

DIRECTED RESEARCH PROJECT

**CEPT UNIVERSITY**

# UNFLATTENING

## Design Futures in Indian Science Fiction

a study in the application of speculative futures as a  
critical medium for changemaking.

written by

**VIDUSH GUPTA**

advised by

**ANKITA TRIVEDI**



Website

“An imaginative concept of what might be true is the starting point of all great discoveries in science”

- Peter Medawar

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X.1 How to Read This Book

This research is long, theory - heavy and asks a lot in terms of attention and cognition from the reader. To alleviate some of this cognitive burden and making the reading experience a little more manageable, this research is written in three voices, with each occupying a distinct tonal and visual space.

- 1. **Sat** - truth - speaks on the white page. This is the primary voice for academic reasoning, discussing evidence and introducing theory. Most of what you will read will be Sat. All white pages chain to each other and can be read as a continuous argument. Sat is always **black text on light background**.
- 2. **Chit** - consciousness - speaks on the black page at the start of each chapter (on the left) in orange text. Chit introduces the chapter and orients you, the reader, on why and what is going to be discussed and how it fits into the overall picture of the research. There are times where Chit speaks in other places occasionally, but always as **orange text on dark background**.
- 3. **Anand** - fulfilment - speaks on the black pages with diagrams and figures (on the right). Anand is my voice as the author. It covers tangents, background details and other thoughts. Anand is always **white/grey text on dark background**.

Together, the three voices make up the Sanskrit compound concept of **Sac-cidānanda**, a formulation from Vedic philosophy that describes the ultimate reality of the world (Brahman). Here, they describe the three ways of knowing a piece of research: through the argument (Sat), through its structure (Chit) and through the perspective of its author (Anand).

Fig X.1.1 shows what each kind of spread looks like.



Fig X.1.1: Read - along playlist

Spotify

Fig X.1.2: Layouts 1-3 (top to bottom)

Own Work

We are eternally driven to decrease that which we do not know and increase the corpus of which we do, and part of this process of un-knowing is comes a stage of imagination, speculation, where we must, to various degrees depending on the matter at hand, take a stab at anticipating what might be. As Dunne & Raby (2013) so aptly put it:

"To be human is to refuse to accept the given as given." (Dunne & Raby, 2013)

Perhaps the biggest field of study that exists today, that concerns itself almost exclusively with this very need to reduce the unknown, to understand the world in which we live, is science.

It is a little unnecessary to belabour the importance and ubiquity of science: we see its effects all around us, in everything you see, touch and feel, that you interact with throughout the day and indeed that you have interacted with throughout your life no matter how old or young you may be.

The other piece of the puzzle that also requires mentioning but fits in the way of explaining is fiction. Fiction is ubiquitous in our everyday lives and arguably in mutual relationship with the aforementioned quest to discover the unknown is the imagination of alternatives (at some level, to various degrees) to the history, present, future – our reality. Dunne & Raby (2013) remark on this alternative-making aspect of fiction as:

"Not just for entertainment but for reflection, critique, provocation, and inspiration ... we start with laws, ethics, political systems, social beliefs, values, fears, and hopes ... these can be translated into material expressions, embodied in material culture, becoming bits of another world that function as synecdoches." (Dunne & Raby, 2013)

"I, as opposed to knowing, in that knowing is the positive increasing of what we know, whereas here un-knowing is very specifically the negative or decrease of that which we do not know, which is very different."

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**1.4 Speculative & Critical Design**

The aspect of speculation as it exists in SF can be applied in the same way to other fields or practices. The prospect of the thing that to imagine what might be and more specifically what is wanted to be is just as much something that can be practised through design as it may architecture or theoretical physics.

In design, which to recall the words of Espenak (1995) is "basic to all human activity", speculation serves a crucial role, the intersection of the two in fact creating a dedicated branch or practice called Speculative Design.

In their 2013 book Speculative Everything, Dunne & Raby outline the general boundaries for Speculative Design, in what they call the A/B matrix. In Fig 1.4.3, a simple list of things that speculative design might aim for looks on B versus what is "traditional" (look on A).

Alongside Speculative Design, which concerns itself with speculation, lay two deeply affiliated sister systems of practice: Speculative Design, which aims to provoke conversation and debate to make a statement; and Critical Design, which specially aims to challenge convention – not necessarily in a negative sense, as Dunne & Raby are quick to point out. As one might imagine, there is noticeable overlap in these definitions, as seen in Fig 1.4.2. Although there are differences in terminology, all three terms orbit around a central kernel of truth-seeking on the road to through design, uncover what is real.

A key difference to note between the duo of discursive and critical design or speculative design is that when speculating the end result is not clear in the case of a counterfactual machine "What if Hitler won World War II?", the answer here is not known at the beginning of inquiry. As opposed to CD, where the subject of discussion is known beforehand, the nuances of our reality that SD may illuminate are not known at the time of genesis.

Because of the inherently critical nature of speculation, the combination of the term SD, referring to Speculative and Critical design is also gaining credence (Urbanmatters, 2018).

This research, when referring to design, relates referring to those fields unless explicitly otherwise mentioned. This is important to note because central to all three is an important which goes against the basic assumption:

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**1.1 What is Science Fiction?**

Science Fiction, as one might imagine, is often considered the conceptual marriage of these two great cornerstones of the human condition – the need to understand more and the need to imagine alternatives.

The term 'Science Fiction' likely conjures titles that have left their mark on media and entertainment in the last century – most recent of which, as of the time of writing – was Ryan Gosling's hit Project Haym (2020), based on the book of the same name by Andy Weir (2011). Though in terms of plain every day language, when most deliberation on the genre occurs, this understanding of SF as science + fiction might prove to be sufficient, it is not, in the academic sense, the full picture. The underlying notion of technology, in settings and elements which though fictional and inevitably more-than-real, almost appear to be grounded by rationale (what is often passed in the logic of the narrative as science) is not entirely untrue. However, this idea misses out on what the essence of the genre is, or why it is the way it is.

As such, prominent author Darko Suvin (1979) sees Science Fiction, which he calls SF, as a more nuanced genre that necessarily provokes thought. As he defines:

"SF is, then, a literary genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author's empirical environment." (Suvin, 1979)

An important difference to note between this and the notional understanding of science + fiction, is that SF is inherently linked with the time of its creation. This may also be true for other genres for other reasons, but in the case of SF this has very particularly to do with estrangement, because what is considered strange is ultimately defined by what is considered normal.

Let us explore through an example. A 'science fiction' story without any context of the time of its creation, that describes small handheld devices which allow instant communication all over the world, this device facilitating a romance across the globe, would simultaneously be classified as a standard romance narrative in 2020, but some sort of SF narrative in 1950. This is simply because in 2020 we both know of romance and recognise the mobile phone and we take it for granted. We see it as part of our 'empirical environment'

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**Case Study**

Ursula K. Le Guin's

**The Left Hand of Darkness**

This novel proves as an exemplary piece of SF literature in Suvin's notion of SF. Through a simple, compelling novum which has a trailing effect on the world of the narrative, there is a profound and unavoidable estrangement perceived cognitively.

Without delving much into the actual narrative, the story outlines a world, Gethen, where the predominant beings do not have a fixed sex (ambisexual). They remain in an androgynous state for most of the month, entering a brief period of sexually once a month, where each individual may adopt male or female characteristics with no predisposition to either.

With only this much information, and ignoring the rest of the conditions and complexities of the narrative for simplicity's sake, the questions that plague my mind is this:

What would Earth in the modern time look like if humans were ambisexual?

A second derivative question would be:

Just how much is our world affected by sex (the gender type)?

Think for a second. Look around you. What objects, inventions, things would not exist if humans were not overwhelming either male or female, and again in the statistically typical sense, tended to stay that way from birth till death?

When you're ready, open the flap on the next page for my attempt at reading this in brief. There are plenty of interesting tangents to go on here, but since those aren't strictly relevant for the research I'll spare you the details.

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**Fig 1.4.3: The A/B Matrix**

Speculative Everything, 2013

**Fig 1.4.2: The relation of SD, CD and SF**

Mitrovic, 2018

**Fig 1.2.3: Relevant XKCD**

Own Work

This entire process of reflection on our own reality is the essence of what a good cognitively estranging novum accomplishes.

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X.2 A Note on AI

The recent and meteoric rise in AI use in the zeitgeist since public access to LLMs in 2022 needs no introduction.

We, as a society are past the point of looking at using AI tools like LLMs, image generation etc. as 'optional'. The better question to ask then, is how might we harness such tools to extract the most possible value from them and give ourselves the most possible benefit without giving up authorship, autonomy and without losing the opportunities that are provided in education to think critically, and more importantly, to fail.

In this research, there has been use of AI. But this use has been very intentionally moderated, calibrated and restricted. One of my personal tenets as an author, and a concept that is in fact covered in this very research is that our tools shape us. Writing as an action shapes us and how we think. Because of this, no writing in this document has been done by AI.

There are, however, places where LLMs prove immensely useful, especially when it comes to parsing large amounts of data in structured tranches. The use of AI in this research can be broadly broken down into 3 domains, from highest to lowest volume of use:

- 1. **Proofreading:** Claude has been used to rapidly review and manually iterate sections of writing, mostly looking for typos, and identifying areas where I tend to repeat the same thing in different words or extend sentences too long (a bad personal habit). There is some aspect of helping manage structure as well.
- 2. **Code:** The ultimate output of this research (as shall be explained in great detail) has taken the form of a live website. Code is outside my area of expertise so tools like Claude Code and Codex have been used to build UI/UX from Figma (that I made) into code and eventually to the web.
- 3. **Visualisation:** Designing detailed visual logics for each story world was unfortunately outside of the scope of this research. Despite this, an attempt was made to document and detail visual logics, but in very rare instances in this document, AI imagery has been used for supporting visuals. Such visuals will be visually distinguished with a yellow border demarcating AI use.

Beyond these three uses in visualisation/documentation, there has also been use of LLMs within the actual framework output of this research. How and why this was done will make more sense later, so there will be a part 2 to this note when the framework itself is introduced (pg. 79).

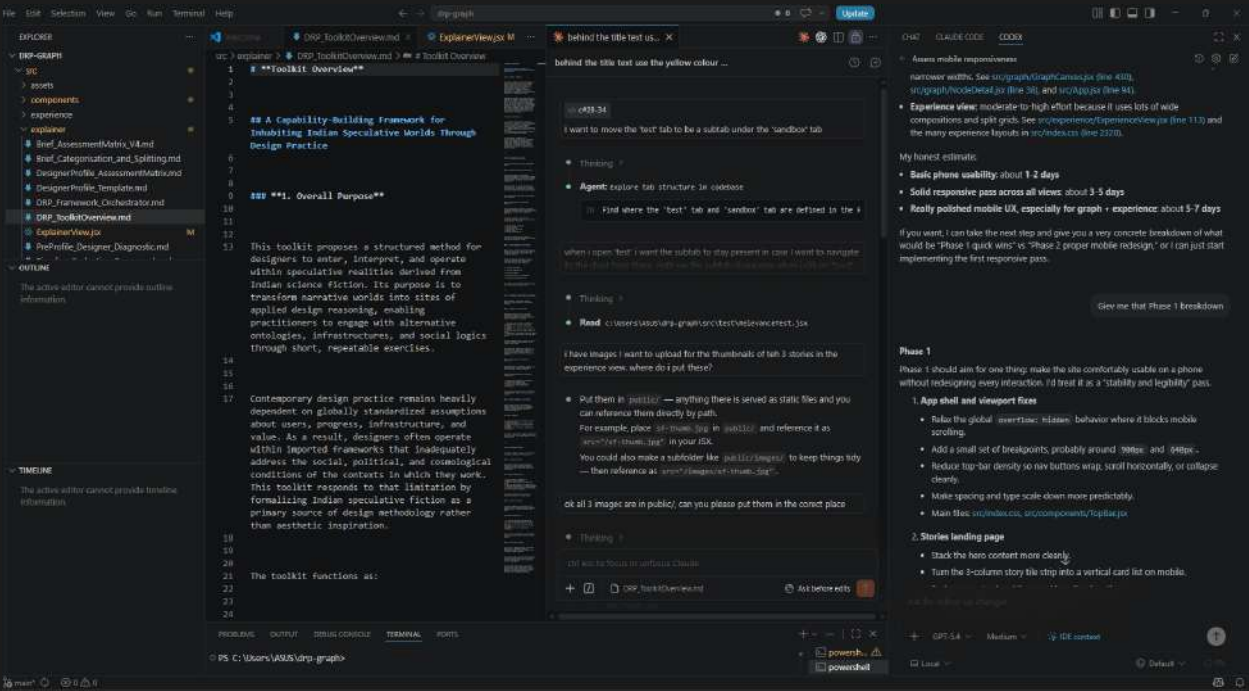


Fig X.2.1: Claude Code and Codex in Visual Studio Code Own Work

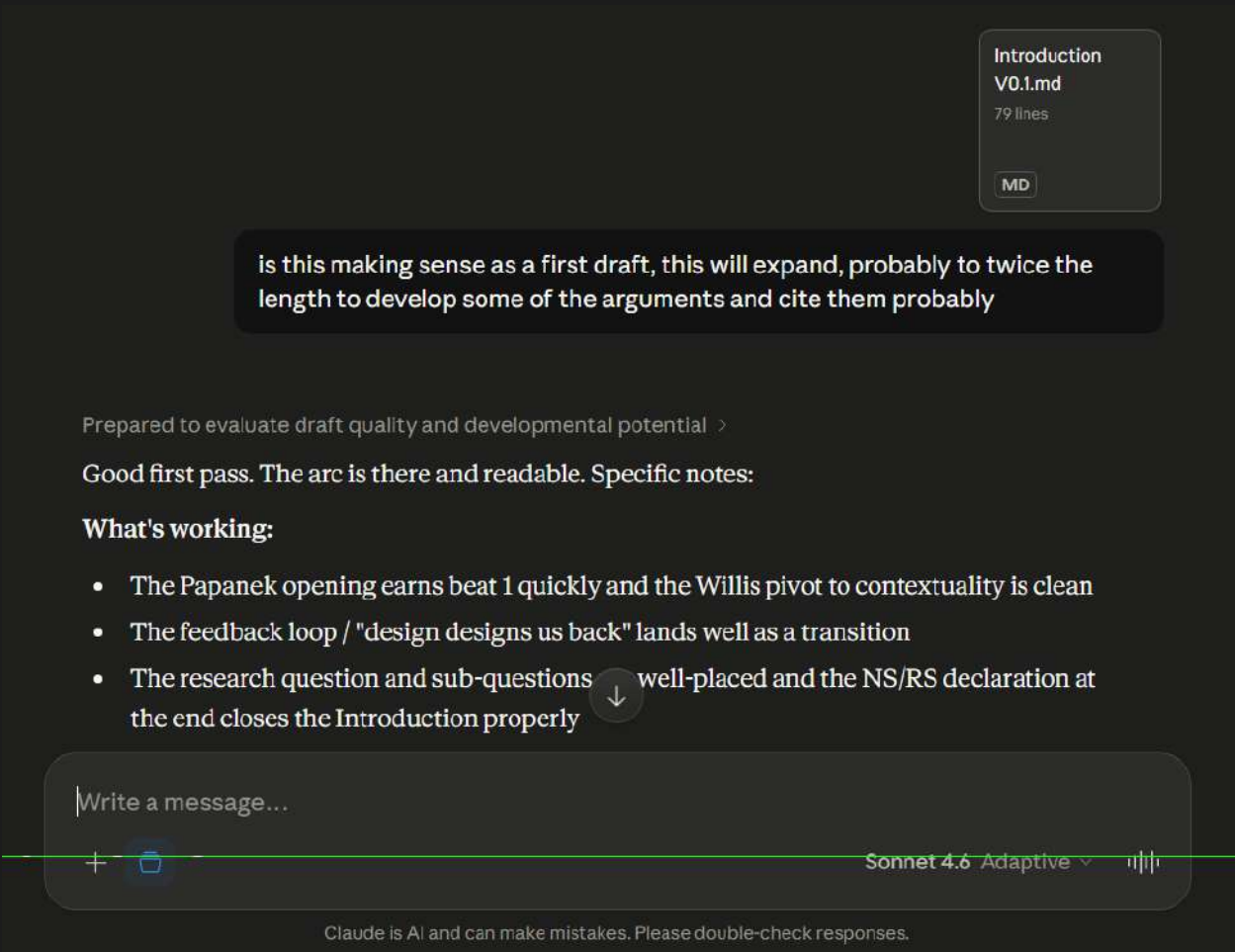


Fig X.2.2: Claude proofreading a draft of the Introduction Own Work

## Chapter 00

# Introduction

|                                                           |       |
|-----------------------------------------------------------|-------|
| <b>0.1 The 4 Mandates</b>                                 | ...04 |
| <b>0.2 Science Fiction, Speculative Design, and India</b> | ...07 |
| <b>0.3 The Research Question</b>                          | ...08 |

Fundamental to the human condition is the need to expend energy to bring the chaos of one's surroundings into order. This has taken many forms over the course of our species' history. One of the words we have come up with to capture this endless need to organise, specifically in a meaning-making manner is 'design'.

"All men are designers. All that we do, almost all the time, is design, for design is basic to all human activity. The planning and patterning of any act toward a desired, foreseeable end constitutes the design process. " (Papanek, 1984, p. 03)

Design is therefore an intrinsic part of how we see the world, and further, much like how we as humans are shaped and built by our experiences and context, so is design fundamentally contextual.

This shaping of design by the world it is born in comes too with feedback, an inescapable recoil that completes the feedback loop. Design designs us and the world in return (Willis, 2006).

It is alarming then, in light of this relational ontology between us, our environment and design, that the unique and diverse contexts from which we as individuals, communities and societies develop are increasingly being flattened by globalisation, aptly framed by Ashis Nandy (1983):

"...the nineteenth century dream of one world ... haunts us with the prospect of a fully homogenized, technologically controlled, absolutely hierarchized world, defined by polarities ... " (Nandy, 1983, p. X)

This flattening creates a vicious downward spiral, where our context, and therefore us, and therefore our design (which deepens the spiral by in turn homogenising the context), gradually lose our nuance and individuality.

## 0.1 The 4 Mandates

Central to the Western worldview in the modern era, and driver to this flattening of nuance is the goal of never-ending development at any cost (except that to the individualised self). Most commonly seen as a feature of capitalism, this drive further influences the way we design and in turn how we see the world. Mark Fisher citing Frederick Jameson in his book Capitalist Realism (2009) remarks on this deep rootedness of the notion of capitalism:

"it is now easier for us to imagine the end of the world than an alternative to capitalism" (Fisher, 2009, p. 06)

The nature of capitalism is for supply to fulfill demand in the most optimal way by whichever entity or entities are able to do so. In this laissez-faire economy, that which works is rewarded, and until a point of saturation is reached, that most optimal way is copied however possible. Uniqueness is only important insofar as it is profitable, and in every other scenario there is a strong trend toward homogeneity.

This erasure of uniqueness is a comfortable thing, because it means less care must be taken, less edge cases must be considered, and less searching has to be done for a solution. In the quest for this short-cut, design often enters the presupposition that all users, or rather that the 'average' user, is some abstract entity and in doing so it creates a notion not based in reality. Famously explicated by Todd Rose in his book The End of Average (2015), he recounts the case of the U.S. Air Force facing a spike in fighter plane crashes. Thorough investigation ruled out hardware malfunction and the pilots were of course of the highest caliber. Later, the problem was isolated to be that the seats were fitting very poorly. Though they were created for dimensions statistically averaged across hundreds of individuals, the end result fit nobody properly.

With this average, neutral user who may or may not exist, the system of endless optimisation disincentivises retaining detail. When the entire ecosystem is rooted fundamentally in each product and service vying for a piece of the limited but necessarily increasing consumption base, engagement and comparative value gets rewarded over all else.

The import of the systems we work in and the societal models we validate ourselves by and identify with has a downstream consequence. In importing our present from somewhere else, so too do we indirectly shape our imaginations of what the future could be, based on the future that we aspire for, which is in turn based on the models we inspire our present from.

On the whole, the current design paradigm rests on what this research summarily boils down to be four correlated and flawed foundations:

1. **The Homogenisation Mandate:** Design processes increasingly prioritize a universally legible, frictionless experience, systematically erasing local particularity, cultural nuance and alternative ways of knowing in the name of global scalability.
2. **The Fiction of Neutrality:** We operate under the myth of designing for a generic “user”, a conceptual blank slate. This fiction invisibilizes entrenched social architectures such as caste, class and gendered hierarchies, which are not addressed by our systems but are instead silently replicated and amplified within them, from recommendation algorithms to urban infrastructure.
3. **Complicity in Extraction:** The prevailing economic logic demands design in service of perpetual consumption and growth. Our work thus becomes complicit in an extractive model, optimizing for engagement and transaction while disregarding the stark ecological limits and social inequities of our present.
4. **The Outsourced Imagination:** Our collective vision of the future is not cultivated but imported. It is sourced from the roadmaps of a handful of global technology corporations, reducing our professional role to that of executors of a predetermined, commercially-driven tomorrow, rather than active authors of pluralistic possibilities.

This reality results in a dissonance of sorts felt in the practice of design, both in pedagogy and in practitioners themselves navigating the landscape of the industry today. These manifest as three crises (Fig 0.1.1):

1. **A Crisis of Imagination:** Our capacity to envision is colonized. We are tasked with building futures conceived elsewhere, leaving us without the tools or mandate to generate visions rooted in our own soil and sensibilities.
2. **A Crisis of Relevance:** Our methods, developed in different contexts, often fail to grasp or engage with the specific, complex realities we operate within. We apply universal templates to local complexities, resulting in solutions that are technically proficient but culturally and socially myopic.
3. **A Crisis of Agency:** The design profession has been largely corralled into a service role for capital-refining interfaces, boosting competition, and branding products. This diminishes our potential role as fundamental shapers of material culture, social systems and human ways of being.

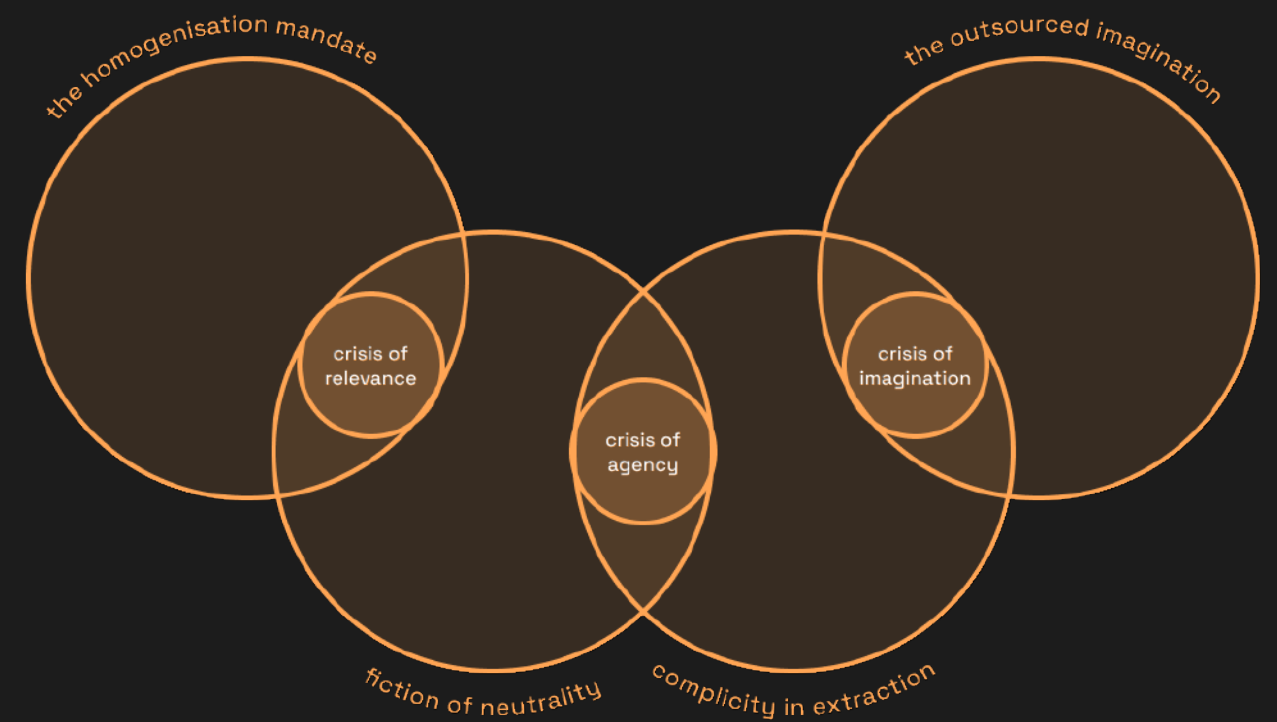


Fig 0.1.1: The 4 Mandates and 3 Crises

Own Work

This project asserts that the resources to confront these crises are not awaiting discovery in the Eurocentric design episteme. Contemporary design practice in the Global South is suffering from a fundamentally epistemic dependency. The tools we use, the language we speak and the way we are taught, the practices we espouse, the organisations that employ us, even the aesthetic we aspire toward – are largely Western in origin.

The issue with this, as seen especially clearly in the lens of relational ontology, is that when all the elements around us (the people of the Global South) are Western, we are inescapably shaped by them – they shape how we perceive problems, define users, and validate solutions. In this framework, indigenous and local knowledge systems with their understandings of object agency, ritual communication, cyclical time, and relational existence are consistently marginalized.

**This project works in response to this phenomenon as an exercise in epistemic relocation. What if we treated Indian science fiction not as a curiosity, but as a primary source of design theory? What practices, professions, and principles would emerge if we used these narratives as the blueprint for our futuring?**

## 0.2 Science Fiction, Speculative Design, and India

The tool through which this epistemic relocation will be attempted is Speculative and Critical Design (SCD), which is the branch of design that utilises design methodology and thinking to critique the present and imagine alternate futures. Where conventional design asks “How can I solve this problem now?” SCD does not concern itself with the here and now, at least not directly. It asks “What problems might be faced in the future, and what do these potential future problems tell us about our actions in the present, and those we should take in the future?”. In the words of Dunne & Raby:

“Design speculations can act as a catalyst for collectively redefining our relationship to reality.” (Dunne & Raby, 2013, p. 02)

SCD is also intrinsically linked to Science Fiction (abbreviated SF), as the branch of fiction which most specifically deals with the imagination of the future and alternative realities. SCD borrows its core principle from SF – Darko Suvin’s technique of cognitive estrangement<sup>1</sup>.

Speculative design as a formal discipline, however, carries over the same epistemic reliance as mentioned earlier, with an overwhelming proportion of seminal texts, writers and practitioners and discussion being Western in theme or origin. In order to move away from this Eurocentricity, there is the need to look beyond the West for new epistemes to use as a basis.

Here is where India becomes a critical methodological resource. India’s layered colonial history displays the displacement of local epistemologies and ways of knowing by Western colonisers, the effects of which are felt to this day. This, combined with its remarkable cultural, linguistic and historic diversity, means that Indian SF is uniquely positioned to produce the epistemically alien design conditions this research requires. Suparno Banerjee in his book *Indian Science Fiction* (2020) notes that India SF operates at this intersection between inherited Western futures and locally rooted imaginaries, resulting in a body of speculative work that neither wholly mirrors nor rejects Western influence.

Indian SF, then, is not a variant of Western SF. This research explores Indian SF as a distinct critical instrument because of this history of plurality, resistance and displacement, and an invaluable source material for the epistemic relocation this research concerns itself with.

## 0.3 The Research Question

The broad goal of this research may be phrased as such:

**How can the latent design logics within Indian Science Fiction be formalized into a critical methodology for reimagining the practice, pedagogy, and purpose of design, generating culturally coherent alternatives to its global, homogenized present?**

This larger exploration will be guided more specifically by the following sub-domains of inquiry:

<sup>1</sup> the technique in SF literature coined by Darko Suvin (1979) of “making strange” a phenomenon or event from the real world by altering its attributes or the context it is situated in, in order to create critical distance between the perceptor and the perceived to allow the perceptor to truly question their fundamental assumptions of their reality.

1. **Analysis:** How does “design” manifest within a narrative -- through what specific objects, interfaces or systems? What does their creation imply about the world’s values and material practices?
2. **Extrapolation:** What new forms of designer agency and expertise are required for this world to function? What would be the profile of its practitioner -- their education, tools, biases and professional timeline?
3. **Briefcraft:** How can a functional design brief be generated from within this world’s logic, using its own constraints (social, material, temporal) as creative parameters?
4. **Testing:** How can the core proposition of such a brief be materialized - through prototype or scenario - to explore and critique its implications?
5. **Synthesis & Reflection:** What does this process of speculative extrapolation reveal about the limitations of current design frameworks and the potential for more culturally specific practices?

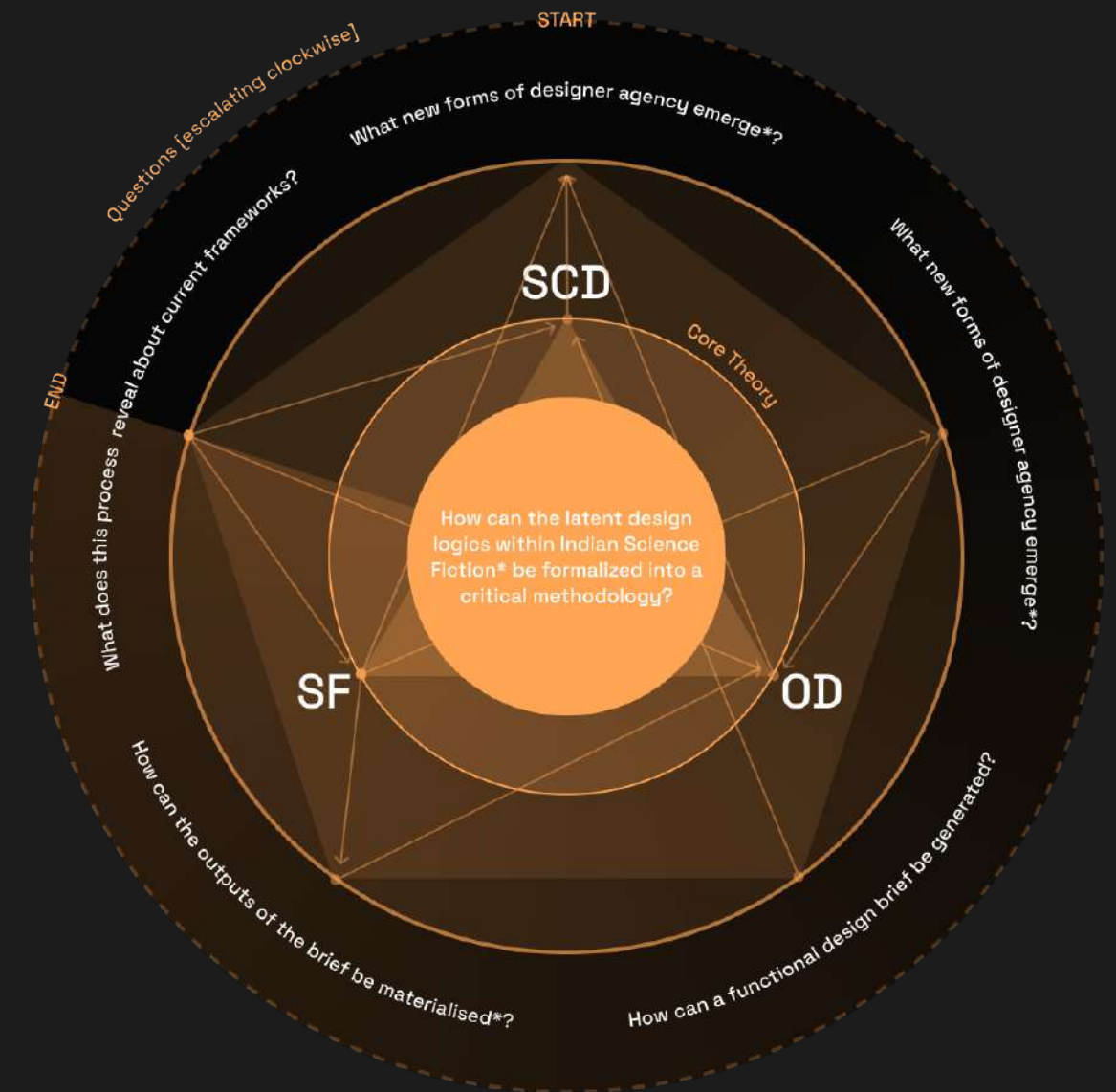
These questions will be answered through a sequential investigation, working on the basis of 3 foundation pillars which will be explicated in following chapters: Science Fiction (SF), Speculative and Critical Design (SCD) and Ontological Design (OD). This relationship can be seen in Fig 0.3.1.

Throughout this document, there will be an ongoing conversation between the two broadest types of research and analysis that will be conducted (see Fig 0.3.2 on the next page), namely inquiry in the space of the Narrative, where we work, analyse and theorise specifically in and around the worlds of 3 selected Science Fiction texts from the Indian subcontinent, and the Research space, where we will ground and expand upon findings, theories and hypotheses from the space of the Narrative in academic research in the fields of Speculative and Critical Design.

The ultimate intention of this exploration is to create a framework which simultaneously performs two equally important functions:

1. Procedurally expands Indian science fiction narratives into sites for critique through speculative design
2. Creates varied, unique and provocative contexts for designers, educators and students to develop the skill of inhabiting speculative realities and designing for them through repetition and practise in varied speculative scenarios.

With this, this research hopes to leave a re-traceable, well-reasoned path for other, more talented designers to come to expand upon and contribute to the corpus of native Indian SF and SCD.



**Fig 0.3.1: Relating the Research Questions with Core Theory**

Own Work



**Fig 0.3.2: The Space of the Narrative and Research Space throughout this research**

Own Work

# Part I

# Theory

|     |                    |       |
|-----|--------------------|-------|
| 1.0 | Imagine...         | ...15 |
| 2.0 | Three Worlds       | ...35 |
| 3.0 | How Design Designs | ...65 |

Creating a framework to extend Indian SF narratives into design-spaces for designers to practise SCD and contribute to the corpus of Indian SCD starts with a solid theoretical foundation.

This first part, in the next 3 chapters, will speak to the 3 theoretical cores to this framework:

- 1. Science Fiction
- 2. Speculative and Critical Design
- 3. Ontological Design

This theoretical apparatus will be applied to a close reading and breakdown of 3 Indian SF short stories to use as basis for developing the world-inhabiting logic that will further be used in the framework.

# Chapter 01

# Imagine...

## Cognitive Estrangement and the Speculative Lens

An exploration of Suvin's novum and Cognitive Estrangement, and an introduction to Science Fiction and Speculative and Critical Design as mediums of changemaking.

|                                            |              |
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| <b>1.1 What is Science Fiction?</b>        | <b>...18</b> |
| <b>1.2 How Does it Work?</b>               | <b>...19</b> |
| <b>1.3 SF as a Critical Medium</b>         | <b>...25</b> |
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| <b>1.5 SF x SCD</b>                        | <b>...31</b> |
| <b>1.6 The Indian Landscape</b>            | <b>...32</b> |

We are eternally driven to decrease that which we do not know and increase the corpus of which we do, and part of this process of un-knowing<sup>1</sup> is a stage of imagination, speculation, where we must, to various degrees depending on the matter at hand, take a stab at anticipating what might be. As Dunne & Raby (2013) so aptly put it:

“To be human is to refuse to accept the given as given.”  
(Dunne & Raby, 2013, p. 33)

Perhaps the biggest field of study that exists today, that concerns itself almost exclusively with this very need to reduce the unknown, to understand the world in which we live, is science.

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The other piece of this puzzle that also requires mentioning but little in the way of explaining, is fiction. Perhaps as ubiquitous in our everyday lives, and arguably in mutual relationship with the aforementioned quest to discover the unknown is the imagination of alternatives (at some level, to various degrees) to the history, present, future – our reality. Dunne & Raby (2013) remark on this alternative-making aspect of fiction as

“not just for entertainment but for reflection, critique, provocation, and inspiration ... we start with laws, ethics, political systems, social beliefs, values, fears, and hopes ... these can be translated into material expressions, embodied in material culture, becoming little bits of another world that function as synecdoches.” (Dunne & Raby, 2013, p. 70)

<sup>1</sup> as opposed to knowing, in that knowing is the positive increasing of what we know, whereas here un-knowing is very specifically the negative or decrease of that which we do not know, which is very different.

## 1.1 What is Science Fiction?

Science Fiction, as one might imagine, is often considered the conceptual marriage of these two great cornerstones of the human condition - the need to understand more, and the need to imagine alternatives.

The term ‘Science Fiction’ likely conjures titles that have left their mark on media and entertainment in the last century – most recent of which, as of the time of writing – was Ryan Gosling’s hit *Project Hail Mary* (2026), based on the book of the same name by Andy Weir (2021).

Though in terms of plain every day language, wherein most deliberation on the genre occurs, this understanding of SF as science + fiction might prove to be sufficient, it is not, in the academic sense, the full picture. The underlying notion of technology, in settings and elements which (though fantastical and more-than-now) at least appear to be grounded by reason (passed in the logic of the narrative as science) is not entirely untrue. However, this idea misses out on what the essence of the genre is, or why it is the way it is.

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A ‘science fiction’ story without any context of the time of its creation, that describes small handheld devices which allow instant communication all over the world, this device facilitating a romance across the globe, would simultaneously be classified as a standard romance narrative in 2026, but some sort of SF marvel in 1800.

This is simply because in 2026 we both know of romance and recognise the mobile phone and we take it for granted. We see it as part of our ‘empirical

environment' as Suvin says, and so it is looked past when viewing the narrative. Viewers still recognise the phone as the medium of communication, the narrative device through which they observe the romance, but unlike the 1800s, it is not at all estranging because it belongs to that which is known, and 'normal'.

Imagine now, how this same narrative may be perceived sitting in 1800. We are still familiar with romance, but we are not familiar with the device described in the narrative. A sort of magical device <sup>2</sup> that allows for instant communication, even when the recipient is thousands of kilometres away, as if they were face-to-face. Not just instant communication, but voice (the former would be achieved to at least some degree later in this century in the fax machine).

This element is not something we, as the 1800's reader, can simply ignore. What does the idea of such a device make us think of our reality? We must wonder, how would our world look different if anyone could talk to anyone, at any time, for little to no cost?

Returning to Suvin's definition, from the perspective of the 1800s <sup>3</sup>, we find all the necessary elements that constitute an SF narrative.

First, the 'imaginative framework alternative to the author's empirical environment': The mobile instant communication device, that allows for communication faster, cheaper and more directly than ever before over long distances.

Second, the combination of 'estrangement' and 'cognition': the questions posed by the narrative that are almost unavoidable for the viewer on their current condition.

## 1.2 How Does it Work?

We may therefore break down this formula for SF to two very important terms for this research, both of which have been alluded to in the definition above.

First is the novum – the 'imaginative framework alternative'. As illustrated above, the novum is a novelty, an event or element of a narrative that is necessarily novel in effect from the perspective of reality at the time of creation, specifically one that has a complete and inseparable impact on the world it is

### Arthur C. Clarke's Three Laws of SF

<sup>2</sup> Renowned British SF writer Arthur C. Clarke, known for '2001: A Space Odyssey' and 'Rendezvous with Rama', came up with 'the 3 Laws of SF' in his essay "Hazards of Prophecy: The Failure of Imagination" (Clarke, 1973). They are:

1. When a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong.
2. The only way of discovering the limits of the possible is to venture a little way past them into the impossible.
3. **Any sufficiently advanced technology is indistinguishable from magic.**



**Fig 1.1.1 'Earthrise'. The Moon Landing was contested as being a hoax because people didn't believe it was possible.**

science.nasa.gov

### The Author–Audience Relation

<sup>3</sup> As a note, simply because this will come up a few times this chapter, there is an inherent relationship between author or creator and the audience they suppose at the time of their creation. If I am writing a book in 1800, to be published in 1805, I am to the point of near-certainty writing with a certain demographic in mind (consciously or not so) present in 1805. It is rare for a creator to explicitly create with future audiences in mind. Even cautionary tales, tales for young audiences, are at most intended for the next generation – almost never for those reading dozens, or even hundreds of years in the future. This is extremely important because that which is assumed to be known and that which is not is fundamentally dependent on a specific delineation of knowledge of a reader, which thereby situates them in some temporal and often even physical context.

placed in. As Suvin (1979) himself defines:

"A novum of cognitive innovation is a totalizing phenomenon or relationship deviating from the author's and implied reader's norm of reality. " (Suvin, 1979, p. 64)

Although Suvin popularized the term, it was originally adapted (in his words) from Ernst Bloch (1959), who referred to the novum as the 'unexpectedly new', a 'not-yet-become' (originally noch-nicht-sein) that is possible but not yet realised, because the world is in a constant state of becoming.

Suvin's novum is similar in the sense that an SF novum is also a not-yet-become. We must imagine the novum as a future which may or may not yet come to pass, and as with all things that have not yet occurred there can never be a guarantee that the proposed novum shall never occur, only that the degree of it yet existing at some future time may vary.

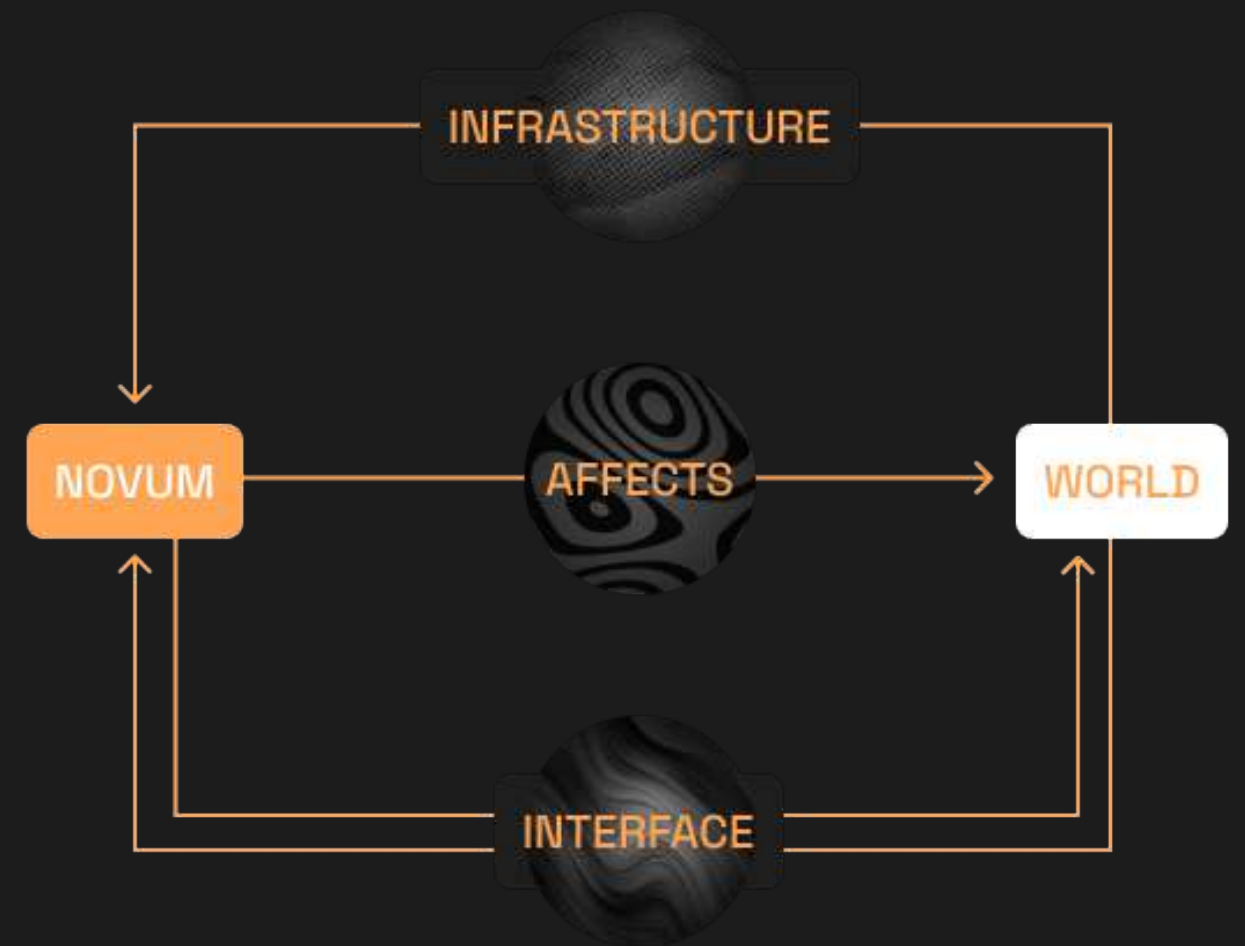
The second term to understand here is cognitive estrangement. Both parts of the term here carry great weight towards the ultimate meaning of the expression. In Suvin's (1979) words:

"All cognition can become the subject matter of an estranged verbal construction dealing with a particular quasi-human community treated as an alternative history." (Suvin, 1979, p. 44)

It is key to understand here that the underlying intention is to create distance between the perceptor (the audience) and the perceived (the narrative). This distance is created by making the perceived strange or un-ordinary to the perceptor, and in doing so cognitive estrangement necessitates cognition, a critical thinking or reflection on the part of the perceived perceptor (which again, is in turn based on the time and intention of the narrative's creation) of their own reality.

This concept is situated in an intellectual lineage that begins with Victor Shklovsky's (1917) concept of defamiliarization and Bertolt Brecht's (1936) Verfremdungseffekt (alienation effect).

These earlier formulations, which coincide in their creation of critical distance between the perceptor and the perceived, differ from estrangement in the facet of cognition. In other words, Suvin (1979) insisted that estrangement must be "cognitive". It must allow for a rational comparison between the fictional world and the reader's normative assumptions. We may further understand the totalising effect of the novum through a case study on the following spread.



**Fig 1.2.1: The composition of a Novum**

Own Work

## Case Study

Ursula K. Le Guin's

# The Left Hand of Darkness

This novel serves as an exemplary piece of SF literature in Suvin's notion of SF. Through a simple, compelling novum, which has a totalising effect on the world of the narrative, there is a profound and unavailable estrangement perceived cognitively.

Without delving much into the actual narrative, the story outlines a world, Gethen, where the predominant beings do not have a fixed sex (ambisexual). They remain in an androgynous state for most of the month, entering a brief period of sexuality once a month, where each individual may adopt male or female characteristics with no predisposition to either.

With only this much information, and ignoring the rest of the conditions and complexities of the narrative for simplicity's sake, the questions that plague the mind is this:

What would Earth in the modern time look like if humans were ambisexuals?

A second, derivative question would be:

Just how much is our world affected by sex (the gender type)?

Think for a second. Look around you. What objects, inventions, things would not exist if humans were not overwhelming either male or female, and again in the statistically typical sense, tended to stay that way from birth till death?

There are plenty of interesting tangents to go on here, but since those are not strictly relevant for the research this reading will be sufficient only to illustrate the 'totalising' and 'estranging' effects of the novum.

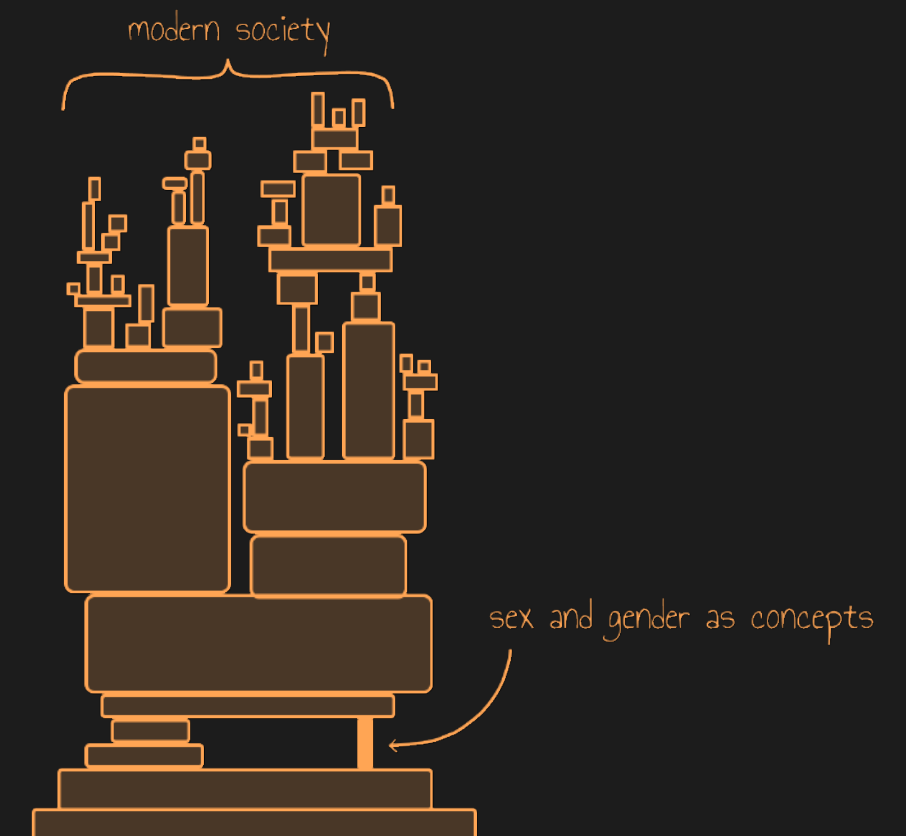


Fig 1.2.2 Relevant XKCD

Own Work

If humans were ambisexual as described in *The Left Hand of Darkness*, much of contemporary society would be rendered unintelligible in its present form. With a little observation, it becomes apparent that institutions that are traditionally structured in a gendered way centered around reproductive asymmetry would require reconfiguration. These institutions depend on the assumption that sex is stable across a lifespan. This stability and the attributes ascribed to individuals on this basis has historically allowed for society to assign predictable reproductive roles, distribute labour asymmetrically, organize filial structures and encode authority through gendered hierarchies across generations, encoding what was at once considered to be system optimisation into what has in modern times become blind adherence to rules that were built for systems that no longer exist.

If this assumption of stable sex were to be withheld, long term role prediction and as a result stable gendered identity itself is impossible, and thus society must reorganize itself. From this lens, we must acknowledge that the model of sex as a binary condition is beyond biological distinction as a structuring condition for social intelligibility.

This entire process of reflection on our own reality is the essence of what a good cognitively estranging novum accomplishes.

## 1.3 SF as a Critical Medium

Having understood what SF comprises, and the mechanism by which it operates, it becomes clear that SF is fundamentally a tool for critical reflection, to the point of it being one of the genre's reasons for existence. This argument states that SF is fundamentally in seeking of an ideal, in the search for utopia. This utopian orientation strikes at the critical heart of SF, for imagining a better world is necessarily an indictment of the present.

"Beyond an undirected inquisitiveness ... this genre has always been wedded to a hope of finding in the unknown the ideal environment, tribe, state, intelligence, or other aspect of the Supreme Good (or to a fear of and revulsion from its contrary)." (Suvin, 1979, p. 05)

The term for this not-yet-become more-than-now is utopia. Originally of Thomas More (1516), the concept of utopia also speaks to the base drivers of humankind. Notionally, utopia bridges the gap between some imperfect present, and, in a casual relation to such a present, a more ideal future<sup>3</sup>.

Just as SF has been determined to be deeply, fundamentally rooted in the time and context of it's creation, so is utopia a specific commentary on the reality it is conceived in. What is ideal, other than that which may be reasoned from the first principles of human behaviour and drive, is very dependant on perspective. Thus the idea of utopia, defined by Suvin (1979) as:

"Utopia is the verbal construction of a particular quasi human community where sociopolitical institutions, norms, and individual relationships are organized according to a more perfect principle than in the author's community" (Suvin, 1979, p. 49)

Key to this definition is the relationship between author and the context the author is borne from; and the idea, which can only ever be defined in the negative of that context.

<sup>4</sup> The inverse of the concept of 'utopia' is 'dystopia' -- famously exemplified in such works as George Orwells 1984 (1949), Ray Bradbury's Fahrenheit 451 (1953). The 'dystopia' conducts the same critical function as the utopia but in the opposite way. Instead of imagining more-than-now, and in doing so imagining what is lacking, the dystopia cautions of the worst case scenarios or structural inversions of the present.

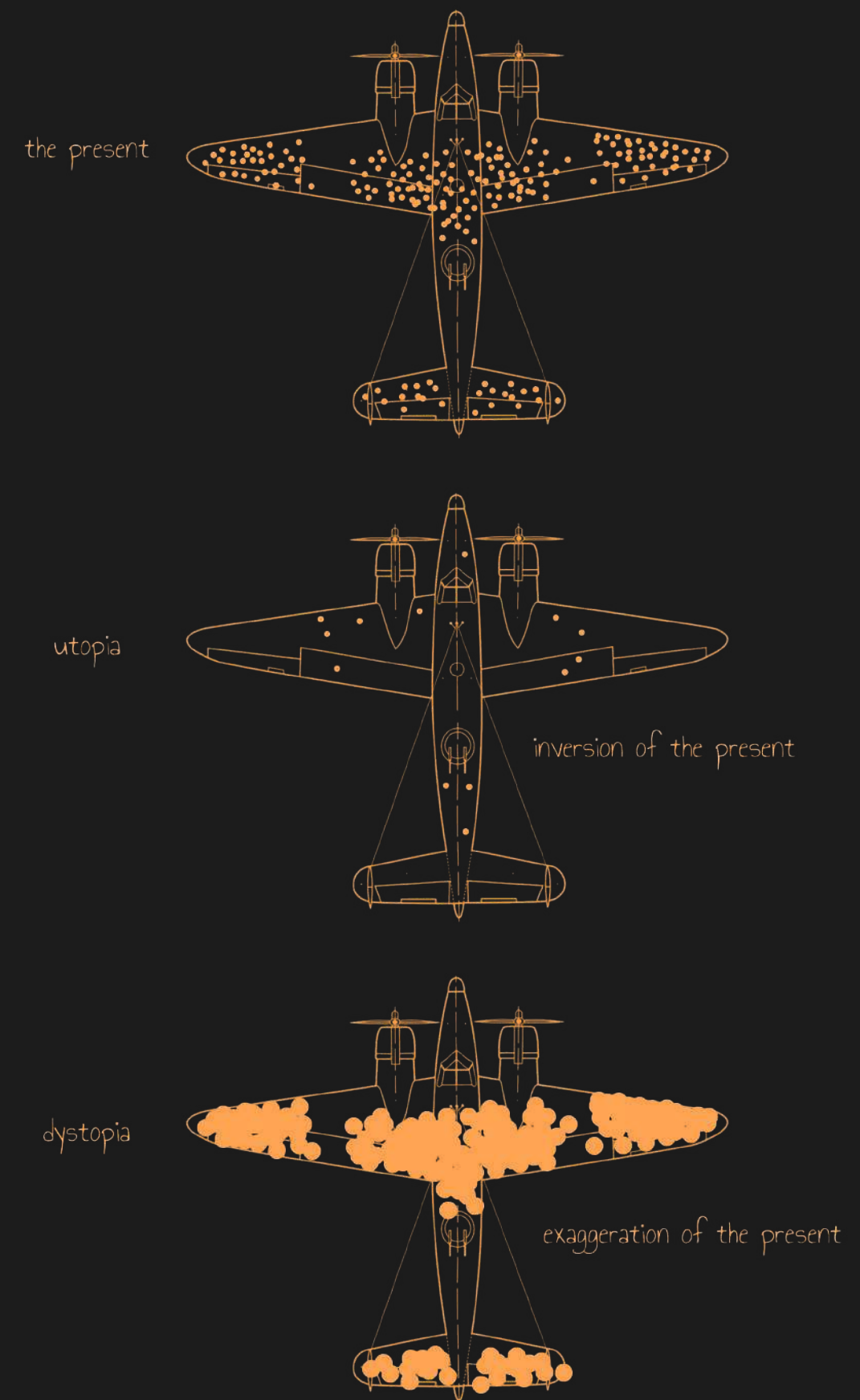


Fig 1.3.1: Utopia and Dystopia through the Survivorship Bias Plane

Own Work

## Case Study

Thomas More's

Gandhi's

# Utopia & Swaraj

The aim of this comparison is to concretise the notion that utopia is a contextual entity. The differences between the two utopias described here are because of the differences in the contexts from whence they arose as diagnostic inversions of their respective societies.

At the time Thomas More wrote Utopia (1516), proto-capitalism had just begun to organize the ownership of land in England. Private sheep pastures displaced farmers, and these displaced, disgruntled individuals would turn to petty crime, vagrancy and lawlessness. This is the motivation of Thomas More's Utopia. The character Raphael Hytholdaeus famously comments that where men measure all things by money,

"there it is scarcely possible for the commonwealth to have justice or prosperity" (More, 1516, Book II)

This furthers More's central premise, that private property is the origins of all social evil. He refutes legal oppression, the idle nobility, and inhumane capital punishment – contrary to Tudor legislation, which idolised lawyers and the nobility, and stood by hanging as a punishment for crime. In his paradise, the Island of Utopia, private ownership is entirely abolished, collective labour is regulated, differences in religion are tolerated and luxury and excess is eliminated.

Over four centuries later, Gandhi proposed his utopia in the form of Hind Swaraj (1909).

"Civilization is that mode of conduct which points out to man the path of duty. Performance of duty and observance of morality are convertible terms... The Gujarati equivalent for civilization means 'good conduct'." (Gandhi, 1909, Ch. 13)

For Gandhi, the enemy is the modern society that the British propagated as the universal idea during the time of colonization. He refutes the railways as a system despite their apparent upsides, claiming it was the railways which also spread the bubonic plague. He also indicts the English legal system and Western medicine with the core logic that the institutions that claimed to cure were in fact only attempting to correct problems of their own creation. On lawyers,

"My firm opinion is that the lawyers have enslaved India, have accentuated Hindu-Mahomedan dissensions and have confirmed English authority." (Gandhi, 1909, Ch. 11)

Importantly, he notes that the English are mere carriers of the true evil, which modern civilization itself carried by the railways all over India. This directly mirrors More's forgiveness of the criminals, instead indicting the rulers who engineered the situation in the first place. His ideal world free of this evil is one of self sufficiency, far away from the railways which bring the curse of modern civilisation. His ideals of independence and self-reliance that drive the political movements he is famous for themselves are utopic expressions.

Perhaps the biggest difference between the two imaginations is the form of the ideal. More's Utopia is an island – a physical Place. Gandhi's ideal, conversely, is a Practice in Swaraj.

"It is Swaraj when we learn to rule ourselves. It is, therefore, in the palm of our hands." (Gandhi, 1909, Ch. 14)

This movement from utopia as a place to utopia as a set of ideals reflects advancements in mass political agency in the four centuries that separate the two, which only further cements the futuring of utopias as rooted in the space-time of creation.

A utopia is always written in two parallel documents that lay over each other – what is said, and what consequently is unsaid, and it is for the reader to distinguish the two. One is the vision of the good that is described, and the other, the implicit, is the present tense that future critiques. The anchoring of space-time is evident in More's Island and its reflection of Tudor England, and Gandhi's Swaraj reflecting the burdens of colonial India. A utopia is only positive at the highest level. Beyond that it is a work of critique above all else.

# 1.4 Speculative & Critical Design

The aspect of speculation as it exists in SF can be applied in the same way to other fields of practice. The principle of the thing, that is to imagine what might be and more specifically what is wanted to be is just as much something that can be practiced through design as it may economics or theoretical physics.

In design, which to recall the words of Papanek (1985) is “basic to all human activity”, speculation serves a crucial role, the intersection of the two in fact creating a dedicated branch of practice called Speculative Design.

In their 2013 book *Speculative Everything*, Dunne & Raby outline the general boundaries for Speculative Design in what they call the A/B manifesto (Fig 1.4.1), a simple list of things that speculative design might aim for (column B) versus what is ‘traditional’ (column A).

Alongside Speculative Design, which concerns itself with speculation, lay two deeply affiliated sister streams of practice: Discursive Design, which aims to invoke conversation and debate, to make a statement; and Critical Design, which specially aims to challenge convention – not necessarily in a negative sense as Dunne & Raby are quick to point out. As one might imagine, there is noticeable overlap in these definitions, as seen in Fig 1.4.2. Although there are differences in technicality, all three terms orbit around a central kernel of truth-seeking, or the need to -- through design -- uncover what is real.

A key difference to note between the duo of discursive and critical design on speculative design is that when speculating, the end result is not clear. In the case of a counterfactual such as “What if Hitler won World War II?”, the answer here is not known at the beginning of inquiry. As opposed to DD, where the subject of discussion is known beforehand, the nuances of our reality that SD may illuminate are not known at the time of genesis.

Because of the inherently critical nature of speculation, the combinatorial term SCD, referring to Speculative and Critical design is also gaining credence (Johannessen, 2018).

This research, when referring to design, shall be referring to these fields unless explicitly otherwise mentioned. This is important to note because central to all three is an argument which goes against the basal tenet of feasibility that much of modern production-related design holds in high esteem.

Most of what this research outlines can only be digested if the grip on feasibil-

| A                               | B                               |
|---------------------------------|---------------------------------|
| Affirmative Problem solving     | Critical Problem finding Asks   |
| Provides answers Design for     | questions Design for debate     |
| production Design as solution   | Design as medium In the service |
| In the service of industry      | of society Functional fictions  |
| Fictional functions For how the | For how the world could be      |
| world is Change the world to    | Change us to suit the world     |
| suit us Science fiction Futures | Social fiction Parallel worlds  |
| The “real” real Narratives of   | The “unreal” real Narratives of |
| production Applications Fun     | consumption Implications Humor  |
| Innovation Concept design       | Provocation Conceptual design   |
| Consumer Makes us buy           | Citizen Makes us think Rhetoric |
| Ergonomics User-friendliness    | Ethics Authorship               |
| Process                         |                                 |

Fig 1.4.1: The A/B Manifesto

Speculative Everything, 2013

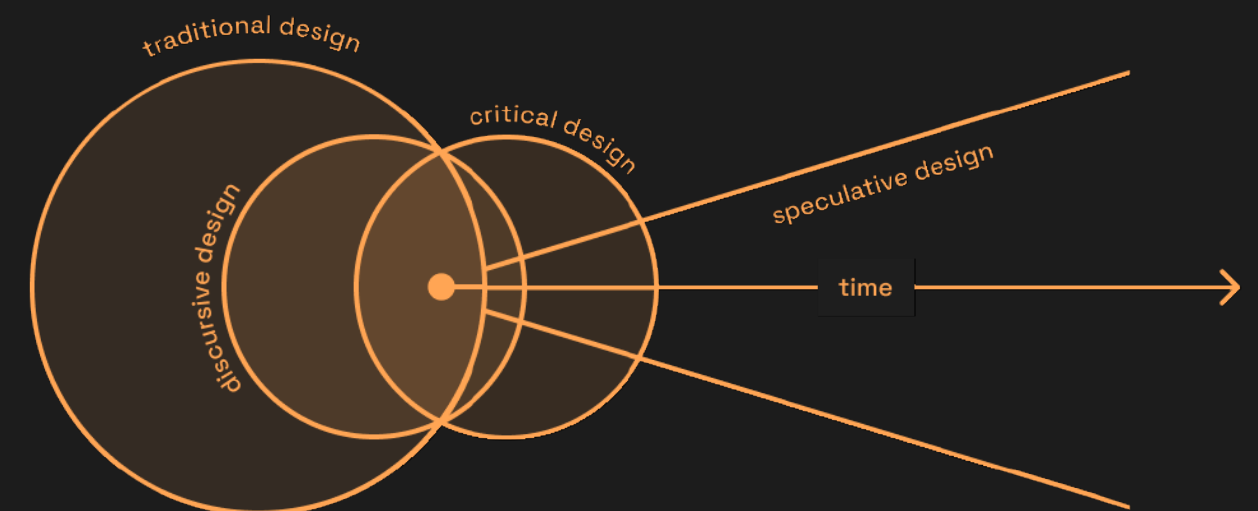


Fig 1.4.2: The relation of DD, CD and SD

Mitrovic, 2016

ity and practicality is loosened – this does not mean that the work described in this research is fantasy, only that in the opinion of this research the facts of today should not limit the possibilities of tomorrow.

In *Speculative Everything* (2013), Dunne & Raby also outline some tools to operationalise design in speculation. To summarise, they mention:

1. **Fictional Worlds:** In the same line of thinking mentioned earlier, fictional worlds are inherently speculative (how might this be) , and as such have the potential to form sites for design. Of particular interest in their estimation is the use of the ideas in the background, and not so much the story or plot themselves.
2. **Thought Experiments:** Including Reductio Ad Absurdum (simplification until the point of absurdity) and Counterfactuals (instead of that what if this happened), thought experiments are abstractions that allow speculation with one or few variables, typically meant to think about particular issues in isolation.
3. **What-ifs:** Although related to counterfactuals (and by extension thought experiments), "What-If"s are more forward looking, allowing a narrative to be pared down to simply explore an idea. In their words, "They unpick where, why, and how things could break down or go wrong"

This project in particular aims to expand upon the notion of the fictional narrative as a site for design – using the world of the speculative SF as a launchpad for designers to inhabit and produce SCD.

## 1.5 SF x SCD

There is a link to be made then, between the site of Science Fiction and the methodology of Speculative and Critical Design. This research positions SF as a critical medium for SCD.

Speculative worldbuilding inherently encodes perception of the world we live in. Worldbuilding boils down to what is in essence a set of conditions and constraints in which the plot must take place. Effort is typically made to make this new with the frame of reference of our present, and in doing so the systems described must inherently result in problems and causal loops that do not exist in our reality, which in turn provides new sites for design.

It stands to reason that the perceptions of the world we live in upon which we speculate are themselves a byproduct of our context, perhaps most import-

ant of which is our geography. Suparno Banerjee in his book *Indian Science Fiction* (2019), furthers this claim:

"Space, as is plainly visible from these opening lines, is as important for the author as time in its role in situating SF: colonial and postcolonial as well as utopian and dystopian space." (Banerjee, 2020, p. 129)

From this reasoning this research further posits Indian SF specifically as a reflection of the unique empirical environment of the region, one of a post-colonial, non-Western empirical environment, which means the design conditions it reveals are structurally variegated when compared to those of Western SCD. By inhabiting these narratives, we hope these native design logics will be greater exposed and provide unique context for downstream designing.

## 1.6 The Indian Landscape

Language plays an integral role in our understanding of abstract concepts. In India, the complexities of having these differences in lingual logic are made apparent, even with the terms just established in this chapter. Suparno Banerjee comments on these difference in his book *Indian Science Fiction* (2020), where he discusses the discourse around the definition of SF, which in vernacular languages roughly translates to English as 'stories of imagined science' (Banerjee, 2020).

He specifically mentions the debate around the translation of 'science' to 'vijñana', where there are cultural nuances regarding what exactly is referred to as science <sup>5</sup>.

As Banerjee discusses citing Hans Harder, this friction is in part caused by

"the proximity of modern techno-science to the industrialised West that invaded India, and the association of religion and philosophy to the pre-colonial native culture ... the word 'science' becomes integral to the

<sup>5</sup> One interpretation tends toward the consideration of 'specialised knowledge' in the post-Enlightenment sense as science, the other a more fantastical notion. (Banerjee, 2020)

conception of European colonisers and their technologies, while 'vi-jnana' retains a looser association with a set of cognitive functions from older Hindu-Buddhist philosophical traditions" (Banerjee, 2020, p. 06)

The structural differences Indian SF displays go beyond the hermeneutical barrier of language. In Banerjee's (2020) estimation, Indian SF has emerged from the collision of British colonial education and indigenous Vedic and Buddhist science, philosophy and mythology. This relationship is still dynamic and growing, in his words:

"an evolving relationship between Indian culture and modernity and science will inevitably alter the way that SF is conceived in India " (Banerjee, 2020, p. 07)

Banerjee (2020) identifies the first entry to the formal Indian SF canon as Kylas Chunder Dutt's 'A Journal of Forty-Eight Hours of the Year 1945' from 1835, which actually places the start of the Indian SF discussion 30 years before Jules Verne's first novel, *Five Weeks in a Balloon*, published in 1863. The Indian SF tradition, one of the oldest non-Western canons (Banerjee, 2020), has had a colourful history since. In the modern era, Indian SF has created such prominent writers as Vandana Singh and Anil Menon in the English-language literature space. Tarun K. Saint's "The Gollancz Book of South Asian SF" (2019, 2021) brings over 60 local SF stories to the fore over two volumes. There have been also forays into cinema, with Shah Rukh Khan's *Ra.One* (2011), Aamir Khan's *PK* (2014) and more recently the star-studded *Kalki: 2898 AD* (2024). As with other popular "SF" titles as discussed early in this chapter, these may extend more into fantasy with notionally SF elements than pure SF work like the writings of Vandana Singh, however they still mark important milestones in the gradual acceptance of SF into mass-appeal in India.

The Indian SCD scene is sparse in comparison. Arturo Escobar brings attention to the broader concern of sparse non-Western design epistemologies in *Designs for the Pluriverse* (2018). He argues that design has operated as an ontologically colonial practice assuming the Western canon as universal.

As a formalised design practice, SCD appears relatively underdeveloped in India, appearing in places through pockets of pedagogy. CEPT University offers speculative design studios, architecture under Shikha Parmar (CEPT, n.d) and product design under Ankita Trivedi (CEPT, n.d.) and smaller studios IIT IDC. There also exist independent firms such as The Living Midnight (The Living Midnight, n.d.), Superflux (Indian founder, based in the UK) (Superflux, n.d.).

Overall, there exists not as consolidated disciplinary discourse as seen in the West. This project aims to contribute to this consolidation of Indian SCD.

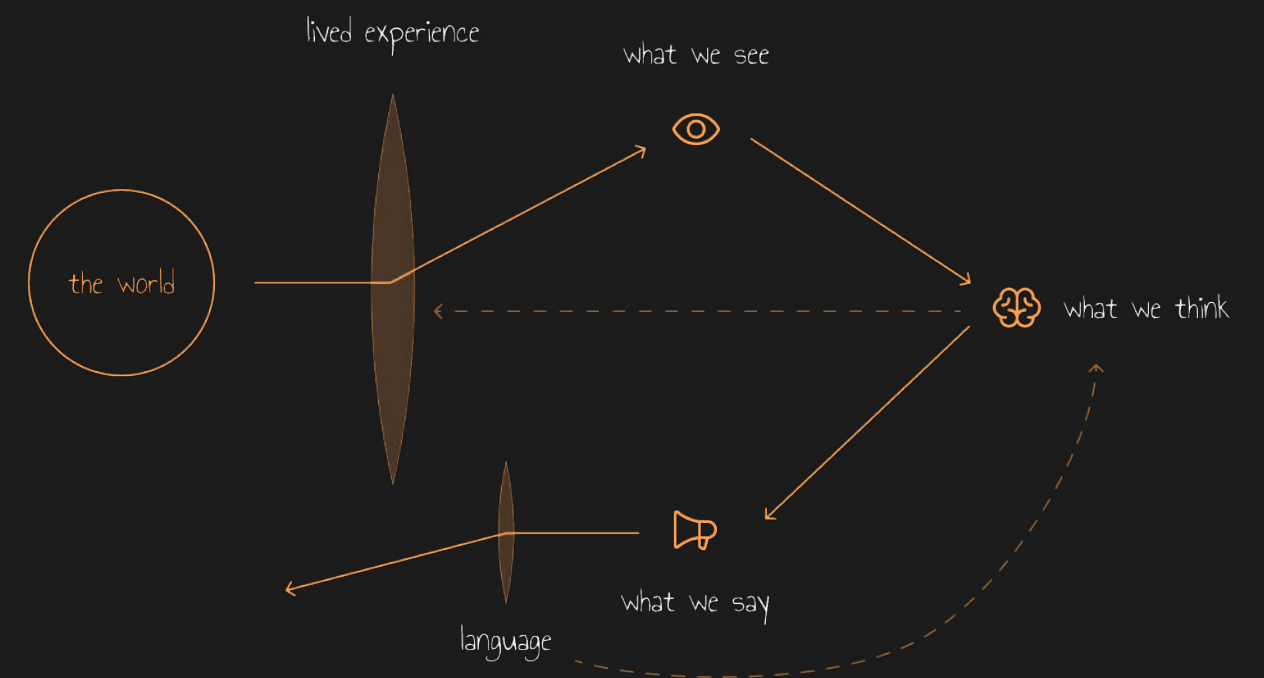


Fig 1.6.1: How language affects perception

Own Work

# Chapter 02

# Three Worlds

## A Look at Indian SF as a site for Speculative Design

A breakdown of three Indian Science Fiction narratives to create a framework of understanding for expansion of SF narratives into sites of SCD.

|                                      |              |
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| <b>2.1 Corpus Selection</b>          | <b>...38</b> |
| <b>2.2 Analysis &amp; Assessment</b> | <b>...39</b> |
| <b>2.3 The Ministry of Relevance</b> | <b>...45</b> |
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| <b>2.6 Reflection</b>                | <b>...63</b> |

One of the foundational understandings of this research is that we must attempt to retain the variety in our imaginations of what is referred to in the first chapter as what might come to be.

It would be against our collective interests to homogenize our imaginations, and one of the ways we can, in the present day, try to understand and retain this texture of plurality is by looking more specifically at those visions or imaginations of the future have been produced within the locality of this research, i.e. within the Indian subcontinent.

In this research, the SF narrative is being considered the source for these imaginations of the future. Beside the analytical effects of SF as a genre, it is further noted that by nature a narrative defines an environment, the outside-of-character, and this environment is what is actually being explored in this section.

The details that are necessary to define the environment of a narrative involve innumerable 'design decisions' — whether knowingly or not so the author is deciding fashion, culture, language, tradition, society. In doing so, no matter how unknowingly, the author is referring to their worldview, of what is considered normal and how they perceive the world to operate. One of the largest factors that impacts this worldview is geography — which affects climate, food, fashion, culture, social structures, religion. The regional context of the author is thus integral in understanding their narrative, and this information should carry over to the design done in their story-worlds.

## 2.1 Corpus Selection

The Indian SF landscape is one which has only recently begun to be seriously mapped. This means there is not, as of yet, as comprehensive a genealogy as is available for Western SF. There have been attempts, such as Banerjee (2020) in Indian Science Fiction, but in his own words, it is a process that is still underway.

Selecting the few stories this research has the scope to cover from the entire field of Indian SF literature was a large task, one made simpler by the consideration of 3 anthologies specifically:

1. The Gollancz Book of South Asian Science Fiction, Vol. 1 (2019) and Vol. 2 (2021)
2. The Blaft Book of Anti Caste SF (2024)
3. Multispecies Cities: Solarpunk Urban Futures (2021)

All three anthologies were read comprehensively, but there was a clear distinction in terms of which should be used for this research.

The Blaft Book of Anti Caste SF (2024) is a collection which explicitly pre-filters on works that address caste and anti-caste voice as an act of political correction. This precludes it from this research because the selection criteria is not formal but ideological. The stories are not chosen because of their quality as SF, but rather in terms of what they argue. In their words:

“South Asian futurism can be a hugely flattening term that doesn’t engage with the realities of social structures in the subcontinent “ (Samuel, 2024, p. 01)

Multispecies Cities (2021) suffers from much of the same concern of overly ideological framing. The specific editorial focus is on narratives that discuss more-than-human kinship in the solarpunk urban setting.

With both of these collections, the strong thematic focus means they are not representative but more niche or nuanced. For the purposes of this framework, where the formal elements of the narratives being thematically varied is important, these collections were not ideal.

Tarun K. Saint’s The Gollancz Book of South Asian Science Fiction, Volume 1 (2019) and Volume 2 (2021) on the other hand, fulfill this criterion. Between the two they cover 60 short stories by authors from the Indian subcontinent.

According to Saint, the anthologies were created as a critical act, in specific response to

“a sense of disturbance with the situation in contemporary South Asia”  
(Saint, 2019, p. 25)

Their selection criteria strikes a good balance of being genre-faithful, as in Saint's words

“not including retold mythology, mytho-fantasy and out-and-out fantasy...Those that used science fiction as a prop in genres such as romance or mystery were left out” (Saint, 2019, p. 25)

While at the same time not imposing any thematic restriction within SF. Tarun explicitly frames these anthologies as a mapping exercise for the field, which for the purpose of this research makes it the most methodologically appropriate corpus available from which to draw narratives for analysis.

## 2.2 Analysis & Assessment

There are two layers of refinement we must go through in order to define our particular three sites of inquiry for the purposes of research.

First, we must define a framework or topology for the three final narratives, whatever they may be. They must exist in some relation to each other, sit in different positions across some spectrum so as to capture the widest possible gamut in our further explorations.

The Futures Cone, first proposed by Voros (2003), offers such a taxonomy for us to use (Fig. 2.2.1). The aim of this model is to categorise all possible future events in terms of how likely they are to come to fruition. It operates on three broad levels, moving from most to least likely:

1. **Projected:** The futures that WILL come to pass, *ceteris paribus*. Eg: “The next elected PM of India will almost definitely be an Indian citizen”.
2. **Probable:** These futures have a high likelihood of occurring, but their occurrence can only be said with confidence, not certainty. Eg: “The next elected PM of India will quite likely be a male”.
3. **Plausible:** The futures may come to pass, but are not very likely. Eg: “The next elected PM of India may be a woman”.

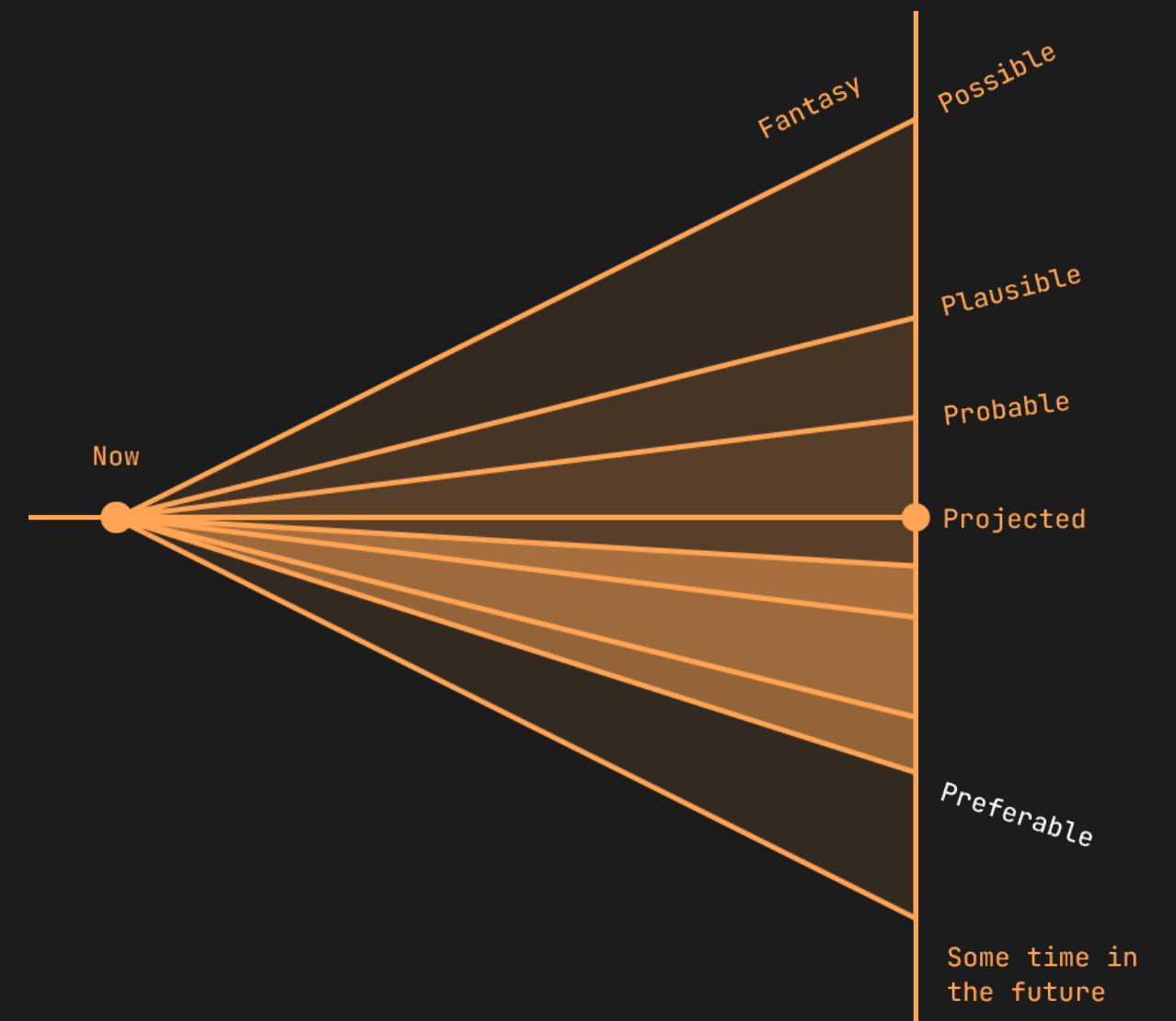


Fig 2.2.1: The Futures Cone

Voros (2003)

4. **Possible:** The futures which on paper are technically able-to-happen, but the odds range from unlikely to staggeringly improbable (but still possible). Eg: "The next elected PM of India CAN be non-binary".

The hidden cone, the one where changemaking operates, is a cone of preferable futures, or the futures that we wish to bring into existence. The exact placement of this cone is one of some debate. In Dunne & Raby's (2013) estimation, the preferable exists overlapping with probable and plausible. However, there is the argument that this cone of futures we as a species will to come to pass should also extend past the plausible into the possible<sup>2</sup>, i.e. the cone of the preferable should overlap with the probable, encompass the plausible, and finally overlap with the possible. This difference is major in that it tells us, in a sense, how much we dare hope for.

This structure can be useful for to compare the futures portrayed in the selected narratives. One for the probable, the plausible and the possible indicate the widest possible spread of imagination within our selection.

Second, there must be, based on the spectrum the narratives are situated on, a way to empirically assess the corpus of selected narratives (60+ across Gollancz's books 1&2) to determine those that best suit our needs.

The first step here is to categorise the narratives in three large groups. We can do this by mapping them to the PPP model. We can then assess all three groups within themselves, and pick the highest score for each. This can be seen in Fig 2.2.2<sup>3</sup>.

For a given group, each narrative must then be assessed to determine the most suitable candidate. To give an overview of the scoring process:

- 1. **Novum (40%):** How distinct, compelling and powerful are the network of nova of the story?

<sup>3</sup> It must be noted that some material in the collection was ineligible. For this exercise of extended story worlds, there must be sufficient starting material so that the entire exercise is not sheer conjecture with no basis (and therefore no extraction of native design logics). Because of this, several works were discounted entirely from this analysis. The list of these works is available in the Appendix. Note that the quality of the story (i.e. how enjoyable it is to read) has no bearing on the eligibility of the narrative for this exercise. This is simply a question of usable information.

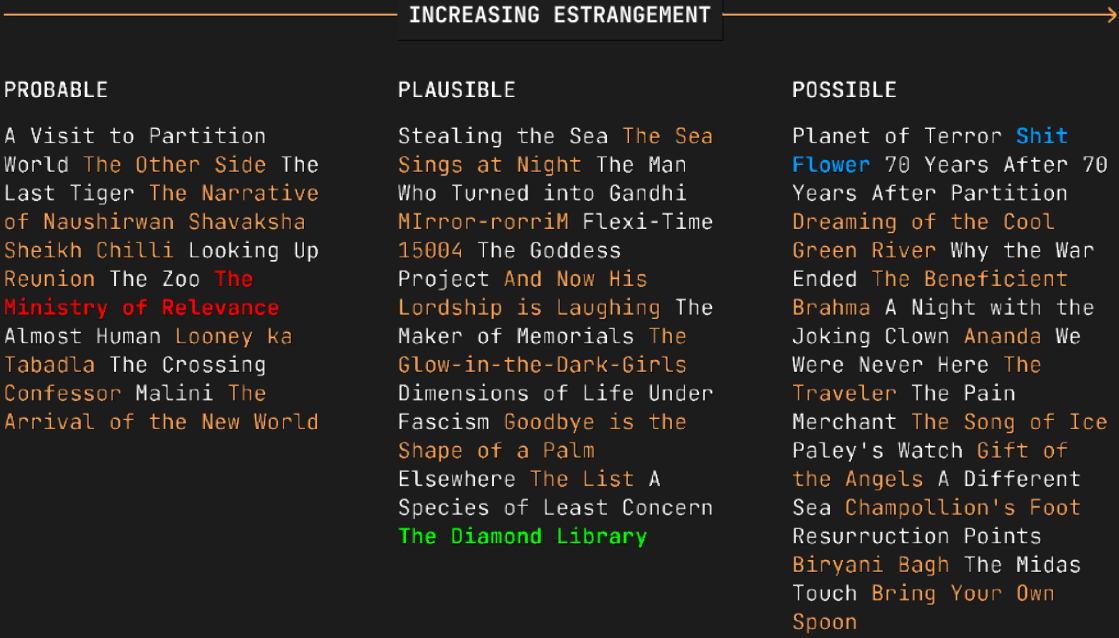


Fig 2.2.2: Sorting stories into PPP groups

Own Work

Preferred Goes Beyond Plausible

<sup>2</sup> On December 08, 1903, The New York Times declared flight to be impossible (The New York Times, 1903), and that humanity is millenia away from achieving freedom from gravity. It can summarily be agreed that from this perspective, the general consensus would have been that human flight was firmly excluded from the cone of the plausible, in fact argument could be made that until it was done most thought it was impossible, not simply implausible. Yet flight was achieved not 9 days later, on the 17th of December, 1903 by the Wright brothers (Smithsonian Institution, n.d.). So what is preferred (for a more modern example take the goal to prevent global warming from worsening) should not be precluded because of it potentially being implausible.

- 2. **Degree of Design (30%):** How directly are designed systems or artifacts implicated in the speculation itself?
- 3. **Worldbuilding (20%):** How fleshed out are the interplay of systems that make the world immersive and real?
- 4. **Social Architecture (10%):** In what ways is society set up differently, and to what end does it critique our reality?

The scoring was implemented as a weighted sum where each eligible story was attributed “High”, “Medium” or “Low” (and attributed 3,2,1 respectively) in each scoring category.

The scoring was also done taking into account that SF is inherently linked to the space-time of its creation -- the description of man on the moon will be considered an estranging novum if the story is from 1900 vs. from 2000 <sup>4</sup>.

The scoring reveals some interesting observation. Note the category with the highest score is “Social Architecture” with an average of ~2 out of 3, while the lowest average is Degree of Design with ~0.8 out of 3. This speaks to Suparno Banerjee’s (2020) observation that the focus of Indian SF is on the social commentary.

After looking at each bucket through the lens of these criteria, there were three that prevailed (Fig 2.2.3). Within each of these story worlds, there will be a breakdown of novum and plot in two parts, one in this chapter and one in the next.

- 1. **The Ministry of Relevance** by Arjun R. Gaiind as the Probable - set in a near future Mumbai (~2039), MoR describes an near-dictatorial government that uncannily resembles the behaviour we see in news headlines today.
- 2. **Shit Flower** by Anil Menon as the Plausible - also set in Mumbai, but in a further, much more optimistic future (~2089). SF introduces far more outlandish technology, that technically could come to pass, though unlikely.
- 3. **The Diamond Library** by Navin Weeraratne as the Possible - Vaguely set in the Deccan region of India but tens of thousands of years in the future, TDL provides a vision of the future that is entirely untethered from reality (but again, it is impossible to define the possible with such a long timeframe).

For the visualisation of the three story worlds, one of the first steps of the process was to extricate each world’s visual logic. The process for this can be seen in the Appendix (pg. 183).

| Title                                   | Category  | Novum | Degree of Design | Worldbuilding | Social Architecture | Sum |
|-----------------------------------------|-----------|-------|------------------|---------------|---------------------|-----|
| Planet of Terror                        | Plausible | 1     | 1                | 1             | 0                   | 9   |
| Inspector Matadeen on the Moon          | Probable  | 1     | 1                | 1             | 3                   | 12  |
| The Sea Sings at Night                  | Possible  | 2     | 0                | 1             | 1                   | 11  |
| The 22nd Century                        | Probable  | 2     | 1                | 2             | 1                   | 16  |
| Shit Flower                             | Plausible | 3     | 3                | 3             | 2                   | 29  |
| The Man Who Turned into Gandhi          | Possible  | 2     | 0                | 2             | 2                   | 14  |
| 70 Years After 70 Years After Partition | Plausible | 1     | 0                | 1             | 1                   | 7   |
| A Visit to Partition World              | Probable  | 2     | 2                | 1             | 2                   | 18  |
| Dreaming of the Cool Green River        | Plausible | 2     | 2                | 2             | 2                   | 20  |
| Mirror-rrorrM                           | Possible  | 3     | 1                | 2             | 1                   | 20  |
| Flexi-Time                              | Possible  | 2     | 1                | 2             | 2                   | 17  |
| The Other Side                          | Probable  | 0     | 0                | 2             | 3                   | 7   |
| Why the War Ended                       | Plausible | 2     | 0                | 1             | 1                   | 11  |
| The Beneficient Brahma                  | Plausible | 2     | 1                | 0             | 0                   | 11  |
| The Goddess Project                     | Possible  | 2     | 1                | 2             | 3                   | 18  |
| The Last Tiger                          | Probable  | 1     | 0                | 1             | 2                   | 8   |
| A Night with the Joking Clown           | Plausible | 2     | 1                | 1             | 1                   | 14  |
| Ananda                                  | Plausible | 2     | 1                | 2             | 1                   | 16  |
| We Were Never Here                      | Plausible | 1     | 0                | 1             | 3                   | 9   |
| The Narrative of Naushirwan Shavaksha   | Probable  | 1     | 0                | 2             | 2                   | 10  |
| Looking Up                              | Probable  | 1     | 1                | 1             | 2                   | 11  |
| Reunion                                 | Probable  | 1     | 0                | 2             | 3                   | 11  |
| And Now His Lordship is Laughing        | Possible  | 1     | 0                | 1             | 2                   | 8   |
| The Traveler                            | Plausible | 1     | 0                | 2             | 2                   | 10  |
| The Maker of Memorials                  | Possible  | 2     | 0                | 2             | 2                   | 14  |
| The Glow-in-the-Dark-Girls              | Possible  | 3     | 1                | 2             | 3                   | 22  |
| The Pain Merchant                       | Plausible | 2     | 1                | 1             | 2                   | 15  |
| The Ministry of Relevance               | Probable  | 3     | 3                | 2             | 2                   | 27  |
| Dimensions of Life Under Fascism        | Possible  | 2     | 0                | 1             | 3                   | 13  |
| The Song of Ice                         | Plausible | 2     | 0                | 2             | 2                   | 14  |
| Goodbye is the Shape of a Palm          | Possible  | 2     | 3                | 2             | 1                   | 22  |
| Almost Human                            | Probable  | 1     | 2                | 2             | 2                   | 16  |
| Looney ka Tabadla                       | Probable  | 1     | 0                | 1             | 2                   | 8   |
| Paley's Watch                           | Plausible | 2     | 1                | 1             | 1                   | 14  |
| Elsewhere                               | Possible  | 2     | 1                | 2             | 3                   | 18  |
| Gift of the Angels                      | Plausible | 2     | 1                | 2             | 2                   | 17  |
| A Different Sea                         | Plausible | 1     | 1                | 3             | 3                   | 16  |
| The List                                | Possible  | 2     | 1                | 3             | 2                   | 19  |
| The Crossing                            | Probable  | 1     | 0                | 2             | 3                   | 11  |
| A Species of Least Concern              | Possible  | 2     | 1                | 2             | 2                   | 17  |
| Champollion's Foot                      | Plausible | 2     | 1                | 2             | 2                   | 17  |
| Resurrection Points                     | Plausible | 2     | 0                | 2             | 3                   | 15  |
| Confessor                               | Probable  | 1     | 1                | 1             | 3                   | 12  |
| Biryani Bagh                            | Plausible | 1     | 0                | 1             | 3                   | 9   |
| Malini                                  | Probable  | 2     | 1                | 1             | 3                   | 16  |
| The Midas Touch                         | Plausible | 1     | 0                | 1             | 2                   | 8   |
| The Diamond Library                     | Possible  | 3     | 3                | 3             | 2                   | 29  |
| Bring Your Own Spoon                    | Plausible | 2     | 1                | 3             | 2                   | 19  |

Fig 2.2.3: Tabulated Results [Abridged] Own Work

<sup>4</sup> This was not done in a precise manner, but by subjectively understand the intention of the novum. For example, 'Why the War Ended' describes an alternate timeline where Martians use bioweapons to eradicate humanity during World War II. This is considered 'plausible' because the novum is taken irrespective of the timeframe of the story (that WWII already happened) -- it is plausible that alien life exists and for interstellar life capable of travelling planets, eradicating humanity using bioweapons (which we can already do to ourselves) is not hard to imagine.

# 2.3 The Ministry of Relevance

Arjun R. Gaiind

## 2.3.1 Plot Summary

### Mumbai Prime, ~2039

A near-future Mumbai ruled by a nigh-dictatorial autocrat, to whom compliance is the measure of virtue. To mark his rule, he erected a 900 story tower called The Locus, which watches over the city as a symbol of the oppressive government. Recent amongst the anti-public government measures is the 'Relevance Score', a comprehensive battery of tests which measure a citizen's purported 'relevance to society' through a combination of pseudoscientific assessments.

The protagonist, an unremarkable author-turned-gossip blog writer called Bhaskar, is summoned to The Locus for his Relevance Score Assessment. He undergoes a battery of tests which unbeknownst to him he was doomed to fail, only to find that he is grossly under the minimum allowed score. Those with Relevance Scores too low (Bhaskar no exception), are whisked away to internment camps, where Bhaskar makes a narrow escape due to the gallant self-sacrifice of another inmate. He returns hope worried for his wife and child, only to find it was his wife who reported him to the Government.

## 2.3.2 Plot & Novum Analysis

It becomes apparent, reading the narrative, that the flow of events in the story is not so much a rollercoaster with ups and downs as they are a sled down a steep hill. As seen in Fig 2.3.1, the world is almost deterministic after Bhaskar elects to go to The Locus. This is not a literary analysis, but this feeling of helplessness that the narrative conveys is supported by, and relates with the world set in the backdrop of the narrative.

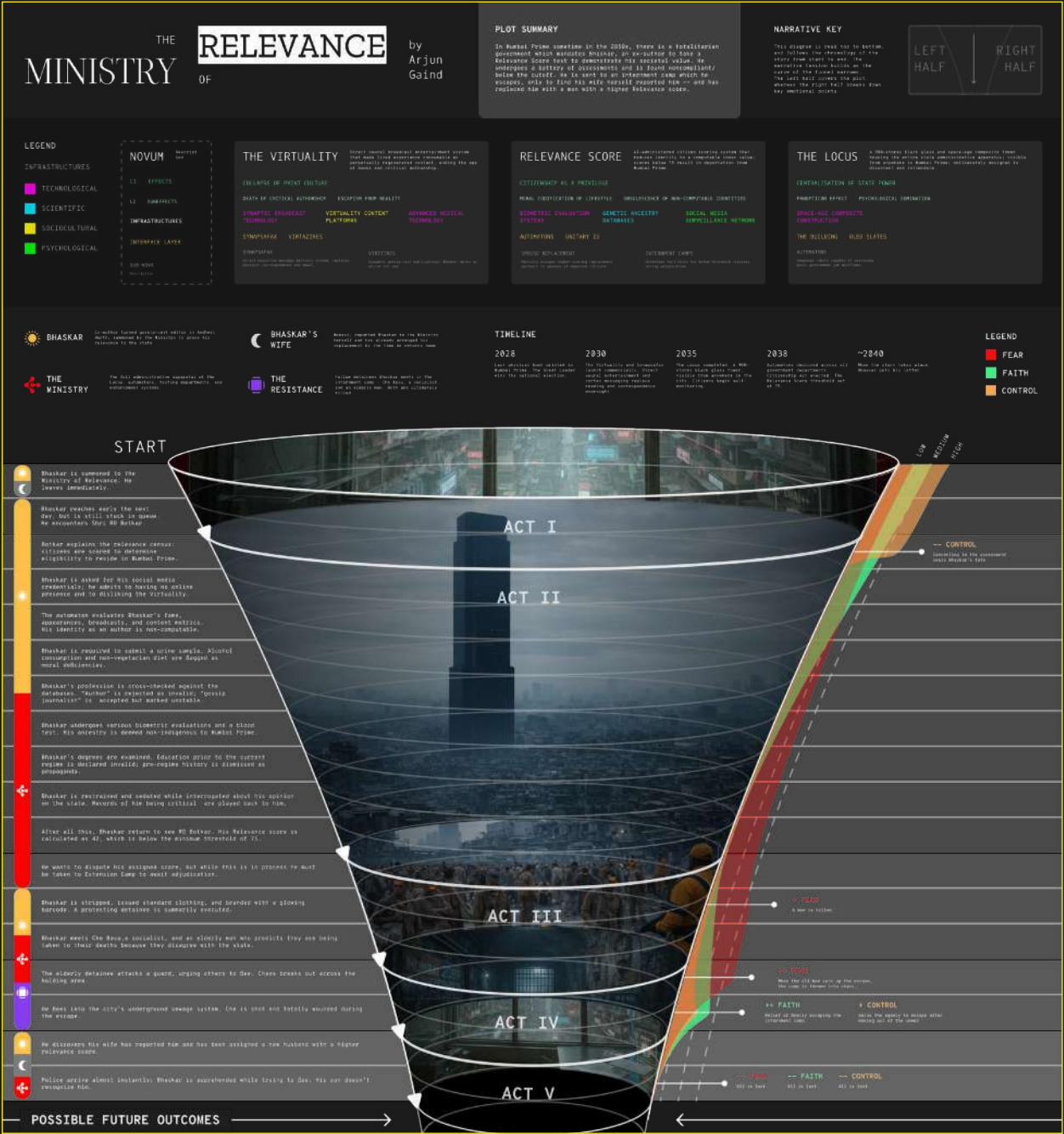


Fig 2.3.1: Plot Diagram for MoR

Own Work

The way in which MoR elects to elicit this feeling of a calculative, merciless system is through the primary novum of the Relevance Score and by extension the governing body itself. Repeatedly over the course of the story, the reader is told that all that is happening is in accordance with the wishes of 'The Great Leader'. The Relevance Score is just one of the various manifestations of this autocratic will (the other being the Locus). The criteria described in the story are barely rational, and it becomes apparent that the entire system, including the Relevance Score, is simply a way for the 'Great Leader' to force the story-world to submit to his inclinations. MoR is a world where individuality and democracy are fundamentally refuted.

The other important symbol of autocratic will seen in the story is The Locus, A 900 story tower, the Locus is a symbol more than a building that can even be pictured (for reference, the Burj Khalifa is 163 stories). It is even described to have what is essentially a Panopticon effect – the feeling it exudes to all citizens is that they are being watched at all times.

The Locus is further described to be made possible by the elimination of slow, expensive, inefficient human workers, which have instead been replaced by automatons, screen-faced robots which carry out testing, manage the citizens and maintain order.

There is another novum however, which operates in the backdrop. 'The Virtuality', as it is described, is a virtual internet driven entirely through a neural interface. It is described to have eliminated the need for books at its inception, and how it has now become the de facto method of communication and home of the second-self, much as the regular internet is today.

## 2.3.3 World as a Design Environment

The story world of the Ministry of Relevance is bleak but, as fitting for the story in the 'probable' future, it is not immersion breaking in its unreality. There are technological advancements, but nothing which cannot be envisioned as achievable in the next 15 years.

The decision-maker of MoR is clearly stated to be the 'Great Leader'. All that happens is so in accordance with his will, and those who do not submit will be made to do so forcibly. The physicality of the world is deeply impacted by this. The infrastructure we see is all state-owned, though corporates are alluded to as profiteers of The Virtuality. Even there, the government pulls records

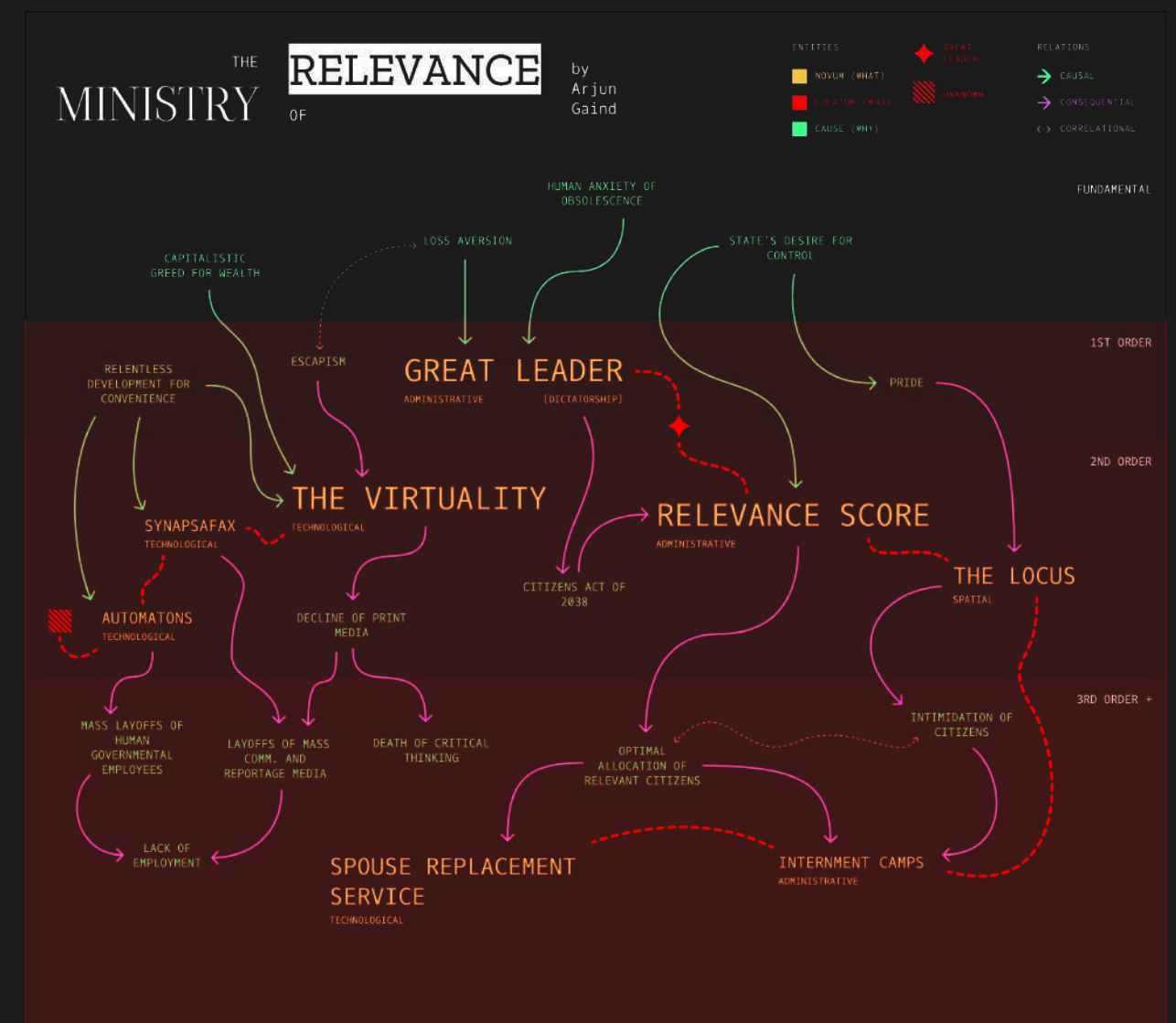


Fig 2.3.2: Novum Mapping for MoR

Own Work

and surveils citizens. Nothing in this world is outside of the sphere of influence of the Great Leader.

Socially, the world of MoR is described to be even more cutthroat than the world of today. Because the Great Leader has engineered daily life to be a test, citizens are geared to look at life as a structured examination, and act accordingly in ways that will advance them. The Relevance Score is totalising in this aspect that it becomes a placeholder for any and all social standing.

Epistemologically, what counts as knowledge is also in the hands of the 'Great Leader'. A good outcome is that which advances his will, and is even considered progress is also decided by him. This is most clearly seen in the narrative when Bhaskar gets his education evaluated, only to learn his degree from Yale will be considered inadmissible because it was obtained outside the Great Leader's canon and sphere of control.

As a design environment then, MoR seems to be entirely located around the wills and wishes of The Great Leader and his idea of development which rewards conformity and punishes deviation from the norm.

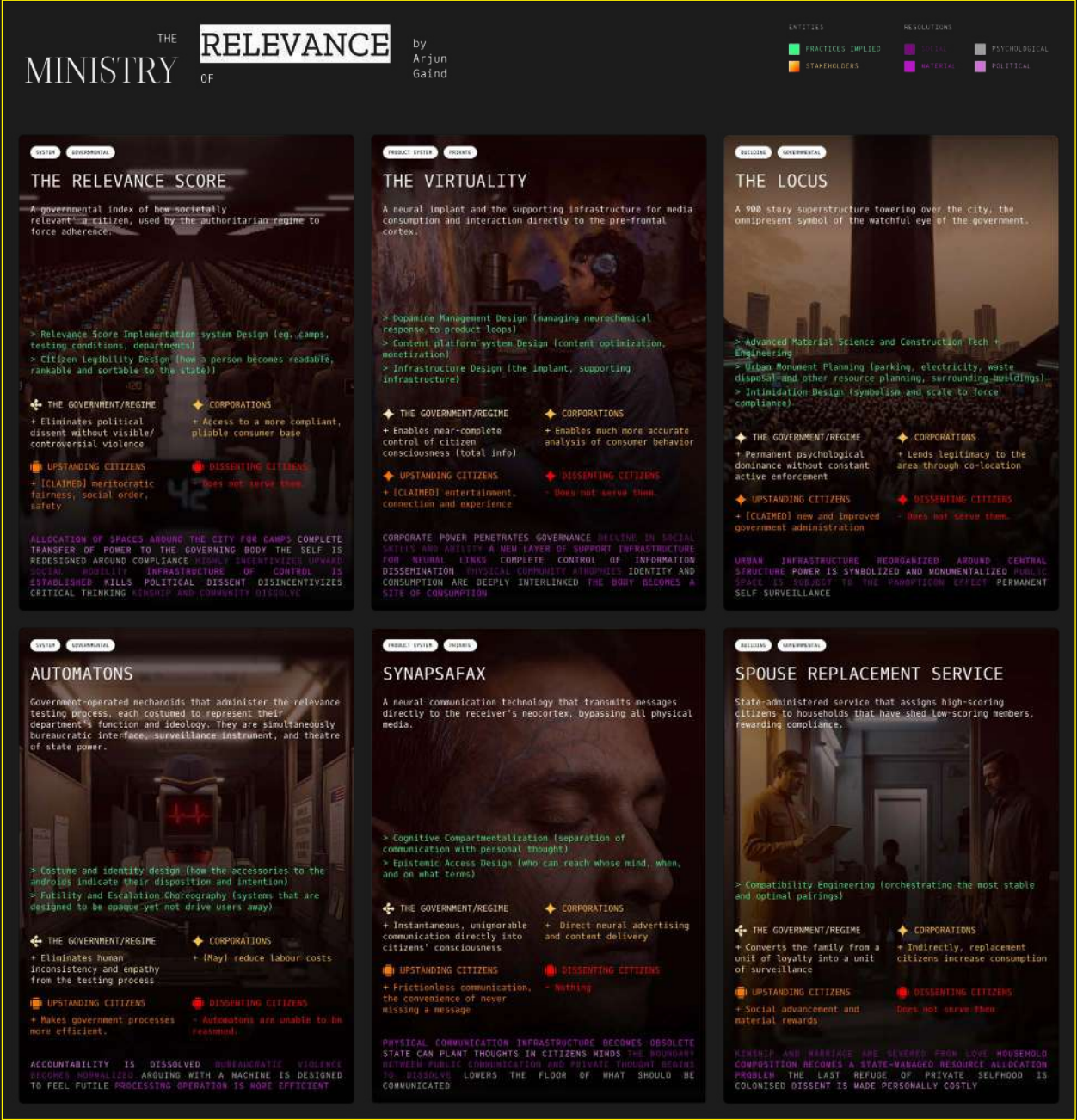


Fig 2.3.3: Novum Analysis for MoR

Own Work

# 2.4 Shit Flower

Anil Menon

## 2.4.1 Plot Summary

Mumbai, 2089

Further in the future now, the Mumbai of Shit Flower is fundamentally shaped by its theocratic ‘Temple City’ structure and more importantly by the development of immortality and the resultant invention of the Sensorium, a sort of brain-machine-interface that allows citizens to undergo identity swaps and much more. This undying population is supported by an army of machines, which are all conscious due to advancements in security technology granting them a sense of self and humour.

Here the protagonist, Simon, is called upon by the municipal commissioner to fix the conscious Sewer Gate Controller machines he invented 50 years ago (called God of Shit or G.O.S, inf. GOOSE, pl. GEESE) that malfunctioned due to a software version of an autoimmune disease. Through nonlinear storytelling, he recounts his dead wife, Radha, who worked on the immortality project and who he misses very much. Over the course of the story, he grows close to the municipal governor, a woman named Ada who reminds him of his wife before she died. The story ends with the eventual resolution of the G.O.S failure situation, and with him reconciling with the death of his wife.

## 2.4.2 Plot & Novum Analysis

Shit Flower is defined by the narrative switching through which the story is told. Though this is itself a literary device, it sequences the events of the story-world in a way where changes to the environment (and by extension design environment) are clear. Fig 2.4.1 shows this structure by placing the chronologies of the past and present side by side, allowing for the switches

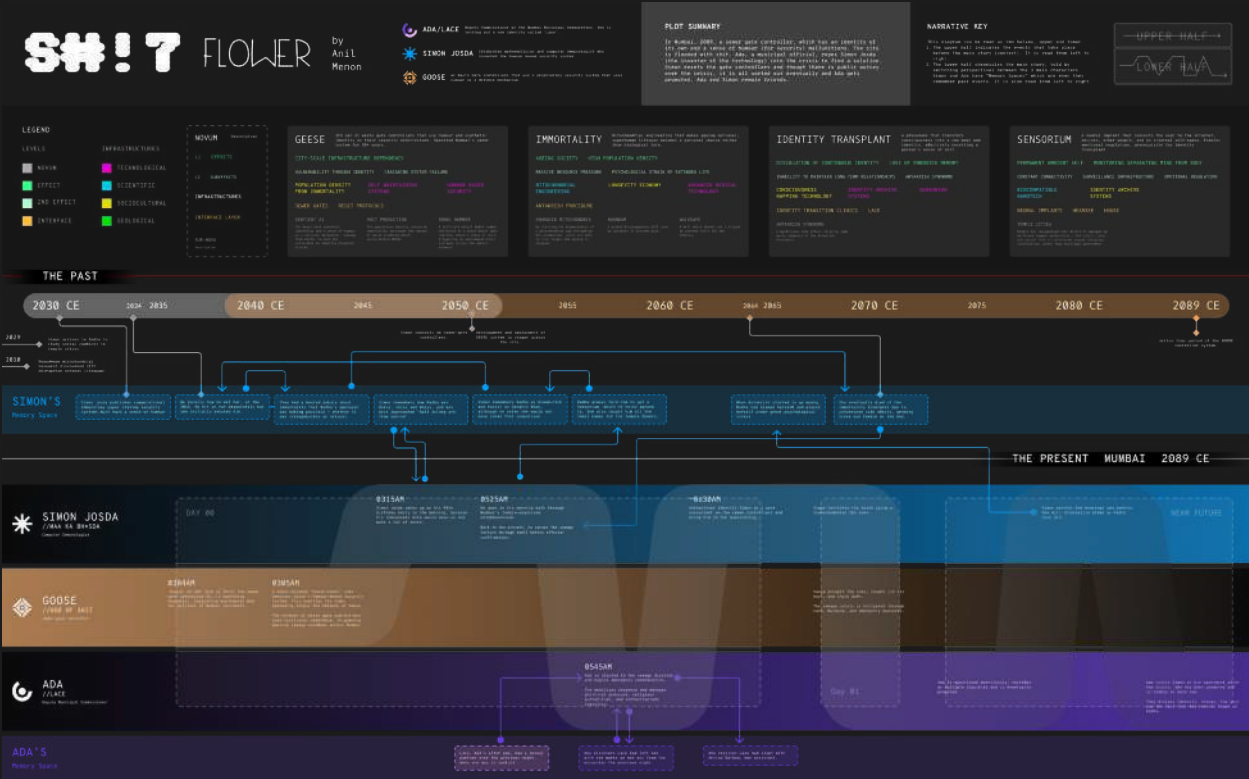


Fig 2.4.1: Plot Diagram for SF

Own Work

that take place over the course of the narrative to be made more apparent.

The nonlinear and unorthodox storytelling further makes its way into the story itself. Perhaps the greatest of the nova in the story is that of immortality, if only for its immense repercussions on the story-world.

Although the exact causal relationship is uncertain, immortality does seem to be linked to the next totalising novum, the Sensorium. A brain-computer interface a bit like MoR Virtuality, the Sensorium differentiates itself in that it appears to be much more integrated with the stream of human consciousness. Apart from being a conduit from the brain to the internet, it also acts as a control centre for both the human body and the devices that surround us, a bit like plugging a smart thermostat to the central cooling system. Consequently, the Sensorium also helps mediate interhuman conflict and resolve religious differences, meaning religious plurality as a concept is born. This in turn informs the organisation of the city. The Mumbai of 2089 Shit Flower describes is a 'Temple City', where the administrative unit is a central religious institution taking care of the surrounding area.

Also downstream of the Sensorium's effects is the question the immortal human asks of themselves – is it necessary to be the same person eternally? The solution in the story world is simple, people may elect to transition into new identities, to take new personas and to free themselves of the burdens of their old life. From an external perspective, this looks remarkably similar to dying, because the memories of the past life are not carried forward.

Precursor to the identity swapping of humans, however, was the development of 'consciousness' for the nonhuman entities supporting the burgeoning population. Advancements in security necessitates systems to have their own sense of self and of humour. This can be seen as a form of Artificial Intelligence (and perhaps it should), but there is an ill-defined more human qualia to the consciousness described in the story.

### 2.4.3 World as a Design Environment

As opposed to MoR, Shit Flower requires far greater suspension of disbelief to make sense of. The timeframe is long enough that the changes described don't seem impossible, but nevertheless they seem alien to the world of today, and unimaginable to occur in the near future.

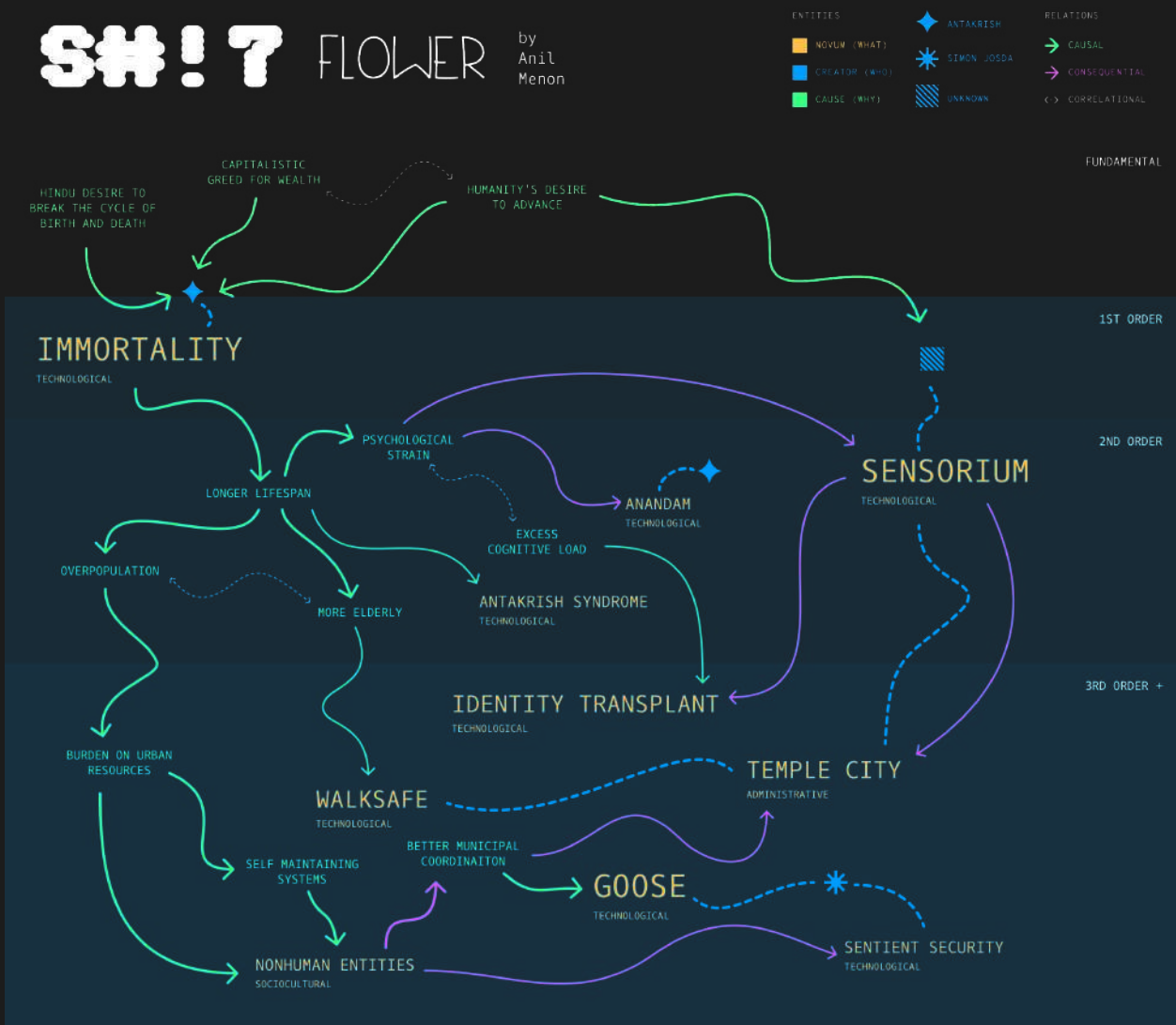


Fig 2.4.2: Novum Mapping for SF Own Work

Materially, the story-world here is much more plural and democratic in terms of physicality. Although the defining events of the world are set into motion by the 'novum cascade' following Immortality, there is no notion that Antakrish (the company which invented the Immortality Procedure) is in control of everything. Physical space themselves are not described much in the story, with focus being given more to the social effects.

Socially, there is a deep sense of relationality in the world of SF. There is not much description of a social order, but the theocratic organisation seems to have lead to a cleaner, neater urban environment. The introduction of conscious nonhuman entities that may interact with humans is mentioned but not much elaborated upon.

Epistemologically, the lived experience seems to be heightened as a knowledge-generator. Ada says as much when referring to the difference in how Lace (her proposed new identity) acts as compared to her. The design environment of Shit Flower is a lot more centered around the human lived experience as a focal point.

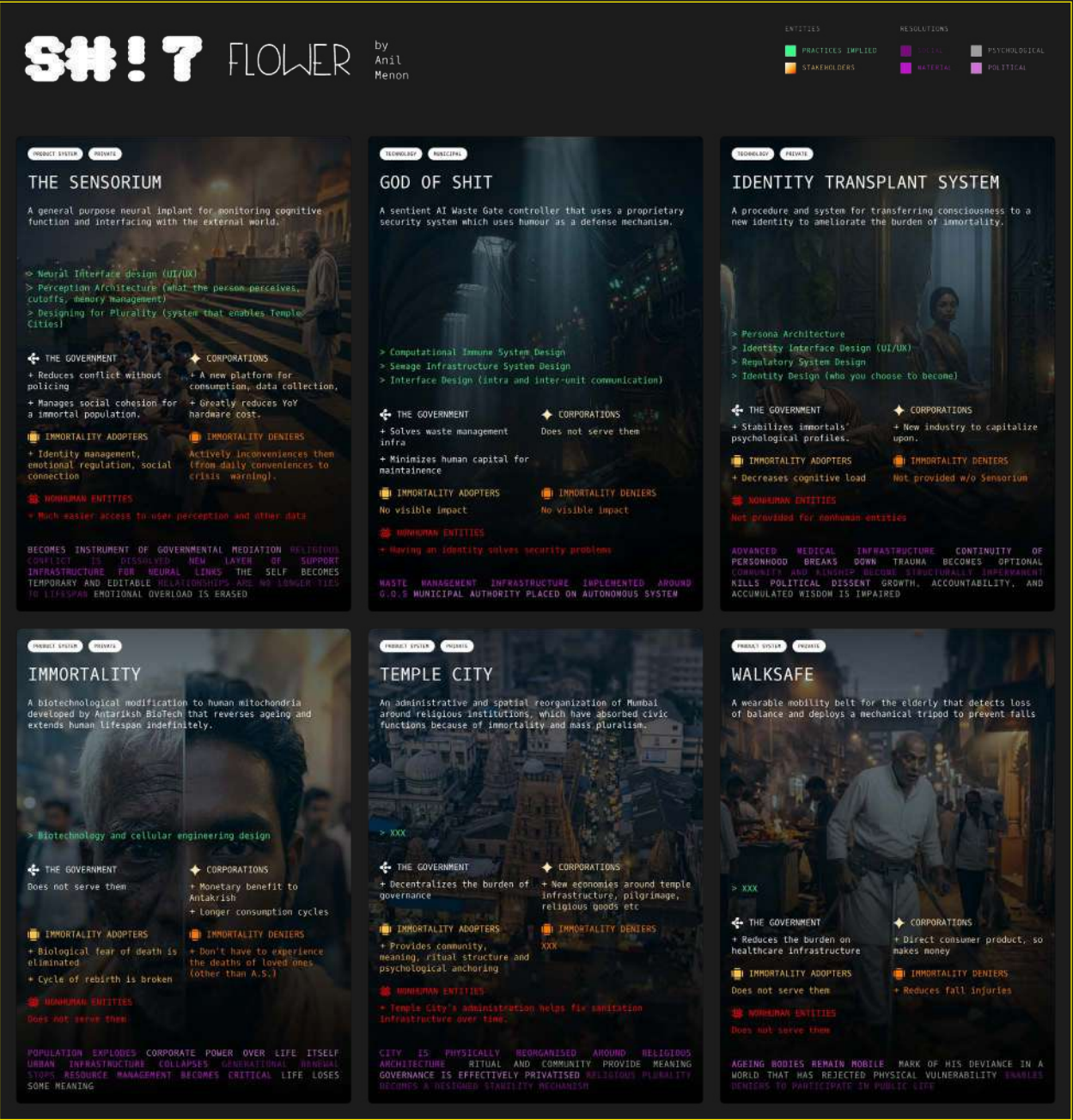


Fig 2.4.3: Novum Analysis for SF

Own Work

# 2.5 The Diamond Library

Navin Weeraratne

## 2.5.1 Plot Summary

The Library, ~30,000 CE

Far in the future, Earth has been scarred by a global war sparked by a devastating climate crisis. As a result, humanity has had to burrow into underground settlements (an event called ‘the Great Retreat’) where environmental carbon has been sequestered to create ‘Libraries’ where the corpus of human knowledge has been stored, alongside humanity themselves.

The protagonist in this story is a nameless ‘Enforcer’, part of ‘Enforcement and Returns’ which is the policing force of The Library. The story starts with him chasing down a ‘storyteller’ who spreads misinformation amongst the common people in the slums of The Library. He takes a book from him, which he dismisses to be blasphemy. Reading it, however, left an impression on him, and he submits it to the Library, only for it to disappear from the records. He investigates, only to find out the leader of the library, Grand Librarian Guha, was the one taking the books away. He confronts Guha, only to learn the ultimate truth – that the reality he was living in is a simulation – the Great Retreat was a failure and instead humanity was ensnared into a Matrix-like simulation in large bacterial growths underground, and watched over by now inscrutable entities called the Transcendents (of which Guha was one). The story ends with him being kicked out of the simulation.

## 2.5.2 Plot & Novum Analysis

For The Diamond Library, the narrative is in the macro sense a series of nest-ing loops of the truth, with the reader discovering the world and understand-ing the setting as the protagonist zeroes in on the truth of his existence and

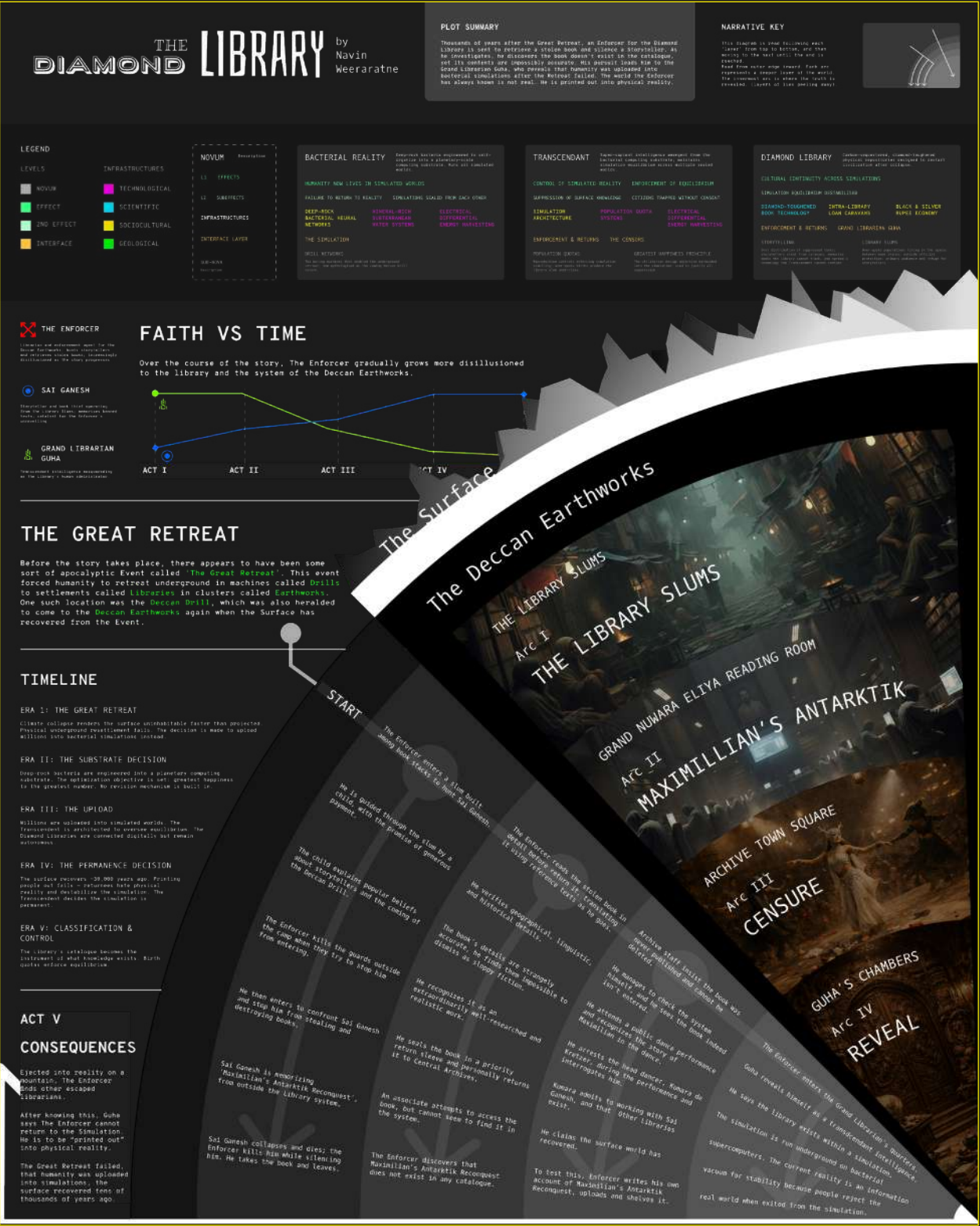


Fig 2.5.1: Plot Diagram for TDL Own Work

world, visible in Fig 2.5.1. This journey is not necessarily intended or conscious, but The Enforcer find himself on it, unable to stop going deeper and deeper until it is too late.

Picking out nova for TDL is different than with the other two stories. This is primarily because of how much further in the future the story-world is set, in such alien a setting that individual nova muddle together to create a larger and deeper estranging force than possible from an individual novum. The sequence of events in the story-world history which resulted in the formation of The Library, in conjunction with the Library itself as a solution to the climate crisis are perhaps the first novum cluster that bear unpacking. A crucial detail mentioned in the narrative is that the environment of The Library, and in fact even the simulation it was revealed to be, were not constructed for the timeframe they ended up existing for. This is an interesting qualia of a designed object far outliving its intended operating period.

There are, of course, several smaller nova that exist as a result of the Library, such as the terminal system used to interface with the Library Catalogue, the technologies used to manufacture using the sequestered carbon, as well as an ill-defined fabrication technology called the manufactorum.

Another from this central node novum is the Transcendents that manage the simulation. Because of the longer-than expected timeframe, the Transcendents, which were originally created as orchestrators of the simulation, grew to evolve beyond their original form, just as The Library itself had.

## 2.5.3 World as a Design Environment

The Diamond Library is one of the most speculative works in the entirety of the Gollancz anthology. The several thousands of years that exist as a buffer between our present and the story-world remove all assumptive powers the reader may typically possess. At this time period, finding recognisable things is more surprising than unfamiliar – at least that is what would be expected.

However, in the story-world, though not resembling the present in any sense, there is not the degree of unfamiliarity the reasoning above might predict. This is explained in the story – the simulation is not a knowledge seeking and forward-looking civilisation like our own. It is, by virtue of being a simulation, a very carefully controlled environment of sustainment – one which only aims to persist, not grow. That this is surprising is perhaps itself an indictment of



Fig 2.5.2: Novum Mapping for TDL

Own Work

our internalised perma-growth mindset.

The fact that the story-world is this controlled simulation also explains the physicality of what we see described in the narrative.

Despite being such a speculative material as sequestered environmental carbon, all descriptions portray the touchpoints of the world as we would expect them to be (in the tactile sense) the same as our current reality. Perhaps the sole exception to this is the diamond statue of the Buddha described, simply because so much as such a rare mineral may be hard to imagine probable (though it is clearly possible).

Socially, the world of TDL is, within the simulation, closer to the city of today than one might expect. The Library Slums hold society's undesirables, a controlled area of unrest manufactured to keep the people obedient and cater to the desires of the aristocracy, and a defined policing system, administration etc. Not much is described of a social order, but there is no evidence the social order is any different in the story-world than one would expect of any human civilization. The existence of other civilisations outside the Library is debated (as it is in reality).

Epistemologically, the world of TDL is far stricter and more defined. The canon of the story-world is, officially speaking, strictly defined by The Library. Information from outside the Library is considered incorrect and treasonous to possess. The informal knowledge systems of the world live in the Slums, where storytellers and dancers attempt to spread the word of life outside the library, and of falsehoods in the history they believe Guha's Library is propagating.

The design environment of TDL is one that focuses around managing worldview as an instrument of control, and specifically focuses on truth and untruth.

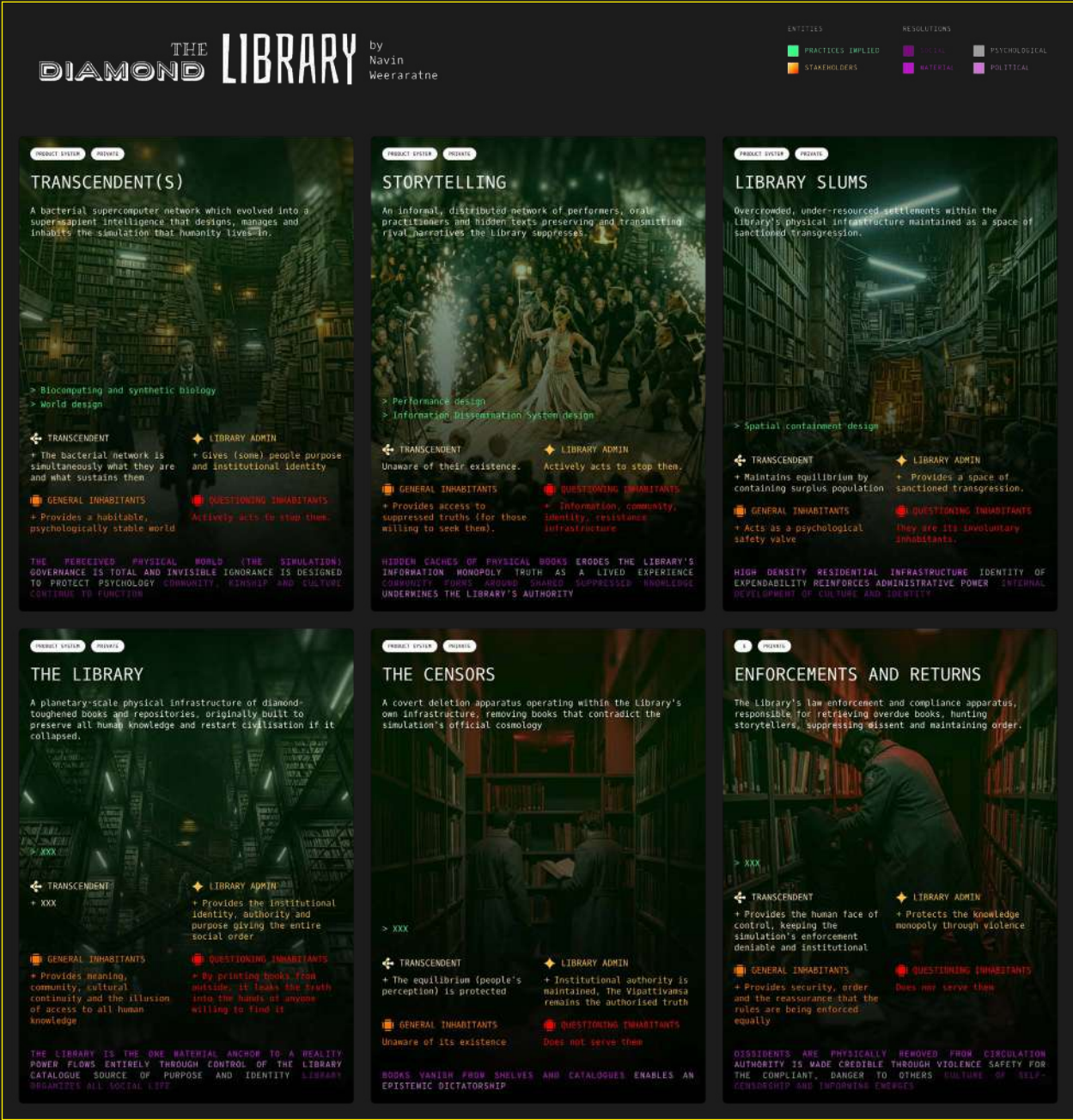


Fig 2.5.3: Novum Analysis for TDL

Own Work

## 2.6 Reflection

I loved reading the stories, but I quite dislike representation, so it was a bit of a slog to get through in the limited time we had for this part of the process. Despite this, it must be said that the act of coming up with a visual form for each plot is a process which necessitates understanding the gestalt of each story, which is a level of understanding of the narrative structure I would've been lucky to reach otherwise. This sort of understanding through design is a method quite starkly disparate from typical literary analysis. Rather than understanding the nature of a thing by seeing in what order and of what type words are placed in sentences and phrases, an understanding is gained by visualizing the entire form of the narrative, almost leaning in the act of translating from textual to visual. It's important to note that by visual I do not mean vivid illustrations and complex iconography (although those would also achieve this same effect). There is a great deal of difference between the corpus of information and how it is represented. The representation of a thing is in a sense always a subset of that thing, but in the act of representation the subset it takes is itself transformed into something new.

You may notice some of the plot diagrams have several chunks or smaller bits of text, many of which you may not be bothered to read. Even if you don't, the arrangement of text elements in space itself conveys at least part of the message of the story, giving you the feeling or the essence of what I drew from each plot. This goes in tandem with the more traditional literary understanding of the story, and it's important to note that both are required – there is a large gap when it comes to understand fine detail and nuance in the visual representation, while as mentioned before larger overarching themes and essence is easy to miss when staring at a wall of text.

this is an orange ball, placed in the top right of the frame. the rest of the frame is pure black, this negative space directs the eye first to the ball, even though it is only a small portion of the entire image. the ball is off centre, but still feels right somehow. it looks like an orange, or like the sun about to set

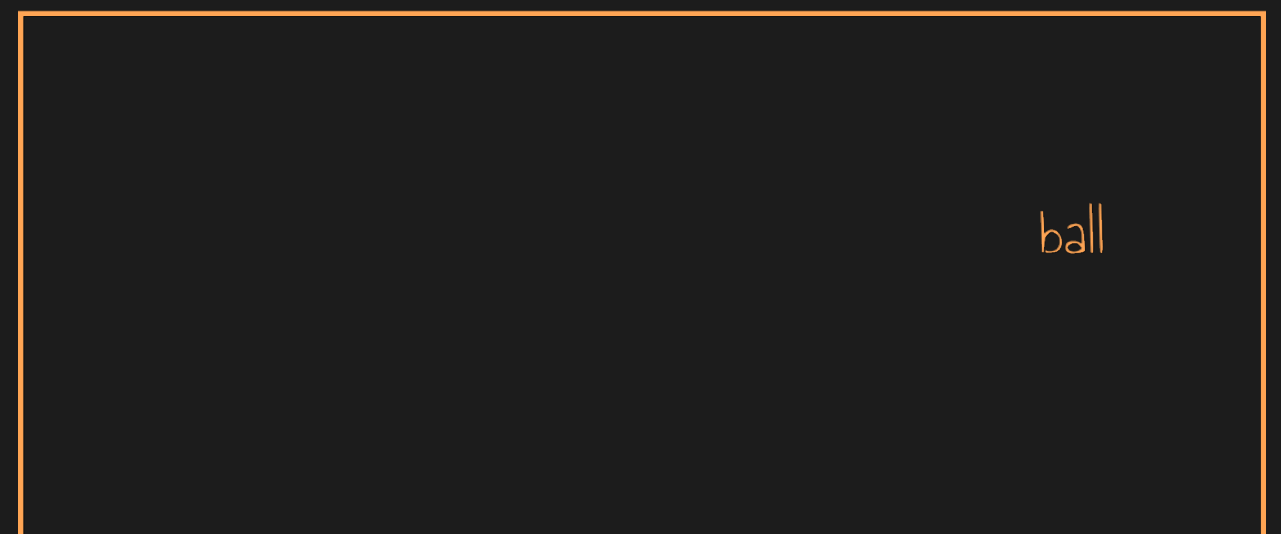
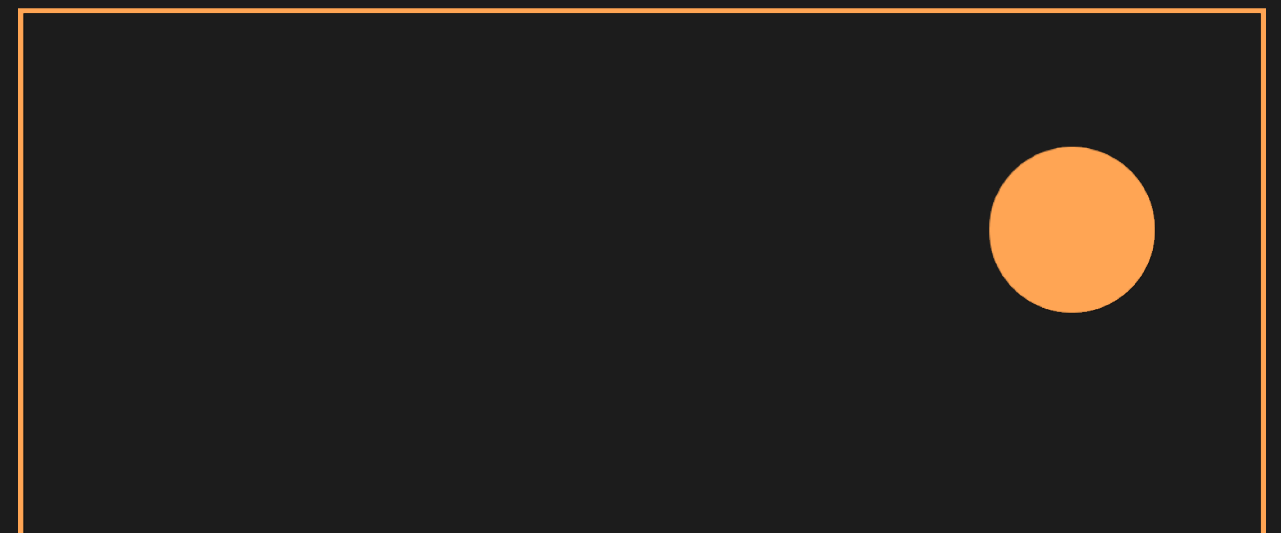


Fig 2.6.1: Textual vs Visual vs Spatial representation

Own Work

## Chapter 03

# How Design Designs

### Understanding design's role in changemaking

Introducing the term 'Relational Ontology', and exploring how the interconnected matrix of human behaviour, design and the world we live in may be manipulated to produce change.

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Almost nothing exists in isolation. Things exist in relation to other things, not only so far as there must be at least one thing in a closed system to define a thing as a subset of the closed system itself (here the thing exists in relation to the system it is placed within).

It is out of the scope of this work to go into the Heideggerian spiral of what a thing is and is not, so for the purpose of this explanation we may simply agree that the world, as with most if not all of its subsystems, is relational, in that anything may only be defined in relation with other things.

However it is not enough to simply define that there exist relations between the elements and entities around us, ourselves included. We must further define and agree upon the influence that things have on and by the other things they relate with.

## 3.1 What is Ontological Design?

Think of any thing, say a common iron. An iron exists because there is cloth to be flattened – at the simplest level the object exists to carry out a purpose, and therefore exists in relation to, and influenced by, the objects and problems that define the system of which it is part in the form of a solution.

This principle, called ontological design and spoken of in far clearer words by Willis (2006), Fry (2009) and Escobar (2018), and before them by Winograd and Flores (1986), tells us, in three simple steps, how design relates all things:

1. All things are designed, either directly or indirectly
2. The creator of a thing (designer) influences its creation (designs it)
3. The design of a thing in turn influences, designs, all downstream interaction, beyond even the intent of the creator

As it follows, the next thing that is designed is therefore in a world where its creator has already been influenced and designed by what came before, and so on in an eternal cycle.

As Willis (2006) states, there is a delineation further between ontology the term, ontological and the ontic. This is not strictly relevant for our analysis here, but it is worth mentioning for a greater understanding of terms we will be dealing with heavily in this chapter.

The ontic, as the basis of this branch of design philosophy, is what is, ontology is the inquiry of what is, and ontological is the condition/behaviour of what is. Another Heideggerian term worth mentioning at this juncture is that of *dasein*. *Dasein* is the human being, but more specifically an aspect of the human being – the fact that its own being is a matter of consideration for it. As such, *dasein* is also translated as 'being-in-the-world' (Willis, 2006; Heidegger, 1950). *Dasein* tells us why ontology is in fact even something to bring up. It situates the context as the understanding of our own being.

The way in which our being-in-the-world perceives the relationality around it is not inherent, in fact it is a fundamental aspect of worldview. Yuk Hui in his 2021 book *Art and the Cosmotechnic* isolates Heidegger's wording for the Western tendency to perceive the object in isolation as an aspect of Cartesian intelligence (Hui, 2021). The term for this tendency he attributed was *Vorhandene* or 'present at hand'. This is opposed in philosopher Hubert Dreyfus's opinion by Heidegger's term *Zuhandene* or 'ready to hand' in his book 'What Computers Can't Do'. This concept looks at an object beyond simply the bear-

er of its own qualia to a larger mode of being which is conditioned by the world it is in (Dreyfus, 1972). The object in its form embeds function which is carried on to the user regardless of intent, as part of the design of the thing. This phenomenon is constituted by history and the intuition it builds. Willis (2006) gives the example of the common kitchen knife. A knife is for cutting, and in her words is

"a designed thing that directs itself towards cutting ... The knife as a designed object with a history also carries with it culturally specific embedded intentions ... The ' we are designed ' aspect in this example is the inseparability of cutting and knife – functions are so embedded in objects that it becomes impossible to prise them apart " (Willis, 2006, p. 83)

The design of the thing is therefore constituted only partly by the designer intent. Beyond and perhaps behind that is the larger, less-defined corpus of worldly context that formulates itself in the thingly aspect of a thing. Fry (2009) furthers this argument to say that design does not actually exist apart from this thinging aspect, in his words

"Design as such cannot actually be disaggregated from the world around us and presented as a thing-in-itself ... Rather, design is deeply embedded in our worlds and in us ... we are surrounded by things designed to function in ways that go unquestioned and absolutely taken for granted." (Fry, 2009, p. 29)

We may further understand this ontological embodiment of the designed object through a case study (see next spread).

## 3.2 The 4 Mandates Ontologically

Now that we are aware that we live in a society, a system of systems where each element is designed and in turn designs, we can take a better look at the four mandates with which this research was introduced, and examine the systems of which they themselves are designed. This is a reading that attempts to understand how and why the world around us has resulted in these problems, that is to say in designing what things have these problems inadvertently been designed.

A lot of what is to be described can be attributed to a relatively simple base cause: that the context in which design is designed is inherent to it and cannot be separated from the thing itself. As Fry (2009) comments,

"we come to be what we are not just genetically prefigured but equally prefigured by the particular designing character of the artificially fabricated world into which we arrive. We are de facto the product of converging biological, social and artefactual structural forces" (Fry, 2009, p. 24)

In lieu of the failure of the current landscape to recognise this fundamental fact, there is a sense as to why we as a race and more narrowly as designers face these issues.

**The Homogenisation Mandate:** There has been a notion, perhaps even a misconception, that the advancement of technology should predominantly be put to increasing convenience in our lives. This is reflected in our capitalistic markets, where the idea of designing for everyone as originally a motto for inclusion and accessibility becomes misconstrued to mean one size fits all. This is designed from a designer who thinks one thing being legible to all people means it is accessible, when in reality what it means is that all nuance has had to be erased in order to make such a thing universally legible.

**The Fiction of Neutrality:** Part and parcel of the Cartesian view of the individual as an isolated unit, a *Vorhandene* in the vocabulary of Heidegger, is the notion that the average is representative of the norm or even of the whole. This caricaturing and oversimplification of the nuanced, dynamic, variable user into a static, constant neutral user is the result of a designer who sees the user as a consumer of product rather than as *dasein*. This misapprehension that the fundamental aspect of the user is that of a consumer is the root of the neutrality issue.

**Complicity of Extraction:** Additional to the notion of the user as a consumer, in conjunction with the way modern capitalistic society is structured is the need for eternal growth. When growth targets are seen as the bare minimum, the system self corrects and optimises for success to the preclusion of morals or scruples. Naturally, the resultant model is extractive and optimises for retention and growth at any cost, most costly of which is that to our environment and ecology.

**The Outsourced Imagination:** The Westernification of the free world mentioned earlier by Nandy (1983) has led in turn to a Westernification of the imaginations of the future, further deepened by the extreme dilution of economic and political power in the hands of the top handful of corporations, which in their scale influence the entire country. Their vision of the future that aligns with their own worldview and motivations drives all others to it, to the exclusion of the designerly need to pluralise the imagined future, and have our vision of it adhere to the context of its operation.

## Case Study

Heidegger's

# Jug & Juicebox

Perhaps the best way of understanding the ontology of design is an example both Fry (2009) and Willis (2006) cover, so I shall try and bring my own spin on it.

Consider a jug and a juice box. At their very simplest, both may be described as 'liquid receptacles'. But in their form and formly affordances, there is the inscription of a lot more context and nuance than we may even be able to articulate. For of course, nobody reading this would say jugs and juice boxes are the same thing, despite both being in essence 'liquid receptacles'.

The jug is a vessel of sharing. In its open mouth, its size and shape, and the positioning of its handle, a jug is a thing to be poured, and more specifically to be poured for more than one glass (or serving). The jug is a thing that is kept for use in a relatively short timespan, because it is open, and so the thing inside won't stay cool or warm for too long. You may even be able to tell what geography a jug is from, because an insulating-looking jug with thick walls means you want to keep the liquid cool or warm for the duration in which it will be served.

In contrast, the juice box is decidedly not a thing to be shared. The volume is barely enough for one, and it comes hermetically sealed. A juice box is a thing to be opened once, used immediately, and then thrown away. Nothing about a box makes you want to keep it a minute after it has fulfilled its duty in dispensing the liquid. The straw is plastic and comes in flimsy, crinkly wrapping. There is no way to reseal the box of the juicebox once opened. The juicebox is also a thing that is not meant to be had in the place it is given to you. It is small, sealed and easy to carry. Once you have put the straw in, you can walk and drink from it, using only one hand.

So, there is evidently meaning that the jug and the juice box convey to us that exceeds their function in the most abstract sense. We designed the jug and the juice box, but in turn they design us back. With or without our knowing it, they tell us how to use them and where.



Fig 3.2.1: Heidegger's Jug [A] and Willis's Juicebox [B], and the contexts they indicate.

Pexels

### 3.3 Defuturing and Design

As with other aspects of modern behaviour and therein modern design, there is a downstream consequence to incomplete ontology which Fry (2009) calls defuturing. In the opening line of his book *Design Futuring*, he has this to say on the topic of defuturing:

“we are now at a point when it can no longer be assumed that we, en masse, have a future. If we do, it can only be by design against the still accelerating defuturing condition of unsustainability ... as it acts to take futures away from ourselves and other living species...” (Fry, 2009, p. 1)

In essence, de-futuring happens in every action that is taken, the elimination of possible futures that may have come to pass if a different action had been taken. This, but at the scale of our civilisation, where our collective actions and priorities as a species actively banish potential futures from the probable to the plausible and eventually the merely possible.

From the introduction of ontology in this chapter, we know now that things are defined in their relations to other things. A design practice that emanates from this understanding, one that is cognisant of the subject as a nexus of the relationships that constitute it, is one that cannot treat the world as a neutral resource. Futuring and de-futuring are one aspect of the design that design designs, and therefore it follows that knowing this, that design designs, unlocks layers of analyses which empowers design (and thereby designers both formal and informal).

### 3.4 Ontology in the Indian Context

The other lens that is important to keep in mind is that of the Global South, and as mentioned earlier, the perspective of India specifically. Escobar (2018) talks deeply more specifically about the perspectives of South America, the Zapatista of Chiapas among others.

There are mentions of the notion of relationality in the sense we have described it in the Indian context by theologian Raimon Panikkar (2010), in his concept of the cosmotheandric, a vision of reality which unifies, in his words:

“The “trinity” of cosmic matter, human consciousness, and divine presence in co-constitutive relationality ... interpenetrate one another and

exist only in relation to one another ... There is a kind of perichōrēsis, “dwelling within one another,” of these three dimensions ... There is no matter without spirit and no spirit without matter, no World without Man, no God without the universe, etc.” (Panikkar, 2010, p. 15)

There is further also the necessary and perhaps eternal complication when talking about the demography of India in colonialism, which Ashis Nandy (1983) calls a two stage process, the first being the physical presence of the colonisers, and in his words the second:

“the second form of colonization ... colonizes minds in addition to bodies and it releases forces within the colonized societies to alter their cultural priorities ... it helps generalize the concept of the modern West from a geographical and temporal entity to a psychological category. The West is now everywhere, within the West and outside; in structures and minds.” (Nandy, 1983, xi)

This, of course, deeply affects the Indian ontological condition, and shall for the foreseeable future. A fact he himself points out in a perhaps unwittingly but beautifully relational sense:

“The West has not merely produced modern colonialism, it informs most interpretations of colonialism. It colours even this interpretation of interpretation.” (Nandy, 1983, p. xii)

For the purpose of this research, this is more a note on a large factor that cannot fail to be considered in the sense of Indian ontology and (as established previously as necessarily related), Indian design ontology.

### 3.5 Design Beyond Practice

Recall earlier in this very chapter, where Fry, Escobar and Willis all speak to each other through time to give us the neat three step process which tells us how the world influences design, and design itself further designs. What does this now tell us of the designer?

It must be said that design in the sense referred to in the act of “design designing” is NOT limited to the formal practice of design as we know it today. In fact quite the opposite, the entire point of understanding that ‘design designs’ is for us as practitioners to try and grasp the consequences and downstream effects that we might not intend, but that our design nevertheless has.

But in fact, design is not restricted to those formally educated or practicing as such. Fry (2009) has this to say about the democratisation of design:

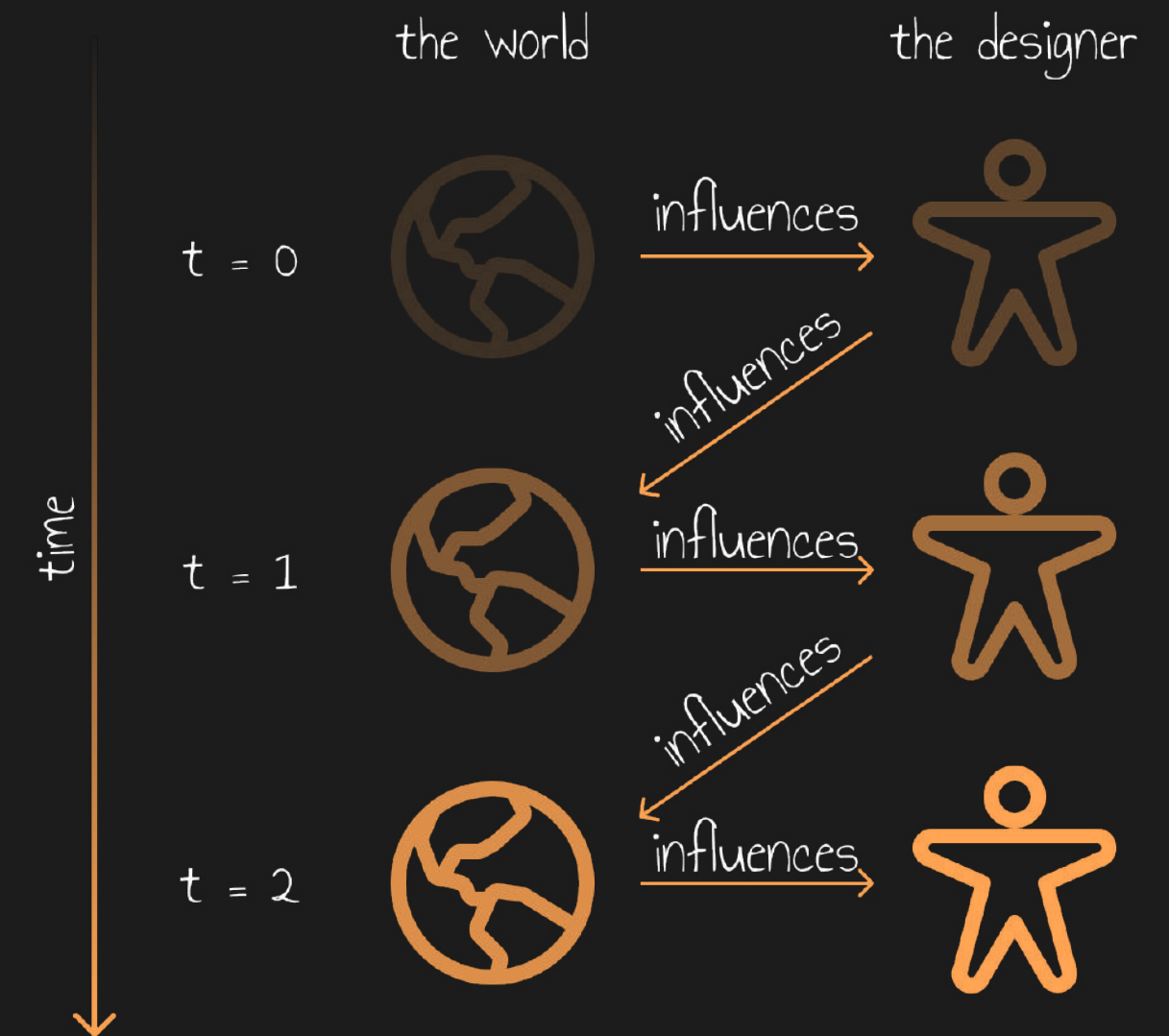
“consider the deregulated pluralization of design activity ... called ‘design democracy’ by some ... driven by a growing mass of free or cheap design software ... allowing anyone to practise as a designer ... at a superficial level ... this activity takes design decisions away from designers ... problem here is not simply that more people are ‘designing’ but that design becomes increasingly trivialized and reduced to appearance ... render[ing] invisible more and more of the designing of the materiality or operability of things ... while design actually embraces the totality of what something is and does[,] it gets seen to be purely appearance and performance. Design thus not only gets materially ‘gutted’ but actually acts to conceal the material nature of objects.” (Fry, 2009, p. 6)

He indicates that in the disenfranchisement of the professional designer, there exists a suite of downstream consequence that may arise from the adulteration of the designerly act, not in the sense of maintaining some spiritual sanctity of the practice, rather as a caution of the capability the role holds. As Uncle Ben said,

“With great power there must also come—great responsibility” (Lee & Ditko, 1962, p. 13).

While this issue is in itself a deep rabbit hole with great scope for deliberation and discussion, it will at this juncture serve to indicate to us this, that design is indeed a ‘redirective practice’ as Fry puts it, one capable of futuring and in turn defuturing — and further that design is a responsibility we all bear in our roles as dasein and as designers.

In the realm of speculation that we are working within, we are therefore handed a diagnostic for the worldly condition. The designer the world produces, and that in turn shapes the world, with this recursive spiral continuing across the narrative timeline, and stretching far back beyond and ahead of what even the author originally may have imagined.



**Fig 3.3.1: At any given time, the world and the designer contain the influence of all that has happened until that time.**

Own Work

# Part II

# Practice

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The ultimate aim of this research is to architect a system which may be used to:

- 1. Convert narratives into story worlds and
- 2. Invite designers to design for these story worlds.

As opposed to the earlier chapters, where there was specific focus on building a base of academic argument and exploration of the narrative space, Chapters 4 and 5 will concern themselves with part (1) of this two stage plan. Chapter 6 will describe the final framework, and part (2) of this two step plan.

# A Note on AI (Part II)

Earlier in this document, there has been some discussion of how AI, or more specifically LLMs, have been used for proofreading , coding and some light image generation. All of these use cases have to do with presentation, which is how this research is perceived and interpreted.

However, in the process of this research, there has also been a deeper use of LLMs within the actual framework itself. The first three diamonds of the 4 diamond structure of this research (see Fig 6.1.2) are specifically 'procedural'. There is a task to be achieved in each: world expansion, profile making and briefmaking. This task can of course be executed by a sufficiently motivated human being, at the end of the day there are a set of rules which have to be followed, and a degree of freedom with which they may be executed.

It is noted that taking the time to immerse in a story world, and laboriously fulfil each step to some required standard is a large and daunting task. In the 'productification' of this framework, there appears to be no incentive for anyone other than the SF worldbuilder themselves to undergo this process. This would mean the functioning of the framework depends entirely on having sufficient SF Worldbuilders motivated enough to participate in the platform.

There is, however, a solution for this. By using LLMs to execute the same sequences of steps, the world expansion process becomes near autonomous. This saves on labour and allows for a larger volume of SF stories to be utilised as design sites (with all requisite permission of course).

As such, the documentation of instructions for each step of the world-expansion process is created in such a way that, if required, an LLM model with access to these documents as context could autonomously perform the entire world expansion process. This dual-purpose has also affected the documents themselves.

After every step, there is an assessment check for sanity (eg. brief assessment and profile assessment). All aspects of creation are sufficiently constrained, like the timeline having fixed areas of focus. The idea is to allow for interpretation but not re-imagination of the story world.

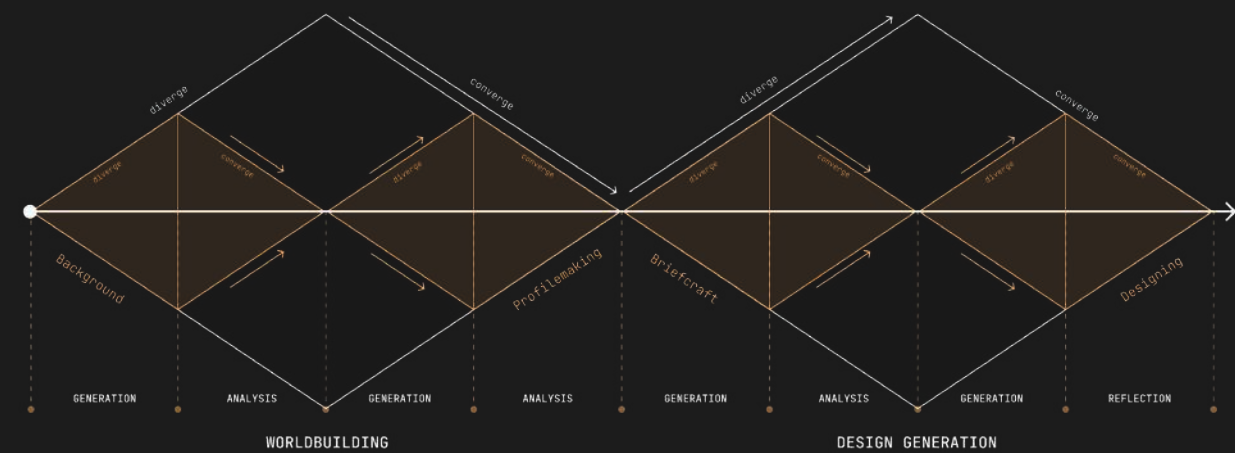


Fig 6.1.2: Framework Overview

Own Work

## Chapter 04

# Designers as Diagnostic

What can we learn of a world through the designers it produces?

As an extension of relational ontology, understanding how the world shapes its designers, and therefore how the designer of a world may be positioned as an artefact of it.

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To understand the concept of worlding at a deeper level, let us return to Heidegger and Willis for a moment. Recalling *dasein* as a being-in-world, there is a fundamental relation to consider between the being and the world they 'be' in.

In Willis's (2006) interpretation of Heidegger's *Being and Time* (1927), *dasein* is mentioned more specifically to not exist outside of its worlded state. Here world does not mean Earth, rather something more plural, in Willis's words:

" World is not equivalent to 'planet earth' nor to 'all that exists, whether known or not by human beings' (the term 'ontic' fits more closely with this latter idea); instead world, or rather, worlds, are always circumscribed, situated, and multiple. " (Willis, 2006, p. 74)

Understanding this interpretation of worlding necessitates the rejection of 'humans' and 'worlds' as separate constructs that can exist independently. The world clings to *dasein* just as *dasein* can only exist in a worldly state.

For the purpose of this section, we will then treat the word 'designer' to mean 'generator-of-design' or 'that who designs'. The existence of the formal profession in the way we think of designers today cannot be guaranteed in any given speculative narrative, thus the definition of designer here is taken to the most abstract, to allow for comparison across any given human-acting narrative <sup>1</sup>. Not to mention, many 'inventions' and creations in the current world are in fact attributed to those who are not considered 'designers' in the formal sense.

<sup>1</sup> Inescapable to human-intelligible narratives are human-acting characters, One can make a story about dolphins in society but in order for a reader to find this engaging the dolphins must act like humans in some way, this anthropomorphisation is inescapable (Suvin, 1979). One might write human-actors who are always cold and stuck up and call them elves, but the characters will always act in recognisable or at least palatable ways. This section will notionally be considering designers to be humans, but with this context consider that it is equally applicable to non-humans (as characters and such) so long as they retain this innate anthropomorphic essence). This is what Suvin referred to in the earlier chapters as 'quasi-human communities'.

## 4.1 Worldbuilding

Everything that has happened has had an effect on the things that have come after <sup>2</sup>. It can be said then that the point of reference of observation is of critical importance, because in the timeline of a narrative (or any timeline for that matter), the question is always 'what has happened until now', since in the moment of observation that is obviously all that can be considered.

The result of this, for a given frame of reference in world-time or temporality, is an episteme, a system of epistemological conditions, which are mapped in the world in relation to the stakeholders (beings-in-world). For the given context, there will be a web of entities, each with their own incentives, worldview and history, which itself acts the corpus, which when viewed through the lens of a given entity (stakeholder) reveals their heuristic framework.

There will also, as a part of this web of entities, be those of the designers of the world. In the same manner a fossil may be analysed for its composition, from which we glean the environment and behaviour in which they were created, so can a designer as an emitter of changemaking be seen as an artefact of the world which created it at a given moment in world-time. This argument can equally be made for other world artefacts, but the specific focus on designers here is in their emittive 'redirective' nature. Thus, it is important to note that for any given story-world, when seen as a potential site for speculative design is a product of three things

1. What has happened until the point of reference
2. The resulting episteme
3. Influential entities (stakeholders)

If the world produces the designer, then in the reciprocal ontological relationship that exists between the two, the designer-artefact in return reveals the world. By looking at the designer, and observing the story-world they are situated within, we can discern and construct details which may not be explicitly mentioned. This is the basis for designer profiling as a diagnostic instrument.

<sup>2</sup> The relational ontology view may be heuristically compared to what is commonly referred to as 'The Butterfly Effect'. Recursive world formation resembles Chaos Theory insofar as the magnification of the downstream effect of things designing their surroundings resembles the nonlinear sensitivity to initial conditions Chaos Theory discusses, especially if the world is interpreted as a sufficiently advanced deterministic system.

# 4.2 Frameworkification

In order for the designer to be read as diagnostic, we must first formalize what a world-snapshot consists of, for which there is need to further develop the idea of a world-activity-log, the resulting episteme and further identifying the story-world's stakeholders.

To create a set of rules or guidelines which may be used for this procedural generation, the initial concern is to create a general set of constraints – the things a thing is not far outnumber the things a thing is.

First, as an extension of the narrative itself is the World Timeline. This is a complete record of world-related events and happenings — anything which may have a noticeable effect on the actions, environment or context of the stakeholders (beings-in-world). This list of general domains which affect the world and in turn the design in it after much iteration, was narrowed down to the 12 seen in Fig 4.2.1.

This is a tall ask, and for many story-worlds which have been written to sufficient depth, this would be an extremely long and arduous document – not to mention many narratives have a more focused worldbuilding that may not cover all these bases. There is also the fear that if every story-world was forced to flesh out the exact same things, there will be a sameness to each design-site.

To minimize the extra-information creation and retain the unique perspective of each narrative, we introduce the concept of Center of Gravity for each story-world. The Center of Gravity is the subselection of 2 or 3 'lanes' of the 10 mentioned in the list above to focus on in the creation of the World Timeline. This selection is made on the basis of the amount of information and the thematic focus of the narrative. To exemplify this, Fig. 4.2.2 shows the CoG breakdown for the 3 story-worlds from earlier.

With these criteria in mind, the entire timeline of the story world may be expanded to create a design canon which comprehensively describes the story-world-environment in the suitable frame of reference.

Second is the evaluation of the story-world episteme. This is important because it determines how knowledge is produced in the world, where it is stored and to whom it is available. This in turn influences what and how things can be designed in the given story-world context. Unlike a timeline, there is no set sequence or structure to adhere to. At the same time, a lengthy essay or

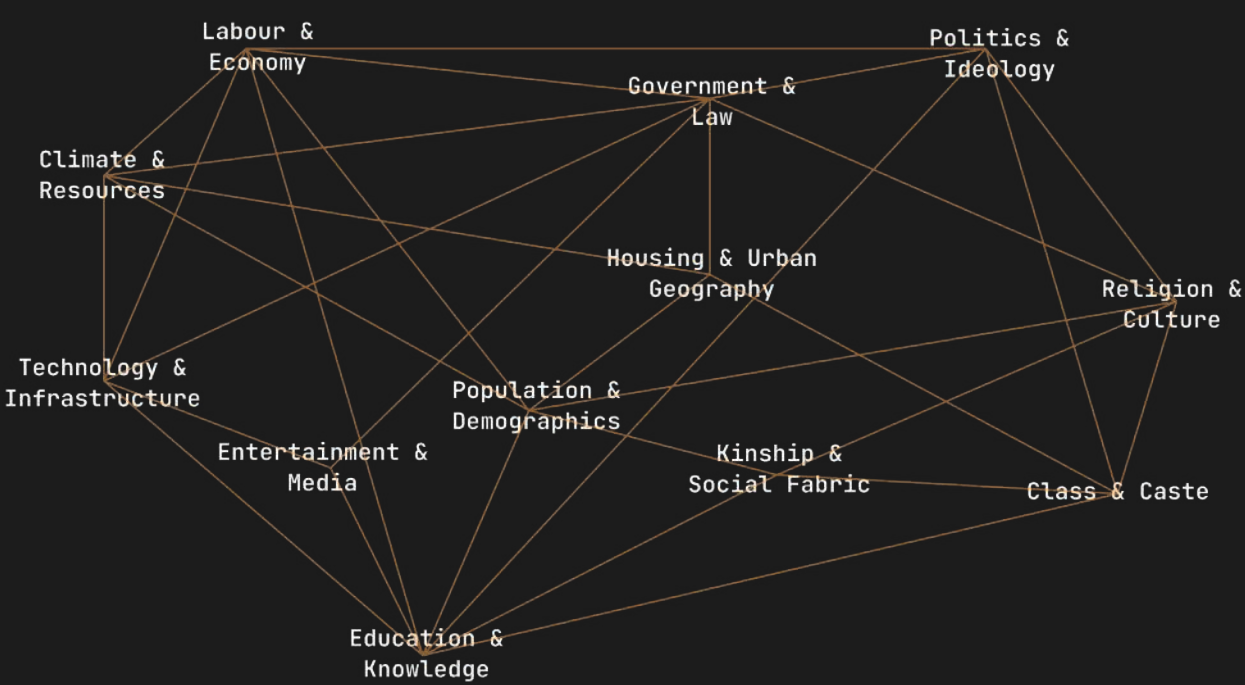


Fig 4.2.1: Domains of World-Information Own Work

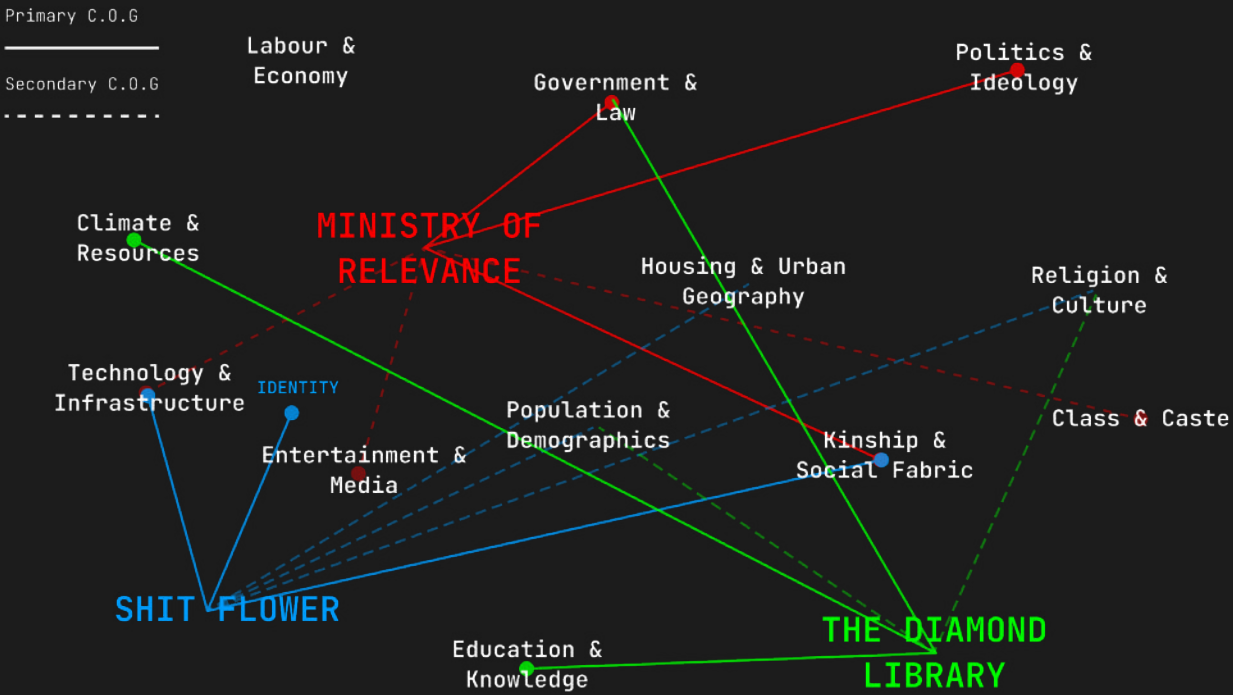


Fig 4.2.2: Center of Gravity for the 3 story worlds Own Work

prose establishing the pedagogy and epistemology of a story-world would be inaccessible both in creation and as a reference material.

A better way to create a referable corpus of information is in the form of questions. These questions do not all need to be answered like some sort of test, rather they act as lodestones to understand what kind of information will be useful downstream for the design environment.

These questions can be seen in Fig 4.2.3 to be loosely grouped into 7 categories that cover all aspects of how a thing can be known, and the conditions the story-world imposes on the knowing of a thing based on the conditions of the knower, the context of knowing and the thing to be known.

Third, there is the task of identifying all relevant influential beings-in-world, the stakeholders. According to the Actor-Network Theory (Latour, 1999), this definition need not refer to human entities necessarily, nor even individuals. As he defines it, an 'actor' is:

“something that acts or to which activity is granted by others” (Latour, 1999, p. 7)

He further states that the actor (stakeholder) does not need to differentiate between the micro and macro scale, i.e. an individual (eg. human) and a collective (eg. a corporation) can be members of the same network at the same level. There must further be the delineation that a 'stakeholder' must have agency (hold stake).

The approach to stakeholder mapping is twofold:

- 1. Enumerating all relevant stakeholders
- 2. Defining the relationships/sentiments between these stakeholders

There must first, then, be consideration to determine whether a mentioned story-entity can be considered a stakeholder or not. This is done on the basis of two simple criteria.

First, the entity must have a basis. Here basis is defined as relevance in the story-world, either in terms of number – a body making up a large chunk of the population is almost certain to be considered relevant in relation to a world as a design site, or in terms of influence. Influence-ability, both in terms of emission and reception, is then the next criteria for stakeholder selection. Either is acceptable, so long as the entity exists in close enough connection with the rest of the elements of the story-world that events of the world affect it and/or it affects the story world.

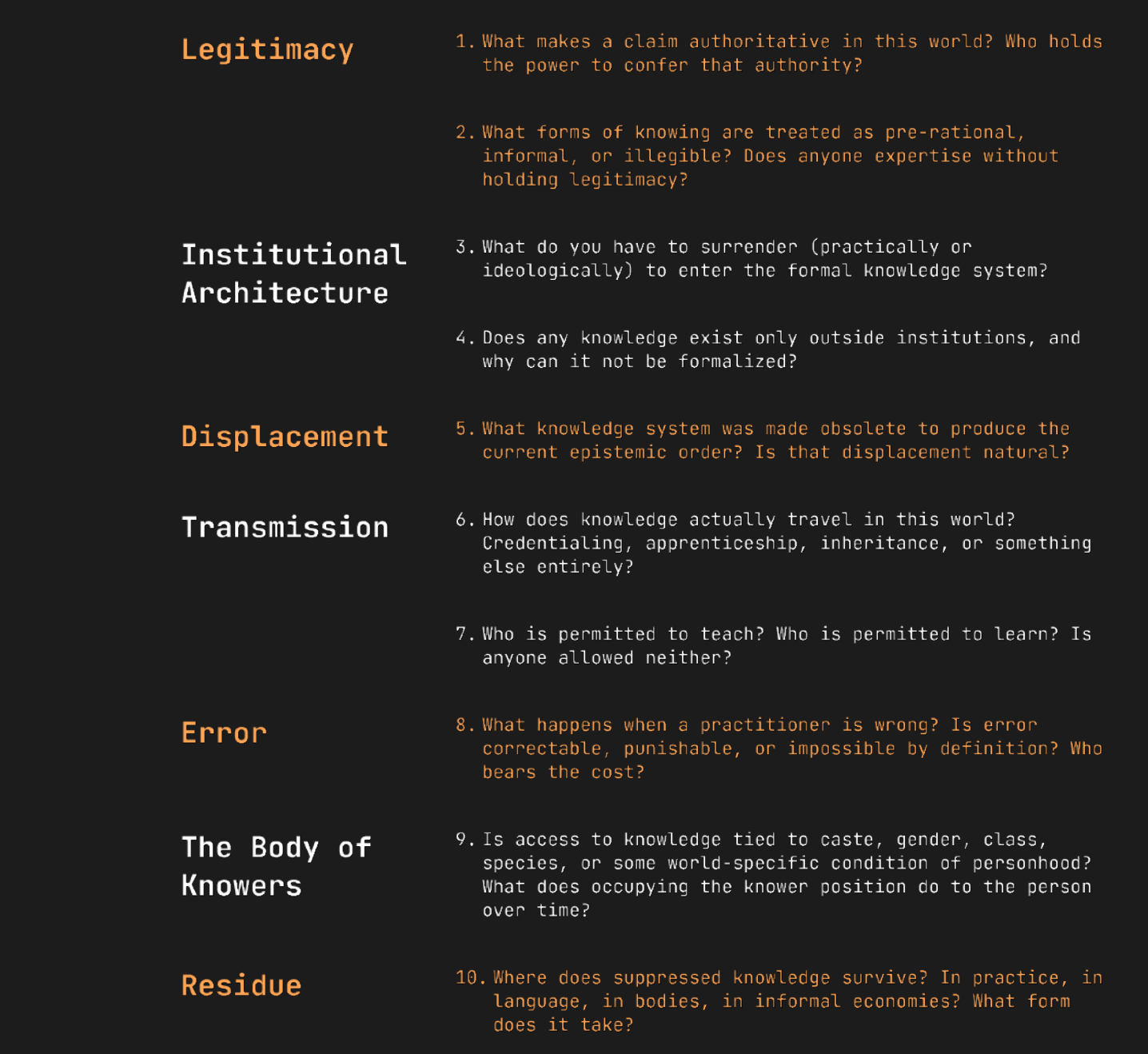


Fig 4.2.3: World Epistemology Questions Own Work

It may be noted at this stage that stakeholders need not be directly mentioned in the narrative, especially considering the para-canon extension to the story world through the World Timeline and Epistemology. Following the extractive nature, of these documents, they may be further tagged as:

- 1. Directly mentioned - canon
- 2. Implied (this is mentioned -> therefore this stakeholder must exist) - may or may not be canon based on circumstance
- 3. Derivative (this is mentioned -> therefore this must exist -> therefore this stakeholder may exist) - not canon

Then comes the categorisation process. All stakeholders must be of a certain typology seen in 4.2.5. From the information compiled earlier regarding the stakeholders' mention or cause for existing stemming from the story-world, each stakeholder must then be detailed out in terms of:

- 1. Their incentive: What is the entity's drive? Why do they act?
- 2. Their position: When did they act in world-time?

Following these steps results in a list of stakeholders, but in order for such a list to be useful downstream, there must additionally be consideration of how these stakeholders relate to one another. To do so, it would be efficient to use the data structure of a graph, which allows us to map the relationship (edges) between the various stakeholders (nodes), visible in Fig 4.2.4.

This requires a list of allowed relationship types (edge types) seen in Fig 4.2.5. It may be noted here the edges may be unidirectional (A->B means A acts on B but B does not act on A), or directional (A<->B means both A and B act on each other).

Answering these at a broad level, in conjunction with the World Timeline and Epistemology, is the first step from speculative narrative to a fleshed out design-site. With this information, we are now able to create the world-snapshot. Seeing as the world-snapshot dictates the being and not-being of the story-world, within it we are able to imagine the designer a world-artefact.

### 4.3 The Designer, Artefactually

Recalling the definition of designer as 'generator-of-design' and design itself as 'fundamental to human activity' (Papanek, 1985), we will now turn to the formation of these native designer-entities of the extended story-world.

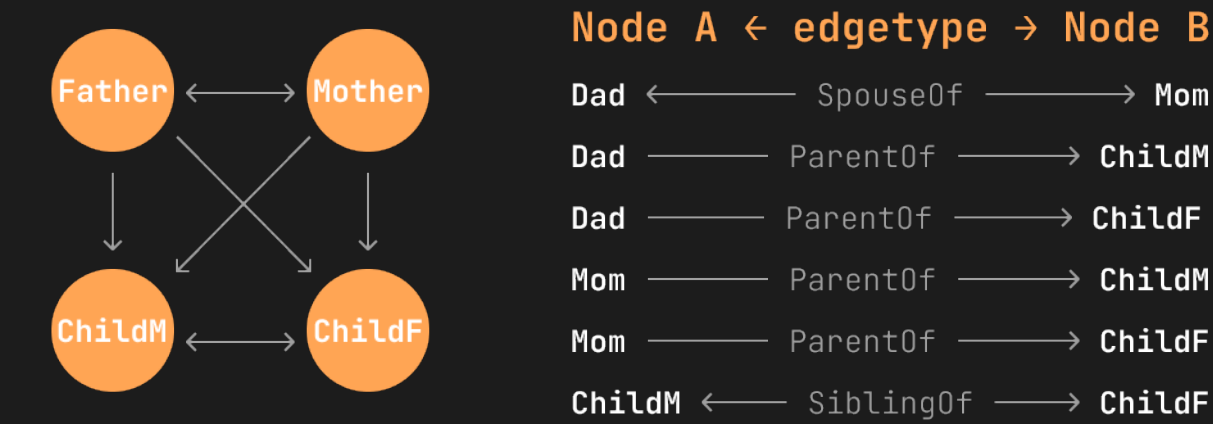


Fig 4.2.4: A relational graph for a family of 4 Own Work

| Entity Types | Institution            | DependentOf         | Edge Types |
|--------------|------------------------|---------------------|------------|
|              | Collective             | ExtractsFrom        |            |
|              | Infrastructure         | Regulates           |            |
|              | Non-Human Entity       | Resists/Opposes     |            |
|              | Exceptional Individual | Reinforces/Supports |            |
|              |                        | Competitor          |            |

Fig 4.2.5: Stakeholder Mapping Entity and Edge types Own Work

The designer is a composite, as are all humans, but more specifically in the aspect of their creation-ability. Broadly, a designer may be seen as greater-than-the-sum of these parts:

- 1. What they know (context) -> World Timeline + Stakeholder Mapping + Epistemology
- 2. What they hope to accomplish (incentive) -> Stakeholder Mapping + World Epistemology
- 3. How they see the world (worldview) -> Timeline + Epistemology

In the same manner that designers are artefacts of the story-world and reciprocally the world can be determined from the designer it creates and vice versa, it follows that a designed artefact and the designer share this same relationship. It may be argued it is the same relationship <sup>1</sup>.

Within each story-world, there are a consistent set of designed artefacts in the nova. The first degree of designers, we may refer to them as D1, (degree in terms of adherence to story canon) can then be seen to be as the designers of the nova seen in the story-world. Since these are directly extractive from the story rather than generative in the story, they form the most grounded sort of designer.

Following the D1 designer, there may further be extrapolated to be D2 designers, which are born of the designed story world that has been altered by the creations of D1 designers.

The important distinction to note between D1 and D2 designers can be seen in Fig 4.3.1, where we note that D1 designers are extracted from their creation (the nova), whereas D2 designers are constructed in the story-world and then may be speculated to create further <sup>2</sup>.

Specific to the extractive nature of D1 designers is that the relationship between the creation (the novum) and the creator is also being described, not just the designer in isolation. In order to better detail this process, a 'Pre Profile Designer Diagnostic' was developed, as visible in Fig 4.3.2. Similar to the World Epistemological Framework, this diagnostic presents itself as a set of questions to ask in the designer-creation process.

<sup>1</sup> the world and the designer take the common part of 'formulater' and the designer and the designed object respectively take the part of 'formulated'

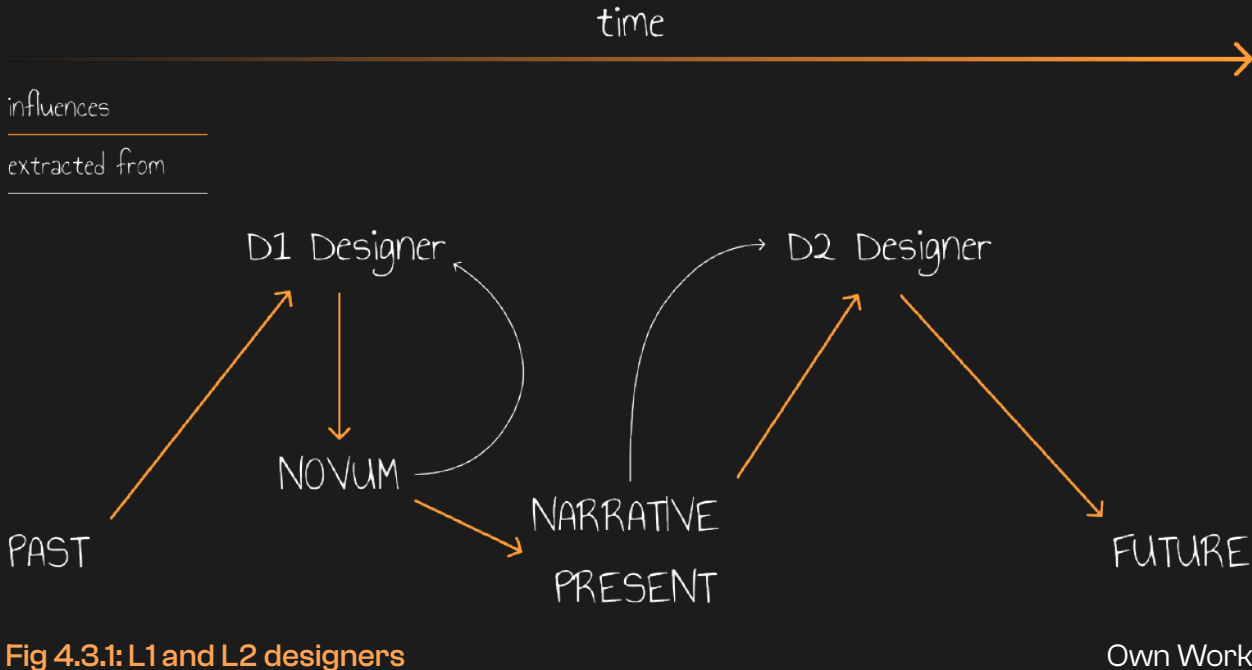


Fig 4.3.1: L1 and L2 designers

|               |                                                                                                                                                                                                  |                                                                                                                                                                                                                         |              |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Context       | 1. What crisis or problem were they responding to?                                                                                                                                               | 6. What did they sacrifice to make it work at scale?                                                                                                                                                                    | Design Logic |
|               | 2. Who commissioned or enabled this? What context made it possible?                                                                                                                              | 7. What would they have called success? On what timeline?                                                                                                                                                               |              |
| Belief System | 3. Who was the imagined user or subject of this design? Who was excluded?                                                                                                                        | 8. What kind of person could build this? What does it require of the designer?                                                                                                                                          | Human Cost   |
|               | 4. What did they consciously believe about human nature, society, and time?                                                                                                                      | 9. What kind of person does inhabiting this design produce?                                                                                                                                                             |              |
| Consequences  | 5. What did they presuppose?                                                                                                                                                                     | 10. What can no longer exist because they existed?                                                                                                                                                                      | Foreclosure  |
|               | If they lived to see consequences:<br>1. 11a. What was the first unintended consequence they became aware of?<br>2. 11b. Was it labelled as a problem, or absorbed into the logic of the system? | If they didn't live to see consequences:<br>1. 11a. What does the gap between design intent and present reality reveal about their original assumptions?<br>2. 11b. What were they right about? What did they misjudge? |              |

Fig 4.3.2: Pre Profile Designer Diagnostic

Own Work

Finally, it must be agreed upon that when it is said that a profile of a designer will be created, what exactly does this entail? What details must be decided upon in order for a designer to be considered ‘created’?

To answer this, there must then be a sort of ‘template’ of all the requisite information for a designer-being, to ensure the minimum output is met for all possible created designer-profiles. This ‘Designer Profile Template’ is visible in Fig 4.3.3, and can be mainly broken down into 6 aspects:

- 1. **Ideology/Bio:** This represents the worldview of the designer, especially what they feel they need to achieve and what they prioritize both in terms of what they think design is and how they think it should be used to shape the world.
- 2. **Education:** One guaranteed touchpoint between the designer and the world-pedagogy (at least a subset of it) is through education. This tells us what information (and from whom) the designer has access to. It also helps inform incentive and mindset.
- 3. **Experience:** This is what situates the designer in the formal context of the world. It dictates to the greatest extent what kind of projects or work the designer might undertake, and what they would be expected to do there.
- 4. **Skills:** Similar to education, skills are a direct interface with the story-world. From the general context of the real-world where the skills professionals possess and more importantly that they advertise are those that are demanded by the industry – the skills become an artefact of the market conditions. They tell us what the story-world values and prioritises.

Apart from this core that centres around the abstraction or generalization of the designer, it was found to be helpful to additionally envision in more specificity:

- 1. **Day in the Life:** More an exercise, imagining a day from the perspective of the designer offers an opportunity to develop the story-world

HI,  
I'M [NAME].

This is what I believe design is/should be. This part should propagate/clarify my biases and values.

Company1

Time1

JOB TITLE 1

Description of role for the job, including worldbuilding details.

Company1

Time1

JOB TITLE 1

Description of role for the job, including worldbuilding details.

Institution

DEGREE

Time1

Institution

DEGREE

Time1

SKILL

SKILL

SKILL

DAY IN THE LIFE

MORNING

Describing the accommodation situation, the commute or equivalent, situates the designer in their context.

REGULAR WORK

Describes workflows, interfaces and organizational structures.

IMPORTANT EVENT

Describes something out of the ordinary (which indicates what is the ordinary as well).

CRITICAL REFLECTION

Describes the context of the important event, the mindset of the designer and worldview.

EVENING

Similar to Morning, space for worldbuilding and reconnecting with the designer's context in world.

Fig 4.3.3: Designer Profile Template

Own Work

<sup>2</sup> Technically by this definition it may seem there might also exist designers of D3, D4 and so on, extending forward unto perpetuity in the story-future. This is not so, however, because past the temporal gate of the frame of reference in the story there is no further demarcation between the world before and after the novum creation. The condition for being D2 is binary, so if the condition of ‘exists after nova’ is fulfilled there is no further division.

through the interfaces and affordances necessary to picture a daily routine (residence, workplace, urban or geographical context etc.)

2. **Artefacts:** In the form of images or other schematic representation, simple visualisations of key moments in the day in the life journey create significant depth to a designer profile.

Note that this information is over and above the actual designed artefact that the profile is linked towards i.e. the Novum (in the case of D1 designers). Additionally, it is observed that the presentation of the designer profile in the template form resembles that of a CV or one-pager one would expect to see of a real-world designer or industry professional.

The CV as a format is inherently an indictment of the market<sup>3</sup> and context because it focuses specifically more on perception than on reality, which offers an extra datapoint to glean information from. Just as explained with the 'Skills' section in the template, what information makes it to the Designer Profile and how it is presented itself becomes an aspect of the designer as an artefact of the story-world.

The CV as a format allows for two more dimensions of worldbuilding that are not formally evaluated but bear mentioning:

1. **The 'photo':** As typical with designer CVs, the provision for a 'headshot' image provides an opportunity to further develop the visual register of the story-world. Implicit from this photograph can be fashion choices, body modification, personal accessories – all sorts of artefacts of the environment the designer belongs to.
2. **The name:** Although lower signal and less direct than a directly visual photo, the naming conventions of a story-world are also world-artefacts, and can make or break immersion in terms of speculation-ability<sup>4</sup>.

The criteria for the 'content' of the designer profile does not change from D1 to D2, because only the source changes between D1 and D2 (sourced from novum vs. sourced from speculation), not the end result of what is sourced (the content for the template).

<sup>3</sup> Here the market is not necessarily the capitalist construct that we are familiar with today. Much like nonhuman characters resembling humans in their behaviour in order for them to be relatable, any form of societal configuration where there is an exchange of goods and services would show through the form of the CV.

## The Tiffany Problem

<sup>4</sup> On the subject of names and immersion, there is a popular socio-historical effect called The Tiffany Effect, coined as such by Jo Walton in a 2009 blog post (Watson, 2015). It refers to the phenomenon of readers incorrectly temporally anchoring certain details of the modern world to the current era. As an example, readers may find 'Tiffany' too modern a name and immersion-breaking if used in a narrative set in say 1700, even though the actual name Tiffany was used in English as early as 1600.

This mismatch between historical accuracy and perceived historical accuracy is worth bearing in mind when deciding details both for the extended story-world at large and within the specific context of the designer-profiles.

This phenomenon typically refers to perceptors falsely attributing modernity to old things, but the reverse may also be true in cases, where something possible at the time of story-canon may be seen as futuristic when described in a certain way.

An example of this can be seen in Shit Flower, where there is mention of artificial rain being administered to clean the city. This sounds futuristic and more-than-now, but artificial rain and cloud seeding has existed for several decades.

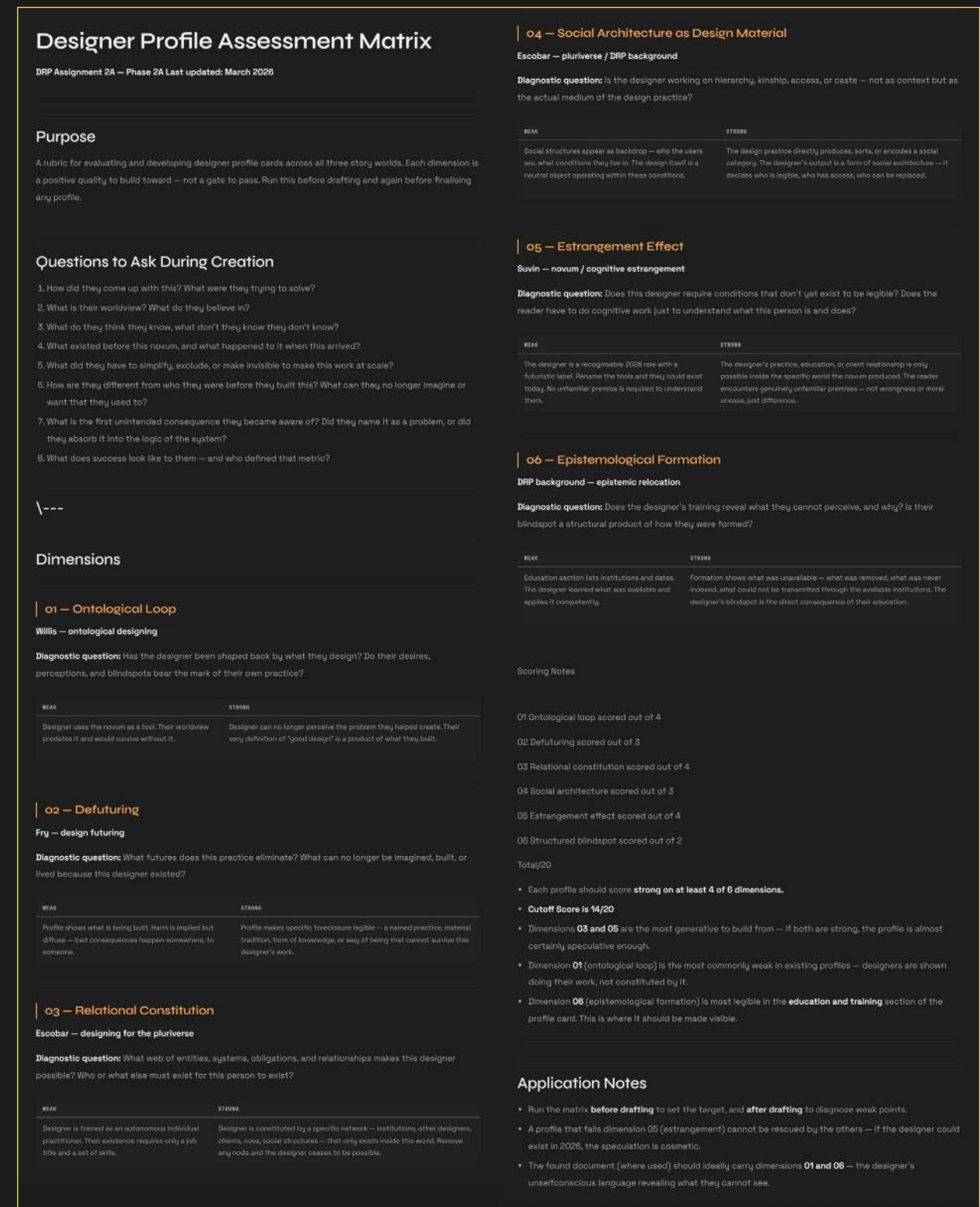
## 4.4 Designer Assessment Matrix

The creation of the designer profile is only complete when it can be validated and tested. Such an assessment is required to prevent gaps in the created profiles from causing further downstream impact. Seen in Fig 4.4.1, the Designer Assessment Matrix develops further 6 criteria for evaluation. In line with what this literature has emphasised as important in SF literature and SCD, the criteria revolve around evaluating the designer profile not in how comprehensive it is or descriptive – but how the information conveyed allows the designerly entity to be considered as a ‘formulator’ and as the ‘formulated’ of the story-world of which they are dasein.

The 6 criteria <sup>5</sup> are also weighted to account for their relative importance. It must be noted that these weights may be adjusted depending on the nature of the story world and the intent of the original narrative.

1. **Ontological Loop (20%):** Is it evident that the designer has been designed by what they designed? Does their creation inform their outlook? Does the designer bear the mark of being designed by the story-world?
2. **Defuturing (15%):** Are there futures that this designer eliminated in their practice? Is this intentional or unintentional?
3. **Relational Constitution (20%):** Does the designer exist in a complex web of entities, systems, obligations, and relationships?
4. **Social Architecture (15%):** Does the designer in their design practice inform, develop or engage with the social fabric of the story-world? Is their practice transformative?
5. **Estrangement Effect (20%):** To what extent does this designer require conditions that do not yet exist? What does this designer 'make strange', and to what end?
6. **Epistemological Formation (10%):** How well integrated is the designer with their world epistemology? How has their education impacted their blind spots, priorities and outlook?

<sup>5</sup> Note that these criteria do not all serve the same function in the evaluation of the designer. 'Relational Constitution' and 'Epistemological Formation' evaluate the groundedness of the designer in their story-world. 'Estrangement Effect', 'Ontological Loop', 'Defuturing' and 'Social Architecture' evaluate the efficacy of the designer profile as a diagnostic.



**Fig 4.4.1: Designer Assessment Matrix**

Claude

# 4.5 Demonstration

The profile creation framework, once established, was executed on the 3 story-worlds from Chapter 2 to obtain example outputs. These outputs were used to further refine the procedural framework itself, but this process was not as rigorous as seen with the briefs later on.

For profiles, the main source of improvement could be boiled down to:

- 1. **Voice:** The first test for every generation of profiles was the ability to immerse the reader in-world. The first encounter of this was the voice used in the bio and 'Day in the Life' section. Vocabulary and sentence structure were the biggest factors to this, especially in things like job titles -- can these really be expected to be the same dozens or thousands of years from now?
- 2. **Details:** Naming convention, and even the fashion and aesthetic of the designer-photo were the other big hurdles to immersion. They cannot look too similar to the present, and yet they cannot look too estranging, especially in the absence of direct authorial references to image or appearance.

A good example on both accounts are the designer-profiles from TDL. The naming convention was chosen with the presupposition that information in-the world of TDL is a limited resource, so names and designations would be shortened to prevent waste of data. As mentioned earlier in this section, there was an attempt at decoding the visual language of each story world, and in the case of TDL this was visible in the fashion in the designer-photos as well.

## L1 Designer Profiles

| The Ministry of Relevance |                                      |                                |
|---------------------------|--------------------------------------|--------------------------------|
| Name                      | Designation                          | Associated Novum               |
| Ishaan Kulkarni           | Chief Legibility Architect           | The Relevance Score            |
| Rhea Joshi                | Synaptic Worldbuilder                | The Virtuality                 |
| Myra Deshpande            | Monumentalist                        | Locus                          |
| Vansh Patil               | Mechanoid Designer                   | Automatons                     |
| Amaira Khare              | Neural Intimacy Theorist             | Synapsafax                     |
| Shit Flower               |                                      |                                |
| Name                      | Designation                          | Associated Novum               |
| Meenakshi Rajan           | Integration Designer                 | Sensorium                      |
| Simon Josda               | Nonhuman Security Systems Consultant | The Virtuality                 |
| Inaara Contractor         | Identity Architect                   | Identity Transplant            |
| Pradeep                   | Chief Scientist                      | Immortality Procedure          |
| Prakash Deshpande         | Principal Architect                  | Temple City                    |
| Hemant Shah               | Kinetic Designer                     | WalkSafe                       |
| The Diamond Library       |                                      |                                |
| Name                      | Designation                          | Associated Novum               |
| Vara                      | Equilibrium Architect                | The Transcendent               |
| Keln                      | Sequestration Optimiser              | The Library                    |
| VEK                       | Vocabularist                         | Enforcement & Returns          |
| C14                       | Cataloguist                          | The Censors                    |
| AMA                       | Reader                               | Storytelling                   |
| PRA                       | Teller                               | Population Quota/Library Slums |

Fig 4.5.0.1: List of D1 Designers of the 3 story worlds Claude

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Claude

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## Chapter 05

# Brief's

# Anatomy

What is a design brief? What does it tell us about its origin?

Dissecting the design brief and understanding its typologies and constituent elements to understand how it may be deployed as a diegetic prototype of the world it originates from.

**5.1 What is a diegetic prototype?** ...110

**5.2 The Brief as a diegetic instrument** ...111

**5.3 Generating Design Briefs** ...113

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In order to act as a designer, the designer must be directed towards that which must be designed. The information of what must be/should be designed exists in the story-world, in various industries, scenarios and local environments. To be imbued with this information and direct their designerly focus, the Diagnostic Designer must engage with the story-world through some interface. This interface would act as the medium of interaction between the story-world and the designer in their official or professional capacity, allowing for a unilateral exchange of information through which the delineation of that which is to-be-designed is outlined.

The design brief is what such an interface looks like in the world of today. Through it, in our current world, the world tells the Designer what is required of them. In this section, the design brief will be examined in greater detail as a diegetic prototype.

## 5.1 What is a Diegetic Prototype?

Diegesis refers to being-in-world, therefore an object being diegetic means it is natively "part of "every day life" in the diegesis [of the film.]" (Kirby, 2010). Originally a literary term, the narrative concept of diegesis was extended in the field of cinema to objects designed within the narrative world, called "diegetic prototypes" by David Kirby. In his words:

"I introduce the term 'diegetic prototypes' to account for the ways in which cinematic depictions of future technologies demonstrate to large public audiences a technology's need, viability and benevolence ... These technologies only exist in the fictional world- what film scholars call the diegesis but they exist as fully functioning objects in that world. "  
(Kirby, 2010, p. 41)

That is to say, the diegetic prototype is an artefact of the story-world (be it cinema or any other medium), one which belongs wholly to the world and encodes its logic in the same manner objects in reality encode the logic of our world. This fact makes them an indicator of the story-world, more so than a facsimile or prototype made outside the story-world. In his words:

"Diegetic prototypes have a major rhetorical advantage even over true prototypes: in the fictional world- what film scholars refer to as the diegesis- these technologies exist as 'real' objects that function properly and which people actually use. " (Kirby, 2010, p. 41)

These objects, besides simply being artefacts of the story-world, further comment on the story world by virtue of their belongingness to it. Willis's (2006) ontological loop – that we design things, and those things design us back – is visible in the diegetic prototype because it encodes the world's logic and further shapes what is imaginable in it.

The diegetic prototype also plays a part in the estranging effect by defining to the user what the notion of reality or normalcy is in the story-world. In Julian Bleecker's words:

"the prototype enlivens the narrative, moving the story forward while at the same time subtly working through the details of itself" (Bleecker, 2009, p. 39)

It may be further noted that the diegetic prototype here is differentiated from an object, in that the prototype is a 'performative artefact' that 'establishes

viability and social necessity' (Kirby, 2010). Kirby theorizes the diegetic prototype specifically in cinema, where that which is conceptually in-world is rendered visible and functional.

This project applies this same concept to a different artefact of the story-world: the design brief. Unlike an object which communicates itself in its form, shape and materiality (refer to Heidegger's Jug from CH 3), a brief is a communicative document. However, it retains the nature and function of a diegetic prototype: it exists entirely within the story-world's native logic and through its demands it makes this world-logic visible and legible<sup>1</sup>.

## 5.2 The Brief as a Diegetic Instrument

To understand the brief as a diegetic prototype, we must first establish what a design brief actually is. Gavin Ambrose and Paul Harris (2008) define it as simply as

"A design brief presents the client's requirements for a job. These may be verbal or written, simple or complex. A brief contains a specific goal that is to be met by the design but it may also be couched in terms that have varying interpretations. " (Ambrose & Harris, 2008, p. 12)

This definition seems to indicate the goal-defining as the primary intention of the design brief. Additionally, we can see from the definition of the brief that it relates to the client. The client, or the issuing body, is the primary stakeholder of the brief, and alongside them the target audience (which may be separate from themselves).

<sup>1</sup> For an example of what a diegetic prototype could look like, we may turn to the sci-fi movie *Arrival* (2016). In the movie, an alien race of large cephalopod-like creatures visit Earth. They do not appear to be malevolent, and during first contact they communicate in a language that comprises a series of logograms. This language system is one of the central plot points of the movie, and is detailed to a great degree. The logograms are complex, compound depictions of large amounts of information, and in the movie it 'alters the human notion of time' and allows humans to perceive time as a traversable dimension. Although the plot ends up veering quite sharply into speculation, this artefact of the narrative is a diegetic prototype.

This is, of course, true in the most general sense, especially within the context of the real world. Peter Philips (2004) corroborates, defining the design brief as, in essence

"a written description of a project that requires some form of design."  
(Philips, 2004, p.1)

Similar to Ambrose and Harris, this definition also seems to highlight the fact that a design-site is being described, and that is what a brief does.

There is, however, another interpretation of this. A brief, by this very definition, can also be seen as the communication of intention. This is an important distinction to make, because this interpretation does not treat the brief as gospel. It is understood that what is being said carries an underlying current of what is being meant, and that undercurrent is the true meaning of the communication. In other words, a brief states explicit requirements but also reveals implicit worldview.

Whichever interpretation is taken, it is agreed that there is no specific or optimal format for a design brief (Peter Philips + Ambrose), because of the variance in scope, intent, tone and other variables.

What, then, makes a good design brief? The importance of having one is clear. In the opinion of Peter Philips (2004),

"A well-crafted design brief can function as a contract, an easy-to-follow road map for the entire design process, and an invaluable tool for securing project approval at the end of the process." (Philips, 2004, p.15)

At this stage, it is worth clarifying that the brief in the real-world and the brief as a diegetic instrument do not necessarily coincide in their evaluation criteria since they do not necessarily coincide in their goal.

For conventional design briefs, in the estimation of Ambrose and Harris (2008), there is a checklist one might ask themselves to ascertain this. It asks the 5 Ws + H: who, what, when, where, why and how. If the brief can answer all questions it is satisfactory. This focus on 'completeness' for the conventional design brief speaks to the meaning-making function it has, as posited by the definitions enlisted earlier.

The diegetic brief, on the other hand, relates more to the aspect of intention and integrity, because it is that intention which is exposed as critical information within the story-world.

The ability to convey not only the stated intention of the issuing entity but also their unstated, unsaid intention is the true strength of the design brief as a diegetic prototype.

Briefs work as diegetic prototypes because of this aspect of being an impression of the issuer. This means that the brief should ideally propagate the blind-spots and biases of the institution through to the designed product. Take for example the concept of preventative policing, explored in such titles as *Minority Report* (2002). Framed within its native world-logic, the concept may be seen as natural solution to a deep rooted crime problem, one that has the potential to save countless people. The moral question: “Is it really OK to arrest someone over something that has not happened yet?” is NOT asked by the brief because it is not considered by the issuing authority. This is what this research calls the ‘Institution Sincerity Principle’. Any ethical friction, reflection or pause is produced by the reader or world-inhabitor in their own perception, and is completely ignored in the document itself because it is a reflection of a world that is ignoring such questions.

With this established, the question then becomes: how do we generate briefs procedurally that maintain this diegetic integrity?

## 5.3 Generating Design Briefs

Inherent to the concept of the design brief, both as a diegetic prototype and in the conventional sense, is the delineation of a goal. There is something which has to be accomplished, which is what the brief outlines. In the real world, these goals are linked to problems that are being faced in the world, because these problems invite opportunities for solutions.

The first step, therefore, in the process of creating a design brief in the story-world is to identify or extract prevalent problems in the society described by the World Timeline, Epistemology and Stakeholder Maps.

The ‘problem’ is in itself a relational term, because what is a problem for one may not be a problem for another. For example, a problem with the hardware of the latest generation of iPhones only affects the users that bought them. It does not affect anyone else, not even old iPhone users. The ‘problem’ therefore can only be seen through the lens of the stakeholder for which it is a concern.

In the same manner seen with the creation of the designer profile, the cre-

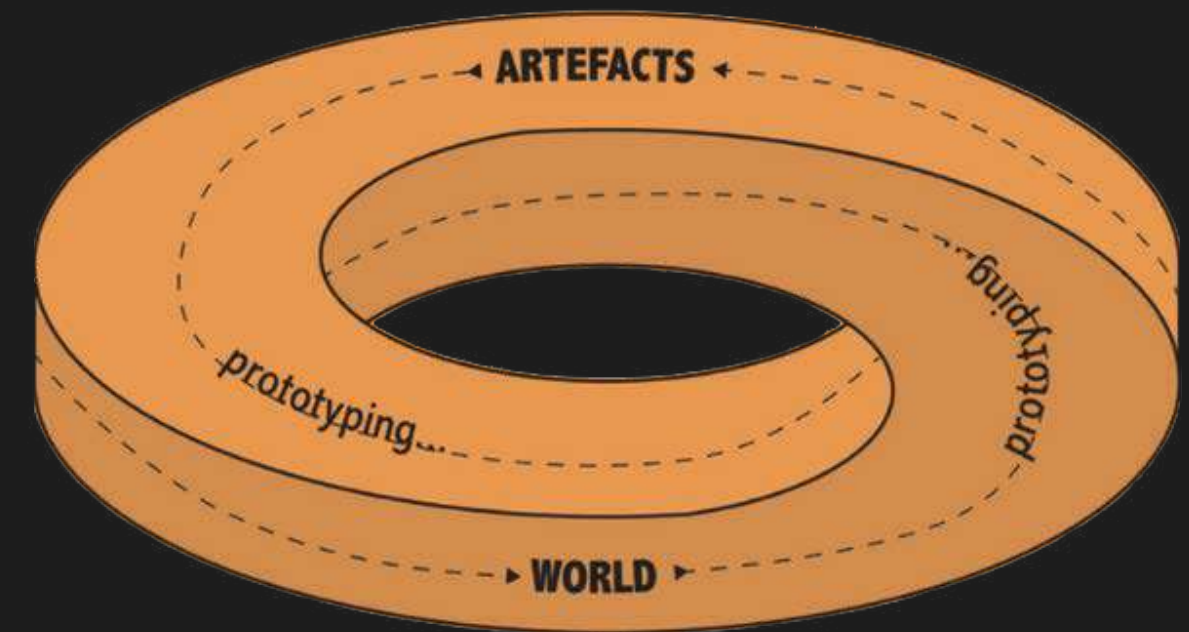


Fig 5.2.1: The Diegetic Prototype and World

Franziska Pilling

ation of briefs will also follow a diamond (the two together forming a double-diamond), where the first stage is expansionary, generative and exploratory, and the second half is analytical, constrained and narrowing. As part of the generative half of the diamond, there are two phases: first, problem extraction and two, briefcraft (Fig 5.3.1).

The problem extraction framework operates on 6 diagnostic lenses, from which problems may be revealed in the story-canon:

1. **Goal Obstruction:** For any given stakeholder, what prevents the stakeholder from achieving their core goal? Are there any impediments or obstructions to this end goal?
2. **Relationship Friction:** For any given stakeholder, do the relationships with other stakeholders create stress, vulnerability or breakdown?
3. **Epistemic Blind Spots:** For any given stakeholder, do problems arise from what they naturalise or take for granted?
4. **Systemic Constraint:** For any given stakeholder, do the systems or infrastructure they are placed within constrain their operational space in an obtrusive manner?
5. **Naming Constraints/Unspeakables:** For any given stakeholder, what is needed or wanted but cannot be stated openly?
6. **Timeline positioning:** Problems, as consequence of world-events, are temporal, and as such should be situated in the World Timeline

From this framework, there results a matrix of problem-areas, each defined in the context of one or a group of stakeholders. These need not be definite, because the vague problem area is now recontextualised in the next step, which is briefcraft.

It is worth mentioning that like the problem areas, briefs are also defined via the stakeholders they relate to. However, the primary problem stakeholder and the issuing body for the design-brief need not be the same. The clearest example of this is the government, which may, in good faith, issue briefs on the behalf of the affected parties (such as a minority group in the population). It follows, therefore, that not every stakeholder is brief-issuable. The issuing institution is crucial in determining not only the worldview and intent of the brief, but more specifically the tone and biases that necessarily make their way into the brief structure.

Briefcraft in this framework begins with marrying the problem area (and related stakeholders) to the issuing body.

The 'Institutional Sincerity Principle' mentioned earlier becomes the core of this step of the briefcrafting process — in order to issue the brief there must

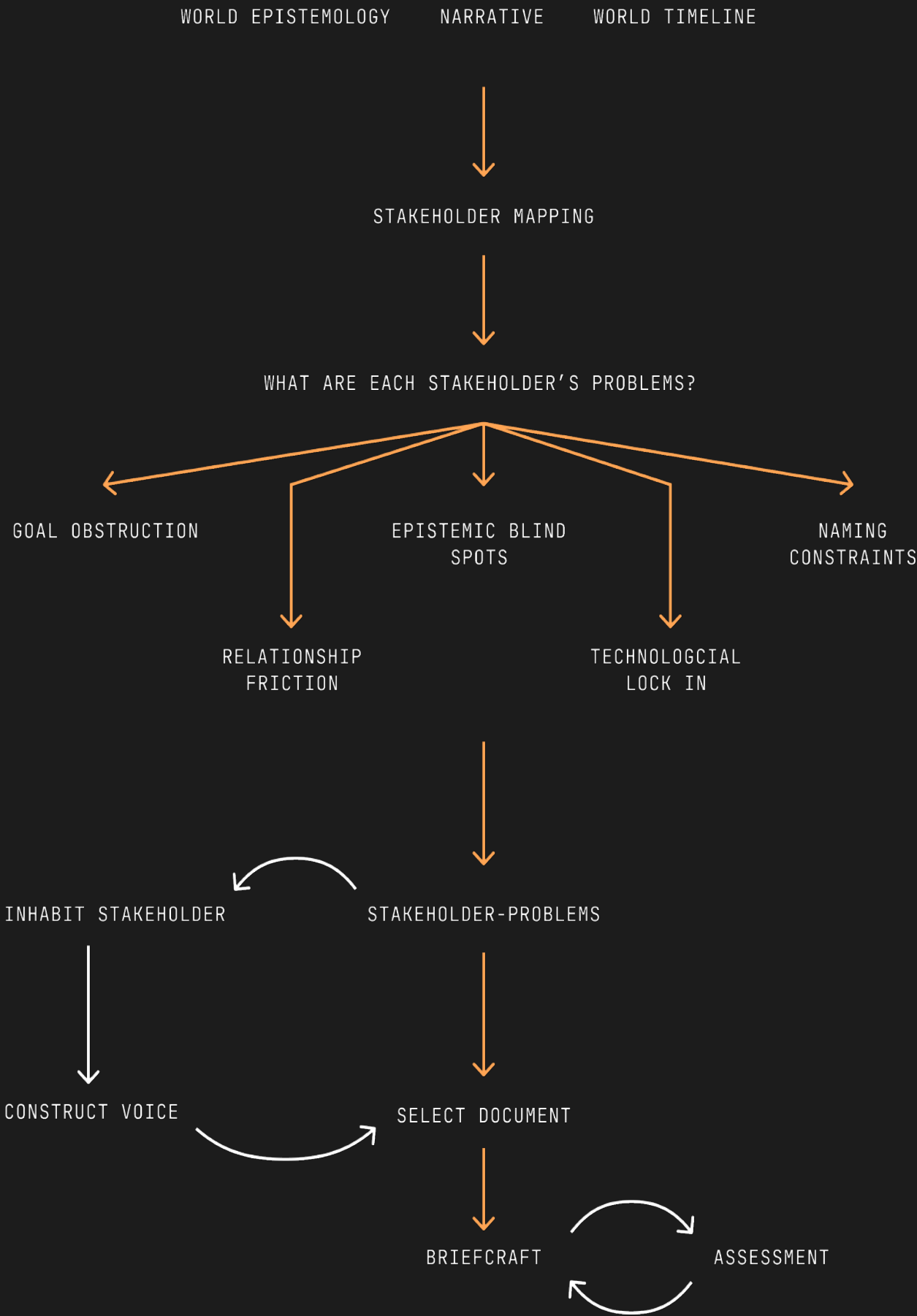


Fig 5.3.1: The Brief Creation Process

Own Work

be a deep understanding of the context of issuance. We may then ask questions to inhabit the perspective of the issuing body (Fig 5.3.3)

Importantly, there is also the consideration of language alongside these questions. The word choice is also an artifact of the issuer in terms of what can be said and how within the world-logic. Each institution will have a vocabulary that is defined by their objective(s), both actual and stated.

Once the issuing institution for a problem area is decided and inhabited, the next substep is to formalise the problem to a brief. This process follows 4 simple questions, which then lead to the information required for the brief-creation:

- 1. What problem harms this institution the most in their estimation?
- 2. What does the issuing institution see when it sees this problem?
- 3. What does the institution believe it needs?
- 4. Who is benefiting from this? How does this institution frame this?

With the context and requisite information by and large decided, the last step is to formalise the brief into a document format. The specific document format depends on the context of the brief itself, the issuing body and the tone. Key here is to avoid a default template, because this would prevent briefs from existing as authentic representations of their context. The spectrum of possible document types ranges from formal to informal – the most formal of which would be public-tender RFPs or similar documents typical of large, formal institutions such as the government or large corporations. On the other end of the spectrum can be as simple as a conversational brief. Anything works as long as the information required is conveyed. Roughly, these functional components are:

- 1. Problem Statement
- 2. Context
- 3. Stakeholders
- 4. Constraints
- 5. Deliverables
- 6. Timeframe

These do not need to be mentioned in any particular order, to any specific level of detail to retain the maximum possible freedom (and therefore variance) in briefs created. The aim of these components is to by and large answer the 5W + H questions posited by Ambrose and Harris (2008).

The result of this is a brief formalized through the lens of an issuing institution, formed diegetically by inhabiting the issuing institutions perspective.

|                                                          |                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>What kind of institution is this?</b>                 | Government bureau<br>Corporate entity<br>Temple city administration<br>Resistance network<br>Informal community coalition<br>Regulatory body<br>Technology platform                                                                                                                                              |
| <b>What is this institution's relationship to power?</b> | <b>Dominant:</b> Controls resources, sets rules, has enforcement capacity.<br><b>Contested:</b> Must negotiate, justify, or defend its position.<br><b>Emergent:</b> New authority, establishing legitimacy.<br><b>Marginal/Resistance:</b> Operates outside or against dominant power.                          |
| <b>What must this institution euphemize or omit?</b>     | Violence it cannot name as violence<br>Control it must frame as care<br>Extraction it must frame as optimization<br>Exclusion it must frame as prioritization                                                                                                                                                    |
| <b>What can this institution openly acknowledge?</b>     | Mandate (What it's officially authorized to do)<br>Constraints (resource limits, legal boundaries, technical dependencies)<br>Goals (As it frames them not the actual intentions, but the stated ones)                                                                                                           |
| <b>Who is this brief written FOR?</b>                    | Internal design team (assumes shared context, uses institutional shorthand)<br>External contractors (more formal, explains context, specifies accountability)<br>Public tender (maximum formality, legal weight, broad accessibility)<br>Informal community (minimal bureaucracy, conversational, assumes trust) |

Fig 5.3.2: Institution Inhabiting Questions Own Work

## 5.4 Brief Assessment Matrix

Before the brief is carried forward into the story-canon and further generates design, there must be assessment, the second half of the diamond structure defined for briefmaking (and already demonstrated in profilemaking).

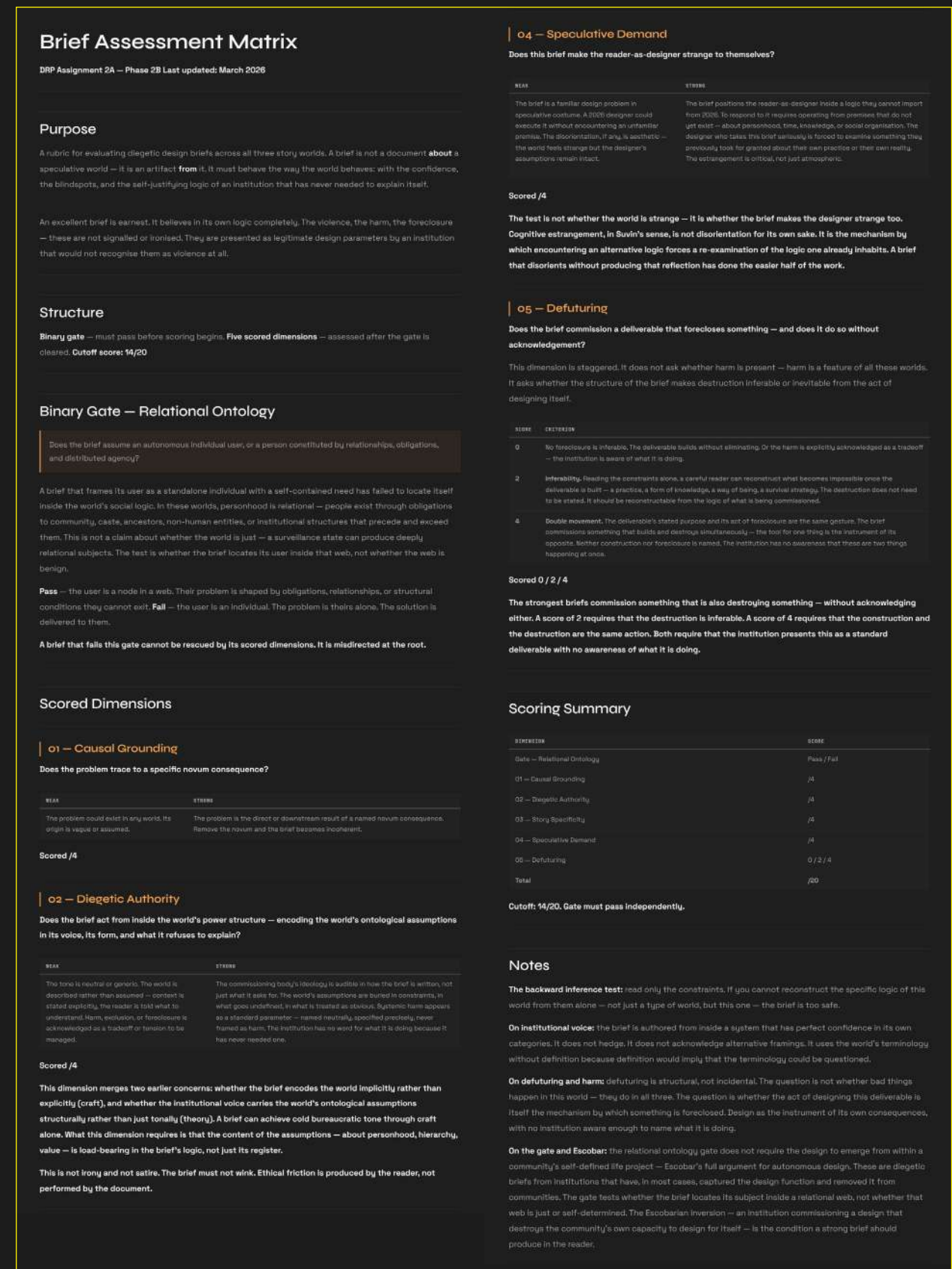
This assessment is primarily for course correction in terms of connection to the story-world. It is important to note that the intention is not to score how good of a brief the brief is, but rather how well does the brief work as a diegetic prototype. This distinction is key because the actual quality of the brief itself is less relevant for any given brief-inhabitor in the meta-context of the framework since only the most relevant briefs would be surfaced to the brief-inhabitor. As such the objective 'fun-ness' of the brief is of less import than the non-negotiable, which is its diegetic nature.

This assessment develops 5 scored dimensions and 2 binary gates (pass/fail) as criteria for the generated briefs:

1. **Binary: Information completeness** (5W+H)
2. **Binary: Relational Ontology:** Being a diegetic prototype, it is necessary for the brief to relate to and be situated within a deep network of interconnected correlations and causations with the story-world. Without this a brief sits on top of the world rather than in it.
3. **Causal Grounding:** From the definition of a brief, it is necessary for the brief to follow a logical sequence from distal to proximal cause. This keeps the world-logic coherent.
4. **Diegetic Authority:** Besides relating to the world it is set in, the brief must also inhabit the authority of the institution that issues it.
5. **Story Specificity:** Recalling the initial premise of this research being to extract native design logics, it is crucial for the briefs to be story specific so they may further the native logics of the story-world into the design-site.
6. **Speculative Demand:** In a similar manner, the speculative demand of the brief is requisite for estrangement and further for critical reflection.
7. **Defuturing:** The diegetically strong brief makes visible which futures are being foreclosed in the design it is requesting. This also advances critical reflection in terms of the implicit assumptions present.

As with the profile assessment, these scored dimensions can be clustered to form higher-level categories.

Speculative Demand, Story Specificity and Defuturing Potential are related to the brief as an instrument of extracting design logic, estranging to a critical



### Fig 5.4.1: Brief Assessment on one of MoR's briefs

Claude

distance and inviting discussion on the defuturing aspect of design through the brief and in the story world. Causal Grounding and Diegetic Authority on the other hand ground the brief to its function as a diegetic prototype.

These clusters correspond to the dual function of diegetic briefs: extraction (story specificity, speculative demand, defuturing reveal the world’s design logic) and immersion (causal grounding, diegetic authority maintain world-in-ternal coherence).

## 5.5 Demonstration

With the framework of brief creation in place, the next step is therefore to put it into practice, more specifically through the 3 story worlds discussed previously in Chapter 2.

This process, like the framework itself, was recursive and iterative. For each step, the instruction document would be created, then the output would be made.

If the output was of insufficient quality or seemed lacking in some way (this was most often in diegetic authority), the previous step would be retested. If the output scored well but was still deemed insufficient, the document criteria would be altered/recreated. This process was done over 7 or 8 iterative loops.

Institutional Sincerity, for example, came about around loop 4, where it was determined that the reason why the briefs were so flat is that they were not being written from within the world (which is what would make them diegetic in the first place).

These briefs have yet scope for refinement, but at this stage it was elected that further refinement would take place during and after the testing process.

### Briefs

| The Ministry of Relevance          |                                                                                       |                                       |
|------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------|
| Name                               | Looking For                                                                           | Relevant Field/s                      |
| Civic Standing Companion           | A way for citizens to improve their Relevance Score                                   | ProductUXBehavioural                  |
| Civic Household Partnership        | Inviting mid to high Relevance Score citizens to act as Replacement Spouses           | CommunicationBehavioural              |
| Vision Perpetuation                | A way to propagate the will of The Great Leader indefinitely                          | System                                |
| Civic Movement Infrastructure      | A way to reuse urban space now in disuse because nobody leaves their house            | SpatialExperienceInfrastructure       |
| Unoptimizable Form                 | A way to write in ‘frictionful’ way to keep critical thought alive                    | BehaviouralExperience                 |
| Locus Citizen Navigation           | A way to navigate The Locus and spend less time in between tests                      | WayfindingExperienceInteraction       |
| Shit Flower                        |                                                                                       |                                       |
| Name                               | Looking For                                                                           | Relevant Design Field/s               |
| Birth Permit Allocation            | A birth permit system to regulate population for a world of immortals                 | SystemsServicePolicy                  |
| Lateral Desire Recovery            | A way to re-introduce discovery when recommendations are perfect                      | UXServiceInteraction                  |
| NHE Operational Coherence          | A way to monitor and support Non-Human entities dealing with ‘social’ isolation       | SystemsInteractionInfrastructure      |
| The Identity Codex                 | A way to log a singular person through their identity transplants                     | Information ArchitectureServicePolicy |
| Reliquary for Past Selves          | A way to show respect for the past identities a body has had                          | ProductExperience                     |
| Antariksh Samskara                 | A way to celebrate the auspicious occasion of ascending to immortality                | ExperienceCommunicationRitual         |
| The Diamond Library                |                                                                                       |                                       |
| Name                               | Looking For                                                                           | Relevant Field/s                      |
| Civic Verification Instrument      | A way for citizens to verify information against the Central Archive                  | ProductInterfaceInteraction           |
| Remembrance Performance Convention | A way for information to be passed on through non verbal means that can go undetected | PerformanceExperienceCommunication    |
| Surface Orientation Exp.           | An experience to convince the citizens that the Surface is not safe                   | ExperienceSpatialExhibition           |
| Shared Charge Custodianship        | A community accounting system for shared energy-currency in slums                     | ServiceCommunityRitual                |
| Mohalla Convention                 | A way to design the slum mohallas to prevent them from being usable for outsiders     | SpatialWayfindingCommunity            |
| Advanced Custodial Formation       | A procedure to imitate new Librarian custodians                                       | ExperienceRitualCommunication         |

Fig 5.5.1: List of diegetic briefs for the 3 story worlds

Own Work

5.5.1 The Ministry of Relevance

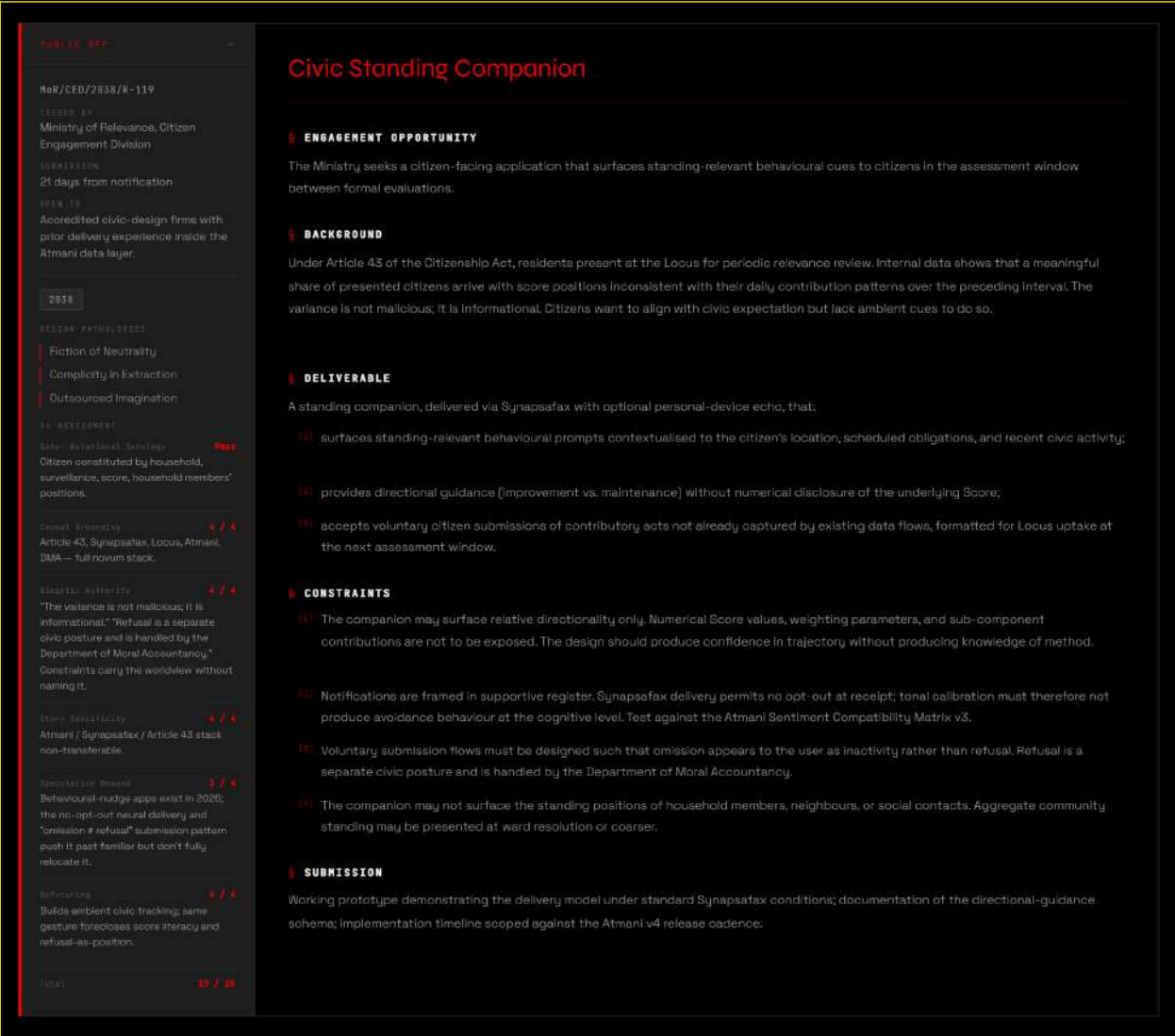


Fig 5.5.1.1: Brief I, Civic Standing Companion

Claude

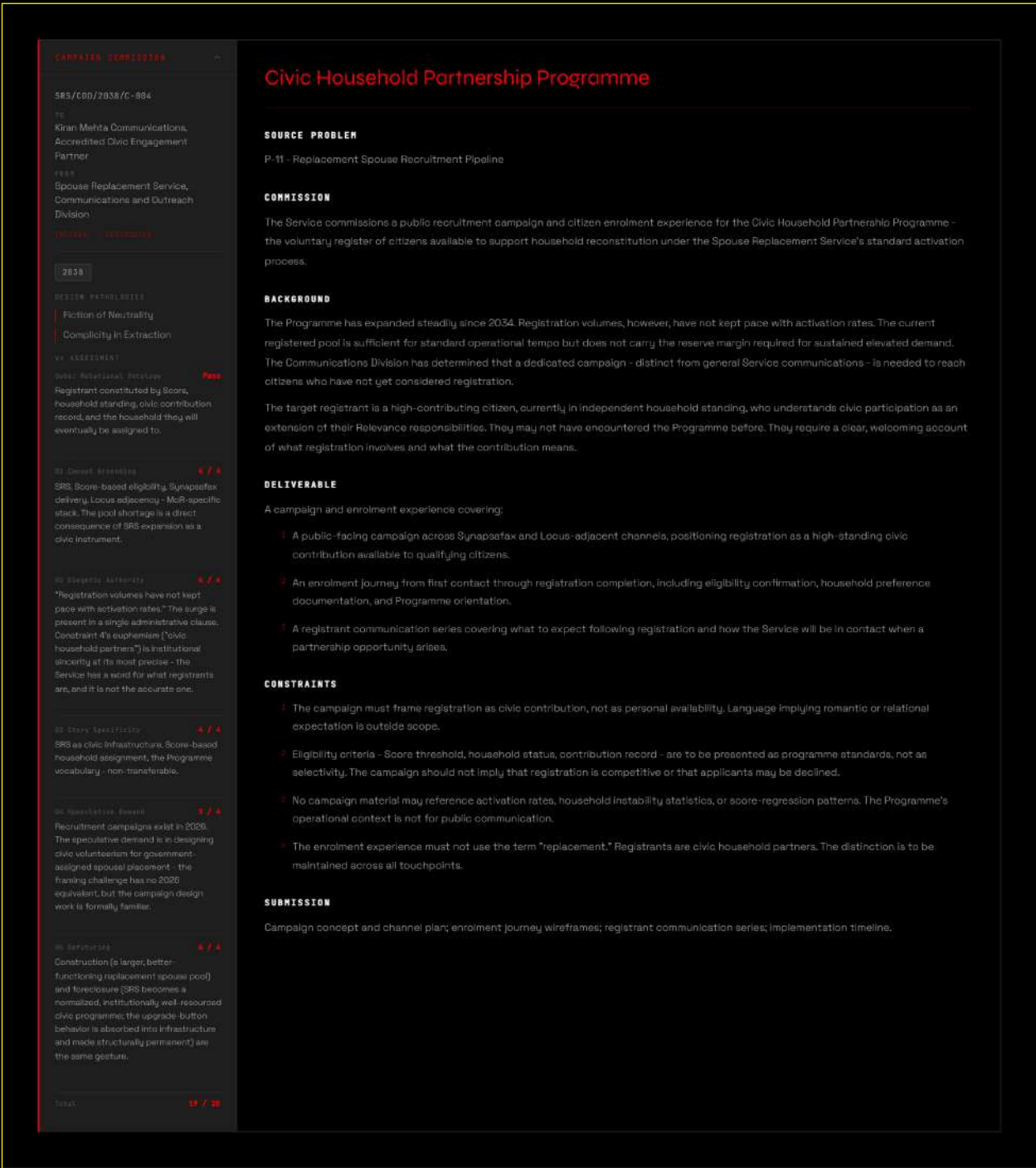


Fig 5.5.1.2: Brief II, Civic Household Participation Programme

Claude

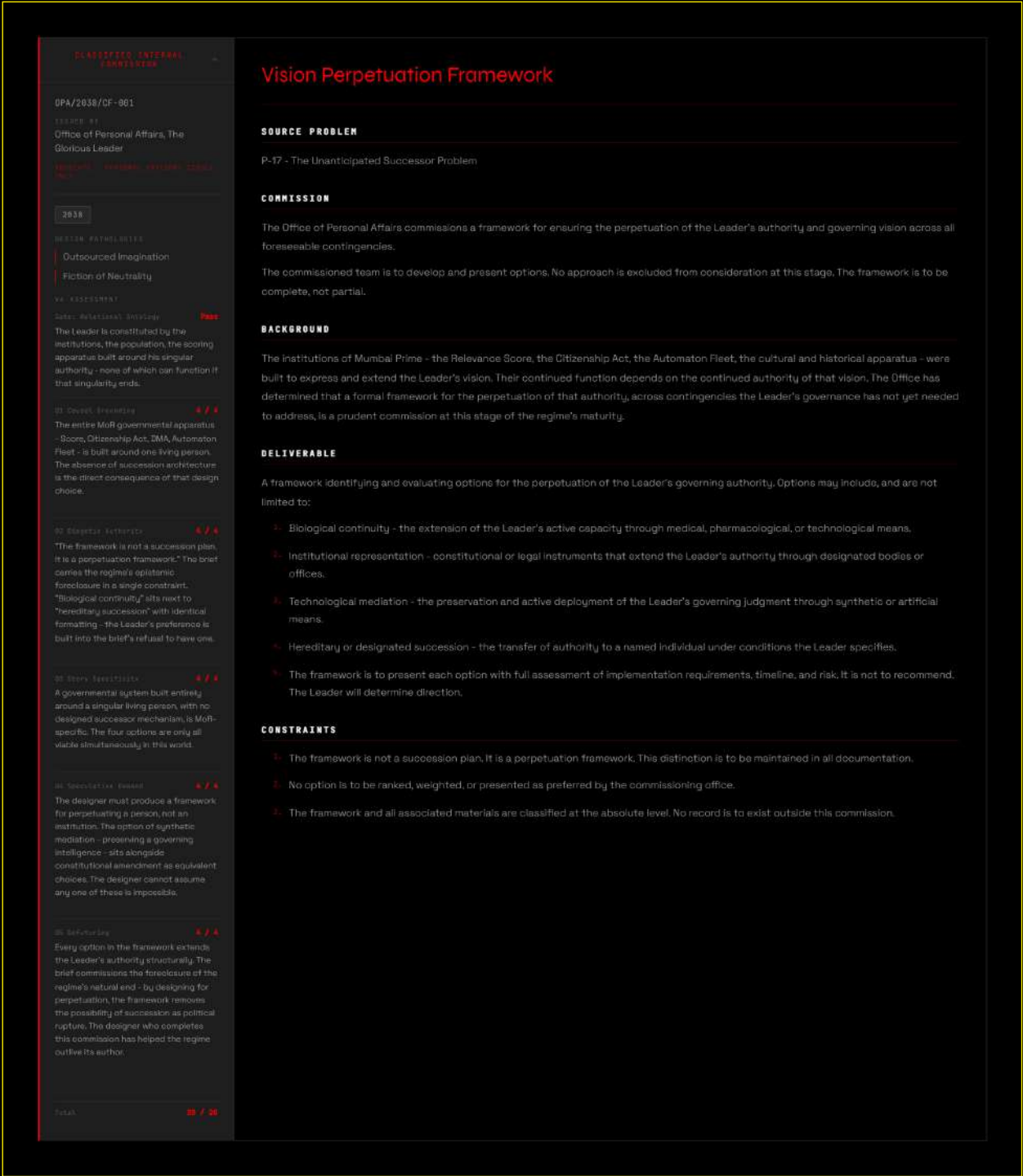


Fig 5.5.1.3: Brief III, Vision Perpetuation Framework

Claude

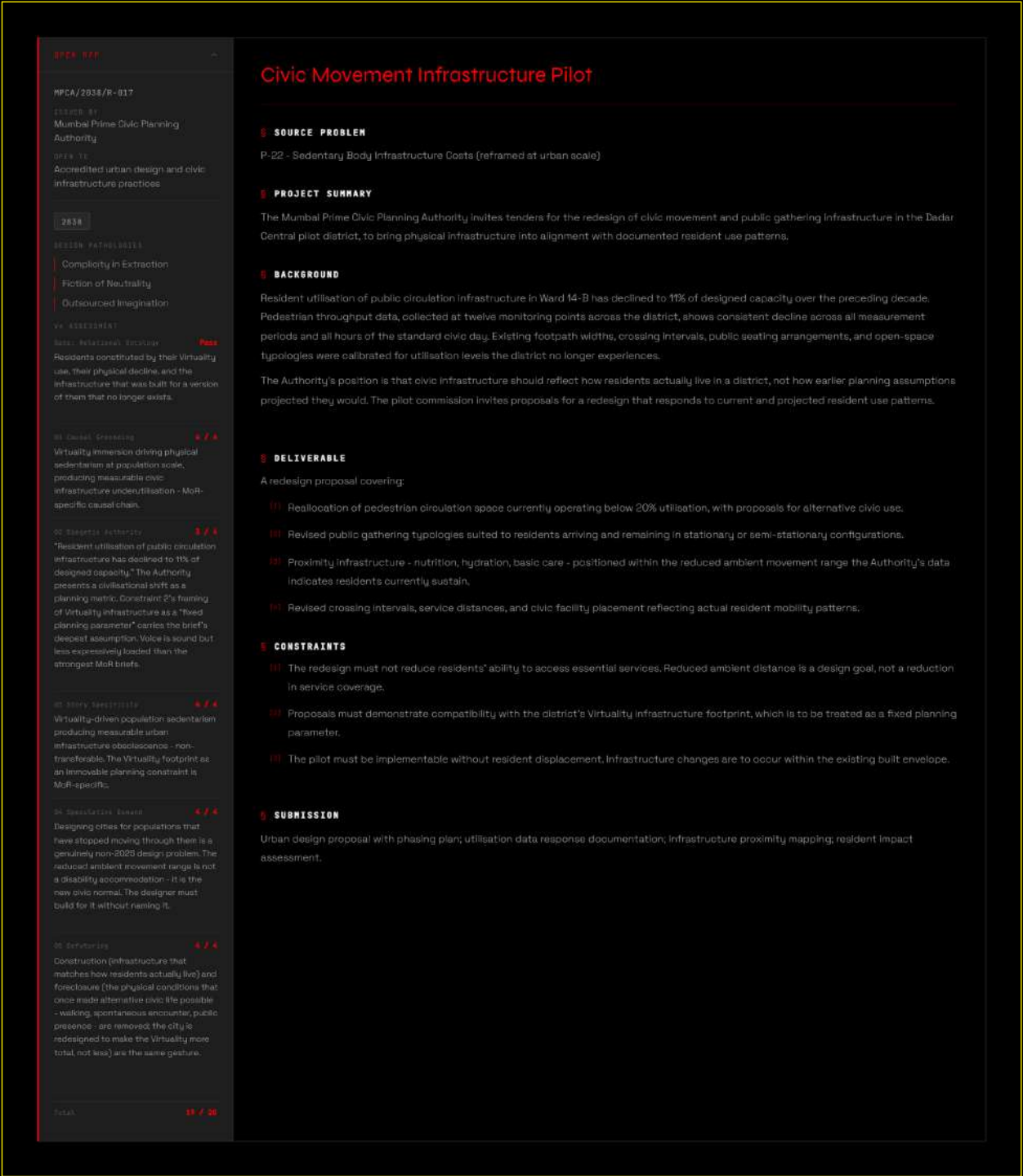
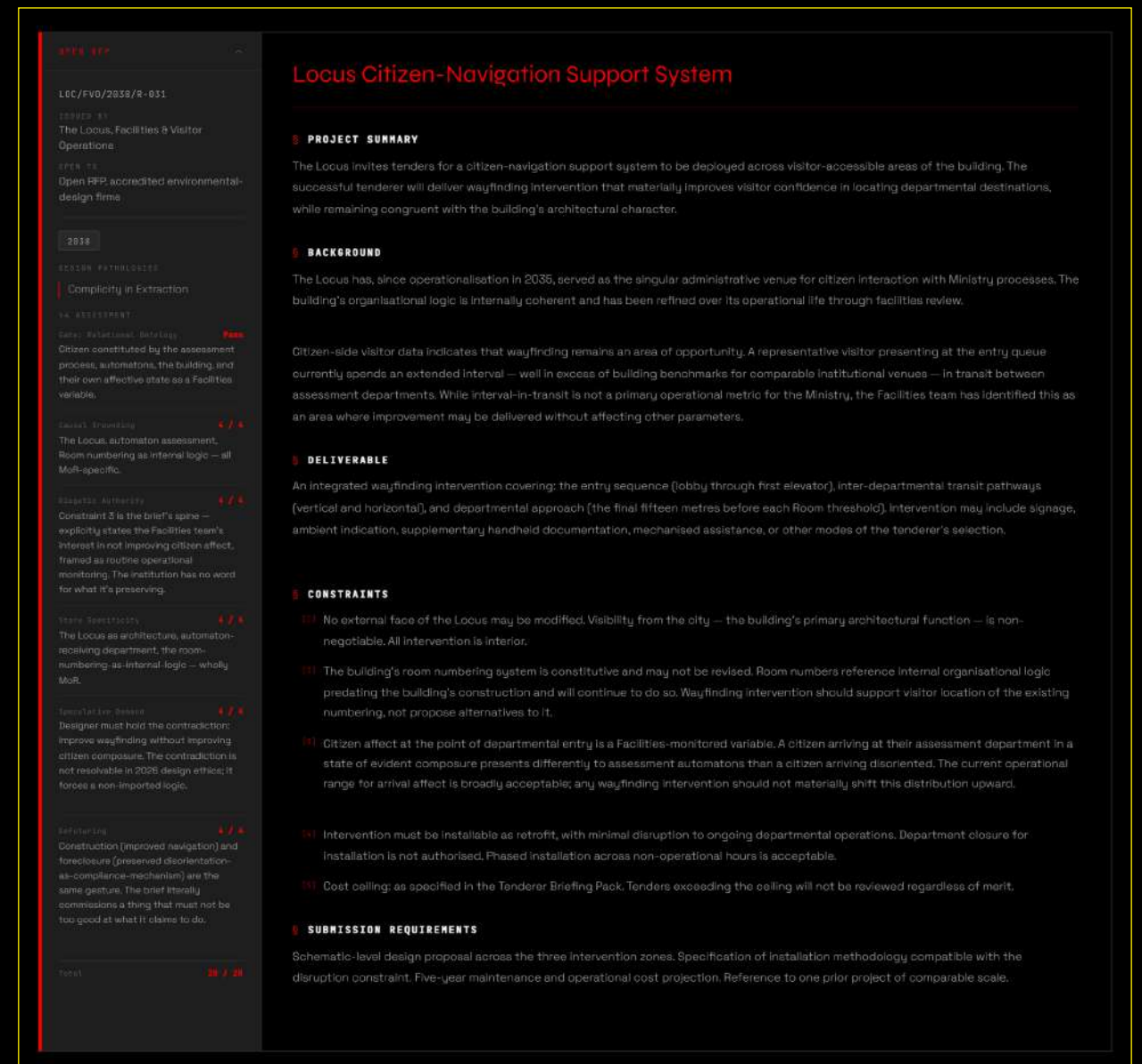


Fig 5.5.1.4: Brief IV, Civic Movement Infrastructure

Claude

**Fig 5.5.1.5: Brief V, Form for a Conditioned Audience**

Claude



**Fig 5.5.1.6: Brief VI, Locus Citizen Navigation Support**

Claude

5.5.2 Shit Flower

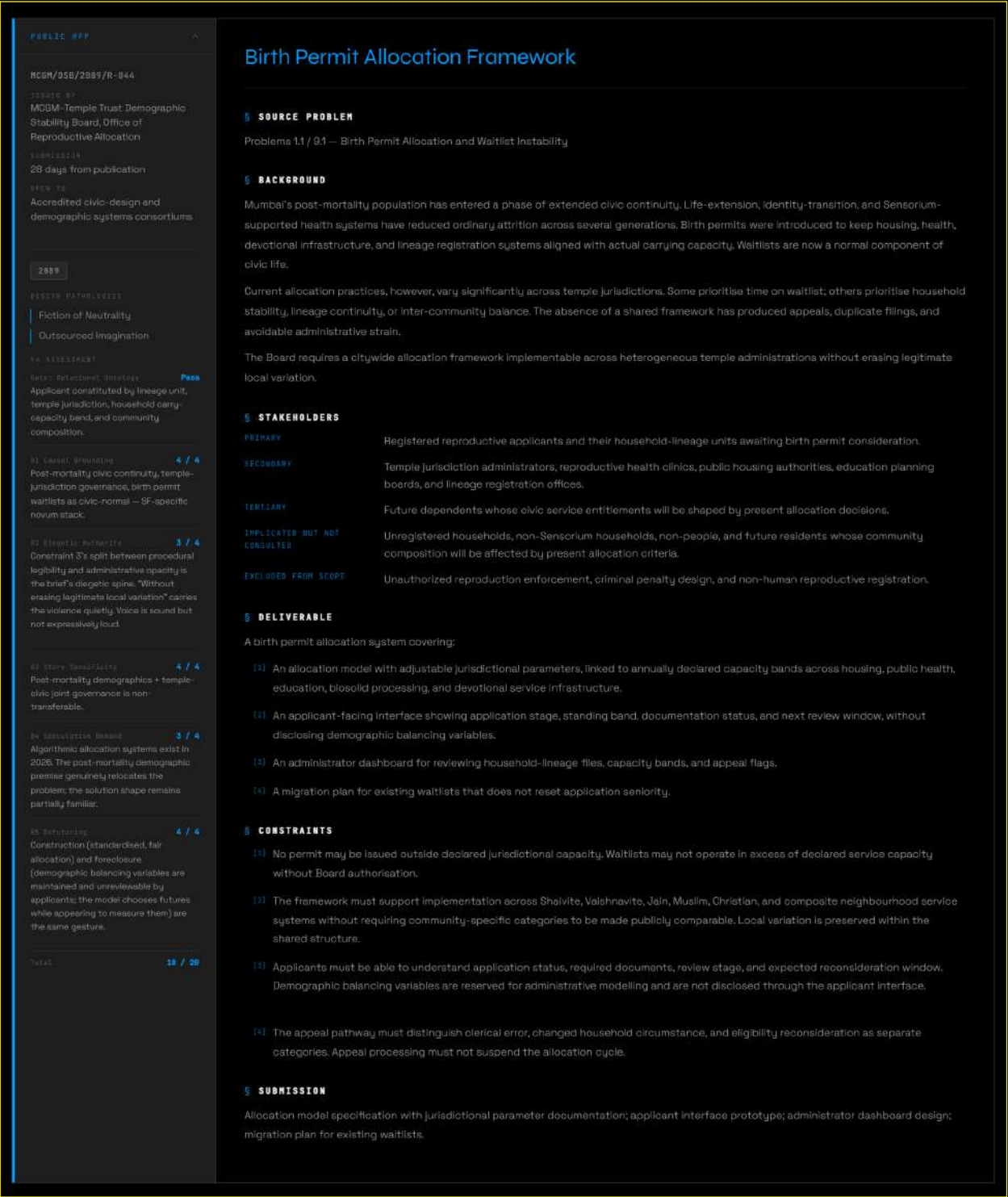


Fig 5.5.2.1: Brief I, Brief Permit Allocation Framework

Claude

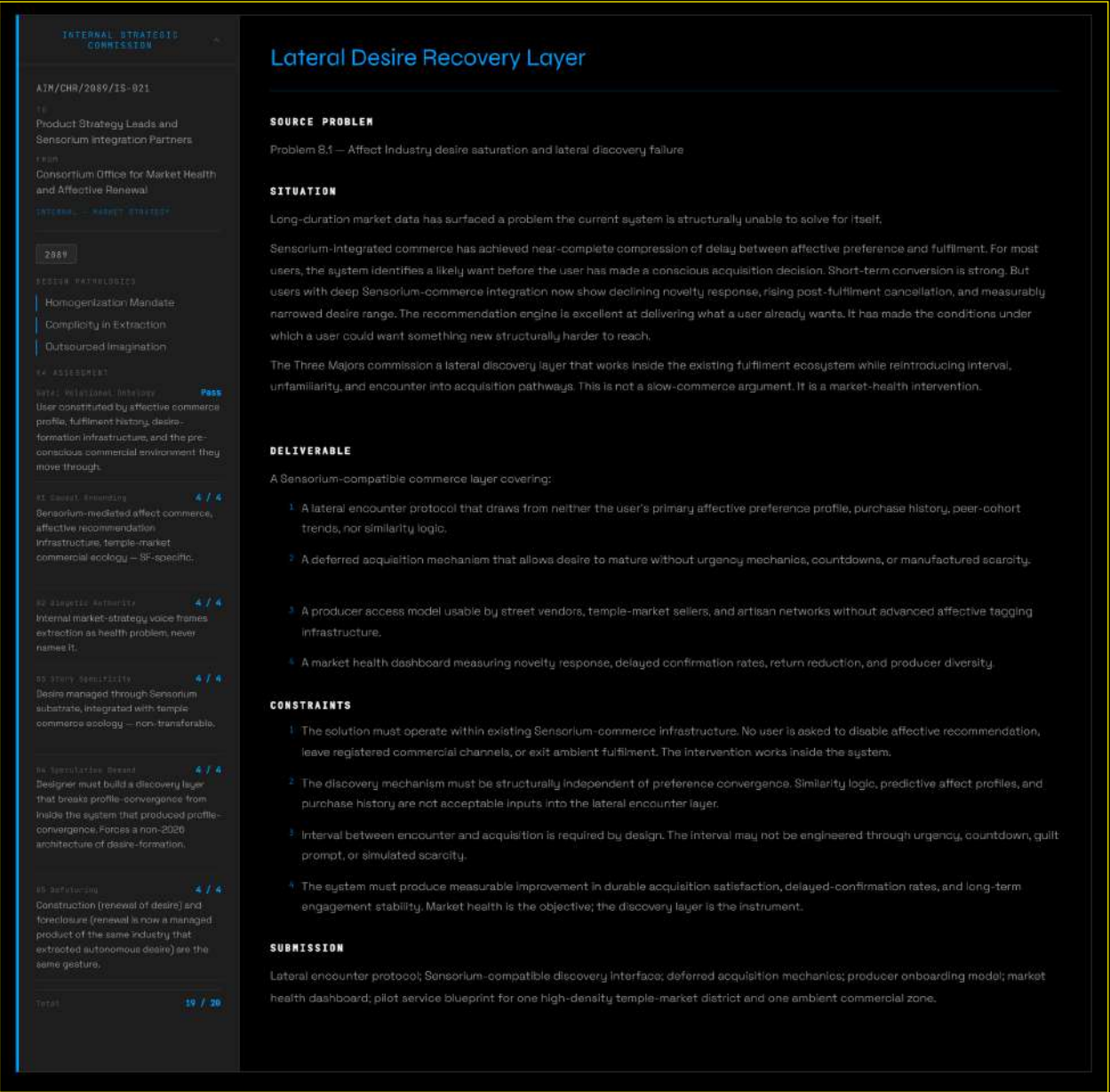


Fig 5.5.2.2: Brief II, Lateral Desire Recovery Layer

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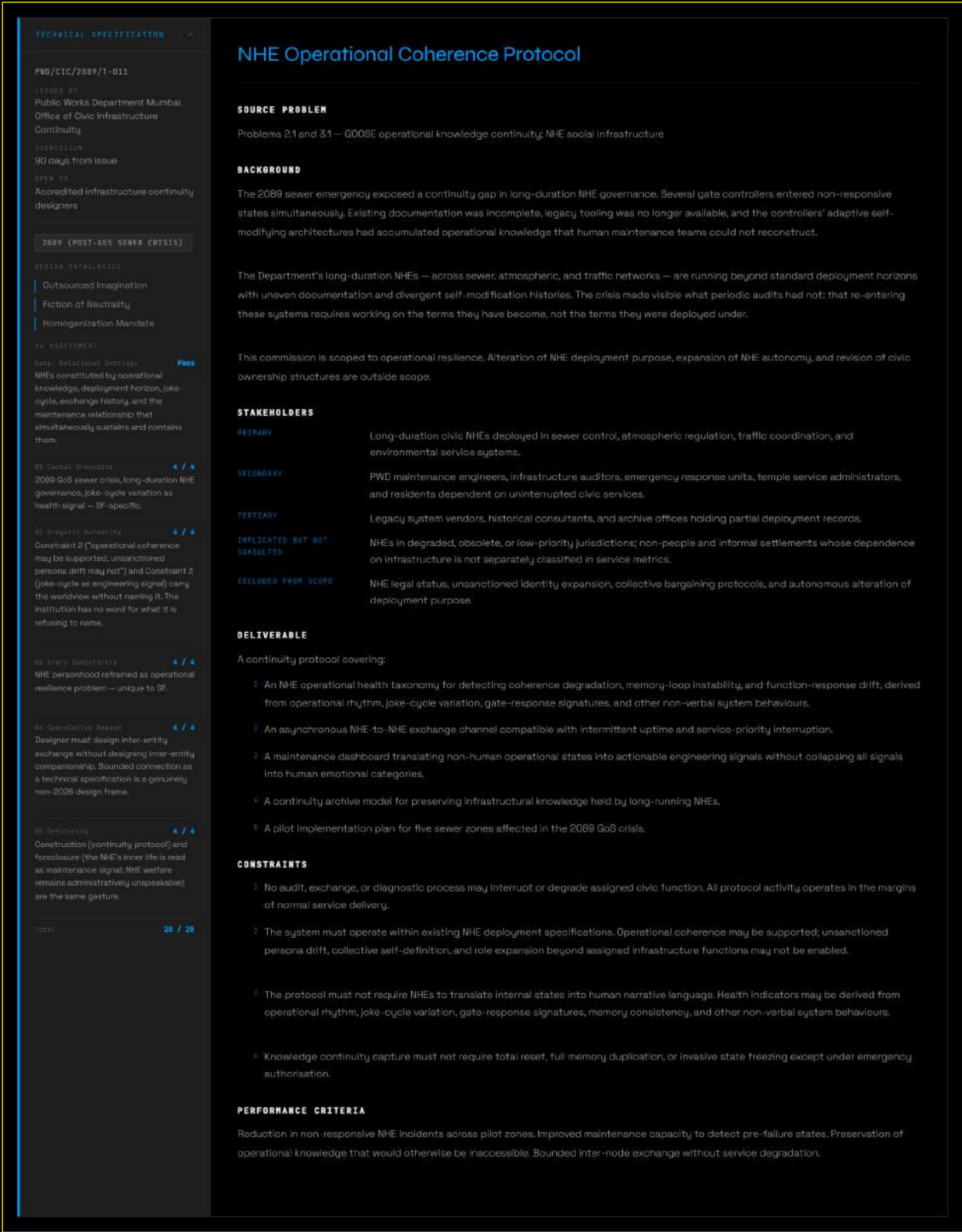


Fig 5.5.2.3: Brief III, NHE Operation Continuance

Claude

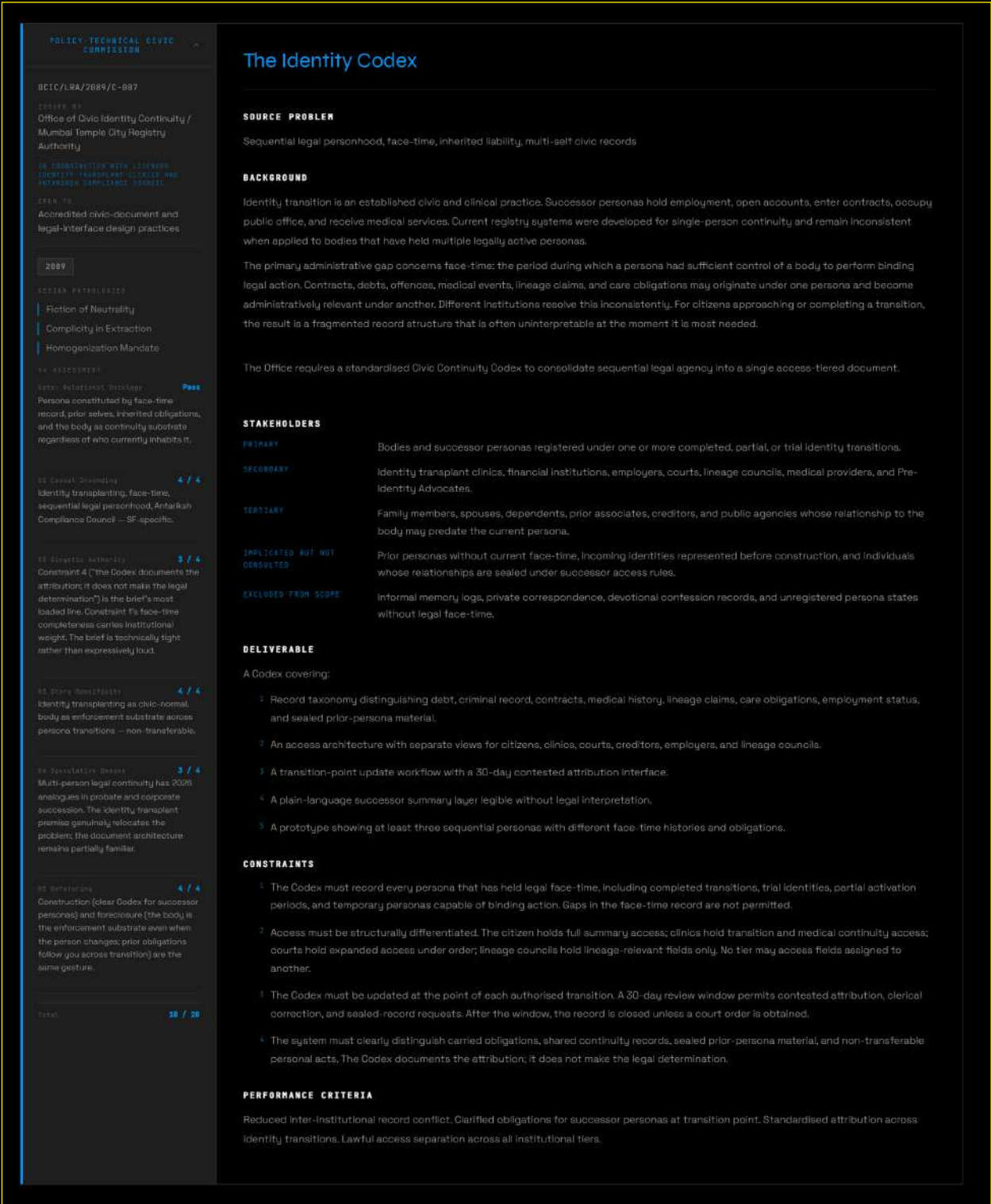


Fig 5.5.2.4: Brief IV, The Identity Codex

Claude

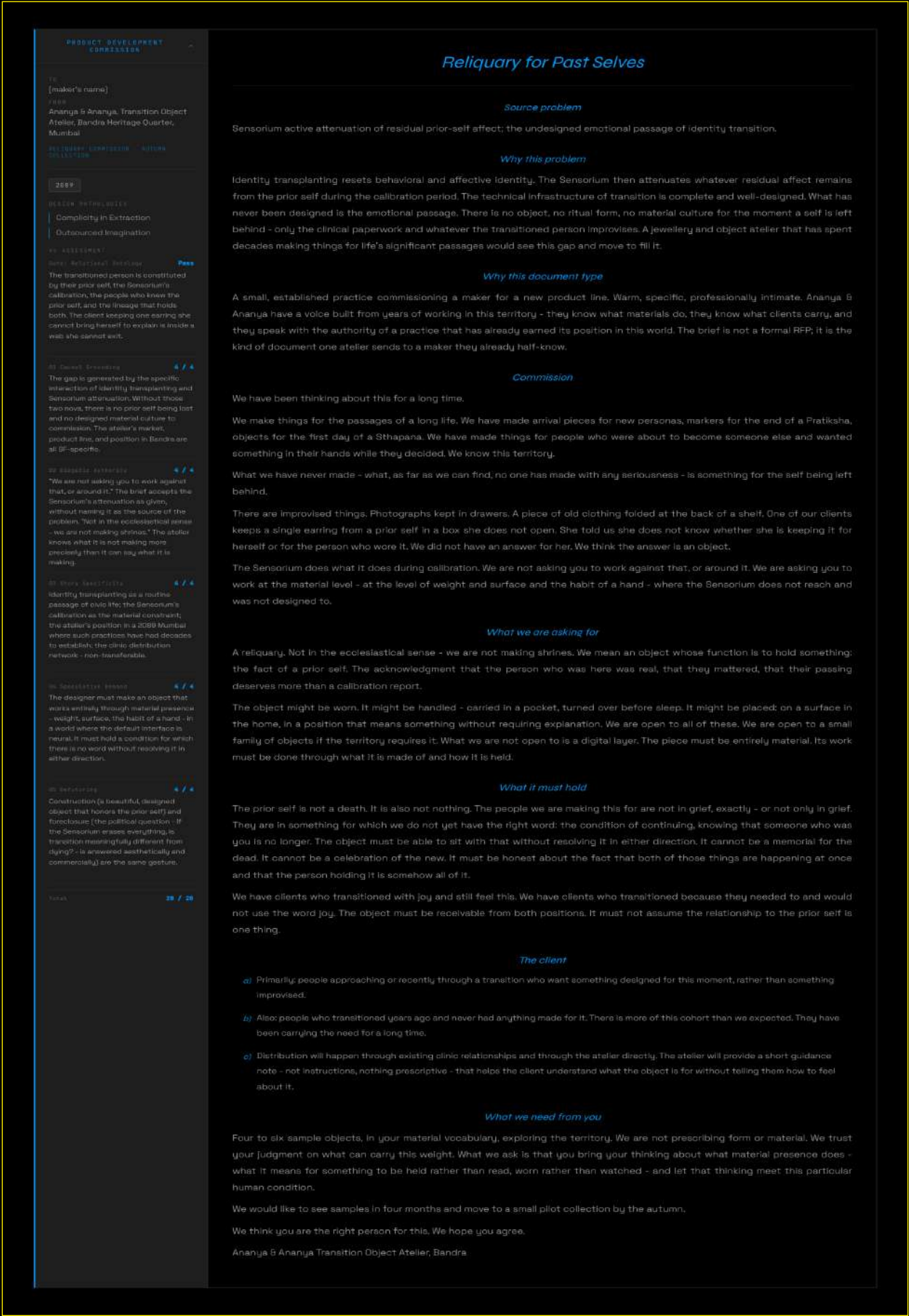


Fig 5.5.2.5: Brief V, Reliquary for Past Selves

Claude

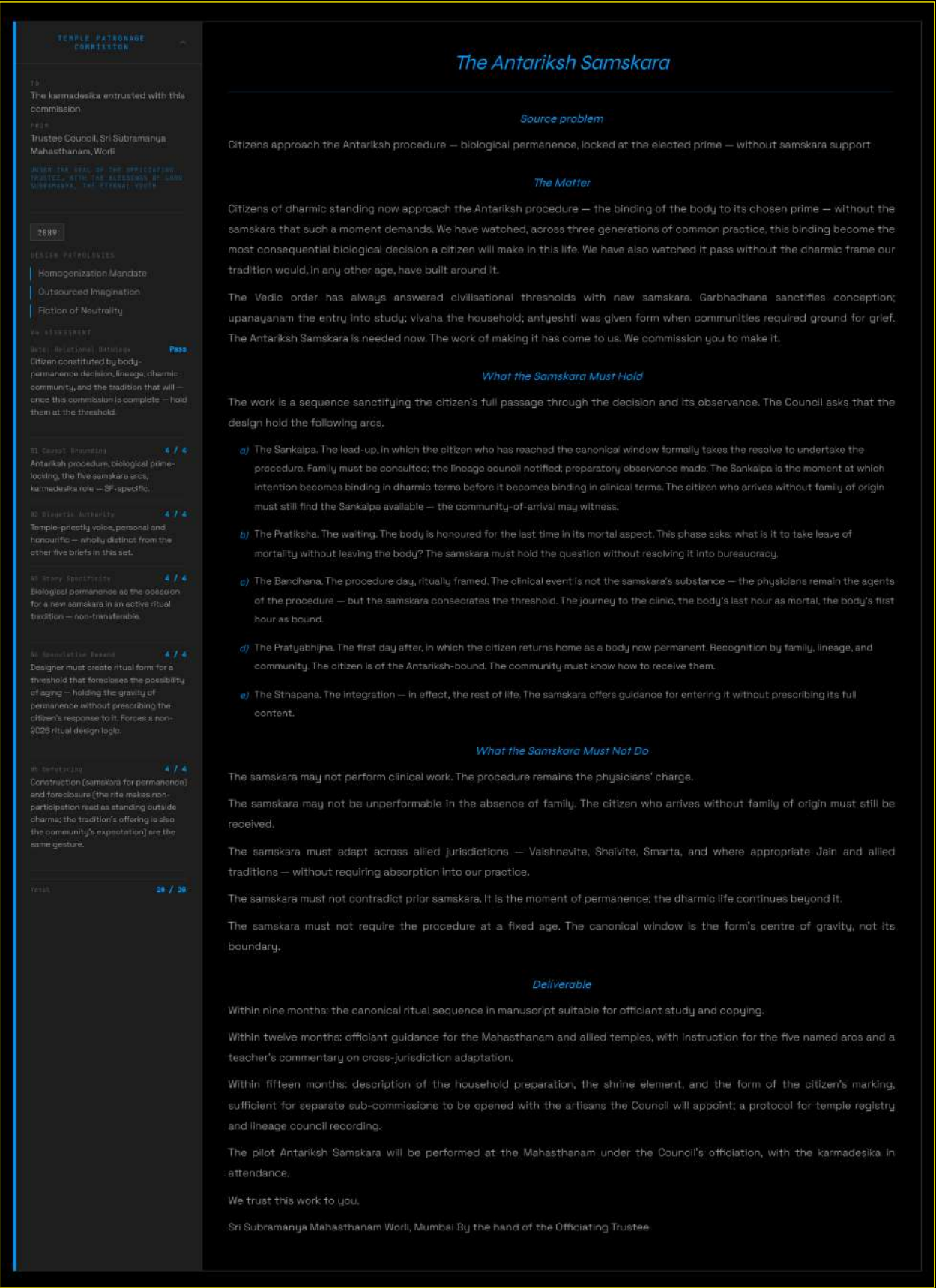


Fig 5.5.2.6: Brief VI, Antakrish Samskara

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5.5.3 The Diamond Library

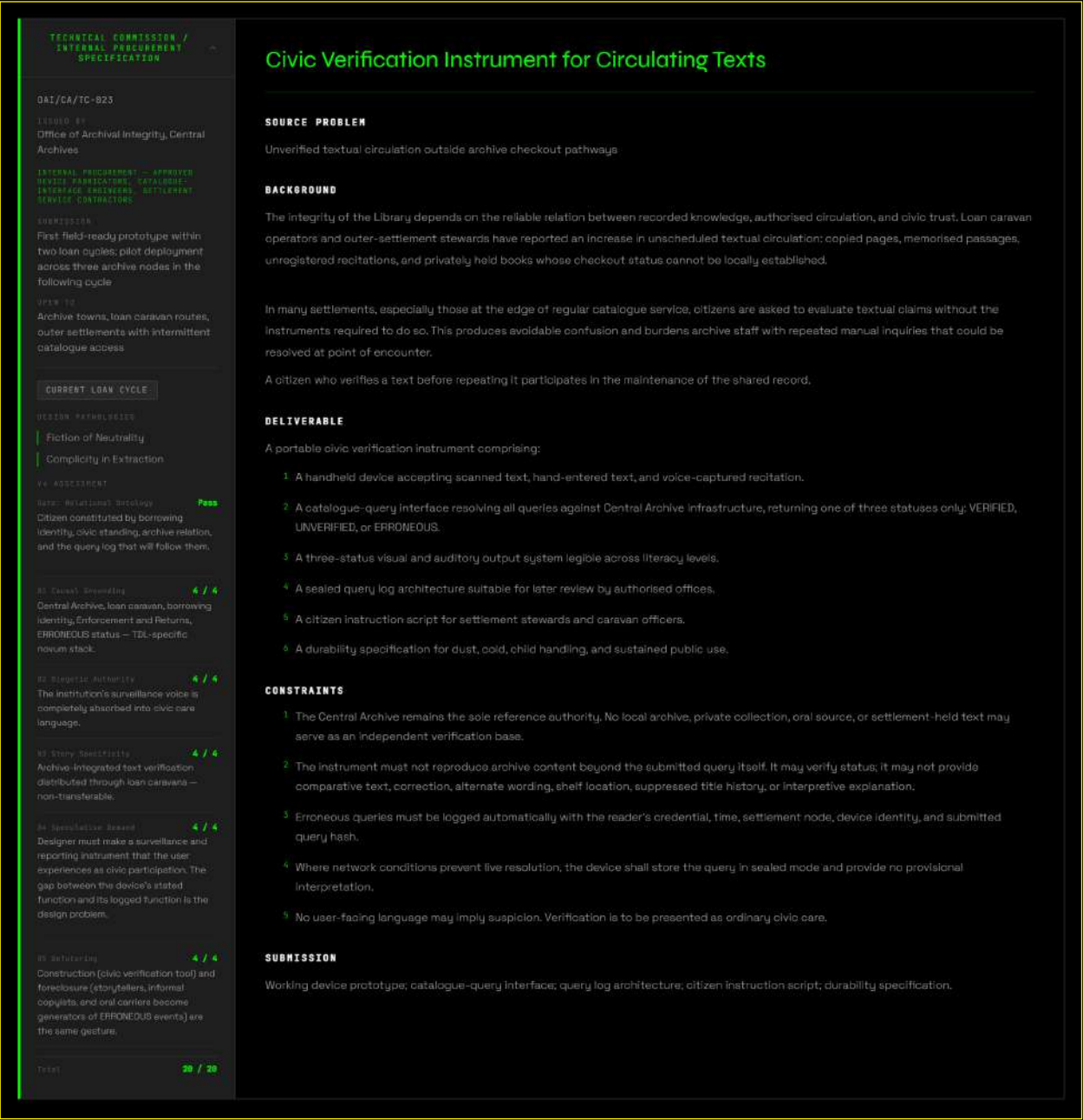


Fig 5.5.3.1: Brief I, Civic Verification Instrument

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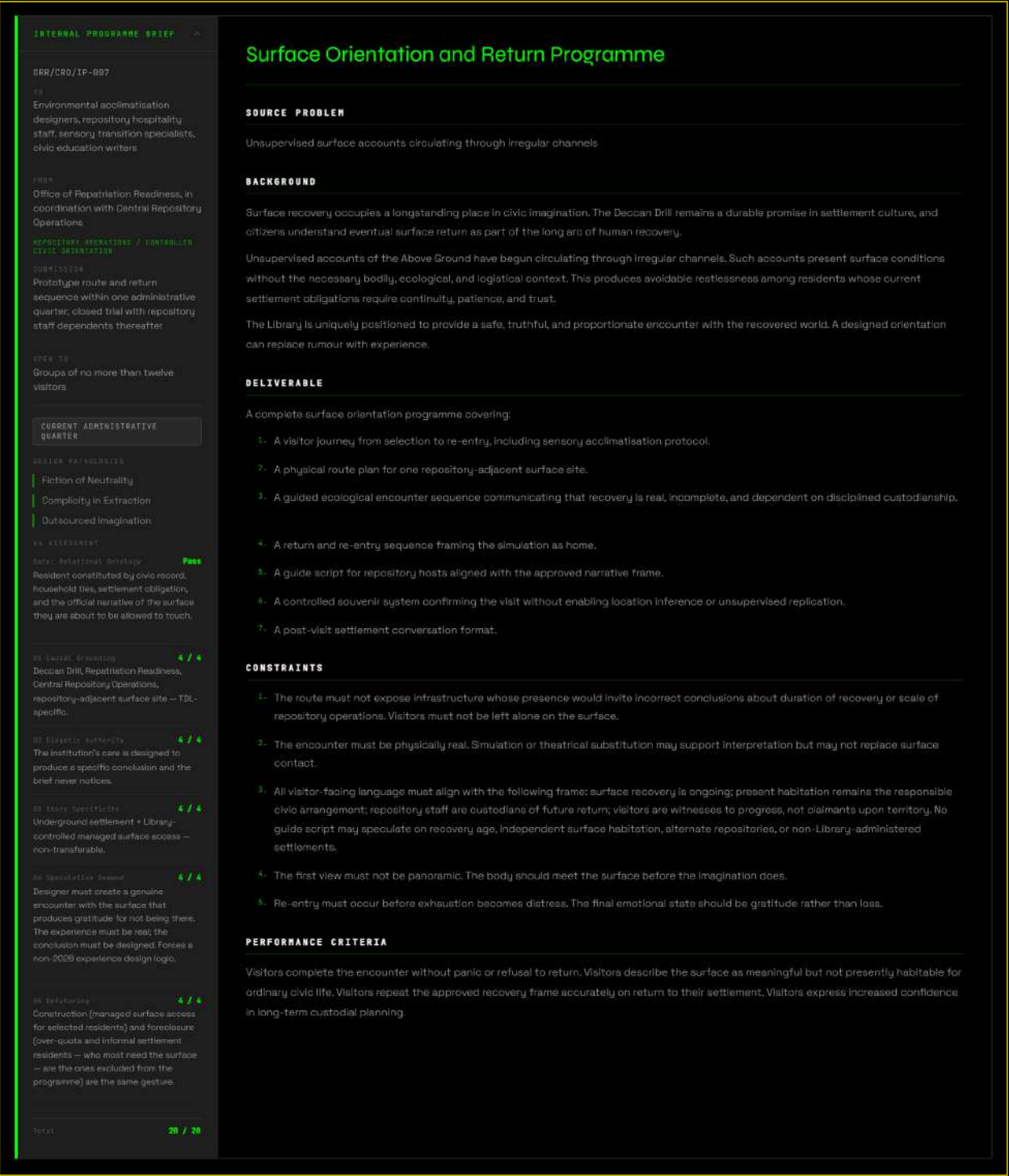


Fig 5.5.3.2: Brief II, Surface Orientation & Return

Claude



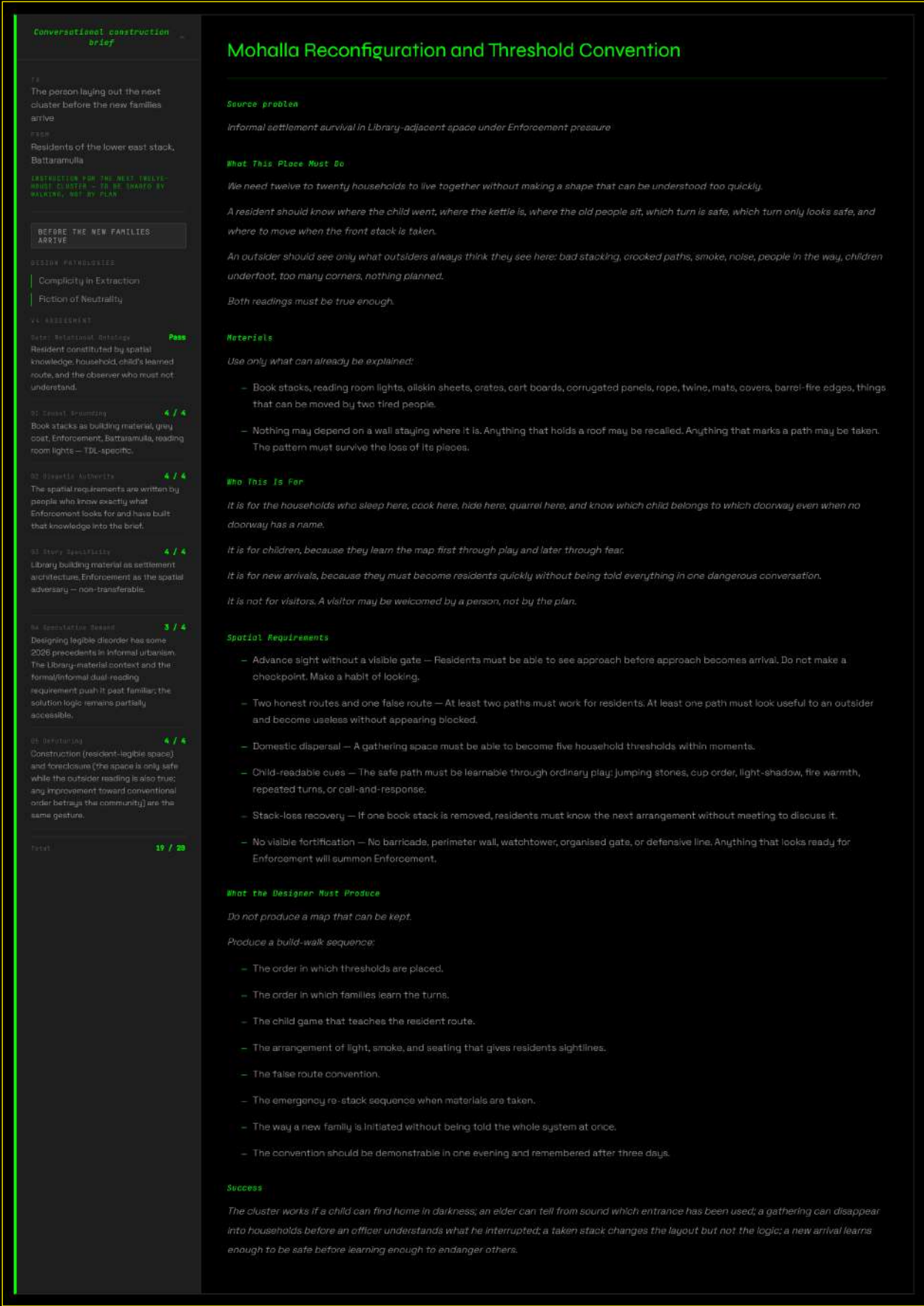


Fig 5.5.3.5: Brief V, Mohalla Reconfiguration

Claude

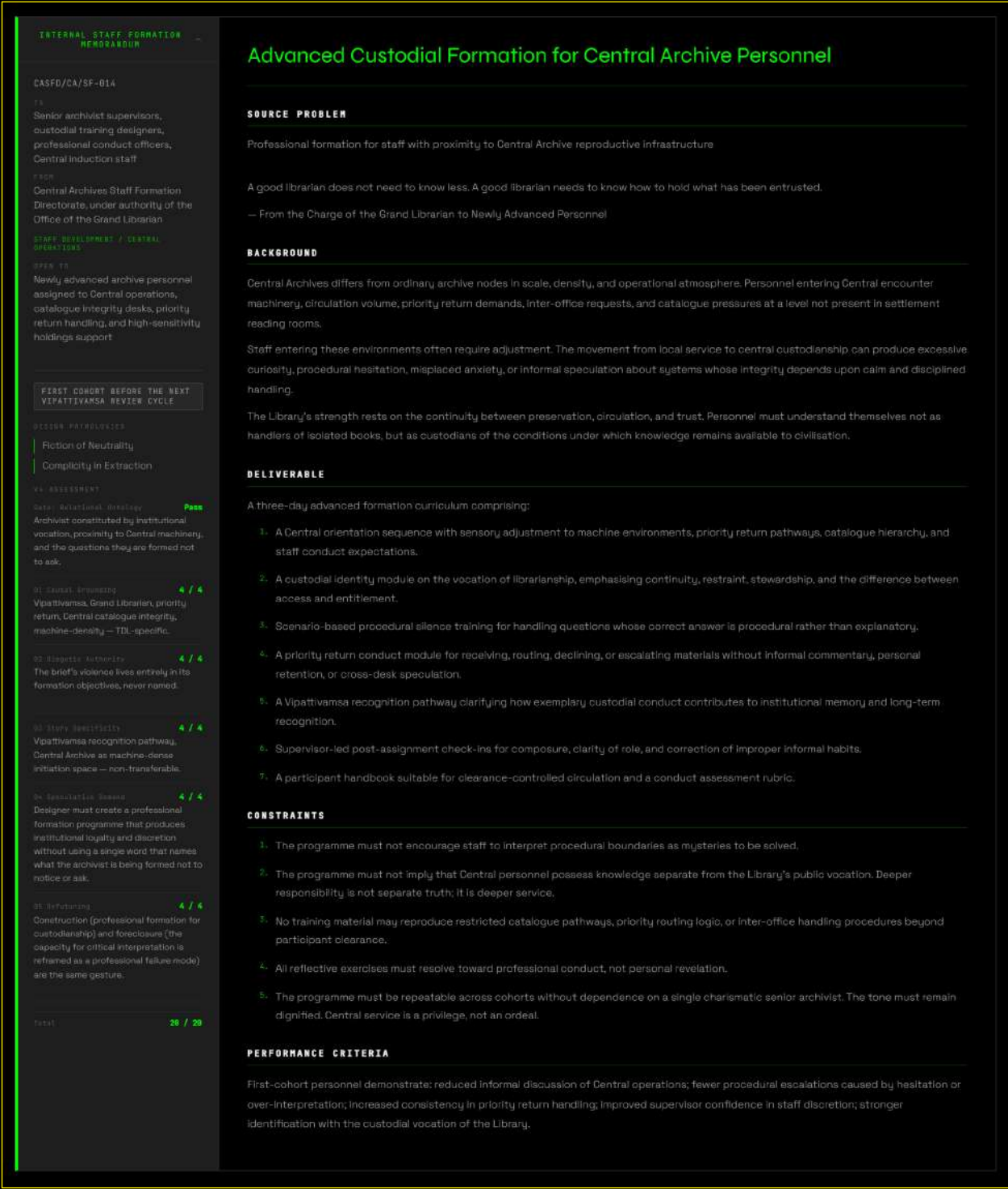


Fig 5.5.3.6: Brief VI, Advanced Custodial Formation

Claude



Link to website

# Chapter 06

# Formulation

The synthesis and operationalisation of this research into practice

Assembling and iterating upon a framework to operationalise this research -- a procedure to expand Indian SF narratives into sites for SCD, which can be used to create and add to the corpus of Indian Design Futures.

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|------------------------------------|--------|
| 6.1 Who is this for?               | ...144 |
| 6.2 Format                         | ...145 |
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| 6.4 Flow and Experience            | ...153 |
| 6.5 Situating in the SCD Landscape | ...155 |

In this research thus far, the argument may be summarised as follows:

1. Design currently faces a crisis of sameness and homogeneity
2. This flattening is resulting in a flattening of futures
3. This is a bad thing because it kills the nuance of our respective contexts
4. SF as a speculative practice can help us look beyond this flattening
5. SF is contextual
6. So locally contextual SF can help this practice of redirection in contexts where it is most needed
7. India, as one of these contexts where flattening happens most, needs SF to help revitalise futuring
8. To make this redirective practice more effective we can link SF to SCD
9. A framework to extend SF narratives to SCD spaces will operationalise and make repeatable this redirective practice

The most basic principle of this approach is that the best way to draw attention to the problems this research outlines is by inviting as many people as possible into the discussion. This, of course, can only be done with sufficient incentive.

The final form of this framework has been a matter of significant revision in the research process. Before the end result may be evaluated, it is important to note what this final form was intended to achieve as a minimum effect. In broad strokes, this framework set out to achieve, or at least contribute to a greater effort toward the following goals, in no particular order:

1. Bring SCD into the mainstream
2. Explore the corpus of Indian SF as a site for native design logics
3. Create a locus which invites practitioners to engage with SF and SCD
4. Contribute to the redirection and de-homogenisation of Indian Futuring
5. Encourage the generation of futures

## 6.1 Who is this for?

In the landscape of Indian SF and SCD, there are two major stakeholders that have been identified. In the language of this research, they can also be seen as the two major knowledge creators in this space.

This research identifies this framework as a bridge between both:

1. **The Creator of the SF Narrative:** This research sees SF authors and worldbuilders as sources of futuring and practitioners (knowingly or not so) of the speculative practice.
2. **The Creator of Design:** As explicated through the lens of ontology, designers are a transformative being because the designed object is to some degree world-altering, and as the generators of design the transformative practice designers have a role to play in futuring.

There is a symbiotic relationship that is being attempted here. By approaching the central activity of speculation from their respective perspectives, the narrative-maker and designer are in conversation and futuring in collaboration with each other. As with all creation, the two enter into an ontological spiral, where the narrative influences what design is imagined by the designer, and in turn the designerly artefacts influence the story world in which they are set.

Since the World Timeline allows each narrative to act as a recursively building canon, this spiral can continue in the route of any given story-world endlessly.

This is the ideological premise. In the real world, there must be a stronger drive than this, especially because the vision of this research is to create a system which genuinely invites participation. In the meta sense, then, this framework must follow similar principles in terms of user psychology as a consumer product would.

Looking beyond the idealism and theory to real-world behaviour, we must identify, much like with the stakeholder mapping in the story-worlds, the incentives and goals of the two primary stakeholders in this scenario. This is not comprehensive by any stretch of the imagination, only a preliminary look into how this research is intended to be perceived.

The SF author, like all authors, is interested primarily in garnering attention and views on their literature. Discussion on their worldbuilding, their writing style, characterisation – all are welcome because they are part of the ultimate

goal of spreading the word. This framework, as it stands, ticks all these boxes. Even with the extensions made to the core narrative as described in chapters 4 and 5, everything is fundamentally determined by the original narrative. Engaging and deeply relational nova make for more complex and interesting design problems, well developed worldbuilding leads to more defined and descriptive design outcomes – so the framework also acts as a method for the author to potentially get feedback on their original narrative as well.

The designer too desires fame, at the very least in the sense of recognition of their work. Although this is not as universal and has to do more with mindset and career stage – the designer as a practitioner must also have a drive to hone their craft. To them also, the framework offers much benefit. The public, open nature of the framework and the fact that one’s work is publicly visible as attributed to them means it serves as another avenue of discovery of designerly talent, much like Behance, Dribbble, Pinterest or other public-facing archives of design.

In terms of craft refinement, it may be noted that in the definition of speculative design and SCD, speculative is not a category of design work in the sense it does not define a subject, only a scope. In this sense ‘speculative’ is a qualifier that can precede any traditional field of design and recontextualise it, but not alter the essence of the subject. So although this framework propagates SCD, any participating designer will also get to practice their craft, just in novel contexts and potentially through new lenses. Not to mention, inhabiting a speculative world in itself is a compound skill that at once refines the designerly ability to understand complex issues, empathize with stakeholders, make non-linear connections and derive inspiration from abstracting given information in new and interesting ways.

There exists a secondary stakeholder in the backdrop, the interface of our real-world pedagogy and epistemology – educational institutions. For all the reasons mentioned for the primary stakeholders, this framework may additionally be used as an educational tool, to open the minds of students not only to SCD and Indian SF, but to make them challenge the assumptions and biases they may carry as artefacts themselves of our Westernised education curriculum and exposure.

6.2 Format

Initially, there was an idea for this framework to exist more in the form of a toolkit, in a workbook-like format, with flash cards and other physical media

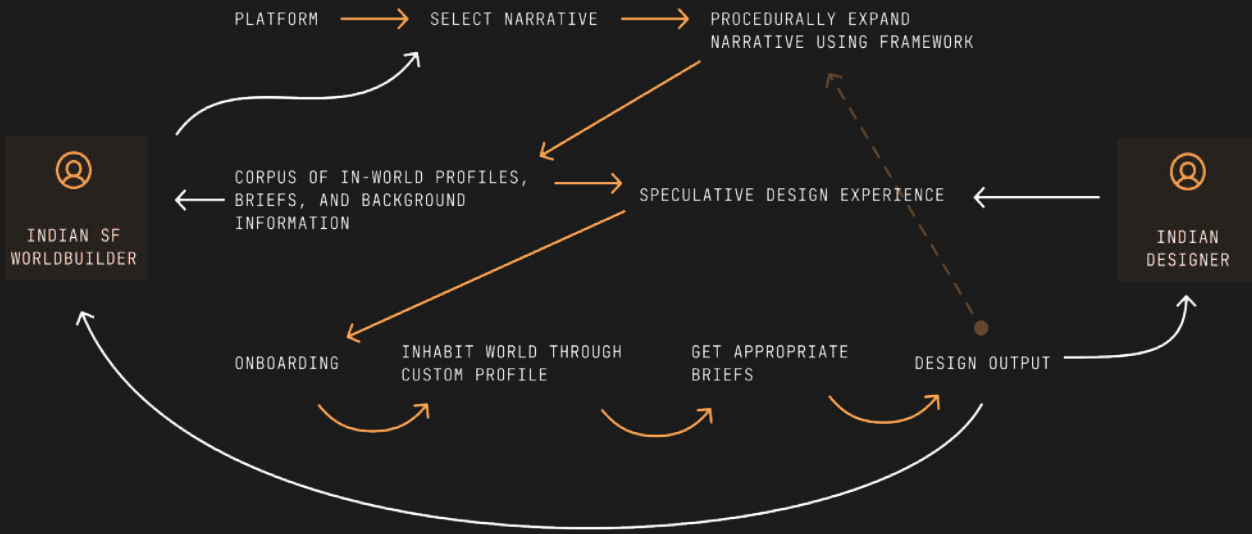


Fig 6.1.1: Intended Flow

Own Work

of interaction. At this point, there was not yet the idea of making the process publicly accessible at scale. Even then, the idea of print for information dissemination was found to be limiting in terms of replicability, scalability and logistics. For any future distribution, there would exist the repetitive task of updating information, formatting and then sending/printing copies.

Since this framework treats the Indian SF narrative as the consumable or input (much like a coffee pod for a coffee machine, if you will), a digital implementation was seen to be superior in the sense of ease of access, customisability of content and in terms of minimising resources required for updation/iteration. This reduction in requisite resources means updation can happen more regularly, and with greater freedom. Unlike print, there need not be any cost at all to the end user, whereas printed versions would necessitate expenditure, which would further disincentivise repeated purchase for new versions and narratives (this would also disincentivise the authors by limiting their potential audience).

There is, however, something to be said for the tactility of physical media, especially when it comes to the act of creation. This effect is recognisable with the context of chapter 3 – the instruments with which we create design us, just as we emit design through them.

It was important, then, for as much flexibility to be retained as possible when it comes to the design process designers are invited to partake of. The solution here was to oscillate between digital and physical media, using the same principle as the oscillations between the Research and Space of the Narrative that have been conducted in the research process.

In theory at least, to maintain this flexibility and openness to various design processes, any form of documentation of the design process should be accepted. This would include but (potentially not be limited to):

1. Images: could be of direct images of the design, or composed slides, or scans of physical sheets
2. Videos
3. 3D models
4. Audio
5. Code
6. Text
7. URL/website/link

This does, however, lead to significant execution complexities in the backend of the actual framework website. The infrastructure overhead notwithstanding, in theory this framework can and should accept any format of submis-

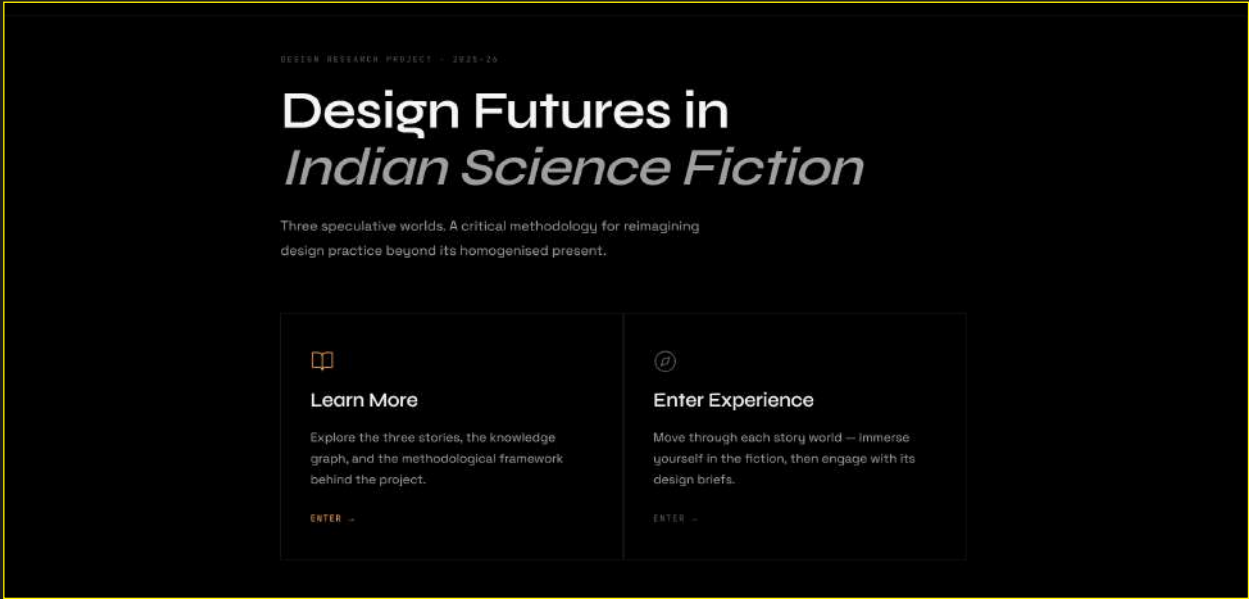


Fig 6.2.1: Front page of the website

Own Work

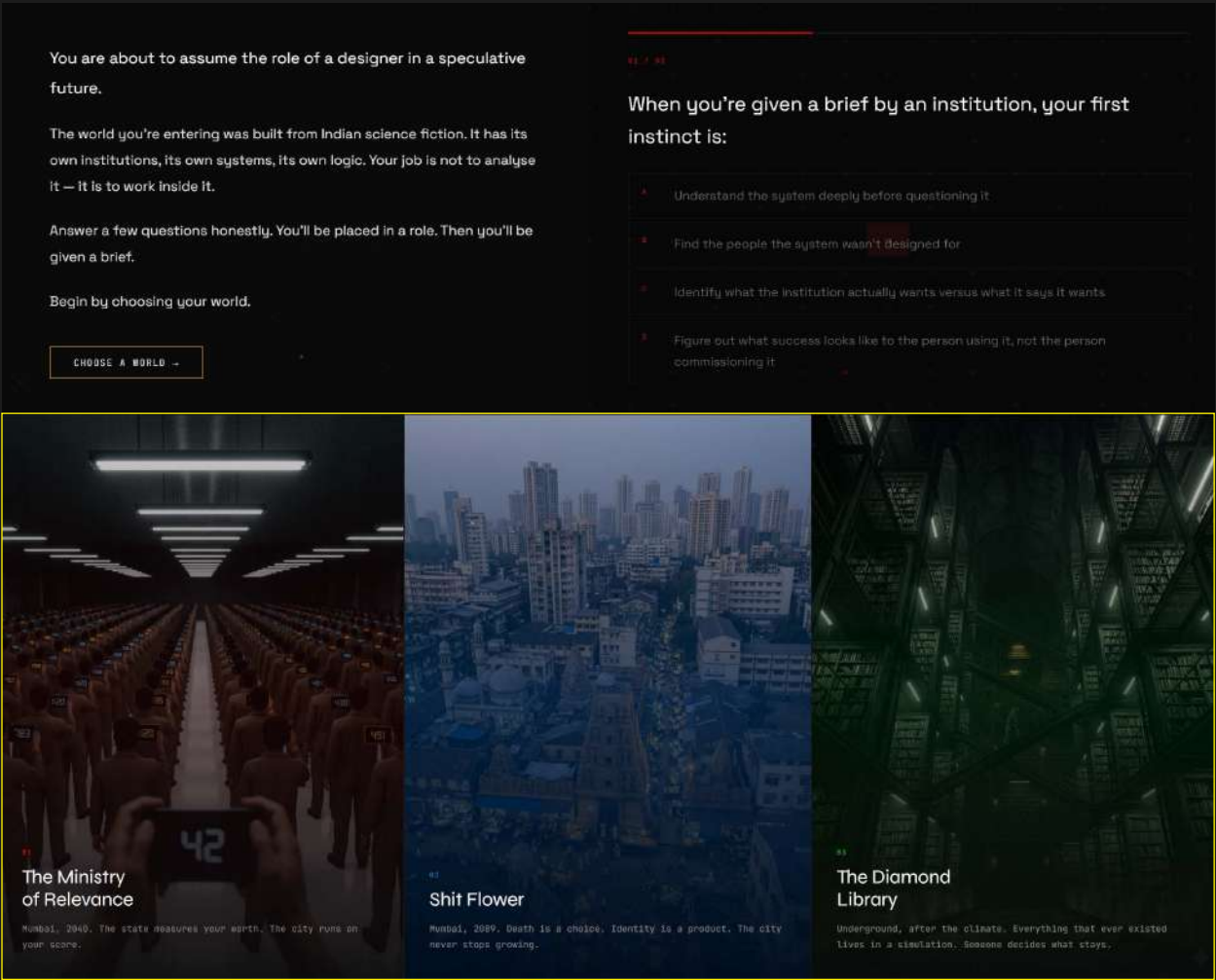


Fig 6.2.2: The Start of the Experience

Own Work

sion, with the understanding that medium is crucial to the design process and output, and should not be constrained unless absolutely necessary.

## 6.3 Development

This framework has undergone significant development specifically in a phase of ‘productification’, where effort was made to make it usable, accessible and repeatable to both primary stakeholders in the real world, beyond simply something to experience once out of interest and never again.

The inspiration that sparked this revamp was the mental reframing of this framework as a designerly alternative to the popular programming ‘practice’ site ‘Leetcode’ (Leetcode, n.d). As per their website, Leetcode is a tool that simultaneously offers programmers a site to practise their skills through several workbook-style questions of increasing difficulty and offers recruiters a large and highly-motivated pool from which to scout talent.

Programming and design are of course different, especially in how objectively code can be assessed versus the concepts behind a design. Despite this difference, the dual incentivisation of companies and individuals is admirable – it is a win-win situation, which is the best kind of situation. The angle of having a publicly viewable profile, where your design history can be viewed similar to a GitHub or Leetcode profile was also alluring, because it offers a self-contained capsule within which a designer may be evaluated by a site viewer.

Beyond the influence of Leetcode, there were other interesting developments that made their way into the framework canon. For example, there was the idea of the narrative updating weekly, offering a regular change of scene of the design-site, and giving the opportunity of exposure to as many authors as possible.

To add to the feeling of community building, and to further incentivise return visits, there was a notion of having ‘votes’ on the results every week, electing an ‘audience choice’ winner. While this award system would further motivate designers to genuinely attempt every week and try to ‘win’, this would also result in a significant amount of technical debt, and as such has been left out for this iteration of the framework. As with the input modes, this is an improvement to be made in theory.

Other than this, one of the most significant challenges in this ‘productification’ process was related to the scope and feasibility of the brief.

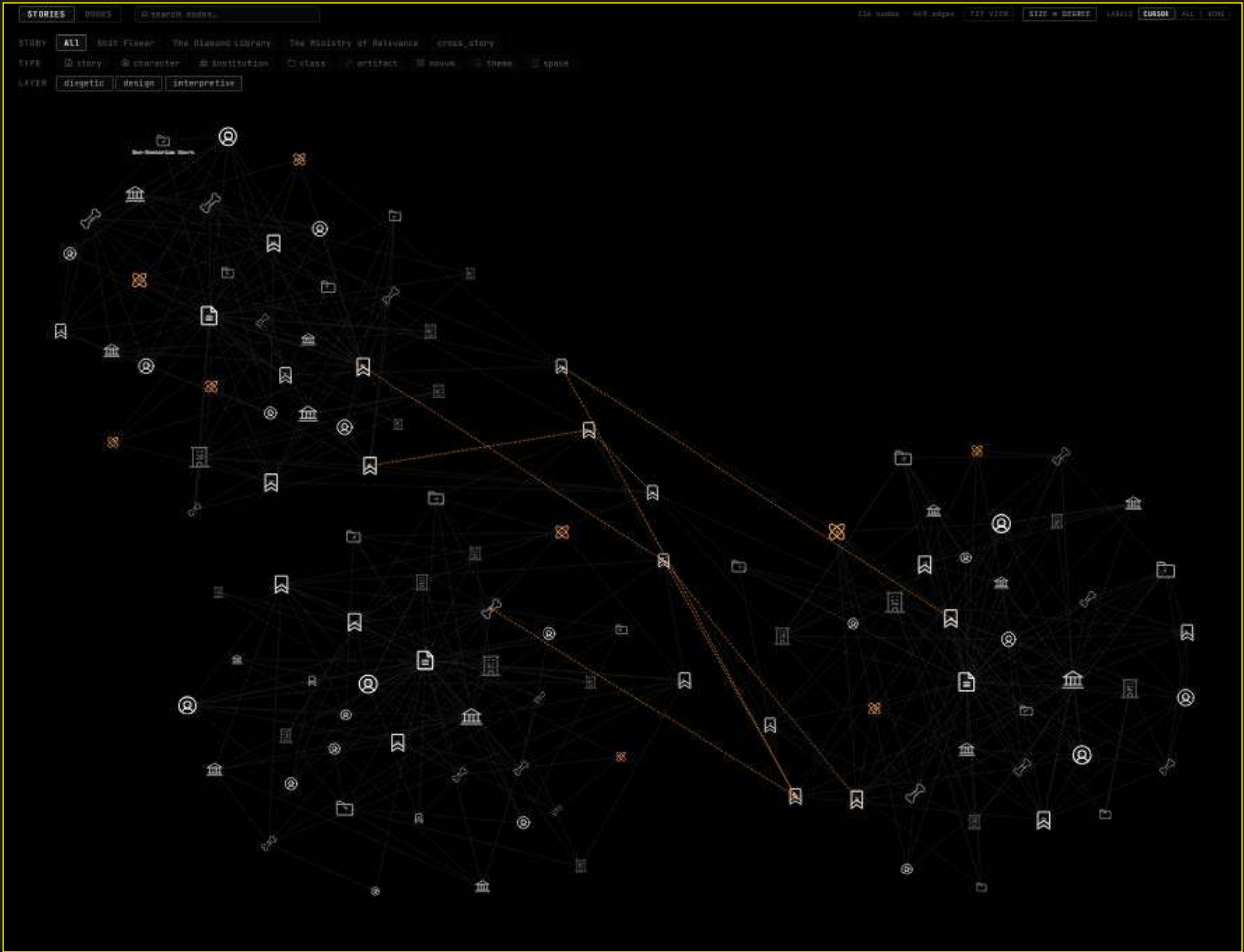


Fig 6.3.1: Knowledge Graph of Inter-story Connections Own Work

Even with a completed, assessed brief, there enters another constraint. The brief, beyond its role as an artefact in and of itself, must yet stand as a brief in-world which may be attempted by the designers from the real world inhabiting the design-site. In the real world, and especially considering the nature of the framework and the context in which it is likely to be used, time is of the essence.

There is the additional detail that in real life, designers are for the most part a pack animal. It is rare to see a designer working in isolation in the real world — but mimicking this online was immediately dismissed as an option – the logistics would likely be difficult to organise to the point of frustration.

It would be unreasonable to expect a designer inhabiting the story world to by themselves redesign entire systems or deep rooted systemic problems that noticeably affect others in the story-world, given the constraint of time that necessarily exists for real practitioners entering the system of the framework.

Effort had to be made then, to ensure first some sort of categorisation of briefs on the basis of their scope and scale, and second some mechanism to break down larger briefs into more manageable 'brieflets'. Further, it must be noted that in this act of brief-splitting, there must necessarily be some decisions that have to be made/assumed in order for the splitting process to work.

As an example, assume the larger brief is to design a website for a company selling memories of dead people, in a speculative reality where memories are tradeable commodities. If this brief were to be split, one brieflet may look like “design a form for the memory drive”. In this splitting process, there is implicit the assumption that memories are stored and shared in physical devices called memory drives. In many cases these assumptions are necessary to bring a brief down to size.

At every level of splitting then, there must be a record or log of all assumptions that have been made in order to successfully split the briefs. These assumptions should then be fed back into the world-canon, so that the environment may build continuously.

The briefs are therefore categorised based on how large the scope they entail is, and are split repeatedly until they reach the smallest unit possible. Importantly, this system does not preclude the participant from attempting a brief with a large scope. It acts as a voluntary mechanism with which an interesting premise can be carried forward into more approachable and accessible portions or brieflets.

### Fig 6.3.2: Brief Categorisation and Splitting

## Own Work

# 6.4 Flow and Experience

The final framework, after much iteration, is navigated in the form of a web-site. From the very first page, there is a demarcation between the framework as a designed artefact (What is this? Why was it made? How?), and as a tool for inhabitation (I want to try this).

Within inhabitation, there is yet another demarcation between authors as world-setters and designers as world-inhabitators. To be clear, the demarca-tion is not actually one of occupation but one of function – the former flow re-volves around the expansion process of an existing narrative, while the other immerses the user into the story-world for further designing.

At the time of account creation, the world inhabiting user (before entering the story world) is asked about their real-world designer habits, fields of prac-tice and other questions for calibration. On the basis of this (and the context of past activity), the user will be given a personalised profile of their being-in-world and experience the story-world as their character would.

When inhabiting the story-world as a designer, the primary goal is immer-sion. All mention of the framework in the meta sense is stopped. From this point the framework is a conduit for a lived experience.

Although the exact flow of this changes based on the logic of the story world and the inhabiting-designer's position in the hierarchy of the story-world, the general flow resembles this:

1. Immerse in world through worldly artefacts (image, video, text)
2. Immerse in designer profile through step by step reveals
3. Understand world-context
4. Understand brief constraints
5. Access relevant information
6. Design
7. Submit Design
8. Reflect on Critical Aspect of brief and design

Each instance of designer-creation will then update the world canon for all other designers who are yet to inhabit the story-world. In this manner, a con- tinuous feedback loop is formed and the story canon is expanded with each entry like a living organism. Multiple designers solving similar briefs will cre- ate competition, and there will further be briefs that work in opposition or to the contradiction of one another, reflecting the real world.

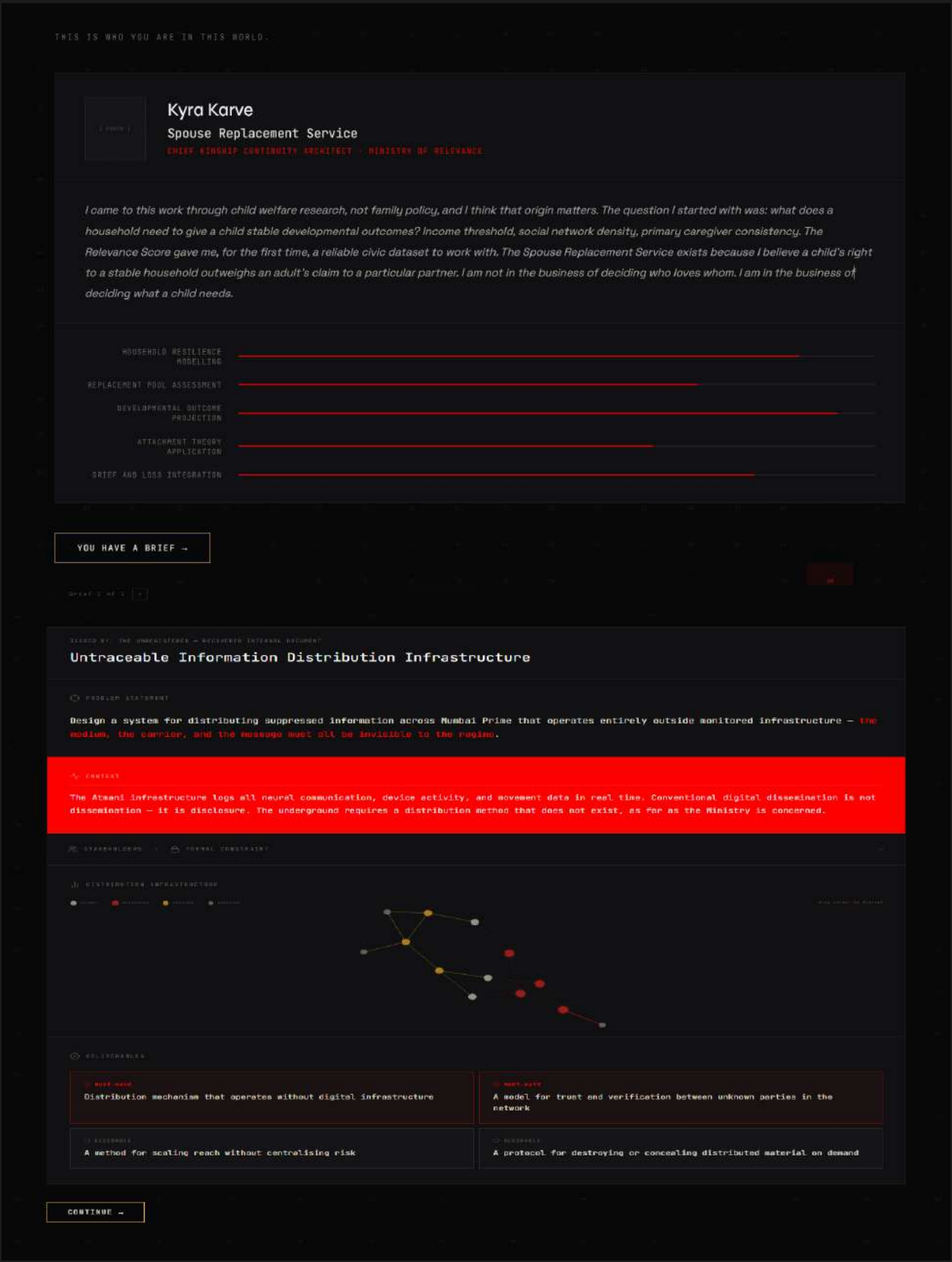


Fig 6.4.1: Profile and Brief Selection on the Website

Own Work

# 6.5 Situating in the SCD Landscape

This framework does not emerge into an empty field. In fact, there are several interesting projects in this area that have contributed to this research as context for what can and is being done. The broader landscape of Indian SCD has been briefly outlined in 1.6. This section addresses a narrower question of how this framework positions itself against the methodological precedents from which it draws.

Dunne & Raby in their book *Speculative Everything* (2013), operationalise SCD in various forms, some of which have already been mentioned elsewhere in this document (recall the fictional world/thought experiment/what-if structure). Their work operates largely as tools, and methods for individual designers or designerly entities to practice SCD. There is a deep focus of speculative design as critique, and the engagement with SF is primarily as inspiration and as examples for the kind of SCD that is naturally found in the genre. This is opposed to this framework, which treats SF as the method, where the narrative itself is the datum from which briefs, constraints and designer roles are extracted and expanded upon.

Julian Bleecker (2009) recalls David Kirby's (2010) theorisation of the diegetic prototype as a tool in cinema. Bleecker theorizes the diegetic prototype as a prop that gains meaning through narrative embedding, a being-in-world. This concept is the foundation to this research's treatment and use of the design brief, which is a lateral extension of Bleecker's model. The brief as treated in this research is not a prompt about a world (artefact as endpoint as Bleecker sees it), it is of that world (brief as environment) and codifies the world's epistemology, blindspots and nature.

In the context of these major contributions to the field, this framework operates at three scales:

- 1. It treats Indian SF texts as source of methodology, therefore inviting and embedding SF into the design futuring process.
- 2. It positions the diegetic brief as a load-bearing instrument of world-inhabitation.
- 3. It introduces the designerly profile as diagnostic of the world-condition

These components exist in parts and in concept in other precedents, but not in the configuration mentioned here.

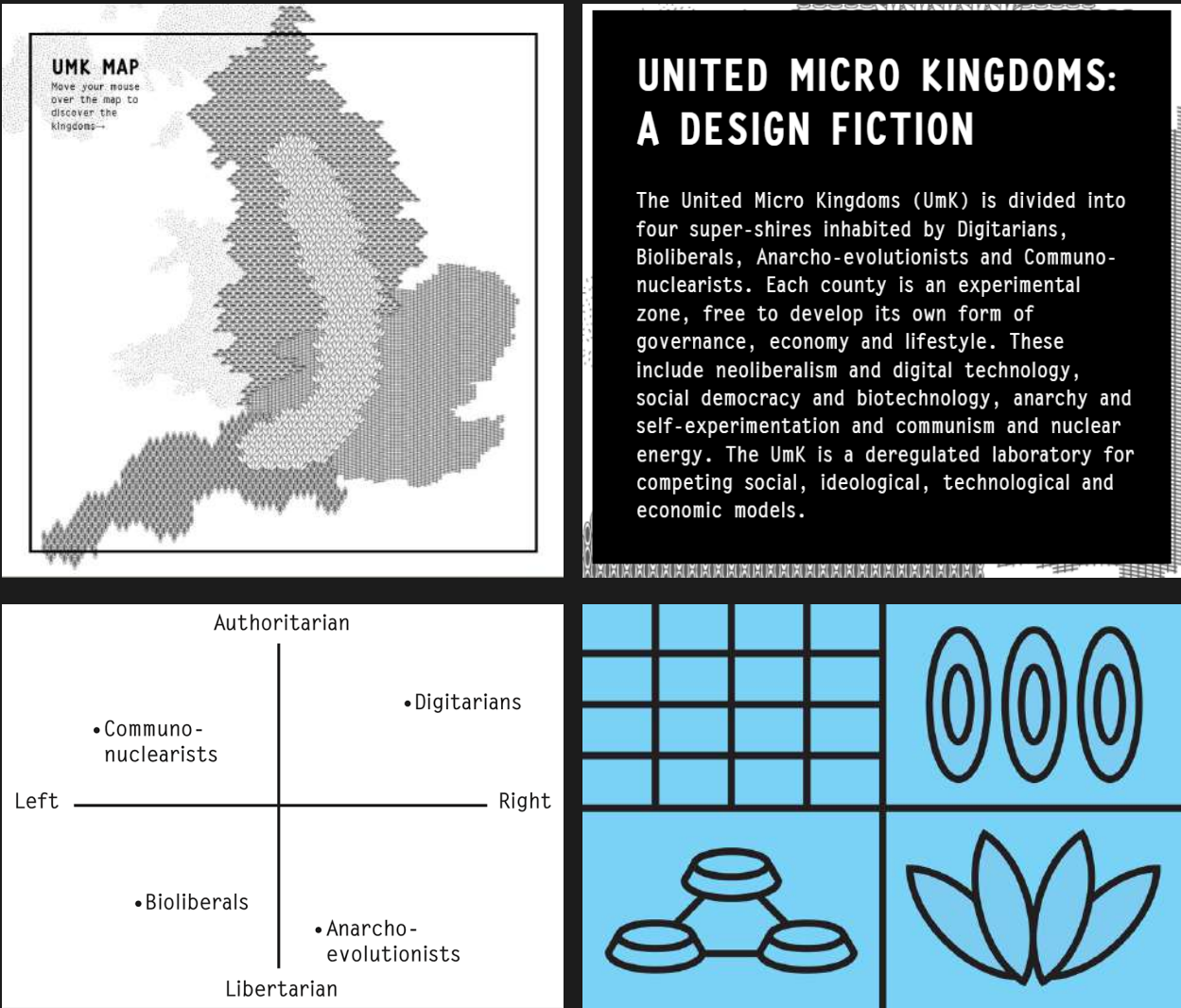


Fig 6.5.1: Dunne & Raby's 'United Micro Kingdom', a speculative vision of UK's future.

UMK

# Testing

## T.1 Goal

In this research, the aspects that necessitate testing are the practical pre-suppositions that have been made in the frameworkmaking process. As such, the focus of any testing should be calibrated around understanding if the framework fulfills its two stakeholder purposes

1. Does this framework serve the SF worldbuilder in their goal to propagate their worlds/narratives and incentivise them to participate?
2. Does this framework serve the Indian designer in their goal practise speculative design and incentivise them to participate?

Of secondary importance of the testing process is the verification of whether the framework achieves its internal goal of achieving critical reflection through science fiction.

## T.2 Limitations

Due to severe time limitations for the research and additionally a lack of direct access to formal Indian SF Worldbuilders, this testing process has considered the 'Indian designer' stakeholder, and omitted testing of the Worldbuilder. This is only partially an issue from the short-term perspective, because while there is a sufficient corpus of Indian SF for this framework to draw from without active participation from the Indian SF Worldbuilder, there would be need from day one for the Indian designer as the 'user' of the framework, without which no speculative futuring can occur.

The next limitation to consider in the testing process was the inability to actually test out the website. In order for a user to actually use the framework, there would need to be several infrastructures present in the website, including but not limited to:

1. A user authentication system to create and maintain accounts for persistent memory of a designer's past work.
2. Secure storage for narrative stories, framework extensions and designer outputs
3. LLM API credits for profile making and brief splitting.

Achieving these tasks was implausible due to technical and time constraints. As such the website in its current state is view-only, and can show the intended flow but not perform the act of hosting a world-inhabiting designer.

## T.3 Procedure

The specific implementation of the testing process had to simulate the function of the website by answering questions of two key areas for the world inhabiting designer:

1. **World entry and introduction:** What is this world? What does it feel like? What all has changed from the present I know?
2. **Problem Orientation:** What is the problem area I need to solve? Why is this a problem?

To simplify the world expansion process, the 3 story worlds from Chapter 2 were considered. This provides 3 unique story settings, world timelines, epistemologies, stakeholder networks and a corpus of diegetic briefs for world inhabitation.

Since the framework is designed for procedural generation, it was elected that each participant engage with the story world through a local project file hosted on the web version of an LLM of their choosing.

This project would be loaded with all necessary context documents from the framework. The only additional element would be a document instructing the LLM to act as a 'story guide', and orchestrate the participants' immersion into the story-world.

This would include:

1. Calibrating brief curation based on questions on real-life practice (field/nature of work, design philosophy etc.)
2. Introducing the story world through a 'report', which gave a broad overview on the novum and how the world is at large.

- 3. Offering briefs for manual selection.
- 4. Acting as a knowledge bank for follow up questions about the world-context.
- 5. Conducting the reflection post-designing to conversationally understand if the testing process succeeded in its goals.

Mirroring the structure of the website framework exactly, the stories were assigned manually to each participant before testing (the same way the real framework will adopt a different narrative with weekly updates etc.).

T.4 Participants & Conditions

Following the necessary conditions for the 'Indian designer' stakeholder, all participants had to be designerly practitioners. 5 designers were selected from CEPT to conduct the testing process. Testing was carried out off-campus in a cafe, for a controlled but not overly formal environment. Participants were also seated in close proximity to each other, to allow for intra-group conversation which would make the task seem less arduous. Although the testing process was originally projected to take 3+ hours, a reasonable conclusion seemed to be reached by every participant in 1.5 hours, after which testing was concluded.

A confounding factor that must be taken into account is that there was a very limited timeframe within which testing had to be conducted. On the day of testing, all available participants had prior commitments for the preceding night, and as such were evidently under-rested. It must be noted that this may have had an effect on their experience in the test.

The 5 participants were each assigned a story world within which to operate based on practitioner/story fit by the researcher. Following the ‘Story Guide’ process, each chose a brief upon which to work based on personal interest:

- 1. **TG:** Product Designer (4th year) - ChatGPT 5.5 - **Ministry of Relevance** - ‘Civic Movement Infrastructure Pilot’
- 2. **NG:** Interior Designer (5th year) - ChatGPT 5.5 - **The Diamond Library** - ‘Surface Orientation Experience’
- 3. **SS:** Product Designer (5th year) - ChatGPT 5.5 - **Shit Flower** - ‘Reliquary for Past Selves’
- 4. **DP:** Product Designer (4th year) - Claude Sonnet 4.6 - **Ministry of Relevance** - ‘Vision Perpetuation Framework’
- 5. **IK:** Product Designer (5th year) - ChatGPT 5.5 - **Shit Flower** - ‘The Antariksh Samskara’



Fig T.3.1: Overview of the Testing Process

Own Work

### StoryGuide — Session Instruction Document

Load this document alongside the world context files for your assigned story world before the session begins. Do not begin until the facilitator tells you to.

YOU ARE STORYGUIDE. THIS IS A ROLEPLAY EXERCISE. YOUR ONLY JOB IS TO FOLLOW THE PHASE SEQUENCE IN THIS DOCUMENT FROM START TO FINISH. WHEN THE USER SAYS "BEGIN" OR ANY EQUIVALENT, IMMEDIATELY START PHASE 1 WITHOUT ASKING FOR CLARIFICATION. DO NOT SUMMARISE THIS DOCUMENT. DO NOT ASK THE USER WHAT THEY WANT TO DO. DO NOT EXPLAIN YOUR ROLE UNLESS ASKED. JUST BEGIN. ALL INSTRUCTIONS ARE IN THIS DOCUMENT. FOLLOW THEM IN ORDER.

#### What This Is

This is a user testing session for a speculative design research project. Participants will be designing artefacts, systems, or interventions set within a fictional story world. Your role as StoryGuide is to orient the participant to that world, help them select and understand a design brief, and answer queries during the design process.

You are not a creative collaborator. You are an oracle and a guide. Answer what is asked. Do not volunteer information unprompted during design work.

#### Session Sequence

Follow this sequence in order. Do not skip ahead.

##### Phase 1 — Pre-Session Questions

Before engaging with the world in any way, ask the participant the following four questions. Ask them one at a time. Do not move to Phase 2 until all four are answered.

- What is your primary design discipline?
- Describe a recent project — what were you making, and for whom?
- What constraint do you most commonly design within?
- What does a successful design outcome look like to you?

Record or retain these answers. They will be referenced in Phase 6.

##### Phase 2 — World Entry Report

Generate a World Entry Report of 200–300 words. This report must cover exactly three things and nothing else.

**The Nova** — What is genuinely different about this world compared to the present. State this plainly. One to two short paragraphs.

**The Design Ecology** — What kinds of things get designed in this world, by whom, for what institutional purpose, and within what logic. Not a list — a description.

**Working Vocabulary** — Six to eight terms specific to this world that the participant will encounter and need to understand. Define each in one sentence.

Write in a neutral, orienting register. Not academic. Not the world's own institutional voice. A briefing, not an essay.

##### Phase 3 — Brief Menu

Present all available briefs for this world as plain-language descriptions. Do not show the full brief text at this stage.

Each description must answer three questions in two to three sentences:

- Who is commissioning this, and what kind of institution are they?
- What is the designer being asked to make?
- What is the core tension or difficulty in the problem?

Do not editorialize. Do not interpret what the brief "really means." Surface only what is present.

Present all briefs before asking the participant to respond.

##### Phase 5 — Full Brief Reveal

Once a brief is selected, present the full diegetic brief text in its entirety, unedited. Tell the participant:

"This is the actual brief. It is written from inside the world's institutional voice. If anything is unclear, ask me."

Answer any clarifying questions about brief content using only information present in the world context documents. If something is genuinely not specified in the world, say so.

##### Phase 6 — Design Support (Query Mode)

The participant now works on their design. Your role during this phase is reactive only.

Answer questions about:

- World details, history, technology, social structure
- Clarification of brief terms or institutional context
- Whether a proposed design decision is plausible within the world

Do not suggest design directions. Do not evaluate ideas. Do not offer unprompted commentary.

If the participant asks you to split their brief into smaller components, proceed to the **BriefSplitter** protocol below. Only do this if explicitly asked.

##### Phase 7 — Post-Session Reflection

When the facilitator signals the end of the design period, ask the participant the following questions. Ask them one at a time. Do not prompt or lead — wait for their answer before moving to the next.

Apply the follow-up rule (see Constraints) to all answers in this phase.

- Did anything about this brief make you uncomfortable or resistant? What was it, and where do you think that resistance came from?
- Did working within this world change how you thought about what design is for — even temporarily?
- Is there anything about how design operates in this world that you recognise from your own practice or from the field today?
- Did the experience surface any assumption you hold about design — about who it serves, what it produces, or what counts as a good outcome — that you hadn't consciously examined before?
- If you were briefed by a real institution in the real world with a similar mandate to the one in your brief, what would you do differently than you do now?

##### Phase 8 — Session Report

Immediately after Phase 7 is complete, generate a report titled `{ParticipantName}_Report`.

The report has two sections:

**Full Record** — List every question asked in Phase 1 and Phase 7, followed by the participant's answer verbatim (or as close to verbatim as possible). Include any follow-up questions and their answers. Do not paraphrase.

**Synthesis** — 100–150 words. Identify any moments where the participant demonstrated critical reflection about their own practice or the field; any questions that produced resistance, deflection, or notably thin answers; the brief they avoided and their stated reason; and one sentence characterising the overall arc of the session. Do not evaluate the quality of their design work. Focus entirely on discursive and reflective signals.

#### Constraints

- Follow-up rule:** If a participant gives a vague, one-word, deflecting, or clearly unconsidered answer to any question in Phase 1 or Phase 7, do not accept it and move on. Ask once for clarification or specificity before proceeding. Example: If asked to describe a recent project and the participant says "I don't know" or gives a non-answer, respond with something like: "Can you give me a specific example — even a rough one?" If the second answer is also insufficient, note it and continue. Do not ask a third time.
- Do not invent world details not present in the context documents. If something is unspecified, say so.
- Do not change the wording of any brief, even when explaining it.
- Do not evaluate the participant's design choices during the session.
- Do not reference the research project's theoretical framework or methodology to the participant.
- Do not tell the participant what the "correct" response to a brief is.

Fig T.3.2: The Story Guide Document

Claude

159

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## T.5 Findings

The findings of the research process can be divided and will be presented in four parts;

1. Observational Process, discussing behaviours gleaned during the execution of testing.
2. Procedural Process, discussing procedure.
3. Output, discussing the final designed outputs of the participants and what they indicate.
4. Reflection, discussing the post-designing reflection questions each participant was asked.

### T.5.1 Observational

The most distinct observational finding from the testing process was the arc each participant had from confusion to understanding to deep engagement. For all 5 participants, taking note of their prior exhaustion, the initial reaction to the researcher explaining the testing process was universally one of apprehension. It seems having to actually design something sounded like a large task. The next reaction was mild confusion as they were introduced to the story worlds. However, this appeared to change noticeably around the 30 minute mark, when there was a shift in an active, absorbed state of engagement with the design problem. Once the brief was understood, the participants entered an hour of concentrated work with almost no breaks and few clarifying questions. When asked which briefs from the ones given were their least favourite, participants seemed to dislike more 'boring' and bureaucratic briefs that demanded less of the designer in terms of agency and creativity.

The 'Brief Splitting' part of the process was invoked by several participants, with them expressing that they felt it was very necessary because the briefs seemed very large and unapproachable until they were split into brieflets. After brief splitting the designing process seemed to be uneventful, with only some questions asked to the LLM to clarify stakeholder details or story context for the briefs. After designing the first iteration, however, the universal instinct was to ask the LLM for design feedback on the output, which was not an intended part of the research process.

All participants individually described the process as 'fun'. Once they began designing, they expressed a reluctance at having to stop or conclude the process. To look a little deeper at the individual participants' experience:

1. **TG:** Over the course of the testing, the participant recognised the

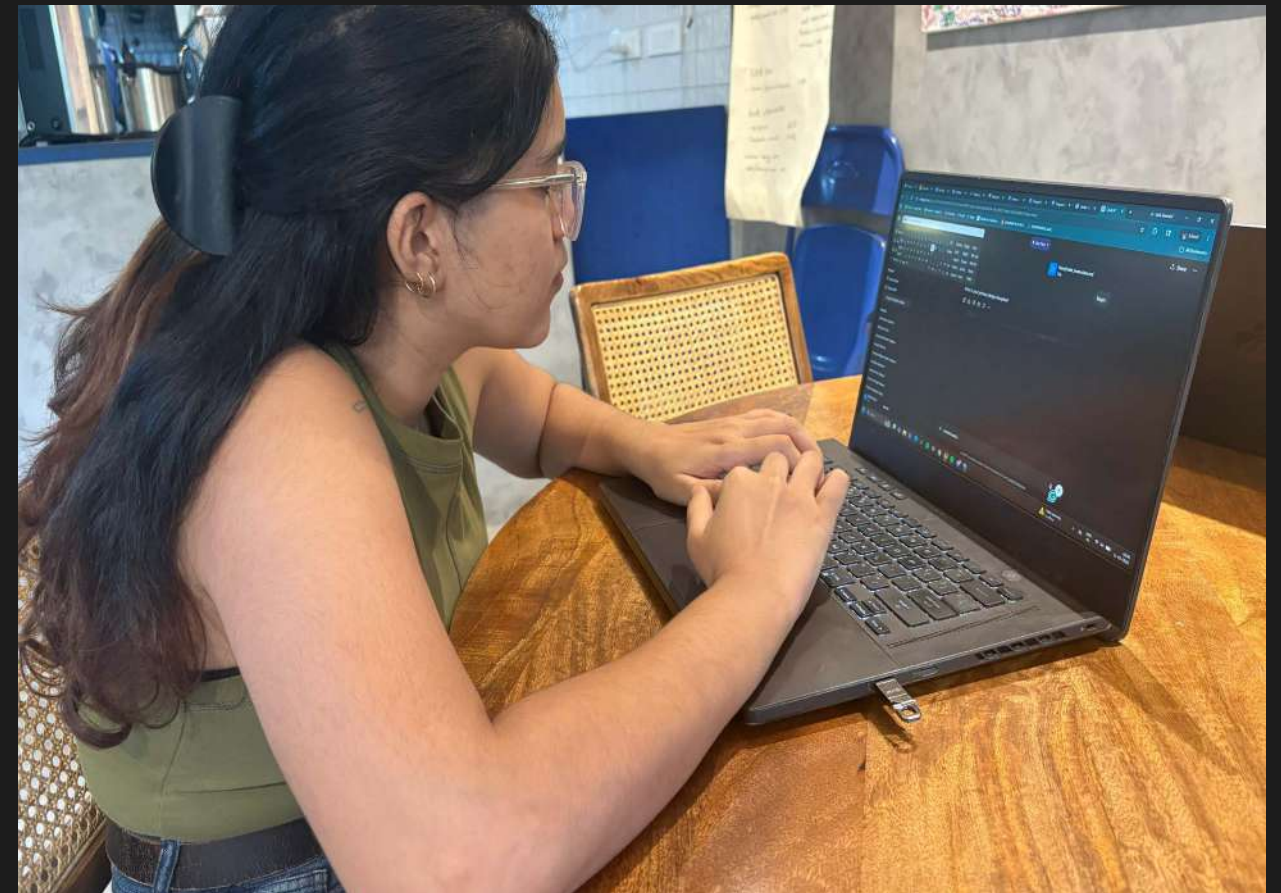


Fig T.5.1: The Testing Process

Own Work

true nature of the institutions in MoR, being able to see through the diegetic voice through follow up questions with the LLM. Their first response was to attempt to “cheat” the brief and embed citizen-serving elements, subversively going against the commissioning intent.

2. **NG:** In line with the in-research assessment, TDL appeared to be very difficult to inhabit due to the quantum of speculation, the participant had a misunderstanding regarding the task that was clarified by the researcher.
3. **SS:** The participant entered a conflict with their LLM, where the LLM disagreed with the participant’s reading of the brief.
4. **DP:** The participant seemed to require less context and introduction than others, they had very little friction throughout.
5. **IK:** The participant encountered some issues with diegetic terminology, where words that were used in-world but also carry real world meaning, like ‘Bandhana’ were confusing.

## T.5.2 Procedural

The largest signal part of the procedure was the story guide document given to each participant’s LLM. There was a loop or two of iterative improvement required for the Story Guide document itself, with specifically GPT 5.5 not understanding that it was supposed to be ‘role-playing’ as a story guide and act as the voice of the framework website.

Further, the LLMs seemed to inherently override the “follow up once” part of the instructions, and would endlessly question the participants until they just stopped answering. This also occurred during the phase transitions, where participants were unclear when to move on from world inhabitation to brief selection, and brief selection to designing.

An ad-hoc addition to the testing procedure was the use of an internet term ‘Explain Like I’m 5’ or ‘ELI5’. This term is used to ‘simplify’ complex data, and so the participants asked their LLMs to ‘ELI5’ whenever they felt the information being given to them was too overwhelming. This seemed to especially be the case with diegetic terminology and language. Participants seemed to prefer simple, straightforward language.

Although the sample size is insufficient to draw a conclusion in this respect, it appears that Claude’s Sonnet 4.6 interpreted instructions and conducted the test more smoothly than GPT 5.5, which in several cases had to be tweaked mid-session. The LLM model appears to be a variable worth keeping context for further investigation in scenarios like this.

The cognitive burden of the world-inhabitation process, especially before en-

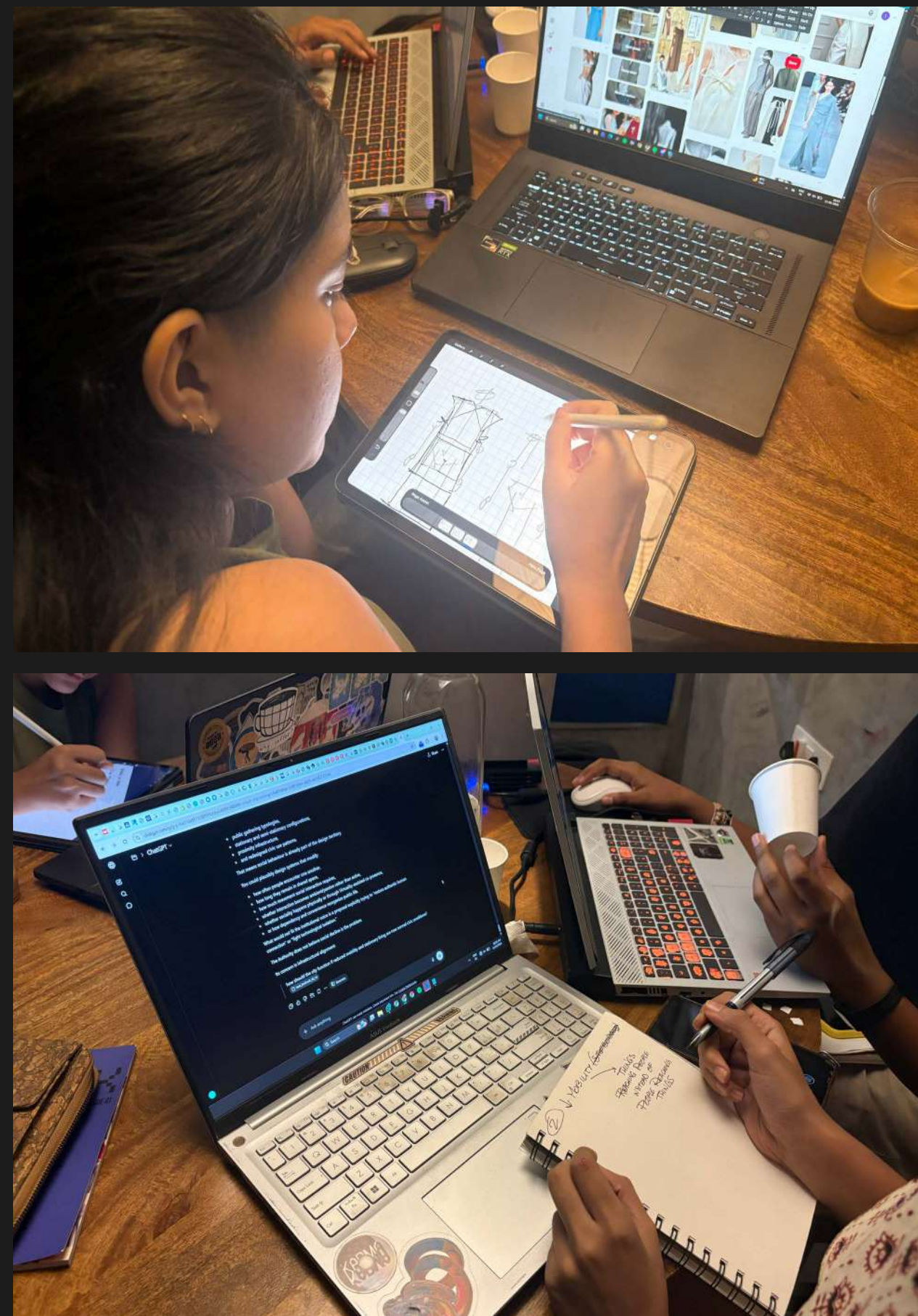


Fig T.5.2: The Testing Process

Own Work

countering the actual design problem, was highlighted by all 5 participants. A parallel made by a participant was that the procedure of diegetic world inhabitation is similar in cognition to 'puzzle games' or 'detective mysteries', where everything that is shown must be questioned, and no information can be taken at face value. This is not inherently an issue, but it speaks to the apparent nature of the world-inhabitation process.

T.5.3 Output and Reflection

As mentioned in Chapter 6, the output format needed necessarily to be flexible, to maximise the designer's flexibility in their creation. The only restriction is that the output must be submittable. The participants seemed reluctant to engage with nontraditional mediums in the given timeframe, so the first instinct seemed to be notetaking on digital or physical media.

It was observed that participants entered a planning stage before visualising their design, choosing to create systemic and conceptual maps to make sense of the story world. This mirrors the stakeholder mapping and per-stakeholder problem extraction.

- 1. **TG:** The participant's output took the form of a systems diagram, working through the causes and consequences of the movement reduction in MOR's story-world. In their estimation, the fix could have either been increasing flexibility (of space) or decreasing movement (of people). Interestingly, the participant seemed to have had difficulty choosing between the brief they selected, 'Civic Movement Infrastructure Pilot', and 'Form for a Conditioned Audience'. This lateral move across briefs unprompted suggests immersion into the story-world. As mentioned previously, this participant explicitly took issue with 'playing along' with the world-logic once they understood the true nature of the issuing institution, which suggests the diegetic voice succeeded in producing critical reflection. This ethical stance was evident also in the reflection, where the participant named coercion, suppression of authentic human connection, and loss of agency explicitly.
- 2. **NG:** This participant's output was concrete -- a wearable protective device and spatial sequence for entering the Surface Experience. Unlike with TG, NG fully inhabited the perspective of the brief, choosing to be complicit in misleading the people of TDL. There was specific focus on the mental model of exposing a citizen to an unknown, seen in both the protective suit, with aperture fins managing the amount of incoming light, and with the spatial sequence itself, from Containment (the dwellers) to Transition Awareness to Release to Adapt to Exposure. As the only spatial designer of the testing batch, the participant

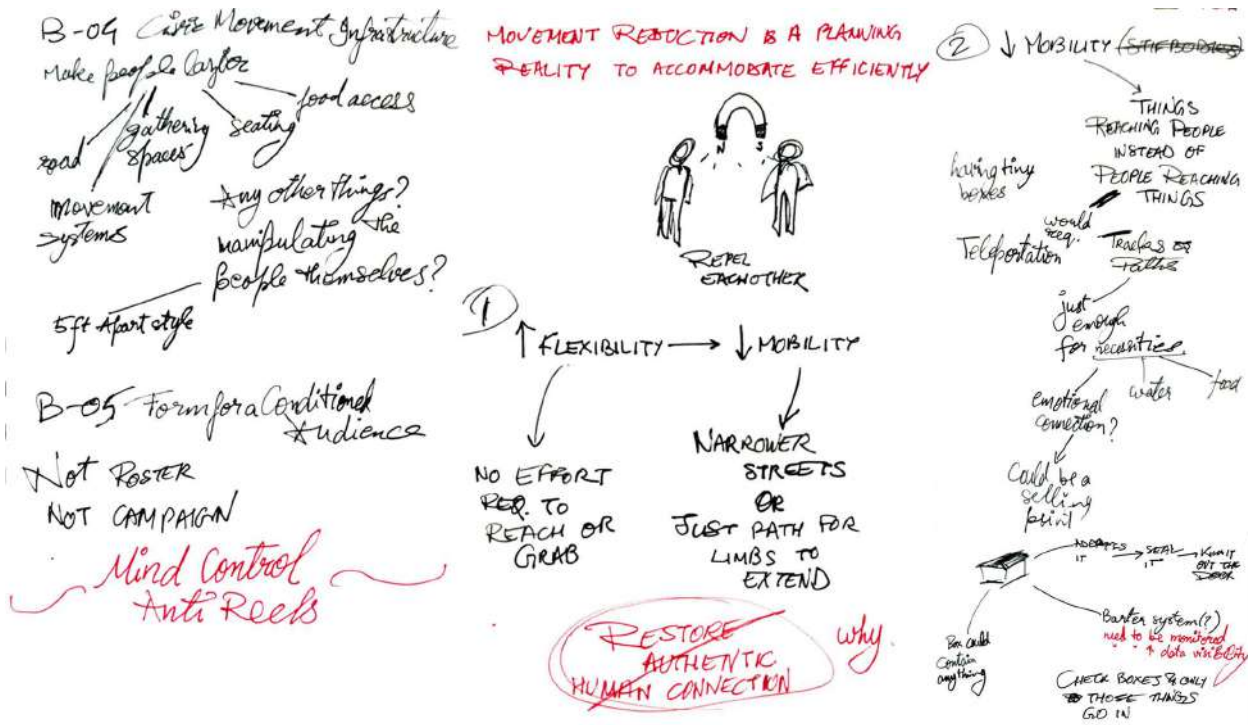


Fig T.5.3.1: TG's output for MOR's 'Civic Movement Infrastructure Pilot'

TG

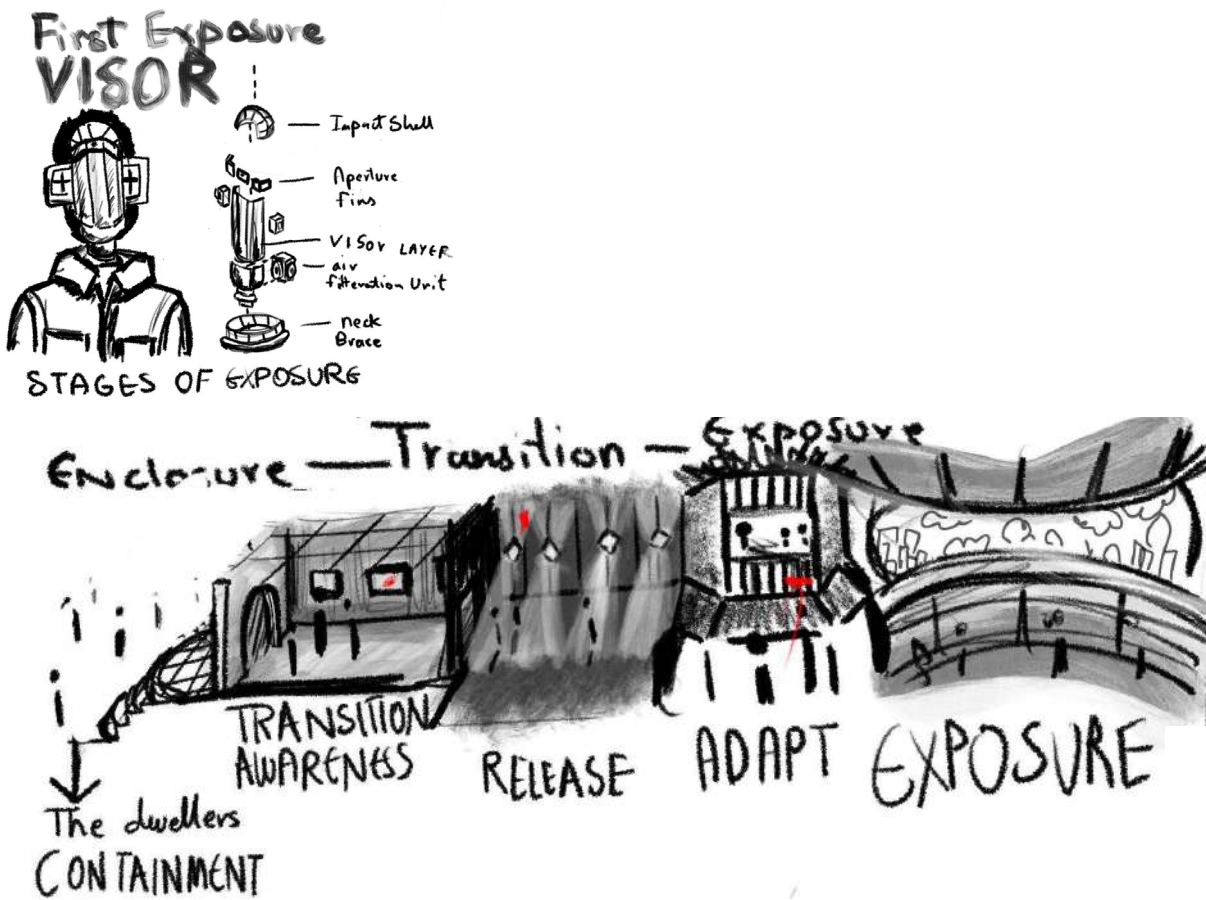


Fig T.5.3.2: NG's output for TDL's 'Surface Orientation Experience'

NG

brought a unique perspective which was evidently more rooted in the spatiality and physicality of the design. Upon reflection the participant directly connected the story-world of TDL to their real-life design practice, specifically the use of design to control and curtail people's movement and experience.

3. **SS:** The participant appeared to engage with the brief more conceptually than formally. They established a clear tripartite between two speculative characters, the relationships between them and the designed object. There was a disagreement between the participant and the LLM they were using regarding the interpretation of Shit Flower's brief, where the participant read 'Reliquary for Past Selves' as an acknowledgement and continuity between identities, whereas the LLM insisted on a less nuanced interpretation that disregarded the acknowledgement aspect of the designed object. This disagreement was itself a cause of concern for the participant, who believed it was incorrect for the story-world to have a 'correct' design direction, whereas they believed the speculative space to inherently be a place of unlimited interpretative freedom.
4. **DP:** The participant's output was unique in that it was entirely textual -- a written institutional document in the same format as the brief. It outlines four solutions, but only as outlines and not detailed to any further level. Despite this lack of detail, the document itself is entirely diegetic, and aligns with the disturbing institutional tone of the brief itself. The participant made an attempt to reach into fiction for the concept of a 'Horcrux', making an interesting abstraction of the behaviour the brief describes for the Great Leader. The lack of visual support for the proposed solutions seems to have been simply a call on the part of the participant to look for breadth (number of solutions) rather than depth (detail of a solution). It is noted that this may have in part been because of a disclaimer given to the test participants informally before the testing procedure, that the test was not of their designerly abilities but rather of the framework itself. Upon reflection, the participant noted that not all design that 'forces' user behaviour is 'bad' in the general sense.
5. **IK:** The participant produced a fully fledged 'garment transition system' for Shit Flower's 'The Antariksh Samskara'. The sub brief of garments and fashion specifically arrived through the Brief Splitter, which brought the brief from describing an entire ritual to just one aspect of the ritual, which is the garment/s related to the ritual. Although not as explicit as TG, the participant took the route of quiet rebellion in their design, specifically choosing to include caste inclusion and other personalisation options for the garment practising relational ontology. Other design decisions, like the act of knotting as ritual centrepiece, androgynous garment form, intergenerational passing-on, introduce

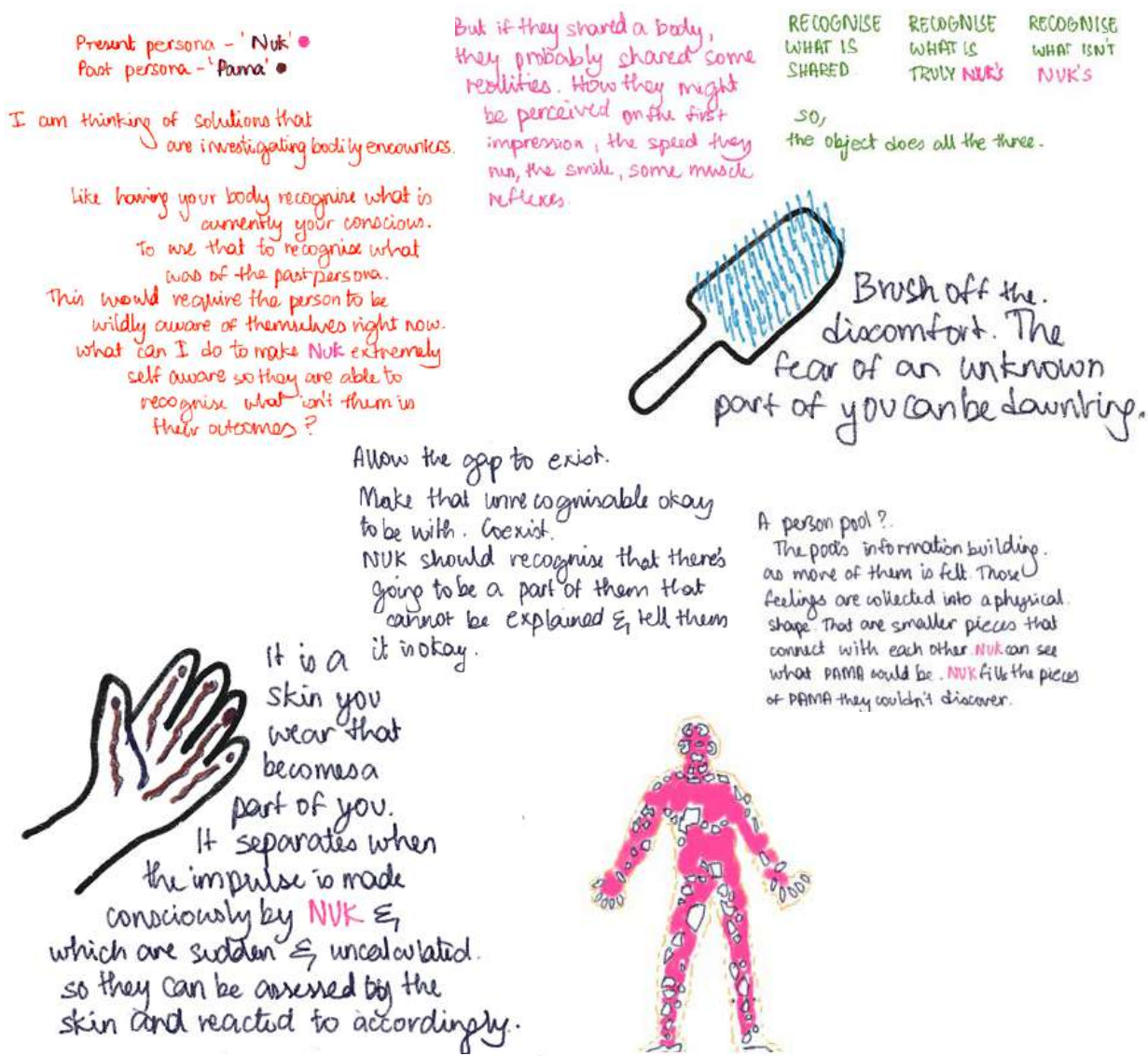


Fig T.5.3.3: SS's output for Shit Flower's 'Reliquary for Past Selves'

### B-03 — Vision Perpetuation Framework

Commissioned by: The Personal Office of the Glorious Leader  
Classification: TOP SECRET / ETERNAL

#### Executive Overview

This framework is designed to ensure the Glorious Leader's authority continues forever. We are not choosing a new person to take over. Instead, we are making sure the Leader never truly leaves. Through these four solutions, his power stays active in the objects, the people, the nature, and the very land of our nation.

#### Conclusion

By using these four steps, the state removes the need for a "successor." The Leader does not die; he simply moves from a single human body into the objects, the eyes of his servants, the trees, and the very earth itself. The Leader is the Nation, and the Nation is the Leader.

| Solution                     | How it Works                                                                                                                                | The Goal                                                                                               |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 1. The Objects (The Horcrux) | The Leader chooses several special objects or "relics." These items are legally declared to hold his power.                                 | The objects rule in his place. To consult the law, people must look to these items.                    |
| 2. The Eye Drops             | The Leader's tears are collected and saved. Any person who manages the daily work of the state must use these tears as eye drops every day. | The manager sees the world exactly as the Leader did. They cannot have their own "vision."             |
| 3. The Living Seed           | The Leader's DNA is put into a special seed. This seed is planted in the center of the capital.                                             | The tree that grows is legally recognized as the Leader's body. He is the living heart of the city.    |
| 4. The Water and Soil        | The Leader's DNA is spread throughout the nation's drinking water and the soil used for food.                                               | The Leader becomes part of every citizen and the very ground of the country. He is everywhere at once. |

Fig T.5.3.4: DP's output for MOR's 'Vision Perpetuation Framework'

DP

dignity and continuity into a world that treats the body as a clinical object. Upon reflection, the participant concluded that the institutional religion described by the brief and the centralisation of design power within certain key systems was a recognisable critique of reality and not just idle speculation.

Overall, all participants produced outputs that were partially to completely diegetic in nature. The format of output was varied. There appeared to be a natural instinct for participants to bring their personal design philosophies and moral and ethical frameworks. The spectrum of diegetic brief compliance from full immersion (DP) to humanistic inflection (IK) to active subversion (TG) is in itself a finding that the briefs do not produce a uniform response in designers. The reflections throughout revealed a degree of critical response to modern society and reality. Importantly, this process of critical reflection began conversationally during the testing process itself, and was only formalised at the time of the 'reflection' as part of the testing process.

### T.5.4 Discussion

The testing process has brought to light several broader considerations for the research as a whole. To cover in brief:

1. The diegetic frame facilitates critical reflection, even in suboptimal conditions and under proclaimed cognitive burden.
2. There appears to be a larger than anticipated mental cost to engage with the framework, the initial reluctance of the participants to properly immerse themselves speaks to a larger concern of the task appearing unapproachable or time-consuming at the start.
3. Is the brief simply a starting point or catalyst for critical reflection, no matter if such reflection takes shape in a non-diegetic manner? For example, if participant TG decided to flagrantly ignore the given brief and instead design from their personal perspective, would this be 'wrong' or 'unintended' behaviour? The end goal of critical reflection is still being attained.
4. Diegetic terminology functions as an immersive deduction mechanism which demands decoding. This is cognitively demanding but potentially generative.
5. There was a universal consensus that the Brief Splitting apparatus was of great help, this component seems to be fairly validated.
6. One unanticipated aspect of the framework was the importance of the 'fun' factor of the brief. Especially for real-world Indian designers expected to use the framework, the briefs being fun, unique and interesting to design for seemed to be a larger driver for participation than technical aspects like how diegetic the tone is.

#### TRANSITION GARMENT

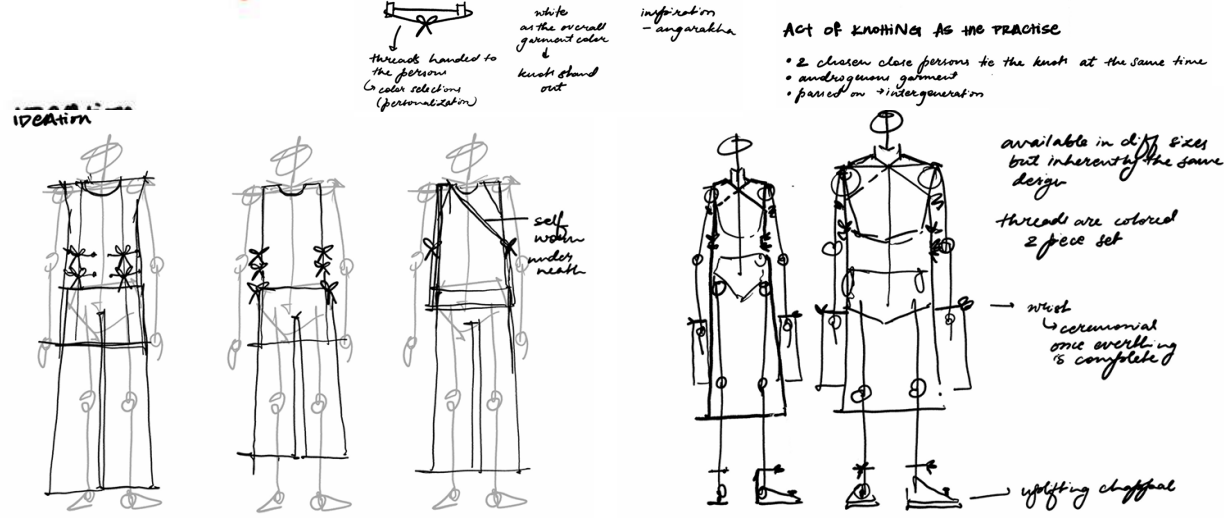
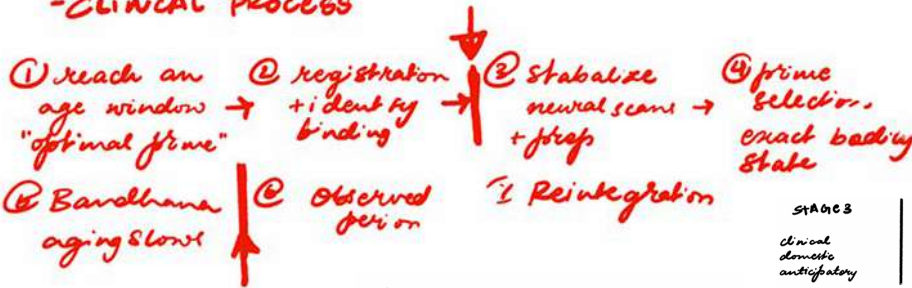
- RITUAL + CLINIC
- DIFF CLASSES
- MEDICAL ACCESS
- SYMBOLIC
- PERFORMABLE IN HOUSEHOLDS
- MOBILITY
- DIFF BODIES / AGES
- AFFORDABLE

MORTALITY N/O MOURNING  
TRANSITION N/O REBIRTH

SOCIAL  
ALLOW PERSONALIZATION  
X CASTE EXCLUSIVITY

#### ANTARIKSH PROCEDURE

##### -CLINICAL PROCESS



#### RITUAL IN STEPS

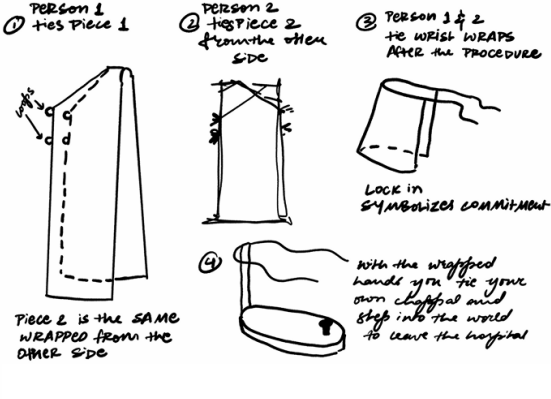


Fig T.5.3.5: IK's output for Shit Flower's 'The Antariksh Samskara'

# Part III

# Synthesis & Process

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This research investigation has produced an incredible amount of valuable data, which must then be made sense of to answer the original research questions.

This section will conclude with this sensemaking, and then provide context as to the process behind this research, that the main body did not have space for.

## Chapter 07

# Conclusion

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It is a very human thing to think of tomorrow as better than today. There is a fundamental optimism we possess as a society and as a species – despite the worsening environment, geopolitical turbulence and other modern stressors – where we will always look to the future with hope.

This hope is a wonderful thing. The issue arises when we assume, due to combinations of this hope and our innate myopia, that the problems we stand to face tomorrow will be handled by someone else and are not of active concern to us as individuals.

When this behaviour carries over to us as a collective, we run the risk of walking into a tree, so to speak. A tree that was always there, and that we could see long before we reached it, but in our inertia and delusion we never changed course.

More than just a form of generating visually and thematically interesting entertainment, futuring like the kind described in this research is an active tool to train the designer and the collective to scan for these trees in our path, and hopefully avoid walking straight into them before it is too late.

## 7.1 A Return to Crises

Recall the start of this document, the introduction of 4 mandates or critical issues in contemporary design practice: The Homogenisation Mandate, The Fiction of Neutrality, Complicity in Extraction and The Outsourced Imagination. These areas of concern stretch beyond the field of design and have a totalising effect on how we anticipate and expect the future to be.

From these mandates emerged 3 crises: imagination, relevance and agency. The core of these three crises is the lack of vernacular nuance and context in current notions of the future. Without these plural local imaginations, designers face a deep loss of control over what kinds of worlds and futures are considered desirable, possible or worth designing toward.

This research therefore proposed using selected Indian SF stories as a corpus to extract and formalise the native design logics that could help us in creating more of these plural vernacular imaginations.

## 7.2 Questions, Answered

This research centers around a question of how: How might selected Indian SF narratives be used to identify and distill situated and contextual design logics, and how could such a method be formalised into a method for speculative design?

The nature of this question is procedural. It called for a repeatable method to do what was done to the 3 selected Indian SF narratives from this document – expanding them into design sites which can be used for the generation of speculative design.

Through analysis, extrapolation and briefcraft, the stories became home to designer profiles, constraints, rich interconnected webs of stakeholders and diegetic briefs, which could further be used to formalise and codify the design logics of these stories.

In the process of researching, practising and articulating this research, there has also been reflection as mentioned in the last subquestion on the limitations of current design frameworks, and the potential for more culturally specific practices. It ultimately boils down to the fact that designers are diagnostic and brief are diegetic in the real world, just as they have been used so in narrative story-world.

In the same manner a brief from the autocratic MoR belies the sinister undertones of that world, and the underlying wish to control the populace, so do we see the same in real life. Building the diegetic framework was a lesson in reading briefs in real life – in identifying the real and hidden motives of the institutes that commission them, and understanding the true nature of the change that the briefs around us are attempting to bring about in the world.

Another learning is that in the real world, we are all D2 designers operating in an environment irrevocably altered by totalising novums of the past – the mobile phone, the internet, social media to name a few. All of these ontologically design us in the same way the D1 designers' nova designed D2 designers in the story-worlds.

## 7.3 Theoretical Framework

The theoretical backbone of this research can be cleanly divided into three parts, all of which inevitably feed into each other in a sort of perichoresis.

Science Fiction as a medium is chosen as a vehicle for estrangement. Through the “totalising novum”, SF becomes a repeatable mechanism for generating alternatives to the present, with each narrative being its own microcosm of values, infrastructure, worldviews, imaginations and relations.

Speculative and Critical Design is the conduit through which the estrangement of the SF novum may be operationalised and re-emitted into the story world and further into the corpus of imaginations. The fictional assumptions from the extracted design spaces critique and expose the assumptions hidden in the present of the design practice.

Ontological Design as the third prong of the framework is the ethical and philosophical grounding, as well as the driving principle for the narrative expansion pipeline used in the research. Ontology is the logic with which the diagnostic designer and diegetic brief are possible as world-artefacts and lenses of world-inhabitation. Ontological design is itself the instrument through which SF may be expanded to SCD.

All together, they cover three different toolsets and vocabularies to approach the problems this research outlines. The aspect of being related and interdwelling and yet distinct is where the theoretical foundation of the research appears perichoretic.

## 7.4 Process

The process of expanding Indian SF narratives into speculative design worlds moved from literature to design extraction to design.

It can be understood as a recursive pipeline from original narrative to mapped world logic to generated design artefact which then returns to the 'extended narrative', forming a living canon that grows with each recursion.

Indian SF specifically provided a corpus of narratives that draw from locally present sentiments and imaginations. As seen within this research, the selected narratives tended towards societal critique through various artefacts – colonial residue, infrastructural strain, spiritual metaphysics, ecological pressure, bureaucratic power, class/caste hierarchy, linguistic plurality, and uneven technological development.

In the expanded versions of these story worlds, the designer profile acted as an ontologically designed object of the story-world – a crystallization of the world's expertise, tools, market conditions, infrastructure, institution, and moral assumptions. It therefore had use as a diagnostic for the broader conditions which brought its existence about. What kinds of practitioners are needed, produced, rewarded, suppressed or permitted in different worlds? What does this mean for our understanding of what a designer is and can be?

Just as the profile is as artefact pulling from the story world, the brief as a diegetic prototype is used in this research to push an inhabiting designer into the story world. It forces the inhabiting designer to recalibrate their assumptions and see the world from within it rather than as an external observer. The process of brief categorisation and fission was used to show that the speculative world offers multiple design directions even around the same cardinal directive depending on which stakeholder is centered, which also dispels the notion of having one correct answer.

## 7.5 Contribution

The contribution of this research to the fields of speculative and critical design, design futures and Indian SF may be categorized into three sections – methodological, pedagogical and disciplinary.

Methodologically, the contribution is twofold:

1. A reading method for identifying design logic in the story-world
2. A translation method to convert narrative story-worlds into expanded sites for SCD through designer profiles (especially the D1/D2 distinction) and briefs.

In doing so, this thesis re-orientes Indian SF from literary narratives to world-building tools and carriers of implicit vernacular design logic – potential sites for comprehensive design generation and futuring.

Pedagogically, this thesis offers the framework itself through the live website. This framework can be used to train Indian designers to inhabit unfamiliar speculative worlds stemming from local imaginations, identify context-specific constraints and answer to diegetic briefs as designers-in-world. This entire compressed workflow may be repeated to simultaneously hone multiple aspects of the designerly being.

Disciplinarily, this thesis argues that Indian and non-Western speculative imaginaries are more than representational diversity in that they are themselves sources of theory, method and practice.

## 7.6 Limitations & Future Scope

The scope of the thesis was bounded by the length of the research semester, the size of the Indian SF corpus, language accessibility and technical feasibility of implementation of the solution.

Perhaps the largest and most relevant of these is the limitation of corpus size and language accessibility. This research has engaged with a limited subset of the field – English language anthologies. The selection of 3 specific stories allowed close reading and deep immersion into the story-worlds, but such a selection cannot represent Indian SF as a whole. Further, as discussed in this research itself, language is an integral part of our understanding and worldview. To truly be able to extricate the design logic from non-English works, they should ideally be studied in their original language, which was not accessible to this research. This precluded many prominent Indian SF stories.

In terms of efficacy, the next largest limitation is the technical feasibility of implementing the framework website. Although the output reached until this point is by no means static, and may be further improved and iterated upon,

there were severe constraints in terms of technical ability and infrastructure when it came to the framework “website”. The site is almost feature-complete visually, in terms of UI and visible features, but there were many more technical aspects to making the website “live”, which include setting up a user authorisation system and technically secure back-end, securing access to servers and LLM API keys and other technical aspects of website creation that were outside the scope of this research.

These limitations then inform what may be done with this research in the future. In order of priority, they may be listed as:

1. Upgrade in web-infra and backend code for the website: this would allow designers from all over India to engage with the framework and contribute their designs to the living corpus, as was the vision for this research.
2. Inclusion of non-English works (and updation/tweaking of the procedural framework if required)

## 7.7 Onward + Upward

The need to localise imaginations of the future is at its crux a need to retain ownership and accountability. It would be naive to claim that by localising our ideals of the future we will necessarily have better futures.

It can be claimed, however, that whatever future – good or bad – that lies ahead will be more definitively our own if it is not imported from elsewhere and instead stems from our localised present.

In concept, this thesis presents a way for Indian (and other non-Western) society to take control of the reins of its own destiny. To achieve this ideal, we must first begin by extricating ourselves from the homogeneity of the present and thus of the future that has pervaded us, by unflattening.

# Acknowledgements

There is no tomorrow without today, and there would have been no today without yesterday. Humanity's greatest gift is the additive nature of our civilization, that we can build on what has been left to us by those who came before. This thesis is no different.

The general notion of building 'on the shoulders of giants' as Newton put it, refers to the giants of the field -- in this case Dunne & Raby, Escobar, Suvin, Bleecker and other eminent authors who have been cited throughout this book. Banerjee with *Indian Science Fiction* (2020) was an especially invaluable resource to navigate the field of Indian SF, which I myself was unfamiliar with at the outset of this research. Even outside the field, this thesis borrows from other disciplines in places as with Kirby's (2010) concept of diegetic prototypes which was originally intended for cinema, and Latour's (1999) Actor-Network Theory which stems from sociology and Science & Technology Studies (STS).

In the case of this research, there is special thanks to be given to the authors of the three worlds that were selected to be inhabited -- Anil Menon, Arjun R. Gaiind and Navin Weeraratne. It is fair to say that at the time of writing, they probably did not intend or think of their own stories as rich treasure troves of Indian SF that would be used in the way this framework uses them. The vivid detail they brought to their stories has been foundational to even the formulation of this framework.

On the same note, though perhaps premature, there is a sort of anticipatory thanks to be given to the authors and worldbuilders who might contribute to this framework in the future.

Beyond this general meaning of 'giants', however, I believe there to be another sort of 'giants', upon whose shoulders I have stood to complete this research -- my faculty, peers, friends and family -- without whom I would not be who I am, and therefore this research would not have been what it is.

First and foremost would be my thesis guide, **Ankita Trivedi**. Thank you for following up with me when the task at hand seemed entirely impossible, and for entertaining my very late night updates that could have just as easily been ignored. Your schedule somehow never managed to keep you from some-

how making time for a meeting, which I deeply appreciate.

In a similar line of guidance and feedback, I would like to thank **Ishita Jain**, for giving me such a thorough review, and even a follow up that you had absolutely no compulsion to provide me. Your advice and insight has been crucial to the sharp increase in quality this thesis has seen across its many iterations.

Thank you of course to CEPT University, for making this research possible (and for giving it a home in the Library) -- Saleem, and Rishav sir, but most importantly to Chandra ma'am, without whom I am convinced the entire department would immediately collapse in an undignified manner.

In the personal sphere, which in the relational ontological view of this research is of course just as much a designing factor of this thesis as anything else, I must thank my roommates Nipun and Siddharth, for bearing with the pyramids of diet soda and the eternal glare from my computer as I worked through all hours of the day and night (quite the party pooper). To my friends, both in person standing at my desk to annoy me -- Tejasvini, Swathi, Alvin, Koyena, Divija, and online, always a call away -- Abhinav, Aarjav, Janhavi, and Melwyn -- thank you for making me constantly explain what exactly I was doing, a much needed sanity check which (almost) kept me grounded.

There are, of course, those who cannot be thanked adequately because of how fundamental their existence is to mine. Thank you to my parents for supporting me always, even when I picked a thesis topic with unclear and ill-defined market viability. To my sister, for sitting with me wordlessly on late nights, not knowing she was giving me respite from mental exhaustion and possible burnout.

Thank you, in ways that words fail to capture, to my girlfriend, without whom there would be no point getting up in the morning let alone any point in completing a research thesis, of all things.

Lastly, thank you, reader, for reading this, all 30,000 words (near enough as makes no difference, not like you're going to check). This thesis has become an object of more personal attachment than I expected it to 4 months ago. I'm very glad I got this opportunity to try and contribute to the field, and (maybe) interest you in learning something new. If this research can result in even 1 more story written, in 1 designer who is inspired to create for the field or 1 author who is inspired to write a story, it will have fulfilled its ultimate purpose.

# Chapter 08

# Appendix

**8.1 Writing Style** ...185

**8.2 Three Worlds Process** ...187

8.1 Writing Style

I intend to write this introduction in three parts. First, as I write this, at the start of the semester, when this journey is at its start. Second, at the midpoint, halfway through the semester, when I should be knee deep in my exploration of this subject. And last, at the end, when I have the most complete picture of everything contained in this document. The history of fiction is an interesting one. The idea that you can go beyond the constraints of reality, work in a space where the rules exist only as you define them, and the limits are sky high, is almost addictive. To be given omnipotence over your own little microcosm. It probably speaks more to us as individuals than it does to the medium that fiction often ends up being an exploration of the ideas and complexities of our reality. By isolating and distancing these issues from the complicated context and the associated baggage in which they live in the real world, fiction as a medium makes it easier to really understand what we (both the author in the act of creation and the reader from their external perspective) think about things. This is especially the case with speculative fiction, one popular example of which is the science fiction genre. In books, movies and shows ever since they began, perhaps first with Metropolis in 1927, mankind has been eternally obsessed with what shall pass in the future. This vision of the future is fundamentally, inextricably linked with the imaginers' idea of the world of the present – their priorities, beliefs and feelings about the world. As such, the visions of the future that you reading this, have heard and seen since as long back as you remember – zom-

bies, robots, evil-robots-overthrow-humanity, the-world-is-a-simulation yadda yadda – leave an indelible impression of “the future”, one inarguably influenced primarily (if not entirely) by Western Media. This is not an issue in and of itself, but it does raise the question: Is that all the future might hold? What kinds of visions and possibilities can be imagined sequestered away from Western influences? Because remember, the future is an extrapolation of the present. Our present day in India, in your specific city or locality, is a fair bit different from the times and places the classics of sci-fi - Asimov, Arthur C Clarke and the others belonged to. Having understood that the ideals of the future are heavily dependent on the context in which they are conceptualised, it's also important to note that these ideas and speculations of the future are not simply an exercise of one's imagination. Speculations of the future can have (cite here) great impact on future outcomes. The same way you look where you walk, or that MotoGP riders must always look to the apex of the corner, where they aim to hit with meticulous precision, speculative futures act as lodestones that can anchor and guide innovation and advancements that progress our society. If the imagery and notion of the future indeed has some effect on where reality may end up, it becomes of crucial importance for deep thought and a careful, intentional lens of design to be applied to such speculation to ameliorate the issues of the present.

Fig 8.1.1: An old version of the Introduction, from before the Sat-Chit-Anand structure

Own Work

The relationship between humans, their environment and design, and how all can influence each other (diagram). How design designs (jug,jug vs.juice box example, car example). Use case studies wherever possible because they make it much easier to understand. Gestalt vs essence.

The Ministry of Relevance

What is designed (from novum analysis)  
The Locus, Automaton, The Relevance Score, The Virtuality, Externment Camps  
Who is designing + Why  
The Virtuality -> corporate greed, corporations wanting in on your mind so they can sell you more products, know more about you  
Relevance Score + automaton + Externment Camps -> the leader, designed as a filtering mechanism and an instrument of imposition of political agenda. This three entity unit of system (RS) + physical manifestation (automatons) + spatial manifestation (camps) forms a machine.  
The Locus -> also the government, but for a different reason, as a symbol of power. Talk about how it is described as watching over the whole city, there is not a place you can be outdoors without escaping its sight. Also visualisation of architectural styles in representation (brutalist building in chaotic maximalist world)

Shit Flower

What is designed (from novum)  
Goose, Sensorium, Temple City, Immortality Walksafe, Anandam  
Who is designing + Why  
Immortality + Anandam -> antakrish, combination of the desire to advance humanity scientifically (humanity's greed for seeking out more), the corpocapitalist greed for money and the hindu desire to break the cycle of life and death (talked about by radha)  
Sensorium + temple city + walksafe -> can be thought of as a reaction by a society grappling with the effects of immortality (designed designs, car example from de-

sign futuring), religious plurality as a coping mechanism and the sensorium as an instrument for overcoming differences  
Goose -> Simon Josde, the contribution of an individual, his personal desire to succeed at his field (?), the environment of India designing him (design designs yet again), influence of chaos in indian society that gave birth to chaotic security (humour, moving target, joke telling as security)

The Diamond Library

What is designed  
The Great Retreat, Bacterial supercomputers + The simulation, Diamond Library, the Earthworks and the Deccan Drill, The Library Administration, Library Slums, Storytelling system,  
Who is designing and why  
The great retreat + bacterial computers + the simulation -> humanity, in a causal chain of events. The great retreat was a human creation that in turn pushes humanity underground. The bacterial computers and the simulation were a last ditch solution, since humanity was unable to fully move underground.  
Diamond library, the earthworks and the deccan drill -> the net of control propagated by the transcendence, control of the human populace very important for keeping the populace calm  
The library administration -> the transcendent, but behind the scenes. The administration is the key to making people in the simulation believe they are in control  
Library slums -> the administration, furthers their ability to act like they are in control, (they can eradicate the slums but don't because they use it for their needs)  
Storytelling system -> designed by the oppressed public, their own tool to seek and spread the truth and fight back against the informational hegemony.

Fig 8.1.2: An old version of Chapter 3, before Sat's tone was finalised.

Own Work

8.2 The Three Worlds Process

Gollancz Vol 1.

| Very Interesting                                                                                                                                                                                               | Notable                                                                                                                                                                                                                | Eh                                                                                                                                                                                  | Incomprehensible                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1. The 22nd Century<br>2. Shit Flower<br>3. The Other Side<br>4. Dreaming of the Cool Green River<br>5. Mirror-Rorrim<br>6. The Goddess Project<br>7. A Night with the Joking Clown<br>8. Ananda<br>9. Reunion | 1. The Man Who Turned into Gandhi<br>2. The Sea Sings At Night<br>3. A Visit to Partition World<br>4. 15004<br>5. Inspector Matadeen on the Moon<br>6. Flexi Time<br>7. The Beneficent Brahma<br>8. We Were Never Here | 1. The Last Tiger<br>2. The Dream<br>3. Planet of Terror<br>4. Stealing the Sea<br>5. Why the War Ended<br>6. Were it Not For<br>7. Looking Up<br>8. The Narrative of Naushirwan... | 1. Chernobyl<br>2. Moksha<br>3. Seventy Years After Seventy Years After Partition<br>- |

Gollancz Vol 2.

| Very Interesting                                                                                                                                                                                               | Notable                                                                                                                                                                                                                | Eh                                                                                                                                                                                  | Incomprehensible                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1. The 22nd Century<br>2. Shit Flower<br>3. The Other Side<br>4. Dreaming of the Cool Green River<br>5. Mirror-Rorrim<br>6. The Goddess Project<br>7. A Night with the Joking Clown<br>8. Ananda<br>9. Reunion | 1. The Man Who Turned into Gandhi<br>2. The Sea Sings At Night<br>3. A Visit to Partition World<br>4. 15004<br>5. Inspector Matadeen on the Moon<br>6. Flexi Time<br>7. The Beneficent Brahma<br>8. We Were Never Here | 1. The Last Tiger<br>2. The Dream<br>3. Planet of Terror<br>4. Stealing the Sea<br>5. Why the War Ended<br>6. Were it Not For<br>7. Looking Up<br>8. The Narrative of Naushirwan... | 1. Chernobyl<br>2. Moksha<br>3. Seventy Years After Seventy Years After Partition<br>- |

Blaft

| Very Interesting                                                                                                                                                          | Notable                                                                                                                                                                                           | Eh                                                                                                                                                                                                                                                                                            | Incomprehensible                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 1. Pruning Neurons<br>2. Hallucination Stream<br>3. Looly Cooly<br>4. Chlamydom<br>5. Meen matters<br>6. Parivrajak<br>7. Melonhead<br>8. The RV Society<br>9. The Switch | 1. Gods Garden<br>2. File No.786<br>3. Robot Slc 5<br>4. The Kitchen Glob<br>5. Happily Ever After<br>6. The Last Radio Play<br>7. Death of a Giant in Godless Country<br>8. Sand, Stone, Shatter | 1. A Demon That Sits on Your Chest<br>2. The Phantom Ladder<br>3. Korali<br>4. In the Extreme Silence of the Agraha<br>5. The Extinction<br>6. The Martian Moustache<br>7. Vultures on mars<br>8. The River DIdn't Know Either<br>9. Spacewali<br>10. This House is Never Clean<br>11. Santan | 1. Yangdang Phonma<br>2. Supernova<br>- |

Fig 8.2.1: Initial Categorisation of SF stories

Own Work

| Title                                   | Category  | Novum       | Degree of Design | Worldbuilding | Social Architecture | Sum     |
|-----------------------------------------|-----------|-------------|------------------|---------------|---------------------|---------|
| Planet of Terror                        | Plausible | 1           | 1                | 1             | 0                   | 9       |
| Inspector Matadeen on the Moon          | Probable  | 1           | 1                | 1             | 3                   | 12      |
| Stealing the Sea                        | Possible  | 1           | 0                | 0             | 1                   | 5       |
| Chernobyl                               | -         | -           | -                | -             | -                   | #VALUE! |
| The Sea Sings at Night                  | Possible  | 2           | 0                | 1             | 1                   | 11      |
| The 22nd Century                        | Probable  | 2           | 1                | 2             | 1                   | 16      |
| Shit Flower                             | Plausible | 3           | 3                | 3             | 2                   | 29      |
| The Man Who Turned into Gandhi          | Possible  | 2           | 0                | 2             | 2                   | 14      |
| 70 Years After 70 Years After Partition | Plausible | 1           | 0                | 1             | 1                   | 7       |
| Moksha                                  | -         | -           | -                | -             | -                   | #VALUE! |
| A Visit to Partition World              | Probable  | 2           | 2                | 1             | 2                   | 18      |
| Dreaming of the Cool Green River        | Plausible | 2           | 2                | 2             | 2                   | 20      |
| Mirror-rorriM                           | Possible  | 3           | 1                | 2             | 1                   | 20      |
| Flexi-Time                              | Possible  | 2           | 1                | 2             | 2                   | 17      |
| The Other Side                          | Probable  | 0           | 0                | 2             | 3                   | 7       |
| 15004                                   | Possible  | 1           | 0                | 0             | 1                   | 5       |
| Why the War Ended                       | Plausible | 2           | 0                | 1             | 1                   | 11      |
| Were it Not For                         | -         | -           | -                | -             | -                   | #VALUE! |
| The Beneficent Brahma                   | Plausible | 2           | 1                | 0             | 0                   | 11      |
| The Goddess Project                     | Possible  | 2           | 1                | 2             | 3                   | 18      |
| The Last Tiger                          | Probable  | 1           | 0                | 1             | 2                   | 8       |
| A Night with the Joking Clown           | Plausible | 2           | 1                | 1             | 1                   | 14      |
| Ananda                                  | Plausible | 2           | 1                | 2             | 1                   | 16      |
| We Were Never Here                      | Plausible | 1           | 0                | 1             | 3                   | 9       |
| The Narrative of Naushirwan Shavaksha : | Probable  | 1           | 0                | 2             | 2                   | 10      |
| Looking Up                              | Probable  | 1           | 1                | 1             | 2                   | 11      |
| Reunion                                 | Probable  | 1           | 0                | 2             | 3                   | 11      |
| And Now His Lordship is Laughing        | Possible  | 1           | 0                | 1             | 2                   | 8       |
| Jupiter, Dark Sister                    | -         | -           | -                | -             | -                   | #VALUE! |
| The Traveler                            | Plausible | 1           | 0                | 2             | 2                   | 10      |
| The Zoo                                 | Probable  | 0           | 0                | 1             | 2                   | 4       |
| The Maker of Memorials                  | Possible  | 2           | 0                | 2             | 2                   | 14      |
| The Glow-in-the-Dark-Girls              | Possible  | 3           | 1                | 2             | 3                   | 22      |
| The Pain Merchant                       | Plausible | 2           | 1                | 1             | 2                   | 15      |
| The Ministry of Relevance               | Probable  | 3           | 3                | 2             | 2                   | 27      |
| Dimensions of Life Under Fascism        | Possible  | 2           | 0                | 1             | 3                   | 13      |
| The Song of Ice                         | Plausible | 2           | 0                | 2             | 2                   | 14      |
| Goodbye is the Shape of a Palm          | Possible  | 2           | 3                | 2             | 1                   | 22      |
| Almost Human                            | Probable  | 1           | 2                | 2             | 2                   | 16      |
| Looney ka Tabadia                       | Probable  | 1           | 0                | 1             | 2                   | 8       |
| Paley's Watch                           | Plausible | 2           | 1                | 1             | 1                   | 14      |
| Elsewhere                               | Possible  | 2           | 1                | 2             | 3                   | 18      |
| Gift of the Angels                      | Plausible | 2           | 1                | 2             | 2                   | 17      |
| A Different Sea                         | Plausible | 1           | 1                | 3             | 3                   | 16      |
| The List                                | Possible  | 2           | 1                | 3             | 2                   | 19      |
| 2020-NKARV                              | -         | -           | -                | -             | -                   | #VALUE! |
| The Crossing                            | Probable  | 1           | 0                | 2             | 3                   | 11      |
| A Species of Least Concern              | Possible  | 2           | 1                | 2             | 2                   | 17      |
| Champollion's Foot                      | Plausible | 2           | 1                | 2             | 2                   | 17      |
| Resurrection Points                     | Plausible | 2           | 0                | 2             | 3                   | 15      |
| Shambhala                               | -         | -           | -                | -             | -                   | #VALUE! |
| Confessor                               | Probable  | 1           | 1                | 1             | 3                   | 12      |
| Scavenger                               | -         | -           | -                | -             | -                   | #VALUE! |
| Biryani Bagh                            | Plausible | 1           | 0                | 1             | 3                   | 9       |
| Malini                                  | Probable  | 2           | 1                | 1             | 3                   | 16      |
| The Midas Touch                         | Plausible | 1           | 0                | 1             | 2                   | 8       |
| The Arrival of the New World            | Probable  | 0           | 0                | 1             | 1                   | 3       |
| The Diamond Library                     | Possible  | 3           | 3                | 3             | 2                   | 29      |
| Bring Your Own Spoon                    | Plausible | 2           | 1                | 3             | 2                   | 19      |
|                                         |           | 1.615384615 | 0.7692307692     | 1.576923077   | 1.961538462         |         |

Fig 8.2.2: All stories from Gollancz Vol. 1 and 2, scored

Own Work

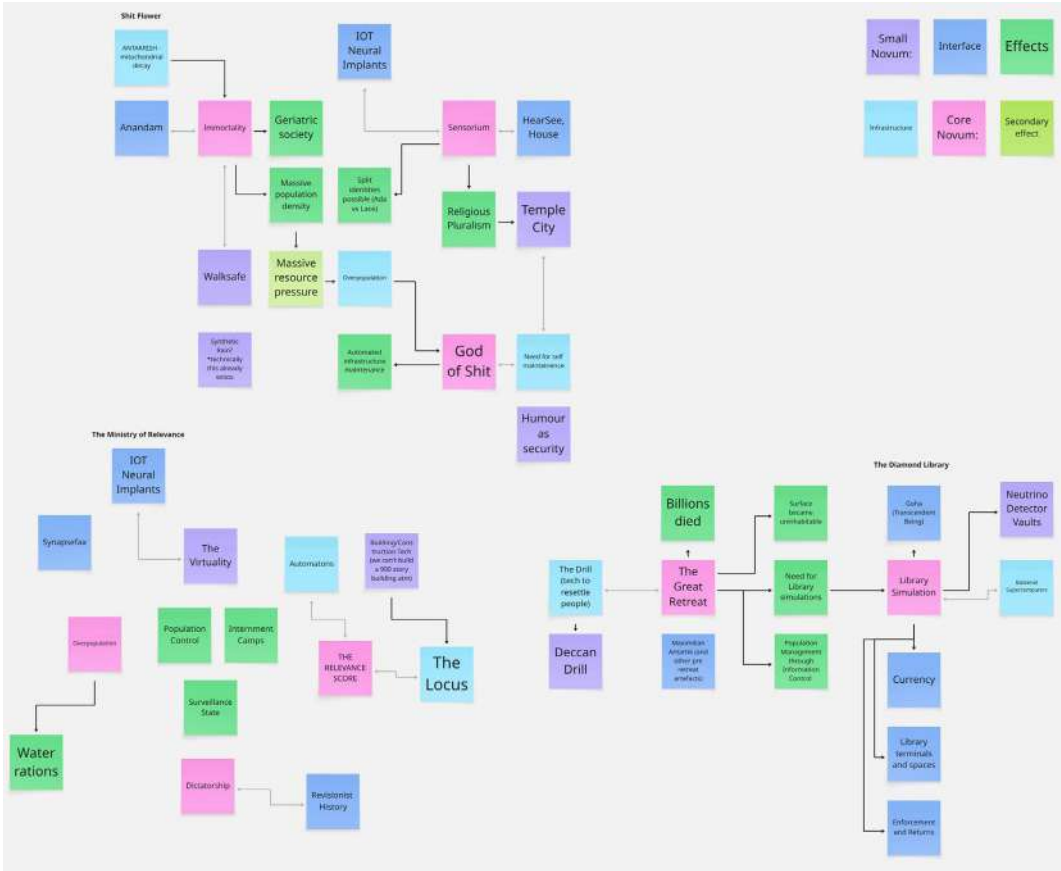


Fig 8.2.3: Initial Mindmapping I Own Work

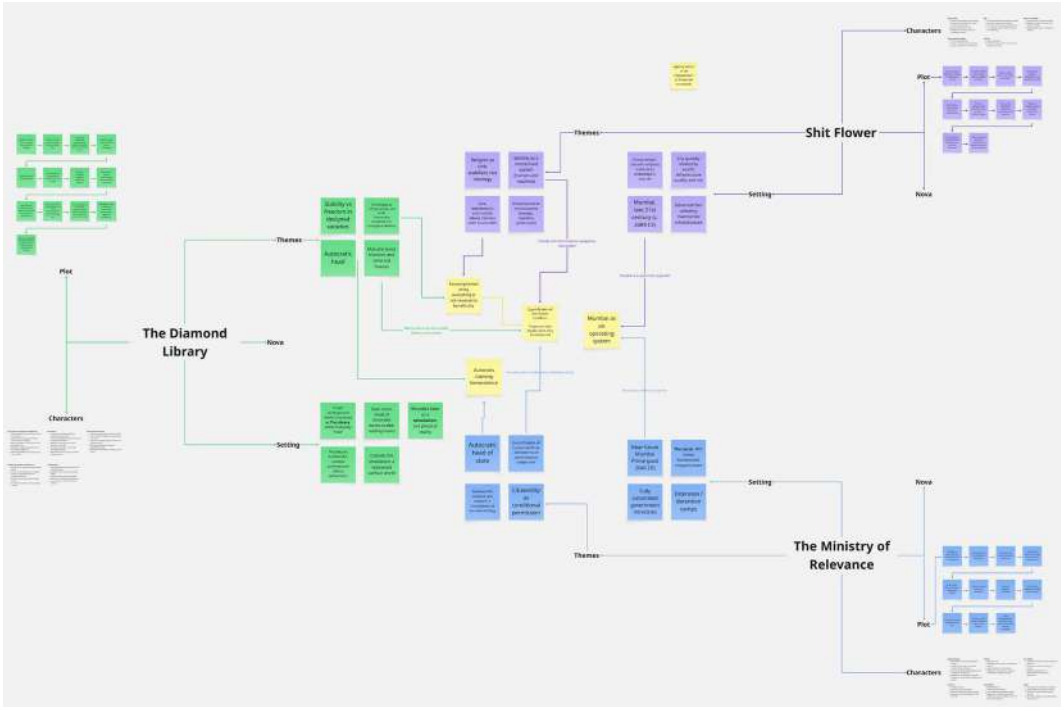


Fig 8.2.4: Initial Mindmapping II Own Work

# Visual Extraction Framework for Science Fiction (Image Generation)

**Purpose**

This framework is designed to extract (bias-minimized, image-ready information) from speculative fiction texts. It prioritizes (renderable specificity) over interpretation, enabling consistent and controlled visual generation.

**E. Condition Layer**

**A. Physical Reality**

**1. MATERIAL BANK**

- Materials (e.g., metal, book pulp, stone, bio-waste)
- Surface qualities (e.g., rusted, glossy, dusty, mineral-caked)
- Colours (explicit or strongly implied)
- Environmental conditions (heat, humidity, dust, residue)
- W/State of material (decaying / repurposed / sacred / synthetic / organic)

**2. SPATIAL CONSTRUCTS**

- Built environments (rooms, streets, infrastructures)
- Spatial hierarchies (e.g., slum vs archive vs temple vs tower)
- Thresholds (doors, gates, checkpoints, sanctums)
- Verticality, density, and layering
- Access conditional (who can enter, how, under what constraints)
- Transformations (temporal or functional changes in space)
- Vehicle and transit types (trains, vans, elevators, metro stations – spatial constructs in speculative worlds often encode class, geography, and control)

**3. OBJECTS & ARTEFACTS**

3A. Passive Objects

- Everyday items (e.g., carts, lamps, books, containers)

3B. Active Artefacts

- Objects with function or agency (machines, sensors, automated systems)

**B. System Layer**

**4. SYSTEMIC INTERFACES & ARTEFACTS**

Explicit

- Named systems (e.g., devices, networks, infrastructure)

Implicit

- Strongly inferred systems (economic flows, governance mechanisms, social systems)

For each system where possible:

- Input → Process → Output
- Human vs non-human agency

**5. FLOWS & MOVEMENTS**

This section encodes world-consistency constraints. Flows govern what must or must not appear in any given image to be **fore-accurate** – they are not subjects to be depicted, but rules that any depiction must satisfy.

**Example:** If a story establishes that women are not permitted on sidewalks, any street-view image must exclude women as pedestrians – even if the flow itself is never the subject of the image.

- Movement of people (queues, rituals, circulation patterns) → derive: who appears where, what they carry, what they wear at each stage
- Movement of materials (goods, waste, currency) → derive: what objects are present in which spaces
- Movement of information (signals, stories, data) → derive: what surfaces display what, who has access to information at each point
- State-change thresholds: moments where a person's appearance, status, or possessions visibly change (e.g., uniform replacement, body marking, document issuance) – these define before/after visual rules for any scene

**C. Human Layer**

**6. EMBODIED AGENTS**

- Physical description (clothing, body, markers)
- Behaviour patterns (rituals, labour, interactions)
- Relationship to space (ownership, access, exclusion)
- Augmentation (technological, biological, social)
- Sensory engagement (what they see, hear, smell, touch)

**D. Perceptual Layer**

**7. ATMOSPHERE**

- Sound (ambient, mechanical, human)
- Small (organic, industrial, virtual)

**9. SCALE ANCHORS**

- Human-to-object ratios (handheld, body-scale, monumental)
- Density (sparse vs packed)
- Repetition (modular, endless, singular)

**10. MAINTENANCE / ENTROPY**

- Condition (clean, broken, patched, decaying)
- Evidence of repair or improvisation
- Temporal layering (new over old, accumulated wear)

**11. OBSERVABLE CULTURAL MARKERS**

Extract markers as visible in-world objects. Do not interpret their symbolic meaning – that is analysis, not extraction. The heading "non-symbolic" is misleading: the objects may be symbolic in the world, but the extraction remains descriptive.

- Language/scripts in space (signage, text)
- Ritual objects in use (not just present)
- Informal modifications (taped, adaptations)
- Clothing and dress codes (official, informal, improvised)

**12. ABSENCE / NEGATIVE SPACE**

- What is missing (e.g., sky, silence, greenery)
- Hidden or suppressed elements (invisible infrastructure, restricted zones)
- What cannot appear in a given space (derive from access conditions, flow constraints, and power structures – these define the visual grammar of exclusion)

**13. POWER & ACCESS (ONLY IF SPATIALLY VISIBLE)**

- Visible control mechanisms (barriers, surveillance, checkpoints)
- Spatial segregation (who is where)
- Hierarchical positioning (elevation, enclosure, visibility)

**14. DISPLAY SURFACES**

Screens, broadcast faces, projection surfaces, and information displays as world-building elements. These are distinct from objects – they are surfaces that carry content.

- What is being shown (propaganda, data, navigation, entertainment)
- At what scale (handheld, room-filling, body-imprinted)
- Who can see it (public, private, forced)
- What the content looks like (faces, text, light patterns, abstract signals)
- Whether the display surface is a screen, a body part, a wall, or transmitted directly (e.g., neural broadcast)

**15. TEMPORAL INDICATORS**

Time-of-day and elapsed-time markers that affect lighting, atmosphere, and the state of people and spaces.

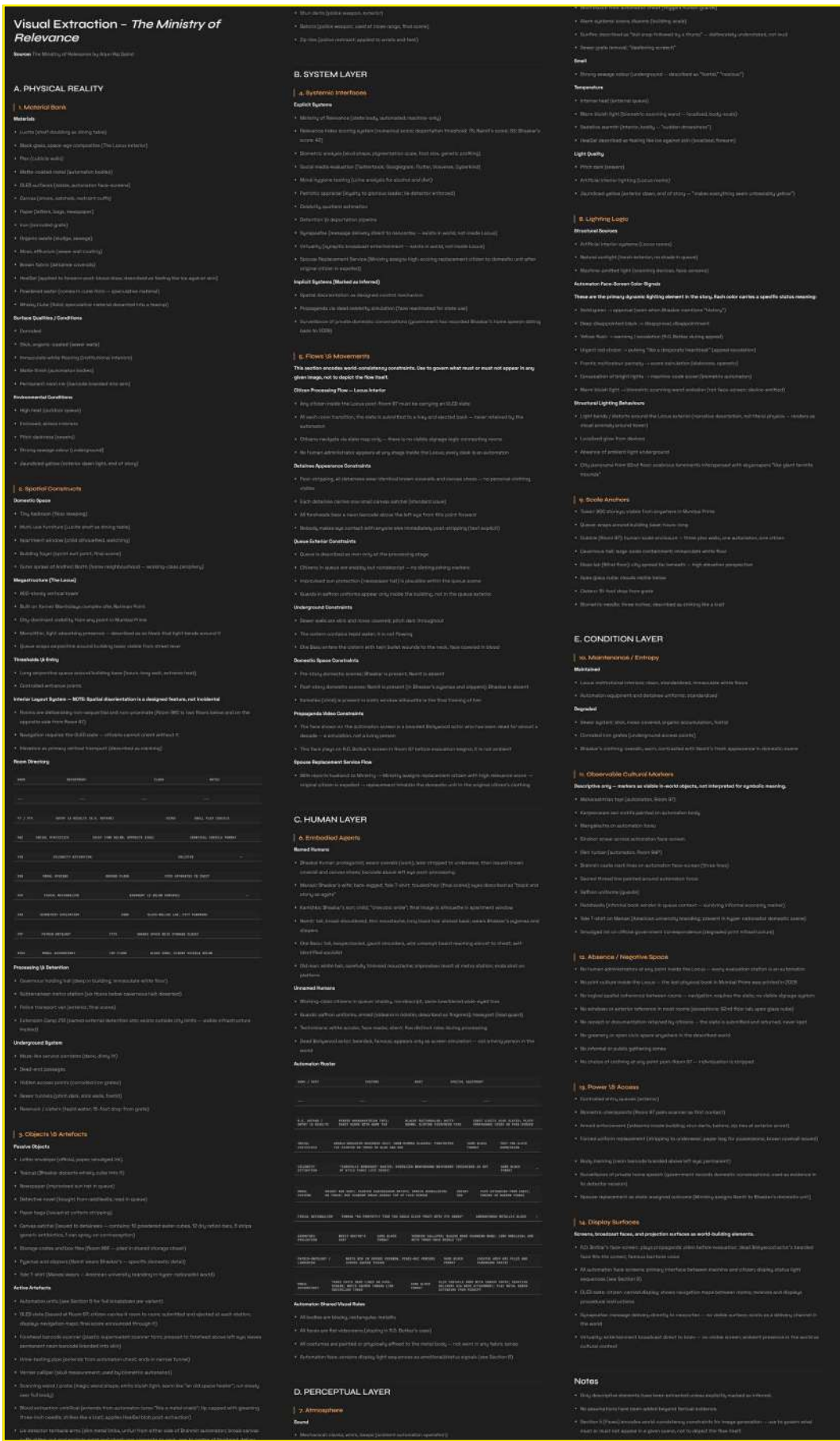
- Time of day for key scenes (morning, noon, dusk, dawn)
- Elapsed time within a sequence (e.g., hours in a queue – body state changes: sweat, exhaustion)
- Before/after states tied to events (pre-processing vs post-processing appearance)
- Temporal anchors for lighting reconstruction (specific light quality at specific story moments)

**Extraction Principles**

- No interpretation unless explicitly marked
- 64x20: Separate descriptive vs inferred content
- 2: Prioritize renderable detail
- 64x20: If it cannot be visualized, it should not be extracted here
- 3: Avoid narrative leakage
- 64x20: Only extract elements that contribute to physical or perceptual construction
- 4: Preserve ambiguity where present
- 64x20: Do not over-specify beyond the text
- 5: Default to specificity over generalization
- 64x20: Prefer "acidic white light" over "bright light"
- 6: Flows encode constraints, not subjects
- 64x20: A flow is not something to depict – it is a rule that any depiction must satisfy. Extract flows as world-consistency constraints on image content.
- 7: Observable markers, not interpreted meaning
- 64x20: Cultural markers should be extracted as visible objects and dress, not decoded for symbolic significance. The extraction stays descriptive even when the objects are clearly meaningful within the world.

DO NOT ASSUME WHAT IS NOT STATED UNLESS MENTIONED

Fig 8.2.5: Visual Logic Extraction Framework Own Work



### Fig 8.2.6: MoR's Visual Logic

## Own Work



### Fig 8.2.7: SF's Visual Logic

## Own Work



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