Disrupting Monocultural Tendencies through Multimodal Montage

by

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Submitted to the Department of Architecture in partial fulfillment of the requirements for the degree of

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ABSTRACT

This thesis contends with the pervasive impact of monocultural tendencies as manifested in the political, cultural, and media landscapes of contemporary India, particularly focusing on the unfolding context of 2024. Amidst an intensifying crisis marked by polarization, historical erasure, and the rise of hegemonic nationalism, this thesis posits art, particularly through the framework of 'multi-modal montage,' as a agent of political disruption for 'redistributing the sensible.' Tracing the aesthetic and political evolution of montage from its early 20th-century origins in Soviet cinema to its contemporary forms, the thesis outlines the transition from montage defined by collision and conflict to the soft, spatial, and interactive practices of figures such as Nam June Paik and Harun Farocki. It further investigates how 'surface tension' and 'unquiet objects' manifest within the multi-modal montage in the works of artists like Nalini Malani, Krzysztof Wodiczko, Shilpa Gupta and Nida Sinnokrot.

As an Indian artist, the author situates her own practice within this discourse, highlighting projects such as 'The Whistleblower' (2023), a tangible archive within an everyday object, and 'A Mystery for You' (2023-24), a fact-checking game that merges a tangible interface with a large language model (LLM). These works exemplify the thesis's argument that artistic interventions can critically challenge and reframe dominant sociopolitical narratives, offering new perspectives and resistances against the monocultural hegemonies. Extending this analysis, the author discusses her exhibition 'Forensic Artifacts of a Democracy in Crisis' (2023) as an operative space. Through a curated assemblage of works, the exhibition provided a physical space for interaction, reflection, and conversation, enabling audiences to engage with the themes of the thesis viscerally. In all, this thesis argues for the critical role of art in challenging memory and forgetting, from fabricated histories to the fall and rise of monuments. From the polarization of media to the flattening of identities, of echo-chambers and absences and grand narratives.

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Chapter 1

Introduction

"There is this suspicion that, although the art of entertainment is legally sanctioned, it has a criminal edge to it." - Sibaji Bandyopadhyay discussing the Arthašàstra - an ancient treatise on statecraft ascribed to Kautilya [1].

In the unfolding present of 2024, we are in the midst of a stunning rise in autocracy globally, where 71% of the world's population now livies in autocracies – an increase from 48% ten years ago [2]. Aspiring autocrats often attack freedom of expression and media, creating monocultural regimes. Such dynamics create a 'distribution of the sensible' that configures how what is seen, heard, and understood is organized, thereby influencing the collective memory and identity. According to Jacques Rancière, the aesthetic realm is inherently political because it has the power to redefine what is visible and audible, thereby challenging and re-configuring the existing order [3]. Art, in this light, becomes a vehicle for disruption— as it challenges the status quo and provides new ways of being together, seeing, and experiencing the world.

In this thesis, I contend with the pervasive impact of monocultural tendencies as they manifest in the political, cultural, and media landscapes of contemporary India, particularly focusing on the unfolding present of 2024. Amidst an intensifying crisis marked by polarization, historical erasure, and the rise of Hindutva, I posit that art, particularly through the framework of 'multi-modal montage', is a potent agent of political disruption capable of 'redistributing the sensible.'

First, in Section 1.1, I establish my use of the term 'monoculture' not only in relation to the political context of India but also in how it interacts with media, interfaces, and algorithms. This section dissects how digital platforms underpinned by state ideologies and algorithmic biases perpetuate a singular narrative that marginalizes diverse voices and histories, thus consolidating a 'monoculture of the mind'. Within this context, I then frame my positionality in Section 1.2, addressing the subjectivity of my experiences – from having grown up in India as a woman with a difficult name – a pond of lotuses. In Section 1.3,

I trace the aesthetic and political evolution of montage from its early 20th-century origins in Soviet cinema to its contemporary forms. This exploration outlines the transition from montage defined by collision and conflict to the soft, spatial, and interactive practices of figures such as Nam June Paik and Harun Farocki, highlighting how these modalities of montage challenge and re-contextualize the viewer's engagement with art.

Subsequently, in Chapter 2, I explore dialectic case studies of artists that apply multi-modal montage as disruptive acts within their contexts. In Section 2.1, *1surface tension*' and projections are examined as forms of multi-modal montage in the works of Nalini Malani and Krzysztof Wodiczko, alongside a discussion of my own work, 2.1.2 *The Wall (2018)*. Following this, Section 2.2 delves into the notion of 'unquiet objects' through the works of Shilpa Gupta and Nida Sinnokrot, with an analysis of another of my projects, 2.2.2 *Igniter (2016)*.

I then discuss two of my recent works in depth. In Chapter 3, the Whistleblower (2023) is presented as a tangible archive within an everyday object. Chapter 4 discusses A Mystery for You (2023-24), a collaborative project with Haoheng Tang—a fact-checking game that merges a tangible interface with a large language model (LLM). These projects underscore my thesis argument that artistic interventions can critically challenge and reframe dominant sociopolitical narratives, offering new perspectives and resistance against monocultural hegemonies. Finally, in Chapter 5, I extend this analysis and discuss my exhibition 'Forensic Artifacts of a Democracy in Crisis' (2023) as an operative space. Through a curated assemblage of works, the exhibition provided a physical space for interaction, reflection, and conversation, enabling audiences to engage with the themes of the thesis viscerally. Doing so, I then reflect upon the operative capacity of art as investigation and exhibition as evidence. Thus through this thesis I argue for the critical role of art in challenging memory and forgetting, from fabricated histories to the fall and rise of monuments. From the polarization of media to the flattening of identities, of echo-chambers and absences and grand narratives.

1.1 Rise of Monocultures

monoculture (noun):

 the cultivation or growth of a single crop or organism especially in agriculture or forest land.
 a culture dominated by a single element: a prevailing culture marked by homogeneity.

In this thesis, I use the term monoculture in the context of socio-political and media ecosystems. While this might not be the most apparent use of the term, it came rather naturally to me. I come from a family of farmers in Himachal Pradesh India, who have grown apples for generations. The coming of apples into the region, partnered with notions of modernity – first of the British Raj and then of the Nation State – and a centralized

education curriculum brought economic growth (due to which I am able to write this thesis today). However, this also led to a sharp decline in the local knowledge systems and practices (due to which I do not speak my mother tongue, Pahari). The imposition of monocultural landscapes is a problematic practice that enforces manufactured homogeneity over diversity in ecologies as well as in cultural and psychological landscapes. Such practices artificially separate the land and its plant-world based on their productivity and the commercial markets they supply to, fracturing the natural continuum of the landscape into non-overlapping domains of forests land and agricultural fields. Vandana Shiva has critiqued this practice as it leads to the creation of a 'monoculture of the mind' where diverse knowledge systems and cultural identities are obliterated in favour of homogeneity [4]. James C. Scott extends this critique, highlighting the political incentive of nation-states to police monocultures for legibility and control, leading to simplification that overlooks complex local realities [5].

I strongly believe in fighting against monocultural tendencies and the reduction of pluralism and diversity through my work. This is also reflected in my politics. The rise of monocultural narratives in India is concerning for me. In this section, I will first establish the current political context of India. Then, I will go on to situate these politics in the media environments that propagate them, with their interfaces and underlying algorithms. In the process of doing so, I will also contextualize these developments in the larger geo-political context that this thesis is being written in.

1.1.1 Political Context of India

Over the past few decades in India, monocultural manufacturing of nation-state identity has been alarmingly impacting the secularism and religious diversity in the country. In *India Divided* [6] Shiva states that: "The diversity and multiplicity of India and Hinduism was, in effect, being re-engineered into mutually exclusive monocultures." In this section, I will highlight how the saffronization of Indian institutions and society has impacted the political climate and discourse in the country.

The current process of Hindu majoritarian nation building (a *Hindu Rashtra*) relies on the claim that India was always a peaceful Hindu society that was conquered by foreign invaders such as the Mughals and the British. Historians have shown that this communal interpretation of rigid eras - of Mughal rule and a preceding unified Hindu past - is a politically manufactured historiography [7]. Further, it continues the colonial tradition of manufactured historical narratives. This idea of a peaceful pan-Hindu history is also a vacuous claim since at the core of Indian civilization lies centuries of exploitation and discrimination through the perpetuation of a caste-system. Dalit, tribal and Adivasi identities have largely been suppressed, painted over and homogenized to create a unified Hindu construct threatened by a Muslim Other. Vinayak Chaturvedi posits that within a

¹Saffron, the spice and the pigment resulting from it, are deeply sacred in Hinduism. It also features heavily in the symbols of the Hindu majoritarian Bharatiya Janata Party (BJP), which currently holds power in parliament, and other politico-religious organizations on the Hindu right.

newly independent nation, there is often a struggle for power and the control of narrative [8]. This encompasses the control of concepts and texts, and the exercise of writing history of the new nation. The foundations of India as a secular nation were laid out by leaders of the Indian independence movement, among whom Jawaharlal Nehru, Mahatma Gandhi and Dr. Bhimrao Ramji Ambedkar were prominent. On the other end, there existed a less mainstream desire of building a Hindu nation with a Hindutva agenda in the Hindu Mahasabha group with leaders like Vinayak Damodar Savarkar. While Hindutva is usually translated as the "essence of Hindu," Savarkar – in his writings – articulated it as not only the essence, but as a "a history in full." [8]

Such a definition for Hindutva calls for the existence of a singular historical narrative, there by functioning within a Cartesian philosophy and colonial framework. Shiva likens this to the shifting of meaning and identity, from earth to market; from plural histories to a singular, linear history; forcing diversity into a straitjacket of narrow nationalism. This straitjacketing agenda has been taking place in the erasure of histories – from the destruction of monuments to the re-writing of text books. In [9], the authors at Raqs Media Collective interpret Plato's views on the relationship between dramatic arts and the State as follows - "Plato (in the voice of the Athenian) makes an argument ... that the State is a performer of tragedies, a storyteller, and that all citizens need a good story. In this sense, the State itself is the artist par excellence, and this is why it can brook no artistic rivals, no competition. There must be only one story, one work of art, one work of statecraft; and the State must be its sole creator."

The Hindutva agenda garnered force through the 1980s, creating agitations that led to a fevered Hindu mob destroying the Babri Masjid (a Mughal mosque built in 1528–29) on the premise that there was a Hindu temple for the God Ram² that stood there before. The idea of the Ram Mandir in Ayodhya (believed to be the birthplace of Ram) has been a driving force for the Hindutva identity and its associated political organizations such as the Bharatiya Janata Party (BJP, which currently holds power in the Indian Parliament), the Rashtriya Swayamsevak Sangh (RSS), the Vishwa Hindu Parishad (VHP), the Hindu Mahasabha and the Bajrang Dal. The demolition of the Babri Masjid in 1992 was a watershed moment in the history of the country and for the BJP, catapulting it to a prominent status in national politics.

²Ram a Hindu deity and central figure of the ancient India epic – the Ramayana.

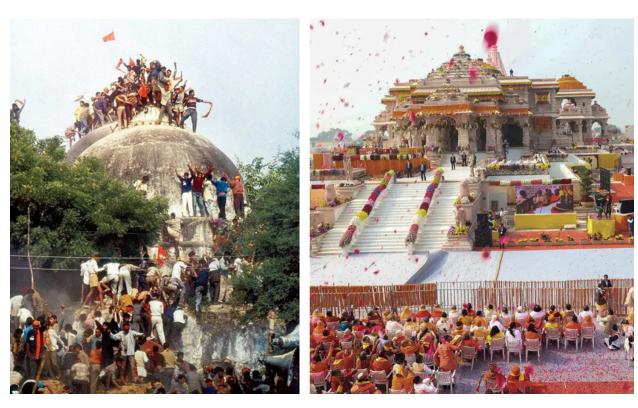


Figure 1.1: Left: Babri Masjid being demolished by a fevered mob in Ayodhya, 1992. Image by Ayman Aumi. Right: The Ram temple that was consecrated on the site of demolition, 22 January 2024. Copyright: India's Press Information Bureau



Figure 1.2: Mob goes on the rampage in Ahmedabad on February 28, 2002, a day after at least 58 people were killed in a fire in the Sabarmati Express near the outer signal of the Godhra railway station. Photo Credit: AP.

The beginning of 2024 saw the inauguration of the Ram Mandir at the site of the demolished Babri Masjid by the current prime minister, Narendra Modi. Building a Ram Mandir in Ayodhya had been a long standing electoral promise of the BJP. After decades of legal dispute, in 2019, the Supreme Court approved plans for construction of the temple, after sustained pressure from Modi's government. Prior to becoming the Prime Minister of the country in 2014, Narendra Modi was the Chief Minister of Gujarat. During his tenure, the state of Gujarat witnessed the 2002 Godhra Riots – some of the worst communal violence seen in the country since the partition of India and Pakistan in 1947 [10]. Modi was severely criticized for inaction at the time, with multiple court-cases and international visa restrictions held against him [11].

Since 2014, with a practical super-majority in the Parliament, Modi and his party have been able to make fundamental legislative changes to the secular nature of the Indian Constitution. Examples include the abrogation of Article 370 that revoked the statehood of Jammu and Kashmir (the only Muslim majority state in the country) and the introduction of the Citizenship Amendment Act (CAA) that provides a fast-track to naturalization for refugees and asylum seekers, but only if they are not Muslim. The CAA marks the first time that India (a secular republic as defined by its Constitution) has set religious criteria for obtaining citizenship [12].

Going beyond legislation, the country has seen a sustained and deliberate dismantling of its secular and democratic institutions including the freedom of its press, its election commission and its judiciary over the past decade. According to the V-Dem Institute, that tracks and publishes a number of high-profile datasets describing qualities of different governments worldwide, India has moved down in classification from an electoral democracy

in 2013 to an electoral autocracy by 2023.³ Furthermore, it is now heading towards becoming one of the worst electoral autocracies today - "with compromised independence of the media, crackdowns on social media, harassment of journalists critical of the government, as well as attacks on civil society and intimidation of the opposition." [2]

A similar slide can be observed in the freedom of press rankings published by Reporters Sans Frontieres (RSF). In 2009, India ranked 105 out of 175 countries [13]. By 2023, India's ranking had slid to 161 out of 180 countries [14]. As the RSF points out in [15], Modi's "leading weapon is to flood the mainstream media with speeches and information tending to legitimise his national-populist ideology. To this end, he has developed close ties with billionaire businessmen who own vast media empires." His administration has also actively utilized colonial era laws on sedition and defamation to silence, threaten, and imprison media organizations and journalists that are critical of their political agenda [16]. Another tool of choice for the Modi administration is internet shutdowns. In particular, during the abrogation of Article 370, the state of Kashmir suffered the longest ever internet shutdown in a democracy which lasted for 552 days, starting in August 2019. Similar internet shutdowns have been utilized by the government during incidents of Hindu majoritarian violence in the Northeastern state of Manipur in 2023 [17].



Figure 1.3: Prime Minister of India, Narendra Modi, making openly hateful remarks, referring to Muslims as "infiltrators" in Rajasthan. April 23, 2024 Credit: ANI via Reuters.

As I write this thesis, India is in the midst of conducting the 2024 Indian general elections. They are the world's largest 'democratic' exercise - with nearly 969 million registered voters

³The wave of autocratization is notable. Autocratization is ongoing in 42 countries, home to 2.8 billion people, or 35% of the world's population. India, with 18% of the world's population, accounts for about half of the population living in autocratizing countries [2].

and seven phases, lasting 44 days.⁴ On April 14th 2024, Modi directly vilified the Muslim minority in India by referring to them as 'infiltrators' at a political rally [19]. Through statements like this, it is now undeniable, that the secular and democratic reality of India, envisioned by its founding leaders, is in its most perilous state yet.

1.1.2 Media, Interface & Algorithm

Media: The role of media is essential in creating and perpetuating monocultures. There is an increasing monopoly over mainstream news channels in many countries across the world. Within the Indian context, as discussed earlier in Section 1.1.1, there has been a consolidation in the regional news channels to larger organizations that are controlled by a growing number of billionaires with close ties to Modi. Dissenting voices are being pushed out of the mainstream through legal means or out of coercion [15]. This propagates a monocultural landscape of information politics shaping the mainstream reality.

However, this monocultural landscape is not just restricted to traditional forms of media. The rise of BJP to power has coincided with a massive technological revolution. In 2013, only 12% of the country's population had access to the internet. Over the past decade, with rapidly increasing access to smart phones, and the cratering prices of mobile broadband internet, the country now has close to half of its population online [20]. Through specialized IT Cells, there is not only a flood of propaganda disseminated but also manufactured disinformation [21], [22] on social media. This has increased the reach for electoral targeting by the BJP for the 2014 and 2019 elections [23] manyfold. India is susceptible to the propaganda laced with misinformation due to a population with low media literacy, ill-equipped to decipher between real and fake content. Lack of digital literacy and an inability to identify misinformation is not just limited to developing countries - leading to mob lynchings and communal violence in places like India [24] and Bangladesh [25]. It has also influenced election outcomes in developed economies – such as the 2016 United States presidential elections [26].

Interface & Algorithm: The interface of social media plays a key role in how misinformation spreads and caters to the monocultural tendencies of autocratic governments. A common misinformation tactic utilized by nationalists in India is to use triggering images and videos from other contexts - coming from different countries and different times. These images are then recycled and shared endlessly over group chats and messages to create content that foments anger and flames violence. WhatsApp has been a key platform for mobilizing supporters. In [27] the authors estimate that the BJP had around 200,000-300,000 active WhatsApp groups in 2019. It is an ideal platform for creating echo-chambers through these group chats that are at once both private and familiar, yet capable of spreading

⁴India's general elections involve voting for 543 seats in the lower house of parliament, or Lok Sabha. The results are set to be announced on June 4, 2024. With 969 million registered voters – or more than the combined population of the United States, the European Union and Russia – India has the largest electorate in the world [18].

information through social networks at amazing speeds. There is rampant spread of misinformation on such family and extended groups. People are more likely to believe the misinformation they receive on this platform as it is usually from someone they know.

While the media platforms and their interfaces play key roles, I must also highlight the growing central role of algorithms in the way in which we consume content in the modern world. Social media content curation algorithms are optimized for the time that users spend on the platform, and companies have little incentive for fact-checking. This leads to promoting political content that polarizes, triggers and angers the user while still engaging them on the platform. Within the Indian context, many independent journalists and news reporters have moved to alternative platforms such as YouTube, after repeated government crackdowns on dissenting media organizations. However, the reach of their content is controlled by algorithms that perpetuate monocultural echo chambers. Studies have repeatedly shown that misinformation spreads faster than other content on the platforms of today [28].

AI: Going beyond social media algorithms, we are currently witnessing an era of unprecedented technological change with the rise of Artificial Intelligence (AI). The scale and severity of misinformation propaganda are exacerbated by the increasing access to and use of generative AI models. This has been seen in Argentina's 2023 Presidential Election – 'the first AI Election' according to The New York Times [29]. In 2024, the misuse of AI-generated disinformation is immense, as 76 countries are scheduled to hold elections, constituting more than half the world's population [30]. This is being witnessed not only in social media posts but also in the blatant emergence of websites hosting AI-generated false articles. According to NewsGuard, an organization dedicated to tracking misinformation, such websites saw an astonishing increase of over 1,000 percent between May and December 2023 – expanding from 49 sites to a staggering total of more than 600 [31]. In India, there have also been instances of political messages being delivered through customized videos that use AI models to tailored avatars of politicians to address voters by name, in the language they speak [32].

Modern AI models require extremely large datasets, electricity, and computational resources to train. These resources are only available to a few big organizations in the tech world. Who gets to ask what is the right data set? the right algorithm? the right way to train? What implicit biases should/should not be built into these systems?

"As the scope of machine learning broadens, we observe a recurring theme of algorithmic monoculture: the same systems, or systems that share components (e.g. training data), are deployed by multiple decision-makers. While sharing offers clear advantages (e.g. amortizing costs), does it bear risks? ... If the same individuals or groups exclusively experience undesirable outcomes, this may institutionalize systemic exclusion and re-inscribe social hierarchy. ... if decision-makers share components like training data or specific models, then they will produce more homogeneous outcomes." [33]

There is an epistemic risk of using AI models, that are susceptible to producing monocultures. This has been studied in the context of scientific research [34], especially with foundation models in AI research. Here, one large foundational model is used and applied across many domains, and an error in that model can have widespread unintended effects. It is envisioned that large AI models such as these will start serving as base systems of knowledge, on which other more complicated engineering systems will be built, akin to the modern day search engines. However, if the AI models, and the datasets they are built on, themselves can be monopolized to adhere to certain points of view, it can lead to disastrous consequences. Central control of what datasets to train on, and what models to use can lead to aggressive growth of monocultural tendencies. Furthermore, as the technology races ahead, institutions and organizations that can provide legal and regulatory checks-and-balances risk falling behind. This is a context my work - A Mystery for You - made in collaboration with Haoheng Tang - speaks to. In Chapter 4 I will elaborate on how this work – a fact-checking game – subverts AI as an educational tool to build a most investigative mindset that is critical of monocultural "truths." Going forward, in the next section, I will establish my positionality an artist from India and why I do what I do.

1.2 My Positionality

A thesis is a deeply personal piece of writing. I do not feign to be a neutral voice describing an objective reality. The views in this body of work are influenced by my own subjective experiences navigating through the contexts I have inhabited, the people that populate my life and the education I have received both within and beyond institutions. The context I discuss, the lenses I choose to look through (of multi-modal montage), the case studies developed, and my works discussed in this thesis have been curated at each step of the process to bring together a particular framing. This process has been a non-linear one, and this framing is a particular one as well. As a being, I inhabit many identities - both self-defined and imposed, identities whose configurations vary depending on the contexts and people being discussed with. I have been told that perhaps this thesis was written the very moment my mother named me.

"My mother had a penchant for giving difficult names (an inheritance from her father). Her sister in law, my aunt who lives in the States, told my mother that no one would be able to pronounce our names. Her, having named her two children two syllable names that roll without friction on American tongues. "Well, then they (the rest/ the west) will have to take the effort to learn to pronounce their names." My brother has three syllables and I have the privilege of four.

My name requires the parting of lips and a well practiced routine of the tongue. a light tap of the tongue behind the teeth. a swift strong rolling flick against the arching roof. a pause, mouth parted. a light bite of the tongue at the tip of the teeth. a final tap behind the teeth.

```
With a distinct relish on the 'ण',
```

मृणालिनी

Mrinalini

a pond of lotuses

rhizomatic networks

no beginning no end

Interbeing in the muddiest of waters." - Family Inheritance (Ongoing), Mrinalini Singha

This vivid imagery of a pond of lotuses and defiantly difficult enunciation has stayed with me throughout my 26 years. It has meant different things for me throughout my life – and has delighted me in its rhizomatic nature that defies arboreal and hierarchical structures [35]. Lotuses also need a rich murky ecosystem, engaging in mutual symbiotic relationships [36]. They grow best in calm, shallow waters rich in nutrients, where they can receive ample sunlight. These conditions often involve a diverse ecosystem where various aquatic plants and animals coexist, contributing to a balanced environment. Lotuses thus, are inherently non-monocultural entities.

The lotus flower however, has tragically been usurped as a symbol for the BJP.

"I grieve for the lotus flower. Hushing my pond, my name, promising I'll always love them the same.

My voice betrays me. Haunted by the bleached white lotus on election posters. On roadside banners. In parades. Beating against the wind, in the clutches of frenzied men on motorcycles that scare me. JAB MULLE KAATE JAYENGE. WO RAM RAM CHILLAYENGE. Amidst the mobs, amidst the lynchings. I hush my pond, my name.

Wretched are those reduced to symbols of state. A color, a god, a flower. Wretched are those erased from history from textbooks and public domain.

A government now comfortably 10 years old, political party leaders in jail, it is election time once again.

I grieve for the lotus flower. Hushing my pond my name." - Family Inheritance (Ongoing), Mrinalini Singha

I am a woman who has spent the first 24 years of my life in India. Here, I am now an artist in a technology school, doing an elusive masters of science in Art, Culture, and Technology. Prior to this, in my academic trajectory, I was studying Film and Visual Communication at the National Institute of Design in Ahmedabad.

As mentioned before, while this thesis focuses on socio-political contexts, the use of the term 'monoculture' came naturally, as I come from a family of farmers. I am from Kotgarh in

Himachal Pradesh – in the Western Himalayan Region of India – where my family has grown apples for generations. I must note here, that my grandmother's grandfather – a American man who converted to Hinduism and fought for Indian Independence – had brought apples to the region. He had set up a school for children and believed in a symbiotic relationship between the orchards and the school - where both helped run each other. As for my own education, while it started in the village Anganwadi⁵, it quickly shifted to Chandigarh, synonymous with the Nehruvian vision of a modern nation, built by Le Corbusier.

Three generations of colonial education have severed my relationship to the land - one that I am consistently in the process of regrowing. Coming from a resource rich-borderland with a rich pluralistic culture, I am critical of the nation-state as an entity that exploits its margins with the same notions of modernity and progress as its colonial precedents. During my bachelor's graduation thesis, I worked within the Western Himalayan region on its folklore, culture and ecologies, leading to a collaborative creation of the Himalayan Folk Collective. My engagement with the region was heavily situated and place-based. While this thesis does not directly engage with these facets of my work and identity, it is still implicitly informed and shaped by them.

The educational institutes I have inhabited and their pedagogies have also shaped my worldview. I completed my high-school education at the outskirts of Pune, in the middle of a bio-diversity reserve, at the Mahindra United World College of India. This is part of the United World College movement, founded on the principles of Kurt Hahn 1962. Amidst the cold war, a key mission of this movement was to make peoples of different nations see each other not as national identities but as people – to "Make education a force to unite people, nations and cultures for peace and a sustainable future." Following this, I did my bachelors at the National Institute of Design Ahmedabad, which was established in 1961 by Jawaharlal Nehru – the first prime minister of the country. Based on the India Report written by Charles and Ray Eames, and with the involvement of the Sarabhai family, NID was set up as an institute to envision the field of design in a post colonial nation – that combined both Bauhausian pedagogy, and contextual and culturally situated practices.

A lot of my time at NID was spent – through assignments and otherwise – engaging with the old and new cities of Ahmedabad. Conducting interviews and engaging with locals, mapping out socio-cultural layers of the city, where Hindu and Muslim communities lived side by side. Notably, a film assignment had led me and my batchmates to find a bookstore owner who showed us his families printing press business. Running on old machines, despite being practicing Muslims, their printing press printed both Islamic and Hindu texts in regional languages, ranging from the Bhagavad Gita, to texts of local goddesses. Witnessing this was a powerful moment for me.

One of the favourite places to hangout for me and my friends was La Bella, a small restaurant started by a Christian lady, where the food was both affordable, homely and served great non-vegetarian dishes. We got to know La Bella Aunty and Anna who ran

 $^{^5}$ Anganwadi is a type of rural child care centre in India. Anganwadi in Hindi translates to 'courtyard shelter'.

the restaurant, and even shared Christmas meals with her in her home. One of the best dishes in her restaurant contained pork, an ingredient that neither the neighbouring Hindu or Muslim restaurants would use, for religious reasons. It was here that we shot a fiction film for a collective class project called 'Khayali Pulao.' This short fictional film was set during the Gujarat Riots of 2002 and was based on the premise that a Hindu woman and Muslim man find themselves stuck in a restaurant during the riots. Trapped for days, the only food available to them was pork, and neither of their religion would have allowed them to eat it. Over the course of the short film, they start getting delirious in their hunger. The film ends with them sharing a sacrilege feast.

While referring to all the aforementioned people and characters based solely on their religious identity is admittedly reductionist, the intention here is to emphasize the syncretic landscape of the city I spent four years in, and to which I responded in my work. It is to note, again, that this city, Ahmedabad, is situated in the state of Gujarat. As discussed in Section 1.1.1, this is the state where the Godhra riots took place during the reign of Narendra Modi.

Since his appointment as the Prime Minister in 2014, there has been a rise in mob-based cow vigilante violence. Calling themselves $Gau\ Rakshak$ or the protectors of cows, these vigilantes target those non Hindus, predominately Muslim, who are suspected to be smuggling cows or consuming beef. In the context of this rising violence, with a group of friends – including Kunal Lokhande and Pravekha Ravichandran – I made a video responding to this notion of a rampaging Bull-Man. This video was layered upon the heavy metal music of $Slumbers\ Hook$ by the band $Blind\ Sun\ Drift$. With a neo-noir aesthetic, the film opened with an $Aam\-Admi$ (a common man) watching sensational news stories on television. Caricaturing the hyper-sensationalized prime-time TV debates of Indian TV, the Bull-Man was shown destroying property around the town. In the course of the video, it is revealed that the under his mask, the rampaging Bull-Man is actually the Aam-Aadmi, thereby communicating the spiraling process of "sensational news creates desensitized public's who create sensational news that creates..."

During this time I also made the *Igniter* (2016) and *The Wall* (2018). The *Igniter* comprised of a lighter containing shredded demonetized currency – respond to the overnight demonetization of 86% of India's currency [37] *The Wall* was a film made on the boundary wall of the NID Campus – an unfinished portrait of a semi-permeable membrane that both supported and separated communities. These two projects are two key projects that shaped my departure from primarily film and digital material to ready-made objects, in the case of the *Igniter*, and interactive cinema that engaged with the surface as media, in the case of *The Wall*. I will discuss these projects in again in section 2.2.2 and 2.1.2 that respectively deal with the concepts of 'Unquiet Objects' and 'Surface Tension.' These shape my interest in engaging with 'Multi-Modal Montage' as an aesthetic concept.

During this time in Ahmedabad, I had also explored WhatsApp echo chambers from an interface design and ethnographic perspective. This had led me to engaging with Alt News in 2019 – an Indian fact-checking organization – and its co-founder Pratik Sinha. The same year, for a student project, I made a short documentary on their investigative practices *Alt News*



Figure 1.4: Mrinalini Singha, Video Installation, three channel monitors playing Alt News in a Post Truth India (2019), Slumbers Hook (2019) and A Year of Fact Checks (2021). Exhibited in the MIT ACT Gallery as part of Forensic Artifacts of a Democracy in Crisis. Photo: Mrinalini Singha.

in a Post Truth World.⁶ After graduating, (and post working on my graduation project in Himachal Pradesh) I went on to work at Alt News for a year as a design researcher, further delving into the misinformation politics, investigative methodologies and the educational approaches used to promote media literacy and critical thinking.

These experiences informed my creation of key projects mentioned in this thesis: Whistle Blower (Chapter 3) and Mystery for You (Chapter 4). In Chapter 3, I will discuss the Whistle Blower, in which I use an everyday object – the pressure cooker – to archive found footage of violent acts conducted in the name of 'Hindutva' politics. The found footage here includes evidence ranging from the demolition of the Babri Masjid in 1992, to the Gujarat Riots in 2002, to the present day political discourse and rhetoric employed by the ruling party to target the Muslim population in the country and other minorities in the name of building a monocultural Hindu Nation, and rebuilding an imagined Hindu past.

⁶Later that year, the Supreme Court gave its verdict on the Ayodhya dispute, that would allow for the building of the Ram Mandir at the site when the Babri Masjid had been demolished.



Figure 1.5: Mrinalini Singha, WhistleBlower, 2023. Exhibited in MIT ACT Gallery as part of "Forensic Artifacts of a Democracy in Crisis" 2023. Photo: Mrinalini Singha

In Chapter 4, I will discuss A Mystery for You, an educational fact checking game with a tangible interface. This game goes a step further using a large language model (LLM) to help generate game play. The player takes on the role of citizen fact-checkers and responds to 'news alerts' printed out by the game interface. These 'news alerts' and sequential story-lines are generated through carefully engineered and tested prompts. By investigating different 'actors' using fact-checking 'actions', players are encouraged to think critically through scenarios and ultimately make informed verdicts.

While the Whistle Blower bears witness to violence and allows the audience to navigate through archival material of events that have taken place, A Mystery for You allows for active interaction, problem-solving and critical play. In the coming chapters I further establish the ways in which these projects particularly utilize multi-modal montage in-order to disrupt monocultural tendencies. Furthermore, I will place them in the context of a larger artistic discourse.

As mentioned before, these projects and the lens of multi-modal montage are intentionally curated with a particular framing. During my time at MIT, I also worked on other projects such as Stata Island (2023) and Rivers in the Sky, Clouds Down Below (2023). Stata Island is a virtual-game world project that responds to the institutional and indigenous histories of the land upon which MIT stands. This project was made during Gediminas Urbonas's course on art in the public space. it was informed by the course's framing of Climate Visions, as well as the Worlding Project that I was a part of. Stata Island involved a sympoetic re-worlding



Figure 1.6: Mrinalini Singha & Haoheng Tang, Mystery for You, 2023. Exhibited in the MIT ACT Gallery as part of "Forensic Artifacts of a Democracy in Crisis" 2023. Photo: Gearoid Dolan

of the Stata Center of MIT as an island of the climate future and indigenous past where humans and beavers coexist. Rivers in the Sky, Clouds Down Below is a science (and) fiction film that combines insight from micro-fluids research, climate science, indigenous languages and cultural epistemologies. It engages with the ongoing research being conducted at the MIT Micro-Fluids Laboratory and was made during a course with the City Science group at the Media Lab. This project, through a fiction film as well as an interactive installation incorporating a carpet, advocates for a pluriversal perspective and a dissolution of epistemic silos.

Not including these two projects of mine in this thesis was a curatorial decision, so as to be able to discuss a particular context in depth. These two projects deserve their own thesis. My time at MIT has been an eclectic and thoroughly enriching one where I have gotten to work with and explore new ways of doing, making and thinking. From working with new media – expanding from film and visual design to electronics, tangible interfaces, AI, and game engines – to engaging with new lenses and frameworks.

1.3 Multi-Modal Montage

Having completed a B.Des. in Film and Video Communication, montage is a familiar concept for me, but one that I had not probed into critically. Initially deviating from the traditional filmic form, at MIT, my work became more tangible and interactive.

My interest in montage was rekindled while working with Judith Barry as a teaching assistant on her course on Advanced Video and Related Media, where we explored spatial montage – exploring video as an exhibition form. As I progressed with my thesis, it became evident that montage could serve as a framework to critically think through tangibility and interactivity. Montage, with its deep roots in aesthetics and film theory, has also been a politically potent tool. The relationship between media, modality, and spectator has evolved over the decades, transitioning from film and the advent of television and video to smartphones and social media. From its inception in Soviet cinema to the mimetic and remix culture of TikTok stories and Instagram reels, the interaction with media has transformed significantly.

The smooth surfaces of smartphones not only lack rich affordances of interaction but also propagate echo-chambers and misinformation through algorithmic biases. This observation led me to consider 'multi-modality,' a term increasingly used to describe artificial intelligence systems that can process and interpret various types of data: text, image, video, audio, etc. During a course with Marcelo Coelho, I explored creating tangible interfaces as a means to interact with large language models.

In bridging these concepts, my thesis explores how the principles of montage, once confined to film and video, can be extended to the realm of the tangible, interactive, spatial, haptic as well as AI. This integration challenges traditional forms of media consumption and creates new spaces for political discourse and interaction, mirroring the disruptive potential of montage from its early cinematic days.

This section delves deeper into multi-modal montage and its relevance to contemporary politics. Starting with the traditional conception of montage as 'conflict' in Soviet cinema, I re-examine its vocabulary and initial agendas. Moving from traditional film to video art, I discuss pioneers like Nam June Paik, who utilized analog electronic methods to forge interactive, tangible, and generative forms of multi-modal montage. Here, I also touch upon the human-computer interfaces (HCI) of editing software, tangible user interfaces (TUI), and interactions with artificial intelligence. This exploration returns to the concept of montage in an exhibition format, introducing ideas of spatial and 'soft' montage. In doing so, I re-imagine the cinematic and projective apparatus and its deconstruction. Finally, I address the politics of montage and the montage of politics through the lens of the operative image, illustrating how montage continues to influence and reshape political narratives in the digital age.

1.3.1 Montage as Collision, as Conflict

Montage, traditionally understood as the technique of editing sequences of images to create a new meaning, was developed in early 20th-century Soviet cinema by filmmakers and theorists like Lev Kuleshov, Sergei Eisenstein, and Dziga Vertov.

Kuleshov performed multiple experiments closely examining the resulting meaning produced by sequential shots - from affective responses to 'artificial landscapes' [38]. Eisenstein further contributed to the discourse on montage - theorizing it as the process of colliding media elements to create conflict [39]. With the advent of the sound film, Eisenstein further conceptualized the notion of 'vertical montage'. where there was a collision not only of the sequential shots, but also of the audio layered upon it. This introduces a *synchronization* of senses, merging the aural and visual elements within the frame.

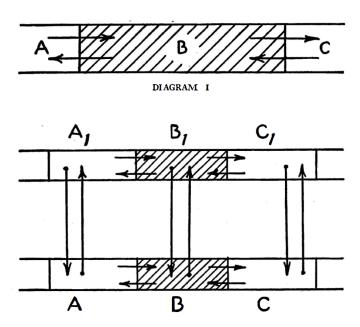


Figure 1.7: Sergei Eisenstein, Vertical Montage diagram from the book *The Film Sense*, 1943 by Sergei Eisenstein.

Their theorizing of montage was not only foundational to film narrative techniques but also served as a powerful tool for political propaganda. Vertov, for example, conceptualized the term kino pravda – or film truth. He believed that the camera - unlike the human eye could capture "truth" objectively. He created a series of newsreel films between 1922-1925 under the title of kino pravda in which he aimed to reveal the "truth" about various aspects of life in the Soviet Union through an "unfiltered lens" of the camera that focused on the achievements of socialism and industrial progress [40].⁷

⁷This simultaneously severed as a laboratory for the development of a film vocabulary. While aligning with propagandistic portrayals, Vertov's avant garde language of montage was groundbreaking, in works such as the Man with the Movie Camera (1929). Its formal explorations not only deployed a range of cinematic techniques – such as multiple exposure, match cuts, jump cuts, dutch angles, slow motion, superimposition, rapid cross- cutting, and split screens – but also showed a refined self reflexivity.

These origins of montage are frequently critiqued for their inherently militaristic language, reflecting the conflict-driven ideologies of their time. Eisenstein, for example, articulated montage as "the process of colliding media elements to create conflict" [39]. Similarly Vertov described kino-eye as "the conquest of space, the visual linkage of people throughout the entire world based on the continuous exchange of visual fact" and "the conquest of time (the visual linkage of phenomena separated in time). Kino-Eye is the possibility of seeing life processes in any temporal order or at any speed, inaccessible to the human eye" [40]. As we will see in Chapter ??, a visual and operative linkage of space and time is also created in the investigative practices of Forensic Architecture. However their understanding of "truth" and "fact" are vastly different, calling for a collective and diffused mode of truth production. This is made necessary "by a political situation in which conflicts are waged not only over resources but over interpretation of the real, and identities are formed around the formation and interpretation of facts" [41]. In contrast, Vertov, in 1926 called for a Film-Factory of Facts describing "Filming facts. Sorting facts. Disseminating facts. Agitating Propaganda with facts. Fists made of facts. Lightning bolts of facts!" [42]

This militaristic framing of montage has been critically addressed by thinkers like Susan Sontag, who argues that the language used in film production—terms like aiming, shooting and loading—betray an underlying aggressive conception of the photographic and cinematic process [43]. Sontag's critique invites a reconsideration of how these creative processes are conceptualized and discussed. On the end of consumption, Guy Debord's notion of the society of the spectacle critiques the passive consumption of media. This closed loop, linear production and consumption cycle enforces a distribution of the sensible. Jacques Rancière's argues for the political agency of the arts and aesthetics as a means to redistribute the sensiblethereby re-configuring how what is seen, heard, and understood is organized [3].

Such relationships between spectator and spectacle, media production and consumption fall under the scrutiny of early video artists and expanded cinema practitioners. This is exemplified in the works of Nam June Paik who says "Television is a dictatorial medium, like a one-way parachute. When the Superior says something to the inferior, they can just listen and answer 'yes.' The way of answering could be more interactive. I think talking back is what democracy means."

1.3.2 Interactive and Tangible Montage: From Paik's TVs to HCI today

Unlike the Soviet film makers we discussed before, who worked with physically cutting and splicing film stock, video artists, led by the pioneering works of Nam June Paik⁹ in the

⁸It is interesting to note here, that Narendra Modi hasn't participated in a single press-conference in India in his ten years as prime minister of India [44].

⁹Nam June Paik, considered to be the founder of video art, was born in present day South Korea in 1932. Having had to flee Korea in 1950, during the Korean War and having seen the fall of the Berlin War, he believed that "history would repeat itself if we don't plan for the future carefully." In the documentary - he

1960s, began exploring analog electronics in relation to television sets. Paik developed many new parameters of controlling and interacting with television sets, starting with his show on the Exposition of Music – Electronic Television (1963). This show had multiple TVs tuned to receive the same transmission but had different forms of interventions that for example allowed visitors to manipulate the images on the screen by speaking into a microphone; bent signals into abstract patterns through changes in internal circuitry; and used external media like radio or audiotape to alter the TV signal [45].



Figure 1.8: Nam June Paik, Exposition of Music – Electronic Television, 1963 Participation TV. Exhibited in Galerie Parnass, Wuppertal, Germany.

Gene Youngblood, in Expanded cinema, discusses three general areas of variability Paik worked with: 1) The live transmission of the normal broadcast program that can be distorted 2) The internal circuitry of each television receiver that can be altered with resistors, interceptors, oscillators, grids, etc. 3) The behavior of the cathode ray-tube (CRT) display using wave-form generators, amplifiers, and tape recorders. This produced effects that could be random, semi-random or completely controlled interactively by the audience [46]. Paik's work also went beyond the instrumentalization and interactivity of the television; expanding into the multi-modal, sculptural and performative collaborations with cellist Charlotte Moorman. In collaboration with electronics engineer Shuya Abe, he created the Paik-Abe Video Synthesizer - one of the earliest machines designed to alter existing video.

"The Paik-Abe Video Synthesizer's new production and post-production capabilities could transform closed-circuit video broadcasts and prerecorded

notes that Hitler made the radio without dials - an ideal device for propaganda. He was similarly critical of the television, calling it a dictatorial medium, "like a one-way parachute." Inspired by the works of John Cage, and having been part of the Fluxus scene, he wanted to critically engage with the television as both an object and a medium both rendering it interactive and being the first to radically bring it into the museum space.

footage into video collages that ranged in appearance from realistic images to pure, abstract patterns. The synthesizer featured cameras that could feed live-action images while simultaneously accessing computer-generated or film-generated imagery already recorded on videotape or film. These images could be layered, multiplied, or divided within each frame, thus allowing temporal and spatial shifts to proliferate over the course of the video." [47]

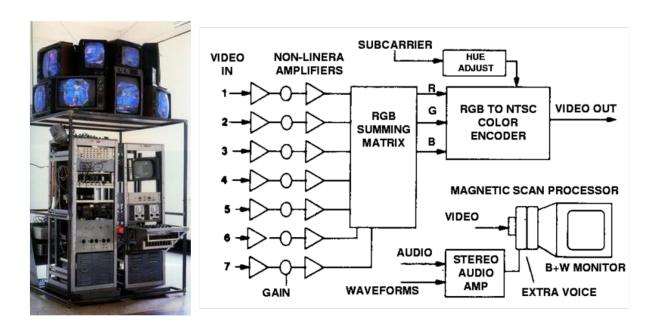


Figure 1.9: Left: Nam June Paik & Shuya Abe, Paik/Abe Synthesizer, 1969 Courtesy: Kunsthalle Bremen, Bremen | Photography | © Paik, Nam June; Abe, Shuya Right: Diagram Flow of Synthesizer

Thinking through the software and hardware of today, it is interesting to note the distinctions between editing suites such as Premier Pro and Final Pro on the one hand, and visual programming languages such as Touch-designer and Max/MSP/Jitter on the other. The former are used for conventional digital film edits and speak to the language of traditional cutting and splicing, in the manner of Eisenstein's vertical cinema. The latter speak to the legacy of Paik's interactive systems and are ideal for creating multi-modal interactive and real-time experiences. Instead of using vertical strata, these software are node based and allow for the fluid conversion of data types such as audio, visual and data-sheets to affect each other. They also allow for the connection of micro-controllers, sensors, wireless communication as well as API connections to AI models. I use Touch-designer frequently to make interactive systems including the Whistle-Bower, which I will discuss in detail in Chapter 3.

The Graphical User Interface (GUIs) of the editing suites such as Premier Pro and Final Cut Pro lack the haptically rich and sensory experience of editing film footage. This has been

explored in the field of the Human Computer Interaction (HCI) such as through the works of the Tangible Media Group at MIT. Led by Hiroshi Ishii, the group works towards bridging the gaps "between cyberspace and the physical environment, as well as the foreground and background of human activities" [48]. In relation to the cinematic apparatus, the lab has developed projects such as Tangicam [49] and The Tangible Video Editor [50] that reinterpret the montage' technique in a physical, interactive space.

Tangicam is a device for children that was developed for both capturing and editing videos, while keeping in mind the ergonomics of play. The authors believe that this simple observation system, capable of capturing situated video, audio and sensor data, allows for the creation of interesting temporal structures and situated time series [49]. The Tangible Video Editor (TVE) is a tool for basic video editing and storytelling using modular tangible components that result in a tabletop interaction [50]. These products create new narrative forms and have the ability to affect the user's sensory experience in novel ways.



Figure 1.10: Mrinalini Singha & Haoheng Tang. A Mystery for You, 2024. Photo: Haoheng Tang.

Extending this to tangible interactions with artificial intelligence, Marcelo Coelho's course at MIT involves creating physical interactions with Large Language Models (LLMs). In this class, my collaborator Haoheng Tang and I developed the project *Mystery for You*, an example of such a tangible and generative multi-modal montage interaction. I will discuss this project in greater detail in Chapter 4. Seeing works such as these through a lens of multi-modal montage can enrich HCI design from the cross-pollination with the language of film and aesthetics theory. Simultaneously, critical discourse on monoculture can provoke not only the design of monocultural interfaces and artifacts but also of the psychological and political implications they have.

1.3.3 Montage as Soft and Spatial

Harun Farocki introduced the concept of 'soft montage.' As opposed to the early Soviet conceptualization of 'montage as collision', soft montage emphasize on a more fluid and nuanced relationship between simultaneous images. Farocki describes multi-channel projects to exhibit both succession as well as simultaneity, conducive to relationships of an image to the one that follows as well as to the one beside it [51]. This can be seen in his film Interface (Schnittstelle, 1995) in which he reflects on and makes apparent his editing process.



Figure 1.11: Harun Farocki, Interface, 1995. Video.

The configuration of montage and a reflection on their apparatus can be further seen in Nida Sinnokrots's When Her Eyes Lifted (1998/1999) and Nalini Malani's Transgressions (2001). In When Her Eyes Lifted, cinematic apparatus is disassembled, revealing the mechanisms behind the projection machinery. The speed of the horizonally moving machinery is determined by the movement of the viewers, scratching the material film that is projected spatially onto screens. "This violence is reflected in the machine itself and the relationship between trauma and perception is materialized in its clash of technologies and systems. It's cinema and war. It's the experience of dispossessed and displaced peoples" [52].





Figure 1.12: Left: Nida Sinnokrots's When Her Eyes Lifted (1998/1999) Deconstructing the Projection Apparatus Right: Nalini Malani's Transgressions (2001), Asia Society, New York. Reimagining the Projection Apparatus

If In When Her Eyes Lifted deconstructs the mechanistic apparatus of cinema, Transgressions re-imagines it in it the softness of its form. Transgressions plays with paintings, shadows and projections, integrating a folk sensibility of tranditional shadow plays to explore the nuances of Wetern post-colonial dominance. Videos are projected through four transparent Lexan cylinders which are painted in a Kalighat style of Bengal.

"In their time, Kalighat paintings often commented on topical events and Malani makes use of this genre to examine the power dynamics of transnational commerce in our increasingly globalized world. Malani's technique of painting on transparent surfaces was inspired by the genre of reverse glass painting, brought to the subcontinent in the eighteenth century by the Chinese. As the reverse-painted cylinders rotate, images of a wrathful female deity, boxers, and animals inspired by Edward Said's Orientalism create an ever-shifting tableau on the gallery walls. The imagery is accompanied by a recording of a poem written by the artist." -Michelle Yun Curator, Modern and Contemporary Art[53]

1.3.4 Montage as Operative

So far we discussed the different perspectives on montage - from Soviet cinema to video art, HCI to spatial montage, soft montage to rethinking apparatus. Let us now circle back to the politics of montage. Harun Farocki critically discussed the use of images not only for representation but as functional tools, particularly within systems of power and control - terming this the "operative image." He extensively explored this through works such as "Eye/Machine" and "War at a Distance" where images produced by machines (like those from surveillance cameras, military imaging systems, and automated industrial processes) directly impacted the physical world. This operational quality acquires a spatial dimension in the works of Forensic Architecture. In their investigative work into war crimes and ecological warfare, the agency uses thousands of source images - from found footage online to geospatial data - to create spatially reconstructed 3-D models. These images are brought together

in 'poly-perspectival assemblages' where events can be retraced in order to make sense of evidence. [41].

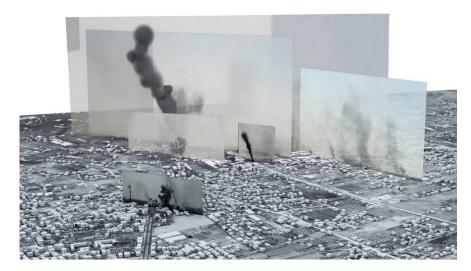


Figure 1.13: Forensic Architecture: Cloud Studies

The production of misinformation - even in the simplest forms of poor images - is also operative. During my time with Alt News, I saw several investigations into 'claims' of child-kidnapping or lynchings that ended up being recycled image and videos out of context, place and time, juxtaposed with alarming text to create new realities. As put by Eva Kernbauer, "readymade" history is always available (at least briefly).[54] In a time where political parties have 'IT Cells' that manage massive production and dissemination of propaganda, Hito Steyerl's essay on the Articulation of Protest comes to mind. Here, she reverses typical relationship of applying politics to frame montage to using montage to frame politics. "What happens, though, if we conversely relate a reflection about a form of artistic production, namely the theory of montage, to the field of politics? In other words, how is the political field edited, and which political significance could be derived from this form of articulation?" [55]

Chapter 2

Dialectic Case Studies

Having framed the politics of monocultures, and multi-modal montage; in this chapter I will now bring these ideas together through case studies. I will talk about 'surface tension' and 'unquiet objects' at the confluence of monocultures, and multi-modal montage. I will do by discussing the works of four artists in dialectic pairs, as well as in relation to my work. The artworks I discuss are politically charged and use multimodal montage to disrupt hegemonic narratives and monocultural tendencies within their contexts. In doing so, they also work towards a redistribution of the sensible.

2.1 Surface Tensions: Nalini Malani & Krzysztof Wodiczko

In the last chapter, I established a lineage of views on montage. In this section, I am particularly interested in Eisenstein's interpretation of montage as collision and conflict - creating new meaning through sequential images and Farocki's conceptualization of Soft Montage - which involves the use of multiple frames/screens in spatial relations with each other. Now, what happens, when the montage in question is not of one image after another, or one next to another, but rather is an image atop another?

The projections of the moving image can be occur on pre-existing surfaces, thereby creating a montage between not just the video, but also through a juxtaposition of the video in relation to the semiotic density of the surface. The two works by Nalini Malani and Krzysztof Wodiczko I discuss in this section use both use projections to create more depth of meaning and 'surface tension' by using a painting and a monument as surfaces. Here, I am borrowing Giuliana Bruno's [56] articulation of 'surface tension' that has a capacity to turn such surfaces – of canvas and architecture – into 'screen membranes' performing as 'connective tissues.'

I am particularly interested in this conceptualizing of surface tension as a means of complicating the politics of monumentalized and established narratives and framings – given the ongoing erasure of symbols in India. The two artists I am looking at in this section – Nalini Malani and Krzysztof Wodiczko – both confront the legacies of conflict, trauma, and healing within their respective historical and cultural contexts.





Figure 2.1: Left:Krzysztof Wodiczko The Abraham Lincoln Monument Projection, Union Square Park, 2012, New York. Copyright: The Artist. Right: Nalini Malani, Unity in Diversity, Video Installation, 7 ½ minutes looped, sound, 2003. Copyright: The Artist

Wodiczko was born during the Warsaw Ghetto uprising of 1943 and grew up in post-war communist Poland. Malani was born in Karachi in 1946, prior to the Partition of India, and relocated to India during a period marked by violent upheaval. Both artists critically utilize projections to create multi-modal montages through 'surface tension.'

Wodiczko's public space projections often transform monuments and architectural facades into sites for addressing social issues through what he describes as 'monument therapy' and an 'interrogative design' approach. His work has brought the lived narratives of war veterans atop war monuments, humanizing overlooked societal traumas and critiquing the machinery of war. Malani's work delves into the traumatic narratives of the Partition and the rise of Hindutva fundamentalism, with a particular focus on the impact of these events on women. Her works such as Hamletmachine (1999-200) and Unity in Diversity (2003) respond to the violence of the demolition of the Babri Masjid (1992) and the Gujarat Riots (2002) respectively. Unlike Wodiczko, who usually utilizes the external facades of buildings, Malani often projects within the intimacy of gallery spaces. Her projection works have also gone beyond the opaque surface, through her work such as Transgressions (2001) – discussed in 1.3.3 – that utilize in the ephemeral interplay of light and shadow, painting and movement.

Malani's Unity in Diversity (2003) and Wodiczko's Monument (2020) both contest with historically and culturally dense surfaces creating what Bruno describes as 'mnemonic canvases' where history is both inscribed and contested. They use projections not just as a technique but as a critical tool for semiotic interrogation are one of their mediums, and

in doing so, respond to the urgencies of the contexts they inhabit.

2.1.1 Wodiczko's Monument & Malani's Unity in Diversity

Her video installation, *Unity in Diversity* (2003) uses a painting by Raja Ravi Verma - The Galaxy of the Musicians (undated)¹- as a surface to project upon videos from the recent Muslim genocide of the 2002 Gujarat Riots - and the Muslim genocide. Malani starkly juxtaposes this painting that speaks to a vision of harmonious coexistence with the disintegrating reality and violent present. The description reads:



Figure 2.2: Nalini Malani, Unity in Diversity, Video Installation, 7 ½ minutes looped, sound, 2003. Copyright: The Artist

"What starts out as a harmonious composition, with all parts of the nation playing sweet music together, ends in a bloodbath. Gunfire rattles as the music gives way to screams and lamentations. The orchestra morphs into an army where women carry rifles to protect themselves from abuse. Images of a surgical abortion symbolise the failure of a promising future. A voice that sounds like Nehru evoking the unfinished task of liberal nationalism delivers a pessimistic manifesto borrowed from Heiner Müller's play Der Auftrag (The Task), inspired by a 1933 text by Bertolt Brecht." [57]

¹Malani chose this painting as it spoke to the plurality of the nation, with women musicians of various religions seated together. This painting had been shown at the Chicago World Congress of the Religions in 1893 during which the philosopher Swami Vivekananda warned of the dangers of religion orthodoxy.





Figure 2.3: Left: Raja Ravi Varma. Galaxy of Musicians. 1889. Oil on Canvas. Right: Nalini Malani, Unity in Diversity (2003)

In the Monument (2020), Wodiczko subverts the surface of the Admiral David Glasgow Farragut monument from 1881, to project the narratives of twelve resettled refugees to the United States. Admiral David Glasgow Farragut was a Union naval hero during the American Civil War, fighting for the cause of abolishing slavery [58]. Each person who Wodiczko collaborated with also came from countries that suffered the devastation of civil war. Through these projections Wodiczko aimed to invite public acknowledgement to a conflicted history of accepting and rejecting refugees, asylum seekers, and immigrants [58].

Wodiczko's works, such as this, and the War Veteran Project both critique monumentality and emphasize on the importance of sharing memories of trauma experiences for collective societal healing. I see this as a powerful approach to thinking about the ongoing monument politics in India. I have thought about using projection or augmented reality as a means to reposition the Babri Masjid on the site of the Ram Mandir. However, I realize that this would defeat the purpose of the exercise – clashing one symbol against another propagates the same monocultural mindset. It matters less what monument is situated there; than that it creates a safe, shared, inhabitable space, irrespective of identity – religious or otherwise. The prospect of engaging with peoples and projecting the voices and narratives of those who have been impacted by violence in the name of state, of religion, of monument is a powerful endeavour. I wonder how Godi² media would respond to it.

2.1.2 In Dialogue With: The Wall - An Unfinished Portrait

Thinking through these two works and the notions of 'surface tension' and 'multi-modal montage' have made me reflect on an other work of mine. Engaging with new ideas and

² Godi translates to lap in Hindi. The term Godi media was coined by Ravish Kumar, an independent journalist, to criticize media organizations and journalists who are figuratively "in the lap of Modi."

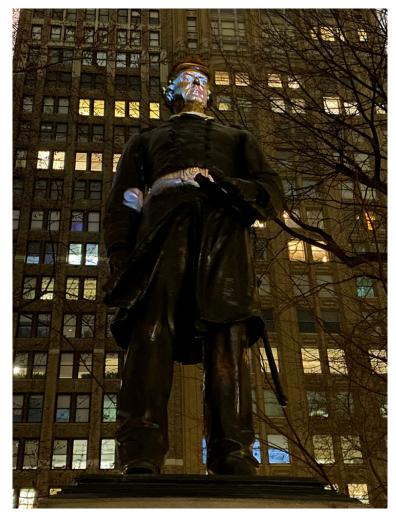


Figure 2.4: Krzysztof Wodiczko, The Admiral Farragut Monument Projection, "Monument", Madison Square Park, 2020, New York

artworks continue to make me re-frame my thinking and creation from a particular moment. I made *The Wall: An Unfinished Portrait* in 2018 for a design project at NID³ that observed the boundary wall of our campus as a living semipermeable membrane space. I spent weeks walking around the contours of the wall – both inside and out – shooting the everyday life that unfolded. From students walking across pigeon paths, from the dorms to the academic buildings on one side of the wall, to the families going about their day in the slum dwellings across the wall (Figure 2.5). From the security guards, to the early morning ladies sweeping the campus, to traffic outside.

Walls are socio-political entities that, in their negotiation of an Inside and Outside, create identities and otherize communities. This wall both divided and supported a range of socio-economic communities – some overlapping, some not. This framing of the wall

³At the time I made this, it was severely criticized for not adhering to the assignment brief, of making a film that followed a 'design' process i.e., the making of a shoe, or graphic design process.

from multiple positions was overlaid with voices of interviews I had taken with students, professors, people who lived in slum, security guards with their musings on how they saw this wall. A professor spoke of how during the Gujarat Riots (that Malani's work also deals with) this wall made the campus one of the few safe havens in the city. Of how there wasn't a wall at all when the campus was first made, of how you could walk to the Sabarmati river. A student mused over the smoke and flavours you could experience from the slum dwelling across the wall. An old lady in the slum dwelling mentioned how their being there made the otherwise deserted road more homely and friendly for the students to walk through at night – as I too often did. A security guard spoke of how this wall made his life easier and laughed.



Figure 2.5: Mrinalini Singha. The Wall: An Unfinished Portrait, 2018. Video, Ahmedabad.

The 'surface' in my work here was this living connective tissue infused with narratives. I also an interactive prototype of the film - where the frame was divided into three changeable sections. By clicking the sections, segments of the wall could be shuffled around, twisting and merging its inside and the outside 'other' into one continuous mobeius strip. During that time, I was considering trying using projections on the wall itself but didn't get the opportunity to. So many possibilities to reflect upon.

2.2 Unquiet Objects: Shilpa Gupta & Nida Sinnokrot

Unquiet Objects, for me, are objects that, in their configuration, rise from their functional and semiotic embedding in the everyday. These objects may – in the ways of a ready-made – oscillate between their status as an object and and their status as a sign [45]. Doing so, they have the capacity to expose, provoke or detach – what Barthes calls – the modern myths from these objects [59]. This is akin to W. J. T. Mitchell who describes things that break away from the gestalt of the object, "the moment when the object becomes the Other... when the mute idol speaks, when the subject experiences the object as uncanny and feels the need for what Foucault calls a metaphysics of the object, or, more exactly, a metaphysics of that never objectifiable depth from which objects rise up toward our superficial knowledge." [60]

The unquietness of these objects is like a spectral, yet dense presence. Unlike the silent, anticipating, plundered museum objects that – as Ariella Aïsha Azoulay shows – that have been dispossessed of the communities that gave them meaning, these unquiet objects are functional objects that dissolve into the everyday. The residential gate of Shilpa Gupta, the bulldozer arms of Nida Sinnokrot, and the lighter and pressure-cooker I use are such unquiet objects, incorporating the para-functionality [61] of their form to establish new psycho-social narratives, thereby redistributing the sensible. Such unquiet objects, I argue, form a montage of the tangible form, haptics, functionality, the signs, and the signified, as well as the incorporation of other elements such as spatial composition, movement and sound.

In this section I will build upon this framing through the works of Shilpa Gupta and Nida Sinnkrot, both of whom often use found objects and interactive acoustic and/or video installations to create sites of contested memory, decolonizing censorship and displacement. Their works often rehabilitate objects – from metallic gates to bulldozer arms. Shilpa Gupta (b.1976) is an Indian artist who probes into processes of classification, restriction, censorship, and security as dominant forces acting on local and national communities, prompting a re-evaluation of social identity and status [62]. Nida Sinnokrot (b.1971) is a Palestinian-American artist whose practice is rooted in the use of common and material objects that appeal to memory to provoke the realities of psychology in Israel and Palestine, making alterations that generate a sense of displacement, anxiety, and volatility in the familiar. These themes resonate throughout his work, echoing his experiences [63].

2.2.1 Shilpa Gupta's Untitled Gate & Nida Sinnokrot's Ka

The first two works, *Untitled Gate (2008-09)* and *Ka (2009)*. Here, everyday objects in their simplest form – a gate and two bulldozer arms have been taken out of their context, and have developed a dense spectral unquietness in doing so. Gupta's *Untitled Gate*, a mobile residential gate – the kind built for security and seclusion – that swings side to side, banging into and breaks walls in the process. With the outline of a territory joint to its metallic

form, in a haunting automated oscillation, the gate embarks on an operation to bring the wall to a rubble. In contrast, Sinnokrot's Ka is a static composition of two disembodied sculptural arms that resemble the Egyptian hieroglyph symbolizing a life force capable of both destruction and creation. The work is described as "a primal gesture that recalls despair as well as prayer, absolution, and defiance." [63]





Figure 2.6: Left: Shilpa Gupta, Untitled MS Gate, 2008-09 & Right: Nida Sinnokrot, Ka (Oslo), 2017. Photo by Ziad Trad. Courtesy the artist.

In the context of India, "bulldozers politics" has become a violent symbol of demolishing the private properties of Muslim residents, tragically but poetically bringing these two gestural works - the gate and the bulldozer - together. The use of bulldozers has been an ongoing strategy of the Israeli government as well, and is currently, amidst the attack on Gaza, carrying on everyday erasure in the West Bank. These artworks challenge and disrupt the perceptual and conceptual status quo, challenging the political activity that disrupts the sensory experiences, that define what is visible and say-able in a given society.



Figure 2.7: The home of political activist Javed Mohammad was turned into rubble on the orders of the government. Getty Images via BBC News 2022.

In India, the bulldozer, as a symbol for violence on minorities, has not only been seen in the political rallies of BJP, but also, more insidiously, in the form of toys in the hands of politicians and Hindutva supporters. In doing so, the symbol of the bulldozer has cemented its status as a contemporary myth. This reminds me of Barthes discussion on French toys – of miniature adults showing children how to enact adulthood in play [59]. In this case – incorporating the violent enactment of bulldozer politics into childhood play-time.





Figure 2.8: Left:Yogi Adityanath's supporters came to his election rallies with toy bulldozers, BBC News 2022. Right: Uttar Pradesh Chief Minister Yogi Adityanath is participating in a roadshow with supporters showering flowers from atop bulldozers in support of BJP candidate Rajyavardhan Singh Rathore from the Jhotwara constituency ahead of the Rajasthan Assembly elections. Amnesty International, 2024.

2.2.2 In Dialogue With: Igniter (Singha, 2016)

In 2016, while I was in NID, India saw the demonetization of Rs. 500 and Rs. 1000 currency notes overnight - an ill planned decision that lead to much economic distress, especially in the unorganized sector which was almost entirely cash dependent at the time. Demonetization was referred to as a despotic act by Amartya Sen, the Nobel laureate Indian Economist.

"It (demonetization) undermines notes, it undermines bank accounts, it undermines the entire economy of trust. That is the sense in which it is despotic. It's a disaster on economy of trust. In the last 20 years, the country has been growing very fast. But it is all based on [the] acceptance of each other's word. By taking despotic action and saying we had promised but won't fulfil our promise, you hit at the root of this." [64]

A peculiar aftermath of this historic event was that the Reserve Bank of India (RBI) sent over 200kg briquettes composed of shredded Rs. 500 and Rs. 1,000 notes over to NID to be repurposed [65]. In an uncanny turn of events, some permanent pot installations in my campus were now filled with heaps of – what was once valued – money up for grabs.



Figure 2.9: Mrinalini Singha, Igniter. 2016. Lighter with Demonetized Money. Photo: Mrinalini Singha

I used this opportunity to collect this forensic evidence of an event. An incessant smoker at that time, I meticulously filled the cavity inside a lighter that I was using with these shredded notes. In dissembling and reassembling the lighter, I retained the inflammable liquid inside it, however impacting the mechanism of the lighter. Elevated now to an art object, the *Igniter* lost its functionality, like the shredded notes within it. It sat with its combustible fluid and dysfunctional parts, taking on the same spectral looming quality of an unquiet object. In a need to see it light up, I made an animation of lighter layered with music I had put together - distorting the speech that Narendra Modi gave while declaring demonetization, referring to corruption and black money.

I had wanted to bring the lighter from India for the exhibition I had on Forensic Artifacts of a Democracy in Crisis and had asked my aunt to bring it with her. My parents and her had carefully removed the lighter fluid from its cavity to bring it safely on to the plane. However, it was unfortunately detained at the airport border control in India, reducing it back from an art object to a disposable everyday object. I like to imagine that somewhere

at the bottom of unfound objects or detained personal goods, the *Igniter*, a relic of its time, still exists.

2.2.3 Gupta's For, In Your Tongue, I Cannot Fit & Sinnokrot's Exquisite Rotation No. 02

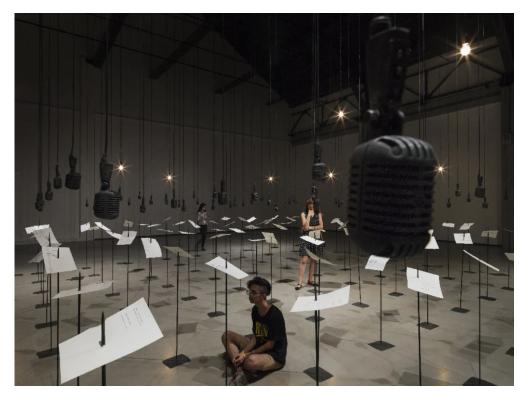


Figure 2.10: Shilpa Gupta. For, in Your Tongue, I Cannot Fit, 2017-18, Sound Installations with 100 Speakers' Microphones, Printed Text and Metal Stands. Copyright: The Artist

In contrast to the works discussed earlier in this section that take a singular element of a readymade object, these two works incorporate more components—Gupta's *In Your Tongue*, *I Cannot Fit* (2017-18) and Sinnokrot's *Exquisite Rotation No.02* (2016).

The two works differ in their assemblage – Gupta's In Your Tongue, I Cannot Fit being a spread out space, formed by the repetition of three forms over a 100 times – a sheet of paper, an iron rod, and a microphone. In contrast, Sinnokrot's Exquisite Rotation No.02 is a concentrated formation - that also involves microphones and paper, in the form of a manuscript. The sheets of paper in Gupta's work, each have a verse of poetry inscribed on them from a hundred poets who have been jailed over the centuries for their writing or political alignments across the world, in varying tongues. Each solitary sheet of paper hangs midair - pierced through an iron rod. In Sinnokrot's work, the sheets of paper are bound together in a manuscript, but they are empty. Both pieces use microphones – in Gupta's work, they are suspended over the pierced sheets of paper. Embedded with speakers, these

mics recite the verses – giving voice to these 100 silenced poets. In Sinnokrot's piece, the microphones are all gathered around the empty manuscript that sits on a pedestal under a spotlight, that may have no words to tell. Here, however, two oscillating fans give periodic gusts of wind to these empty pages, making them flutter back and forth. The microphones catch and amplify this unquiet address, while a live feed captures its ephemeral movement and projects it on the wall behind.

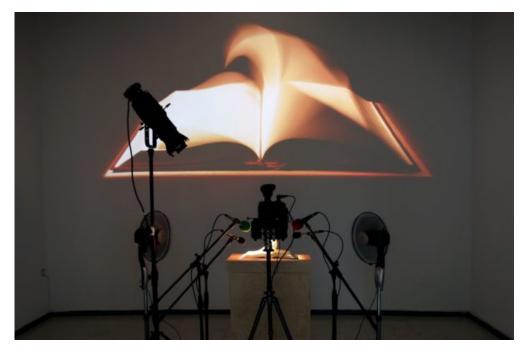


Figure 2.11: Nida Sinnokrot, Exquisite Rotation No.02 (Fakir Fans), 2016. Guilded manuscript, pedestal, spotlight, camera, microphones, speakers, and fans, dimensions variable. Copyright: The Artist

While Shilpa's work gives voice to the silenced poets, Nida's deafens us with histories that have been erased. The juxtaposition of these two works speak to me and to this day. From the fragility of our right to freedom of speech, to ongoing erasure and the rewriting of histories. The re-writing of history has been an ongoing agenda, be it BJP's erasure of Mughal histories [66] or Israel's erasure of the Palestinian past and present [67]. In this chapter, I have discussed the ways in which artists have spoken against the politics of their contexts and times – using multi-modal montages to create art that is at times explicit and at times subtle. This exploration of "unquiet objects" and "surface tensions" leads me to the next two chapters where I discuss my works - The Whistleblower (2023) in Chapter 3 and A Mystery for You (2023-24) in Chapter 4.

Chapter 3

The Whistle Blower: Tangible Archive in an Everyday Object

3.1 Surface Tension of the Unquiet Object

The pressure cooker is a quintessential kitchen instrument in the Indian subcontinent spanning at least from Pakistan to Bangladesh. As a student coming to the United States, my mother packed this pressure cooker in my luggage. How else could you cook the dals and rajmas (lentils and beans)? The pressure-cooker is known for its efficiency, fastening the process of cooking and lessening the time spent – mostly by women — in the kitchen. I know multiple other students from South-Asia who have brought their pressure-cookers with them. Sometimes it is replaced for the Insta-pot, with its timer that lessens the need for supervision. The traditional pressure-cooker, however, has a theatrical element. Once adequate pressure is built up inside, the steam pushes out the whistle fitted onto the top. The whistle can be heard from across the house, as a timekeeper, three whistles for rice, five for rajma.

3.1.1 Oscilations of the Readymade

This particular pressure cooker was actively in use in my kitchen before it, one day based on an intuitive gesture, found itself elevated to the pedestal. The Whistleblower (2023) is composed of a pressure-cooker atop a stove that is connected to a cylinder placed beside the pedestal. Behind the pressure cooker, also balanced on the pedestal, is a display monitor. At first glance, this assemblage of ready-made objects in a white cube speak to the lineage of the ready-made – akin to Marcel Duchamp's Fountain (1917) sans a signature. David Joselit discusses Duchamp's "Ready-made Objects" as not only as incorporating mass-produced things into art but as the act of producing a paradoxical object locked in perpetual oscillation

between its status as a thing and its status as a sign" [68]. He further discusses the readymade as 1) object 2) action and 3) network. Joselit further positions Nam June Paik's works in the third category for its collapse of information and matter altogether into ready-mades composed of information codes [68].

The Whistleblower too oscilates between its status as a pressure cooker and its symbolic representations of pressure, steam and heat ready to explode. While the pressure cooker in the Whistleblower still functions as a cooker, its primary function within the installation is transformed to serve a narrative and critical purpose, challenging the conventional utility of domestic objects.

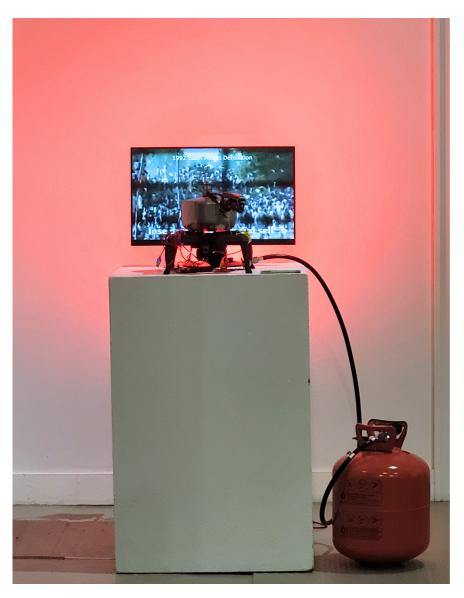


Figure 3.1: Whistleblower exhibited at the Distillery Gallery, Boston

3.1.2 Interactive Mechanisms

Upon further inspection, it is found that the stove dial used to modulate the heat, is actually refitted with a rotary encoder behind it. This rotary encoder is connected via a micro-controller to the software - Touchdesigner which references multiple video files. The rotation of heat dial acts as a trigger in Touchdesigner that changes between videos files displayed on the monitor. These files includes footage based on a timeline of events such as the demolition of the Babri Masjid (1992), violence from the Gujarat riots (2002), and more recent footage of fanatic waving of saffron flags, hate speech and other acts and symbols of violence related to the religious fundamentalism of Hindutva politics.

Furthermore, the top and bottom handle of the pressure cooker have an open circuit on them. On holding the handle of the pressure cooker, you act as a switch - closing the circuit loop and triggering the audio visual of steam blowing, positioned such that it appears to blow from the whistle of the pressure cooker. On leaving the handle, the circuit opens again, leaving a single video file on loop. Until the dial is turned again, the display replays the same event as the pressure cooker – and you – watch it unfold again and again.

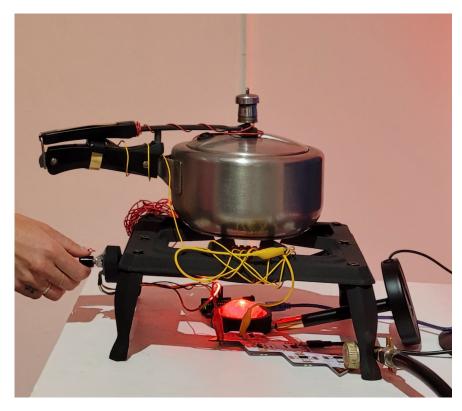


Figure 3.2: Mrinalini Singha, WhistleBlower, 2023. Exhibited in the Distillery Gallery, Boston as part of "Counteractions" Group show 2023. Photo: Mrinalini Singha

3.1.3 Object as Witness: Psycho-Social Narratives & Memory

In discussing "psycho-social narratives" Anthony Dunne suggests that the embodiment of unusual psychological needs and desires in electronic objects can encourage the experience new of narrative situations as a protagonist [61]. In the case of the *Whistleblower*, the everyday kitchen object, a domestic apparatus becomes witness. As witness, it bears evidence of the atrocities that have been committed in the name of establishing a "Hindu nation." As discussed in Section 1.1.1, this is not only concerning for a nation that once envisioned itself as a secular democracy, it is also a construed narrative.



Figure 3.3: Mrinalini Singha, WhistleBlower, 2023. Close Up. Exhibited in the Distillery Gallery, Boston as part of "Counteractions" Group show 2023. Photo: Mrinalini Singha

3.1.4 Interface Mapping & MultiModal Montage

The installation's interactive technology modulates video footage in response to changes in heat, engaging participants in a visceral exploration of history. This method not only invites reflection but also acts as a metaphorical act of "blowing the whistle" on these socio-political issues. In making the interface of the stove interactive, there exist semiotic complications of augmenting domestic interfaces. Don Norman in the *Design of Everyday Things* [69] introduces the concept of "natural mapping" in interface design; the mapping of relations between controls and their movements to the outcome from such action into the world. In the case of natural mapping, the aim is to reduce cognitive burden for the user's memory

to perform a task.¹ In the case of the *Whistleblower*, we rely on the preexisting socially constructed mapping that has conditioned us to know that turning the dial on a stove turns the heat up. We then layer upon this mapping, another semiotic layer - correlating the turning up of heat to the increasing socio-political tensions and pressure while navigating through the different footage that are temporally sequenced.

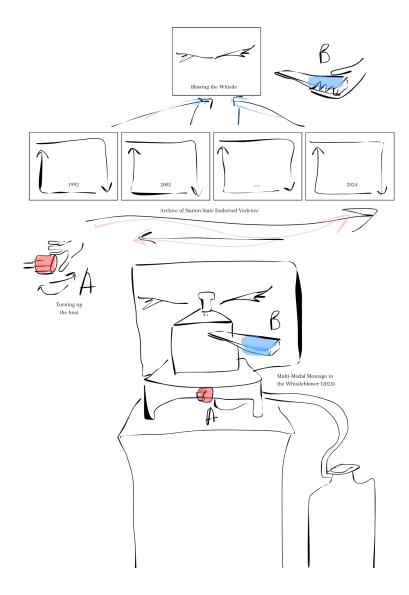


Figure 3.4: Mrinalini Singha. System diagram of tangible montage in the Whistleblower, 2024.

¹A kitchen stove is a common example for this. In the case of four burners in a grid, if the controllers are in an arbitrary arrangement in a row, it increased the cognitive burden on the user [69]. Alternatively, it the dial controllers are also mapped in a grid similar to the stove, its more intuitive and is thus referred to as natural mapping. Interestingly, the perceived connection of rotating a dial to increase of decrease the volume of music is seen as a socially or culturally constructed mapping [70].

Fuller and Weizmann note that aestheticization is often less about being alert to a specific object on its own, and more concerned with observing and adjudicating relations between things [41]. Similarly, the redistribution of the sensible [3] that occurs in the Whistleblower is due to the relation between the different components – the ready-made objects, the found footage, the interface mapping and haptic interaction that result in a multi-modal montage.

3.2 Related Works

3.2.1 Untitled, Heat Book (Shilpa Gupta, 2008-09)



Figure 3.5: Shilpa Gupta. Untitled. Heat Book, 2008-09. Mild Steel, heating element of 2000 watts+, pedestal

Gupta's has placed a metallic form of a book on a pedestal akin again to a stove, but with an actual element of heat. The book is dangerously hot and speaks of things hidden just below the surface while also referencing to the incendiary qualities of sacred books in different cultures [71]. Both works - the Heat Book and the Whistleblower - use everyday objects (a book and a pressure cooker) and associate them with heat to symbolize underlying tension and hidden narratives. While the Heat Book engages with the actual element of heat, in the Whistleblower, the heat element is metaphoric. The "turning up of the heat" is symbolic of the rising political violence. While Gupta's work calls for observation and reflection from a distance, the Whistleblower desires to be touched and engaged with to unfold its embedded narratives.

3.2.2 Escapement (Rags Media Collective, 2009)

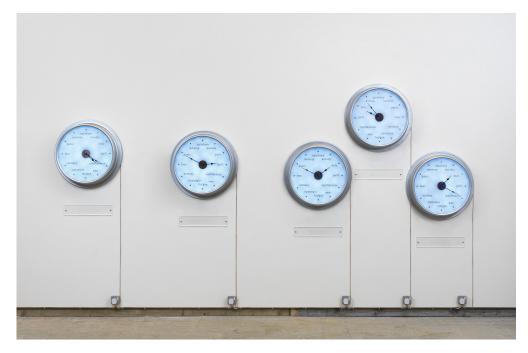


Figure 3.6: Raqs Media Collective, Escapement, 2009. Twenty-seven clocks, high gloss aluminium with LED lights, four flat-screen monitors, video and audio (looped), dimensions variable. Image courtesy of Raqs Media Collective and Frith Street Gallery, London.

Escapement (2009), comprises of 27 almost identical clocks, each allocated to a city and the hands set to their respective time zones. However the clock hands marked emotions rather than time – epiphany, anxiety, duty, guilt, indifference, awe, fatigue, nostalgia, ecstasy, fear, panic, remorse – as if each city was on a Nietzschean treadmill, doomed to an eternal return of extreme feeling [72]. Both installations use time and repetitive actions as metaphors (clocks in *Escapement* and the pressure cooker in the *Whistleblower*) to reflect on broader cultural or political themes. *Escapement* abstractly assigns emotional states to different time zones, creating a global reflection on human experience, whereas the *Whistleblower* is more focused on specific historical events and their ongoing impact, anchored in a particular cultural context.

In contrast, the *Whistleblower* cycles through time, in a less abstract sense of the real histories that have happened. The pressure-cooker – itself a keeper of time – watches these looping events - in a time out of joint - in a state of insomnia, unable to truly let out its steam, because in reality, there isn't any inside, apart from its metaphorical cavity.

Chapter 4

A Mystery for You: Investigations, AI and Tangibility

Amidst the misinformation, algorithmic biases and echo-chambers that fuel polarization, we need a redistribution of the sensible that fosters a investigative bent of mind. In this chapter, I discuss A Mystery for You as a work of multi-modal montage that aims to disrupt a monoculture of the mind. With a tangible interface, A Mystery for You is a fact checking game powered by an LLM (large language model) built with an ethos of critical, thoughtful and educational play. This project has been made in collaboration with Haoheng Tang and began as part of Marcelo Coelho's course on *Interaction Intelligence*.

4.1 Investigation and Emergence

With this device, you take on the role of a citizen Fact Checker and build your investigative skills as you find the truth (and falsehoods) behind the alerts and updates that are printed out for you. Over the course of seven game-days, you use action cartridges from your toolkit to learn more about the involved actors and circulating media, putting together the facts to make an informed verdict [73]. In *Investigative Aesthetics* [41], Fuller and Weizmann highlight that the means to arrive at a fact change over time, and the achieved facts change as information and sensibility is gained. Paraphrasing from Isabelle Stengers's *Manifesto for a Slow Science* [74] they frame that: "it is necessary to carefully recognise the tensile interrelations of emergent facts, the knowledge and positions that make them credible and the penumbra of possibilities that surround them."

In A Mystery for You, the sequential game-play and AI generation, allows for such a penumbra of possibilities to evolve around every move made by a player. A shadow world is created, from where new updates come out slowly, creating an ever-changing landscape shaped by prompt-engineering involved and embedded algorithmic and model biases. Unlike

the Whistleblower, the interface of a Mystery for You is not an unquiet object. It does not have a spectral looming presence. Despite the unfolding events of news alerts, fake news and communal violence in its shadow-world, it is not dense or ominous. It engages in dialogue. A montage of an evolving 'reality' is unravelled and sensibility is gained through interaction with the device. This integration challenges traditional forms of news media consumption and creates dialectic interaction – disrupting passive consumption through multi-modal montage.

Unlike the found everyday objects we have discussed before, A Mystery for You has been fabricated from scratch. Version 1 can be seen in Figures 4.2, 4.1 and 5.7 while version 2 can be seen in Figures 4.3 and 4.5.



Figure 4.1: Mrinalini Singha & Haoheng Tang, Mystery for You, 2023. Exhibited in MIT ACT Gallery as part of "Forensic Artifacts of a Democracy in Crisis" 2023. Photo: Gearoid Dolan

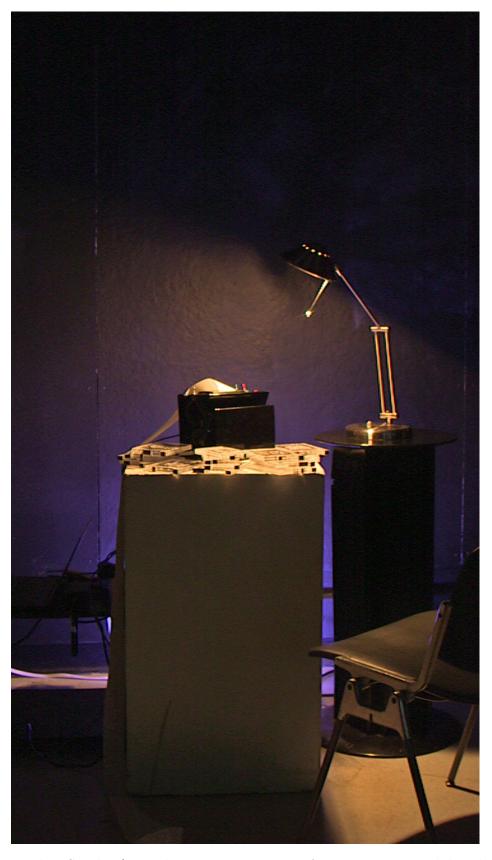


Figure 4.2: Mrinalini Singha & Haoheng Tang, Mystery for You, 2023. Exhibited in MIT ACT Gallery as part of "Forensic Artifacts of a Democracy in Crisis" 2023. Photo: Gearoid Dolan

4.1.1 Subverting Generative AI for Educational Purposes

In Section 1.1 I discussed the rise of monoculture in politics as well as media, interface and algorithm. In a time of polarized media politics, hate-speech and rampant misinformation, lack of digital literacy and an inability to identify misinformation has not only led to swaying of elections – such as the 2016 United States Presidential Elections [26] - but also mob lynching and communal violence in India [24] and Bangladesh[25].

The misuse of generative AI models further compounds these challenges. For instance, the 2023 Presidential Election in Argentina, dubbed 'the first AI election' by The New York Times [29], exemplifies how AI-generated disinformation has become a significant electoral influence. Moreover, in 2024, as 76 countries prepare for elections [30], the escalation of AI-driven misinformation is evident not only in social media but also through the proliferation of websites that disseminate AI-generated false articles—an issue that has seen a staggering 1,000 percent increase from May to December 2023 [31].

Confronted with these alarming trends, we were prompted to ask: Could the technology fueling misinformation be redirected to combat it? How might AI be effectively repurposed as a tool for public education, enhancing critical thinking skills and empowering youth to become discerning media consumers? A Mystery for You emerges as a response to these questions, aiming to leverage the capabilities of AI for educational innovation. By integrating AI in a controlled, thoughtful manner, this game enables players, particularly young users, to develop essential fact-checking skills and a critical approach to media consumption.

However, the deployment of generative AI is not without risks. The black-box nature of many AI models, which are often trained on vast datasets containing inherent biases, poses significant challenges. The outputs of these Large Language Models (LLMs) are frequently governed by the content moderation policies of the platforms providing API services, which can profoundly influence the scenarios generated within our game. Recognizing these complexities, our project commits to an ongoing investigation into these implicit biases and their effects on gameplay and educational outcomes. We believe that "A Mystery for You" not only facilitates a critical examination of AI-generated content but also serves as a platform to explore and address the biases embedded within AI systems themselves. This dual approach not only enhances the educational value of the game but also contributes to broader discussions on the responsible use of AI in society.

4.2 Related Work

4.2.1 Fact-Checking Games

Studies have shown the benefits of using active learning strategies to tackle misinformation, such as through lateral reading assignments in civic courses [75] and gamification of the



Figure 4.3: A unique, tactile fact-checking experience enhanced by an LLM.

fact-checking process [76]. There have been multiple attempts at gamifying misinformation education, such as Bad News[77], Fake it to Make it [78], Fakey [79], and Escape the Fake [80]. Parallelly, there have also been attempts at making detective mystery-solving games using generative AI in non-educational scenarios, such as Vaudeville [81], Origins [82] and Detective GPT [83]. Keeping in mind the limitations and potential of these prior efforts, we decided to focus on the following during our game design process:

- The game should challenge the player to actively investigate.
- The game interface should offer immersive interaction and not encourage the player to just point, click and skim-read.
- The game should be replayable, offering unique scenarios in every play-through.
- The decisions made by the player should impact the sequential evolution of the game.

To the best extent of our knowledge, A Mystery for You is the first media literacy game that addresses these design challenges using generative AI, tactile interface and pedagogical approach.

4.2.2 News (Hans Haacke 1969/2008)

Hans Haacke brought the everyday object - the printer - into the gallery space along with news of the external world. Haacke, in his practice, has been interested in real-time systems and a vocal critic of institutions. News (1969/2008) comprises of a printer connect to an RSS news-feed. Receiving the news-feed, the printer continuously keeps printing out the headlines, physically manifesting an information overload. While the Mystery for You is similar to this piece in its use of printing and news alerts, our work differs significantly in relation to interaction. While Hans Haacke's news brings the news production as a passive, expansive flow of production into the museum space, in A Mystery For You there is a slow and thoughtful interaction with the generated news. The player makes decisions that reflect in the turn of events, claiming investigative agency.



Figure 4.4: Hans Haacke News, 1969/2008. Collection SFMOMA. Copyright: © Artists Rights Society (ARS), New York / VG Bild-Kunst, Bonn

4.3 Slow Media & Tangible Interface

The design of our current day smart phones, with their smooth touchscreens has conditioned us to keep scrolling incessantly through high volumes of information being perpetually updated in real time, without paying significant attention to any individual piece. This is an issue we have seen inadvertently being replicated in other educational games tacking misinformation. To address these issues through affordances, we took on the challenge to re-imagine what an interface for such a game could be. Thus, there is no screen or keyboard involved in playing A Mystery for You. Instead, our game is embodied in an tangible interface that celebrates analog mechanisms and slow media. *Slow media* focuses on pacing out media production and consumption, fostering intentionality and mindfulness [84].



Figure 4.5: AI-generated news alerts and updates printed on thermal paper.

4.3.1 Game Design

The player needs to use cartridges and buttons as input, and the game interface, in turn, responds with outputs through a mini thermal receipt printer. News alerts are printed slowly with a meditative sound. This forces the player to pace their reading and gives them time to choose their investigative move. Players pick from a finite number of action-actor cartridges and insert a pair into the slots such as "Interview the Community" or "Check the Social Media Handle of the Politician." This causes the indicative meter to progress from Day 1 to Day 2. The interface prints out another news alert from the next day with new insight based on the player's move. The player gathers facts over seven game days. The dialectic interaction between the interface and the player speaks against the one-sided consumption of news media cycles. Once the player feels confident of their choice, they can choose from the true and false switch to make their verdict. This leads to the printing of a game result along with the reasoning for why that was the case and why it is important to fact-check. The printed receipts are a poetic documentation of the game-play.

The tangible interface and analog mechanisms of our game afford a slow media experience that celebrates the pacing out of media production and consumption, fostering intentionality and mindfulness. Additionally, the tangible interface also serves as a content moderation strategy, preventing players from engaging with the LLM via inappropriate responses. This game is thus an example of how new and generative media can be combined with old and slow media to create more thoughtful and enjoyable interactions and news consumption.



Figure 4.6: Printed Receipts- A Poetic Documentation of the Game-play

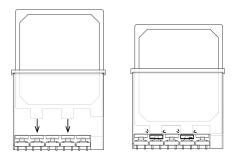


Figure 4.7: Cartridge Input Mechanism Inside a Card Slot.

4.3.2 Mechanics

The tangible game interface enables interactions between players and a cloud-based Large Language Model (LLM), specifically ChatGPT. The communication infrastructure involves data transmission between the micro-controller and the web app on a computer via serial communication. The data transmission between the web app and ChatGPT is facilitated through the OpenAI API.

4.3.3 Designing Player Moves

The Actions include: 1) Investigate, 2) Interview, 3) Check Whatsapp Messages of, 4) Reverse Image Search, and 5) Check Social Media Account of. **The Actors include:** A)

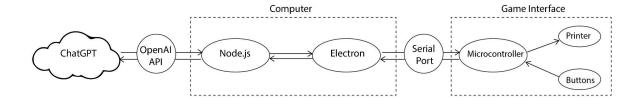


Figure 4.8: Data transmission between game components.

Local Police, B) The Accused, C) Politicians, D) Journalists, E) Local Community, F) Protesters, G) Video Evidence, H) Photo Evidence, I) CCTV Footage, J) Local Authorities



Figure 4.9: Mrinalini Singha & Haoheng Tang, Mystery for You, 2024. Spread of 'Actor' and 'Action' cards available for the player to make a move with. Illustration. 2024.

4.4 Multi-Modal Montage

The integration of AI-generated scenarios, tactile inputs, and printed outputs creates a dynamic multi-modal montage that expands the sensory experiences of the players. This game design aligns with Jacques Rancière's notion of the redistribution of the sensible by altering the modes through which information is typically received and processed. By engaging multiple senses and requiring physical interaction, the game redefines how narratives are experienced and understood, moving away from passive viewing to active, participatory learning. This slow media approach not only disrupts the rapid consumption of digital content but also fosters deeper cognitive processing, allowing players to critically analyze and question each piece of information.

The sequential and generative nature of gameplay in A Mystery for You introduces a dialectic approach to learning, where each action taken by the player influences the unfolding storyline. This method reflects the montage techniques of early Soviet cinema, where the collision of disparate images sought to elicit intellectual responses from the audience. In the game, the combination of different actions and their consequences creates a complex narrative

landscape that mirrors the multifaceted nature of real-world information analysis. The poetic receipts printed at the end of each game session serve not just as a record of the gameplay but also as a medium for story creation. These receipts can be collected and used by children to construct their own narratives or archives of their investigative journeys, turning the game's outputs into components of a new, tangible montage. This archival aspect ties back to the thesis theme of unquiet objects, where the game's components themselves challenge the traditional passive consumption of media and encourage an ongoing engagement with the material.

A Mystery for You thus redefines educational gaming by integrating the principles of multi-modal montage into its core gameplay, offering a rich, immersive interaction that goes beyond the screen. It demonstrates the potential of harnessing generative AI not just for creating content but for fostering a critical, reflective approach to media consumption, essential for navigating the complexities of the modern information landscape.

Chapter 5

Exhibition & Concluding Remarks

5.1 Forensic Artifacts of a Democracy in Crisis

My projects discussed in this thesis came together as in an exhibition I had curated as "Forensic Artifacts of a Democracy in Crisis" at the ACT Art Gallery in 2023. In Section 1.1.1 I articulated the rise in monoculture in the Indian socio-political fabric – democracy is in a crisis of ongoing autocratization. When I had displayed these works last year, I had used the term 'forensic artifacts' to describe objects that contain data and evidence of something having occurred. I was inspired by the approach of Forensic Architecture towards objects and surfaces as sensing bodies where every contact leaves a trace [41]. In contrast to the surface of a monument that documents traces of an explosion, the works exhibited here were sense-making artifacts rather than sensing ones – other than the Igniter, perhaps (Section 2.2.2). The curatorial note I had written at that time was as follows:

Forensic Artifacts are objects that contain data and evidence of something having occurred. Over the past thirty years, since the watershed moment the Babri Masjid was demolished by fevered Hindutva mobs and reduced to rubble in hours by bare hands, the Indian secular democracy has been crumbling. The disappearance of this monument has hyper-normalized the erasure of and violence against the constructed other. Fueled by disinformation and hate speech in a state of low digital literacy, media artifacts morph into weapons of violence as carriers of polarizing politics, communal violence and state propaganda.

Forensic Artifacts from a Democracy in Crisis is an excavation into this emergent reality exposing counter-narratives to the pervasive sedation at play.

The exhibition is an assemblage of the works WhistleBlower (2023), Mystery for You (2023), Slumber's Hook (2019), two documentaries made on Alt News in a Post Truth India (2019 and 2021) and the Igniter (2016). The works cover a breadth of mediums from, documentary to tangible interactive artifacts, archives

to generative large language models, games to projection mapping. Through this variety of mediums, Forensic Artifacts from a Democracy in Crisis provides the audience with lenses of investigation for collective reflection and further conversation.



Figure 5.1: Mrinalini Singha. Exhibition View. Forensic Artifacts of a Democracy in Crisis, Exhibition view, 2023. Photo: Ashmi Mridul

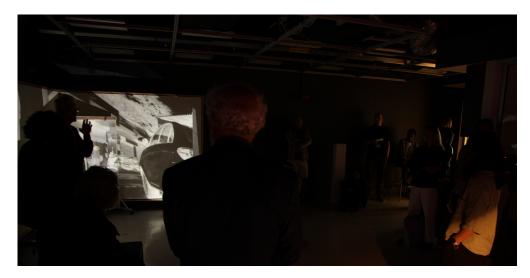


Figure 5.2: Mrinalini Singha. Audience Conversation at ACT Studio Finals. Forensic Artifacts of a Democracy in Crisis, Exhibition view, 2023. Photo: Gearoid Dolan

Parts of these projects were made in collaboration with Alt News, Haoheng Tang, Kunal Lokhande, Pravekha Ramachandran, Arbaz Ahmed & Blind Sun Drift.

5.1.1 Exhibit Layout & Considerations

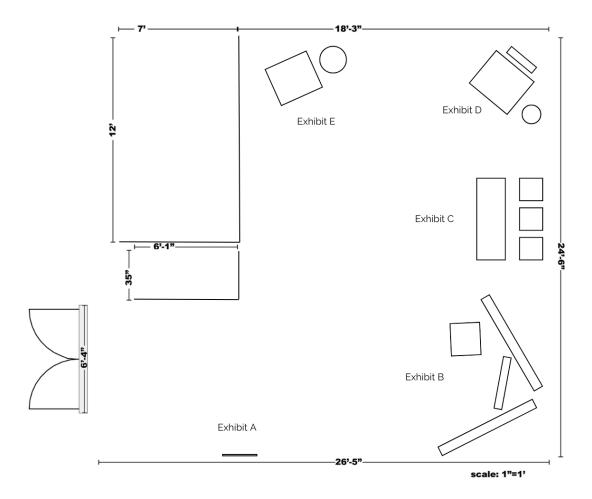


Figure 5.3: Mrinalini Singha. Exhibition layout plan of the Forensic Artifacts of A Democracy in Crisis exhibition in the ACT Art Gallery, 2023.

The installation layout can be seen in 5.3 while a detailed list of the components and lighting of the exhibition are in table 5.1. Designing this layout of the exhibition involved considerations for:

- How would the audience navigate through the space?
- How could the placement of the works speak to each other could there be a dialectic tension or relationality between them?
- How would the space be lit, such that one project does not take away from another?
- How could the space facilitate conversation amongst the audience?

• Could there be a spatial, narrative arc amongst the pieces?

5.1.2 Spatial Flow of Exhibit: From Passive Consumption to Interactive Investigation

In exhibition layout, from Exhibit A to Exhibit E there is an evolution in the modality and interactive affordances of the works. Additionally, each exhibit engages with multi-modality in starkly different forms. Exhibit A of the Igniter~(2016) was, alas, an printed documentation of the unquiet object that was confiscated at the airport, as is discussed in 2.2.2. Moving from this representational image, the next work is Exhibit B Slumbers~Hook~Projection~(2023) (figure 5.4) .

This is a spatialized version of the desensitized spectator watching sensational news, as is discussed in 1.2. In this work, the audience watches the spectator, removed from this spectacle, distanced and detached. Going ahead, the next work Exhibit C (5.55.6) is a three channel video playing Alt News in a Post Truth India (2019), Slumbers Hook (2019) and A Year of Fact Checks (2021). As shown in 5.5, this installation brings the audience into a closer, more intimate engagement with the media, contrasting factual documentaries with a fictionalized, exaggerated account of current events. This juxtaposition serves as a soft montage, highlighting the blurred lines between reality and media representation. Unlike Exhibit B, this multi-channel work invites the audience to come sit and spend time with this montage.

While Exhibit C invites a close sitting, Exhibit D, The Whistleblower (2023) wants to be touched (5.9 5.10). As discussed in chapter 3, the Whistleblower is an unquiet object, a tense witness of the violence it - from demolition of the Babri Masjid to the present day violence and erasure in India. As a tangible, interactive archive, it allows the audience to navigate through evidence of these atrocities and 'blow the whistle.' However, the Whistleblower does not converse with the audience. However, the next exhibit does. Finally, this exhibit offers a resolution of sorts—a chance for active participation and investigation through A Mystery for You in Exhibit E (5.7, 4.1 and 5.11). A Mystery for You, as discussed in 3 uses generative AI to create a fact checking game. With its tangible interface, and receipt printer, it creates a slow media experience – antithetical to the first three exhibits.

Table 5.1: Forensic Artifacts of a Democracy in Crisis exhibition at the ACT Art Gallery 2023. Installation, Components and Lighting of the Art works displayed.

Exhibit	Title	Components	Installation & Lighting
A	Igniter	Lighter filled with shredded, demonetized Indian currency	Image of object displayed on the wall
В	Slumber's Hook	Video, projector, white panels and block	Projection mapped video, illuminated the white surfaces.
С	Videos of Alt News in a Post Truth World et al.	3 channel video	3 Television sets positioned on a bench emitting light. Another parallel bench placed for spectators
D	Whistleblower	Pressure cooker atop a stove connected to a gas cylinder, sensors, display screen	Pressure cooker atop stove displayed on pedestal, back-lit by the footage on screen display. Intense red light emits from under the stove while a diffused red light creates a halo on the wall behind the pedestal
E	A Mystery for You	Tangible Game Interface, Receipt Printer and Paper, Electronics, AI, Game Cartridges	Interface displayed on a pedestal with cartridges spread around it. A companion table has a metallic lamp on it, bent towards the interface, illuminating it with yellow light. Receipt paper being printed is wrapped around lamp, connecting the two objects. A diffused blue light creates a halo on the wall behind pedestal



Figure 5.4: Mrinalini Singha. Projection of Slumbers Hook. Forensic Artifacts of a Democracy in Crisis, Exhibition view, 2023. Photo: Ashmi Mridul



Figure 5.5: Mrinalini Singha. Three Channel Video and Projection Installation. Forensic Artifacts of a Democracy in Crisis, Exhibition view, 2023. Photo: Ashmi Mridul

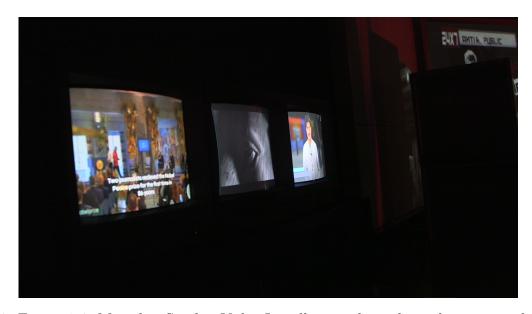


Figure 5.6: Figure 1.4: Mrinalini Singha, Video Installation, three channel monitors playing Alt News in a Post Truth India (2019), Slumbers Hook (2019) and A Year of Fact Checks (2021). Exhibited in the MIT ACT Gallery as part of "Forensic Artifacts of a Democracy in Crisis." Photo: Mrinalini Singha.

5.1.3 Exhibition as an Operative Space

While each project in the exhibit engages with the same socio-political context and aims for similar agendas of disrupting monoculture and hegemonic narratives – they all do so through different modalities and forms of montage. As detailed in table 5.2, each step of the exhibition, from passive observation through to active participation, mirrors the thematic journey from acceptance of state narratives to critical questioning and active engagement. This progression not only highlights the exhibition's role as a montage of media forms and narratives but also underscores its function as an operative space where each interaction is imbued with meaning and potential for impact. Through this strategic layout and thoughtful engagement, "Forensic Artifacts of a Democracy in Crisis" not only presents a counter-narrative to the prevailing monoculture but also demonstrates the power of art and interaction in fostering critical reflection and dialogue. This exhibition thereby serves as a powerful catalyst for discussion and change, inviting visitors to rethink their roles within a democratic society in crisis.

Table 5.2: Art works displayed as part of the *Forensic Artifacts of a Democracy in Crisis* exhibition at the ACT Art Gallery 2023. Interactivity and Montage in the art works displayed.

Exhibit	Title	Interactivity	Modality & Montage
A	Igniter	Elevated to an art object, it lost its functionality, like the shredded notes within it. However, it was object of depth and density. Having been confiscated, it had to be represented only through documentation.	Initially, an unquiet object it showcased a montage of the tangible form and its contents – the signs, and the signified – of currency and combustion, and dysfunction. Now just a representation of an idea that was in the form of an object
В	Slumber's Hook	Fosters a detachment that mirrors the desensitization of its content. Setup invites the audience to reflect on their role as passive consumers of media.	Although it includes projections, it lack surface tension - spatial montage is not well defined in this iteration.
C	Videos of Alt News in a Post Truth World et al.	While not interactive, this installation brings the audience into a closer, more intimate engagement with the media.	Contrasting factual documentaries with a fictionalized, exaggerated account of current events through a three channel video serves as a soft montage that highlights the blurred lines between reality and media
D	Whistleblower	Shifts from viewing to interacting, inviting visitors to engage physically with the Whistleblower. While the audience can parse through footage of different times and evidence of violence, the audience can only 'blow the whistle' in response to the atrocities, not engage in dialogue	An unquiet object, it allows the audience to navigate through historical atrocities, providing a tactile engagement with history and its ongoing impacts. The relation between the different components – the ready-made objects, the found footage, the interface mapping and haptic interaction result in a multi-modal montage.

Table 5.2: Art works displayed as part of the Forensic Artifacts of a Democracy in Crisis exhibition at the ACT Art Gallery 2023. (continued)

Exhibit Title	Interactivity	Modality & Montage
E A Mystery for You	9	traditional forms of news



Figure 5.7: Mrinalini Singha & Haoheng Tang, Mystery for You, 2023. Audience engagement with Exhibit in MIT ACT Gallery as part of "Forensic Artifacts of a Democracy in Crisis" 2023. Photo: Mrinalini Singha



Figure 5.8: Mrinalini Singha & Haoheng Tang, Mystery for You, 2023. Input using Cartridges. At MIT ACT Gallery as part of "Forensic Artifacts of a Democracy in Crisis" 2023. Photo: Sofía Naranjo

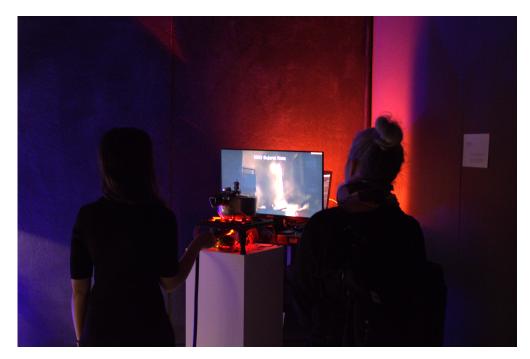


Figure 5.9: Mrinalini Singha. Audience member interacts with The Whistleblower by turning the dial. Forensic Artifacts of a Democracy in Crisis, Exhibition view, ACT Art Gallery, 2023. Photo: Mrinalini Singha



Figure 5.10: Mrinalini Singha. Audience member interacts with The Whistleblower by blowing the whistle. Forensic Artifacts of a Democracy in Crisis, Exhibition view, ACT Art Gallery, 2023. Photo: Mrinalini Singha



Figure 5.11: Mrinalini Singha & Haoheng Tang. Audience Interaction with Mystery for You. Forensic Artifacts of a Democracy in Crisis, Exhibition view, ACT Art Gallery, 2023. Photo: Ashmi Mridul



Figure 5.12: Mrinalini Singha. Discussion with audience. Forensic Artifacts of a Democracy in Crisis, Exhibition view, ACT Art Gallery, 2023. Photo: Sofía Naranjo

5.2 Concluding Remarks

I began this thesis by with a quote on the criminal edge that the art bears, as noted by Sibaji Bandyopadhyay in his discussions on the Arthaśāstra (3 BC - 3AD)— an ancient Indian text on statecraft and political science. The writing of this thesis has been one of trying to locate this edge, where art intersects with politics, challenging the norms and configurations of monocultural tendencies in society. Throughout this journey, from the early theoretical explorations to the case studies of artists and my own work, we have seen how art has been developed as a method of inquiry and a form of evidence that confronts and interrogates the status quo. This process of art-based-research and research-based-art has been a cyclical one, where I have grappled with the agency of art for investigation and of exhibition as evidence. The concept of montage has served as a crucial lens through which I have viewed these roles, tracing its evolution from a method of collision and conflict to one that embraces spatial interaction and soft operativity.

As I conclude and ahead, I turn to the words of the 14th-century Azerbaijani poet, Imadaddin Nasimi:

"Both worlds can fit within me, but in this world, I cannot fit. I am the placeless essence, but into existence, I cannot fit. The Universe is my verse; my instance is your life. Know me by these signs; know that in signs, I cannot fit." - Imadaddin Nasimi, 14th century.

What does it take to nurture a world where we can all fit? Which allows for multiple worlds, perspectives and peoples to exist? How can we think, not through montage of conflict, but the softer montage of relational cohabitation?

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