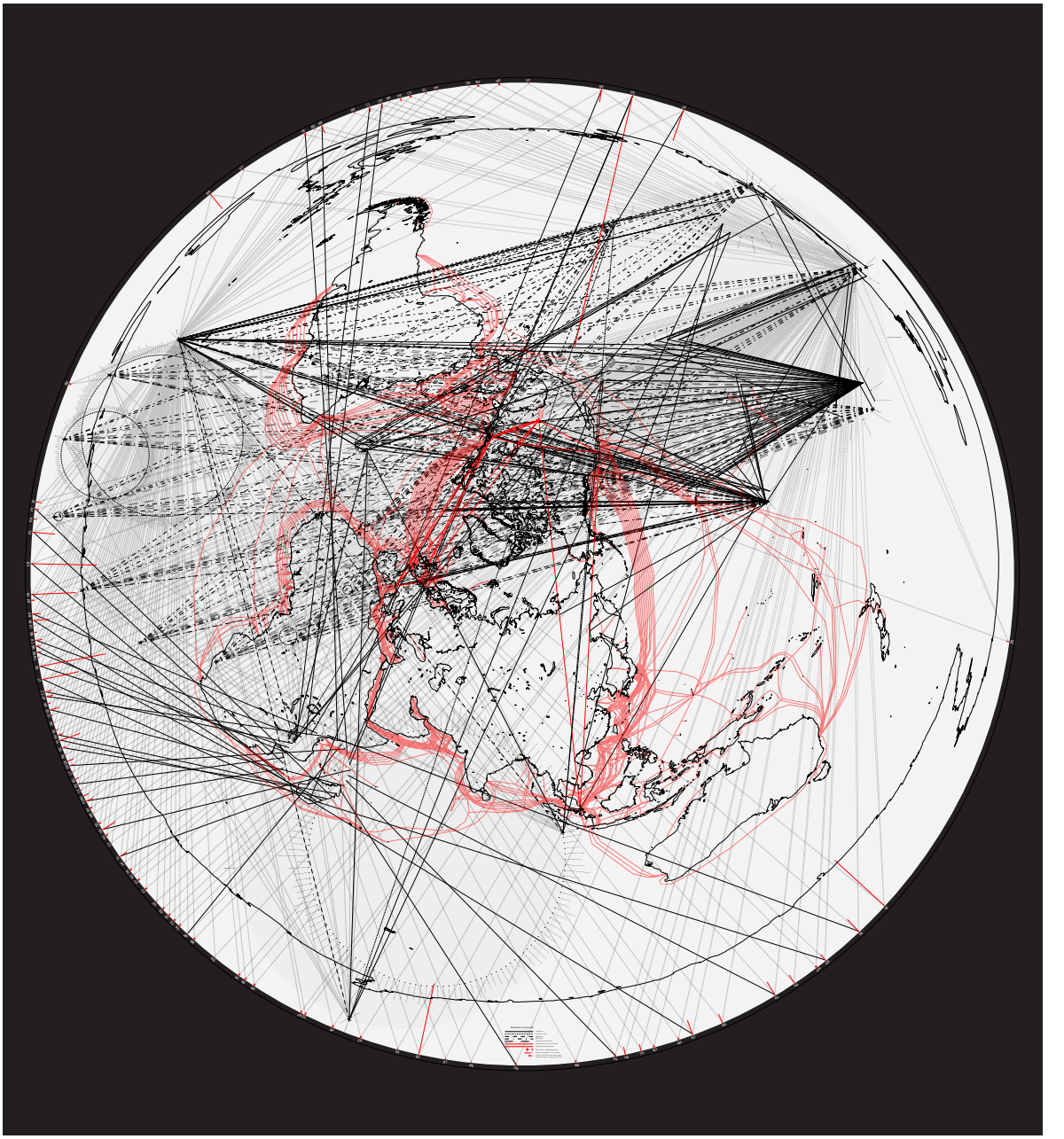


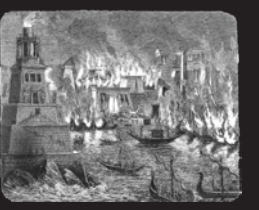
OPERATIONALISING OTHERNESS

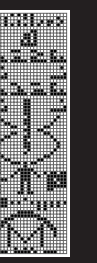
The proposition is to understand the Zone as a paradigmatic eruption of absolute otherness.
To use a geological metaphor, the operation of the Zone can be elaborated as follows: The workings of plate tectonics [desiring-production] shape and organise the surface while remaining unnoticable in immediate observation. Fault lines [Zones] then constitute critical points which inhibit or bring about conditions, under which those forces, that have otherwise remained underground [dispersed], suddenly and violently erupt, collapsing the division between surface [territory] and sub-surface [external political economy] and bring to light rocks [zonefacts], which introduce an absolute otherness while being paradigmatic of the processes below ground. These new objects then establish a new territorial logic, re-organising pre-existing space around their existence.

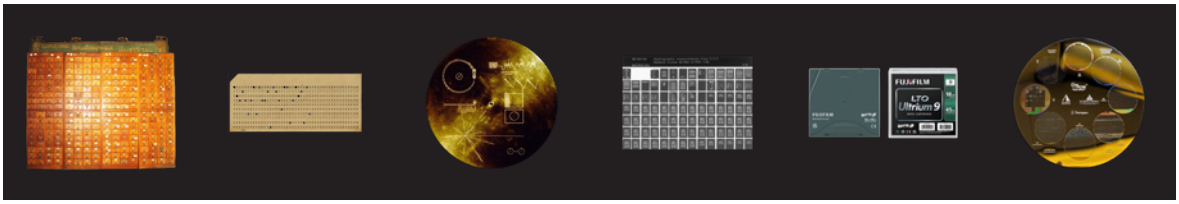
Regarding the question which inevitably arises from this discussion - how does one conduct practice within this context? - the proposition here is to operationalise otherness. Just as scientists in Strugatsky's novel were trying to instrumentalise alien objects for the development of novel technology, the proposal is to make use, to graft oneself onto the landscape of otherness produced through the operation of the Zone. First, simply by operating with the otherness of zonefacts, one is able to problematise the paradigm of desiring-production that they inhibit, to uncover the workings of the constitutive political economy. Consequently, then, by introducing a strategic programme - a virus to the software of the Zone - that makes use of its apparatus, yet through its difference to its initially intended outcome defies its logic one is able to open up the formerly deterministic operation of the Zone. If before the software of the Zone had been scrupulously written to ensure the proliferation of specific conditions as desired by the political economy shaping it, one could, instead of diving into an utopian ideological holy war with the aim to take down the system itself, practice critique with and within the system. Instead of wasting resources on a delusional all-out revolution to bring down the leviathan of the political-economic order, the proposition is instead to make use of the spatial software, its resources and infrastructures to operate the system pharmacologically - not just poison but remedy, not just control but emancipation, not just accumulation but redistribution.

09
Stalker, 1979









Wikimedia Ecosystem Mapping

10-13
Human Knowledge Archives

14-19
Analog Information Storage

PROGRAMME

Given the colliding conditions of hyper-connectivity and hyper-isolation in the context at hand, the aim is to propose a programme that would strategically make use of this constellation. Thus the central idea for the project is the elaboration of a counter-extractive programme grafted upon military-extractive systems of infrastructure. More specifically, this entails the development of a facility that uses the given communication infrastructures and collects, shares and preserves knowledge which is extensive and commonly produced; a shelter for a vital commons.

As a paradigm for this, drawing connections to the infamous library of Alexandria, the focus lies on the biggest collection of human knowledge to date, the Wikimedia projects. Learning from the lessons of the Library of Alexandria, as a rich, yet ultimately fragile collection of knowledge, the issue of keeping knowledge and information safe becomes a central problem. It thus becomes vital to develop ways to safeguard information, which up to day exclusively exists in the digital form and is thus vulnerable to possible technological catastrophes, through other possible means, such as for example analog data storage techniques, which perfectly aligns with the rationale of infrastructures at hand.

To conclude, the project aims at developing a Shelter for Human Knowledge, a facility housing engaged in, firstly sustaining current operations of the digital system; secondly curating, archiving and organising information at hand; thirdly producing and physically safeguarding analog copies of the digital system and ultimately, through the constellation of infrastructure, distributing the knowledge and increasing its redundancy, all while making use of the zonefacts at hand.

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Drawers with bibliographic index cards of Paul Otlet's „Universal Bibligraphical System", part of the Mundaneum, today in Mons, Belgium. From *wikipedia.org,* by zinneke, 2008.

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All other figures produced by the author.

The 'Transient Liquidities along the New Silk Road III' graduation studio, organized by the BORDERS & TERRITORIES (B&T) group, will offer an architectural research and design studio that investigates contemporary border conditions within the larger territorial scale(s). The studio focusses on urban and territorial sites where 'other' spatial conditions have emerged, ones that are 'teeming with suggestive meanings and unexpected potential' but which have hardly been analyzed and discussed within the contemporary architectural discourse. In our day and age, it seems no longer possible to investigate space without taking global political developments into consideration, nor to ignore ecological anxieties, pressured coexistences or even economically driven migratory movements. Therefore, special attention should be given to the critical relationship between architecture and its environmental context, as well as its more general socio-political contexts.

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