THE POOL AND THE WEB: VISUALITY AND INTERFACE THEORY IN THE ARCHITECTURE OF THE BOSTON INSTITUTE OF CONTEMPORARY ART

by

Esme Cunningham

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Examining Committee:

Dr. Jaleh Mansoor
Supervisor

Dr. T'ai Smith
Supervisory Committee Member

Supervisory Committee Member

Additional Examiner

Additional Supervisory Committee Members:

Supervisory Committee Member

Supervisory Committee Member

Abstract

Nearly two decades ago, Rosalind Krauss famously stated that the "industrialized museum" engendered a "technologized subject"—someone whose experience of the museum is intense, fragmented and spatial. Using this dictum as a starting point, this project looks at how the omnipresence of technology has affected the architecture of contemporary art museums, using the Boston Institute of Contemporary Art, designed by the architectural firm of Diller Scofidio + Renfro, as the focal case study. By investigating the critical framework the studio uses to inform their practice, and by contextualizing that practice through the lens of visuality and the scholarship of Alexander Galloway on interface theory, this thesis argues that the architecture of the Boston Institute of Contemporary Art acts a valve which regulates the viewer's experience of the space by navigating between two competing models: the exterior, in which the envelope of the building acts as an interface between the world and the institution, and the interior, in which the mediatheque room at the ICA then become an internal interface to this exterior. Furthermore, this allows visitors to reconsider what can be classified as a "digital" space by showing that the virtual must be accessed through the real. While the architecture does attempt to navigate between these ideological roles, it becomes clear that the building struggles with its potential slide into a totalizing system. The high degree of controlled choreography needed to make the ICA's programme ideologically coherent further enmeshes ancillary services into the visitor experience, and the building then begins to be less of a critical lens and more of an entertainment complex. Ultimately, the goals of the building do not succeed because of the architecture's permanence in the face of the speed of technological change; the building is embedded in the specific socio-technological dialogue of its time and as a result, cannot anticipate what changes the rapid development cycle of technology will bring.

Lay Summary

This thesis is an exploration of how architectural design can interrogate the role of digital technology within the discipline. Using the Boston Institute of Contemporary Art as a focal case study, this project seeks to understand how architecture can function as an intermediary between physical and virtual spaces, and in doing so develops a critical framework for understanding the impact of technology on public museum architecture.

Preface

This thesis is original, unpublished and independent work by the author, E. Cunningham.

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List of Abbreviations

Diller Scofidio + Renfro – DS+R

Institute of Contemporary Art – ICA

Acknowledgements

I would like to offer my gratitude to the faculty and staff of the Art History and Theory department, and to my fellow graduate students at UBC; they have been a source of inspiration within the discipline.

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For Mum.

Chapter 1: Introduction

> The industrialized museum has a need for the technologized subject, the subject in search not of affect but of intensities, the subject who experiences its fragmentation as euphoria, the subject whose field of experience is no longer history, but space itself […]
>
> --Rosalind Krauss, "The Cultural Logic of the Late Capitalist Museum"

> When through the water's thickness I see the tiled bottom of the pool, I do not see it *despite* the water and the reflections; I see it through them and because of them. […] I cannot say that the water itself – the aqueous power, the syrupy and shimmering element—is *in* space; all this is not somewhere else either, but it is not in the pool. It inhabits it, is materialized there, yet it is not contained there; and if I lift my eyes towards the screen of cypresses where the web of reflections plays, I must recognize that the water visits it as well […]
>
> --Maurice Merleau-Ponty, "Eye and Mind"

Crouched at the edge of the South Boston waterfront, the Institute of Contemporary Art is an imposing building. Completed in 2006, the sixty-five thousand square-foot cantilevered structure is a highly physical presence along the harbour-walk. The first museum to be built in the city of Boston in one hundred years, the ICA was an ambitious project, designed to be both a dynamic public building, and a contemplative environment for the viewing of art.[1] The forty-seven mile long public walkway binds the building to both the public and private environments of the city: thus the building telegraphs the interplay of its inwardly-focused architectural programme and the outward visual spectacle of the site.

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[1] Edward Dimendberg, *Diller Scofidio + Renfro: Architecture After Images* (Chicago: University of Chicago Press, 2013), pp. 161-162.

Though a conceptually straightforward design, lacking the usual mathematical flourishes of contemporary computer-aided architecture, the Boston ICA is exemplary of digital architecture, albeit abstractly understood. Moreover, this art museum is one of the strongest examples of the way in which a computer aesthetic is influencing contemporary dialogues about space. This claim seems counter-intuitive at first blush: the building has little in its façade to recall anything even remotely related to new media or digital technology. If anything, with its gargantuan pedestal and cantilever, it resembles an over-large viewfinder. The interior is no less benign; the first floor is full of metal and glass and cement, and the upper gallery floors repeat this pattern, though with the addition of ceilings full of natural light. What such a cursory glance at this building overlooks is the way in which this particular building is the apex of a telos, the culmination of more than half a century of critical thought and dialogue on the subject of computer technology.

Diller Scofidio + Renfro (DS+R), the architectural firm that designed and built the Boston ICA, have a long history of investigating digital technology. Much of their practice has been predicated on the ways in which modern technological progress interacts with our bodies, shaping them and being shaped by them in turn, and thus much of their praxis occupies an interstitial space; one created at the intersection of architecture, art and technology. The ICA is no exception to this oeuvre, though these questions are now distilled; here, the studio focuses on the slippage created by the convergence of materiality and technology. This thesis argues that as digital technology has become increasingly ubiquitous at a social and cultural level, it has influenced the design of the public art museum on a theoretical level as well as an aesthetic one, and is challenging the ways in which we, as theorists and users of museums, interact with these spaces and buildings. In this thesis I argue that the Boston ICA is noteworthy for its origin and its dialectical position; in their design of the ICA, DS+R have used the project to suggest that architecture, even in its most static

forms, even when the role of computer is indiscernible, is always an interface between the physical and the virtual, between the real and the possible. By designing an oculus-like structure into the building's plan, DS+R at once invoke a longer dialogue about the role of perception within the context of technology and visuality, as well as provide a material entry for this discussion into the digital age.

The genesis for this project stemmed from my long-standing interest in the studio, coupled with encountering art critic and theorist Rosalind Krauss's essay "The Cultural Logic of the Late Capitalist Museum" (1990), in which she articulates how technology, the art market and Minimalism worked jointly to reconfigure the modern art museum as an *industry*—that is, a corporate entity that deals in commodity production—which in turn reconfigures the museum-going public into subjects in search of an entertainment. I found that notion intriguing, and immediately connected her argument to the studio's work on the Boston ICA, a highly technologized building, and to how the studio had said repeatedly that they wanted the building to not be merely a container for the art, but an interface.[2] Using this as a jumping-off point, I began this project.

Interest in interface theory has taken on a new importance in twenty-first century discourse.[3] The interface has been understood as the threshold, the mediating space, between information and communication. As articulated by media theorist Alexander Galloway in his book *The Interface Effect* (2011) the interface is not just a thing, but an effect that allows for the

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[2] Dimendberg, p. 168.

[3] See, for example, Brendan Hookway's *Interface* (2014); Wendy Hui Kyong Chun's *Programmed Visions: Software and Memory* (2011); N. Katherine Hayle's *My Mother was a Computer: Digital Subjects and Literary Texts* (2005); Jay David Bolter and Richard Grusin's *Remediation: Understanding New Media* (1999); Lev Manovich's *The Language of New Media* (2002).

transmission of data, and accounts for the translation of information; it provides "mediating thresholds between the self and the world."[4] Galloway has complicated the traditional understanding of the interfaces as stable areas of mediation between objects and boundaries. He proposes, instead, that they are "autonomous zones of activity. Interfaces are not things, but rather processes that effect a result of whatever kind. […] they bring about transformations in material states. But at the same time interfaces are themselves the effects of other things, and thus tell the story of the larger force that engender them."[5] However, Galloway notes that interfaces are threatened with the advent of the digital era: the issues of edge/centre and image/frame, which have been the interface's purview, are challenged and destabilized by digital media in a way that threatens to collapse such distinctions. What results is an unworkable interface—a threshold which cannot be crossed.[6]

To consider the interface in relation to the architecture of the Boston ICA, a detailed examination of the ICA's mediatheque becomes necessary. The mediatheque, a small room projecting out from underneath the cantilever that composes the central mass of the building, is one of the design elements that appears in both the original 2002 conceptual drawings and the

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[4] Alexander R. Galloway, *The Interface Effect* (Cambridge, UK: Polity, 2012), p. viii. Speaking about computers as a "mode of mediation," Galloway's definition focuses on digital environments. Mark Wigley's article "Network Fever" (2001) traces the history of interface theory to the Delos Meetings, which took place in the 1960s, during a symposium that included media theorist Marshall McLuhan, architect Buckminster Fuller, and architect and urban planner Constantinos Doxiados. At the Delos meetings, the conversations were an intellectual continuance of the exploration of the links between technology, architecture, and the body started at the fourth CAIM (The Congrès Internationaux d'Architecture Moderne) meeting in 1933. The term 'interface,' was tied to the concepts of 'networks' and the intellectual evolution of that concept. Networks, according to the later Delos meetings, had become the single most important element within urban planning, and architectural design. The interface, during this period, was discussed largely in relation to these claims, and was not truly decoupled until the resurgence of interest in the 1990s, which paralleled the increasing ubiquity of digital technology, and specifically the World Wide Web. (Wigley, pp. 90-91)

[5] *Ibid*, p. vii

[6] *Ibid*, p. 40.

completed building in 2006.[7] The interior of the small space is constructed as a series of steps sloped at a 45-degree angle, studded with seats and computer terminals, and terminating in a window the full length and height of the room. This glazing is designed to deliberately and ruthlessly exclude the majority of the visual context of the exterior site. By using the glazing at the room's terminus to crop out both the pier below, the horizon above and the city on either side, the view that greets the individual entering the room is one of incessant water, so decontextualized that first-time visitors have mistaken it for a screensaver.[8]

This window rejects the traditional function assumed by windows, and instead inverts it. Rather than functioning to provide a picturesque view of the external site in a consumable frame, it denies our desire for a view. However, neither does the window pretend to not be a window; the shimmering glazing that occupies the end of the room does nothing to conceal its own materiality, and as Edward Dimendberg argues, nor does it "celebrate urban civilization, technology, or nature"[9] and in doing so suggest some form of transcendence. The mediatheque does not suggest itself as technologized replacement for the physical world. However, it does suggest the possibility of architecture to function as a zone for the transformation of material states, to be a meeting point between the physical world and the possibility of a virtual one. In this way, ICA's mediatheque functions like a total work of art (or, *Gesamstkunstwerk*), an architectural and exhibition space that, as discussed by Matthew Wilson Smith, seeks a unification of disparate media, through the reliance on mechanical framework, to create a fully encompassing theater which is in turn meant

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[7] Dimendberg, p. 166.
[8] *Ibid.* In a glib move, many of the documenting photos of the site on its opening reinforce this notion, by putting actual screensavers of water on the computer terminals.
[9] *Ibid*, p. 167

to help achieve a more perfect social order.[10] It is a total (and often totalizing) aesthetic system, which works both by strategically concealing and revealing its undergirding systems.

Arising from Wagner's theory of art being inseparable from the desire for a unified, integrated community,[11] Smith makes the case that the initial emergence of the *Gesamtkunstwerk,* as Wagner theorized and practiced, was a Romantic push back against the pressures of burgeoning industrial production and mass culture.[12] Over time the *Gesamtkunstwerk* has split into at least two distinct modes, the Iconic and the Crystalline: the first desires to create a unified organic whole while eliding any mechanistic means that produced it so as to appear both naturalistic and mythologized.[13] The second shares the aspiration towards a unified state, but rather than conceal any mechanistic scaffolding, it exposes the symbols of production—an act that celebrates the technological while hiding the labour of the technological system—to create a multimedia techno-organic synthesis.[14] As such, Smith argues, the *Gesamstkunstwerk* is vulnerable to fear of "absorption from without" and from "contamination from within"—the latter fear coincides with the mass spectacle and the former with the corrupt Other, one manifestation of which is the material body.[15]

Materiality is a problem that cannot be neatly resolved by the *Gesamstkunstwerk*, because in order for it to evoke its organic (or pseudo-organic) state, it must disavow the labour of production that allows it to reach that state.[16] To connect this discussion to the Boston ICA, we

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[10] Matthew Wilson Smith, *The Total Work of Art: From Bayreuth to Cyberspace* (New York, NY: Taylor & Francis, 2007), p. 186
[11] Smith, p. 10
[12] *Ibid*, p. 11-12.
[13] *Ibid*, p. 47.
[14] *Ibid*.
[15] *Ibid*, p. 5.
[16] *Ibid*.

can say that in the building DS+R are advocating for architecture that seeks to expose the gross anatomy of the building while still creating a coherent multimedia system within which the labour that generates the sensory experience of the space is neither disavowed nor obscured. It stands at the nexus of the various intricate needs of the historical material context of the exterior and the formal complex translation of those needs into built form on the interior.

Historically, architecture, out of all the plastic arts, has been the slowest to accommodate and react to shifts in theory and form, in part because of the sheer cost involved in any architectural project, and in part because, above all else, architecture must retain functionality. This is not to say that architecture as a discipline has been devoid of intellectual and critical commentary until the twentieth century, but rather that the built forms that dominated architectural design tended towards the monolithic, leaving a lot of the more innovative and intellectually speculative works in strictly conceptual form. The advent of mass production helped to eliminate one of the great limiting factors like cost, while the introduction of commercial computer-aided design software such as AutoCAD in the early 1980s helped with structural calculability and visualization. Architecture's reaction to these external forces, most notably, has been in enabling the creation of specific architectural effects which would not have been possible without a computer's ability to perform complex calculations, to simulate and study previously intractable building designs, and to aggregate the numerous data relevant to the production of a piece of architecture.[17]

The ICA was conceived in a post-computer world, and yet the index of the computer is not immediately visible: we do not look at the exterior of the ICA and immediately observe that it

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[17] Aaron Betsky, "From Box to Intersection: Architecture at the Crossroads," in *Disappearing architecture: From real to virtual to quantum*, ed. Peter Weibel and Georg Flachbart (Basel: Birkhauser Verlag AG, 2005), p. 255.

could only designed with the aid of a computer. In an interview from 2006, Elizabeth Diller notably

says that the computer is a red herring, and it is with this statement that we can begin to connect

the idea of the total work of art and the virtual/digital, with the ICA.[18]

To say that something is a red herring is to say that it's a false lead, meant to disrupt the

linear teleology projected upon the subject. The reason this has resonance with the problem set the

ICA presents, is because the ICA makes clear the distinction between the parallel and conflicting

functions of "digital" architecture to be total effect while simultaneously totalizing in nature; in

using the computer to affect a digital architecture, it is necessary for the form to display its

inception (i.e. elaborate computer-aided facades that could not be designed by hand), but in doing

so it obscures the actual origins of the work. The ICA shows this for what it is: screens displaying

more screens displaying more screens, and so on into infinity. The ICA, as a modern

Gesamtkunstwerk, points both to the maturing dialectic of the information age in contemporary

culture and a totalizing environmental framework designed to both hide and reveal itself to a

subject as they move within it.

Architecture organizes space for the presence of bodies. If we think of architecture in the

broadest definition possible—as the creation of space to inhabit—then the idea that there can be

such a thing as a built virtual environment becomes a possibility. But what does a virtual

environment consist of? A possible definition comes from philosopher Elizabeth Grosz. In her

book, *Architecture from the Outside* (2001), she makes a case for how questions of time, change

and emergence are central to the future of architectural design and construction, and it is asking

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[18] Nicholas Baume, "It's Still Fun to Have Architecture: An Interview with Elizabeth Diller, Ricardo Scofidio, and Charles Renfro," in *Super vision: Institute of contemporary art/Boston*, ed. Nicholas Baume and Jill Medvedow (Cambridge, MA: MIT Press, 2006), p. 191.

how we understand space through these elements that will allow us to organize, structure and inhabit space differently.[19] Keeping this project in mind, she suggests that:

> The virtual reality of the computer space is fundamentally no different from the virtual reality of writing, reading, drawing, or even thinking: the virtual is the space of emergence of the new, the unthought, the unrealized, which at every moment loads the presence of the present with supplementarity, redoubling a world though parallel universes, universes that might have been.[20]

With such a generous definition, many such environments can be counted, including ones that might fall beyond a conventional view of architecture, such as software, code, and online forums. These seemingly ephemeral spaces are proliferating exponentially with the rapid expansion of twenty-first century technology, and have begun interesting dialogues on how the integration of new media technology into the phenomenological understanding architecture and space are being challenged. There is the sense that digital technology is taking us further away from the haptic, embodied space of the real world, and increasingly into the computerized, technologized space of the virtual. Grosz's work becomes a useful tool in thinking through this problem. She points out that this new space is always contained within another space; the computer within the house, the user within the body.[21] Thus the fantasy that cyberspace is somehow beyond the real quickly becomes snarled in the actuality that "you can't escape the building to get into cyberspace, you've got to go through the building to get into cyberspace."[22]

The Boston ICA and its designers have managed to occupy a position at the centre of many intersecting dialogues about media, architecture, space and technology. The firm has been explicit both in their view that architecture is a technology, and that technology is merely a means to an

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[19] Elizabeth Grosz, *Architecture from the Outside: Essays on Virtual and Real Space*, 2nd ed. (Cambridge, MA: MIT Press, 2001), p. xix
[20] *Ibid*, p. 78.
[21] *Ibid*, p. 24.
[22] *Ibid*.

end—the end in this case being the enhancement of space and space-making. As modern art museums increasingly incorporated technology into their institutional bodies, they opened up new semantic spaces. In particular, utilization of digital technology to create "virtual" spaces as an extension of their formal body (even at its most rudimentary) has initiated the possibility of new modes of social and cultural activity. However, this has also created a problematic paradigm in which the emphasis on information and access can slide into a totalizing system of administrative control and surveillance that obliterates the possibility of meaningful visitor engagement with/in the institution. Thus the technologized subject becomes disconnected and fragmented, their experience not framed by the context of the objects and their environment, but rather by the mediation of the space itself.

Chapter 2: A Cyclops, a Cyborg and an Architect walk into a museum

> **Liz:** We see space as scripted, not a tabula rasa. Space is inherited and is always attached to geographies, histories, and policies. So when we think about an intervention in space like an act of architecture, we always think of ourselves as visitors to a problem that existed before us, and therefore it's up to us to think backwards and forwards through contemporary filters.
>
> --Deane Simpson, "Interview D+S (1)"

Over their almost four-decade long career, the interdisciplinary firm of Diller Scofidio + Renfro have produced a remarkable oeuvre that elides neat categorization and continually presses at the outermost edges of contemporary art and architectural practices. From the first moment of collaboration between founding partners Elizabeth Diller (b. 1954) and Ricardo Scofidio (b. 1935) in the late 1970s, the firm has produced work that openly acknowledges its intellectual and cultural debts, while still managing to be glibly disrespectful of the pieties of the modernist and postmodernist academy. While many of their projects since 2000 have been buildings, the studio has a long history of interdisciplinary works that include performance, design, video, and installation art. Always keenly interested in how technology intersects with artistic practice and the individual, DS+R return to this theme frequently in their projects. That this exploration of sensory theater and architectural media results in a dramatization of a techno-social relationship that drifts between the iconic and the laconic, is an indication that their work—taken as a whole—articulates the euphoria and anxiety of a culture deeply embedded in the age of digital technologies.

To better understand why DS+R have prioritized the techno-social play of modernity in so many of their projects, one needs to consider the myriad influences that the studio grew up under. Young architects in the post-World War II era traversed increasingly unsteady topologies, and their work reflected those anxieties. New York, the literal and figurative centre of the Western art

world post-World War II, experienced an extended period of social and economic instability in the 1970s and 1980s,[23] one of the results of which during this period was less work for new architects, particularly those amongst the Avant-garde.[24] Within the academy, there was an increasing emphasis on architectonic studies and research as a separate role, distinct from professional practice, and a general shift away from the rational functionalism of high Modernist design and towards a more pluralistic and incoherent postmodernism.[25]

The 1970s and 1980s also saw the rise of architecture as discrete aesthetic and media object which, when coupled with the insular nature of late-stage capitalism and imminent Globalization, produced a feedback loop, wherein even as the form expanded towards a critical, philosophical, or cultural periphery, it would be pulled back towards a center.[26] One of the other major causes of growth in the contemporary art world has been attributed to the burst of museum-building experienced in the latter half of the twentieth century; this was enabled by the rapid advance of communication technology during this period, and the subsequent increase in ease of access for art producers to the resources and audiences outside of traditional venues.[27] However, while the acceleration of museum construction did indeed allow for more venues for art production and

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[23] Edward Lucie-Smith, *Movements in Art Since 1945*, 5th ed. (London: Thames and Hudson, 2001), p. 12.

[24] Simpson, "Some Notes on the Disciplinary Practices of Diller + Scofidio (+ Renfro)," *Diller + Scofidio (+ Renfro): The Ciliary Function: Works and Projects 1979-2007*, edited by Luca Molinari (Milano: Skira, 2007), p. 27.

[25] Reinhold Martin, *Utopia's Ghost: Architecture and Postmodernism, Again* (Minneapolis, MN: University of Minnesota Press, 2010), p. xx.

[26] *Ibid*, pp. xxii-xxiii.

[27] Lucie-Smith, p. 9. Another element that has been deeply influential in pushing contemporary art practice to increasing social centrality has been the way in which artists have embraced new media to enable their praxis. What theorist Rosalind Krauss termed the 'post-medium' condition has become predominant; where there was once a strict hierarchy which privileged some media over others, the field has been flattened. There is significantly more to say on this subject, but my space here is limited, and rather than reproduce a condensed version of better work here, I feel it is sufficient to say that the embrace of a disordered media hierarchy can be partially attributed to the accelerated museum-raising of the late twentieth century which has provided facilities for display, increasingly geared towards new media, and partially to the increasing ease with which artists had access to new media technologies.

viewership, it also problematically tied the contemporary art world ever closer to the circles of high commerce and culture, and continues to do so.

DS+R are self-conscious of their position within these various philosophical, economic, and technological networks. Their work is often centered on the convergence of these networks, locating it as either a site of intervention or a node of disruption. Earlier in their career much of their realized work consisted of cross-disciplinary multimedia performance or installation pieces, the best received of which was the *Para-Site* (1989). This project, located in the lobby of the New York Museum of Modern Art, consisted of seven surveillance cameras mounted in three different locations around the revolving doors of the front entrance, escalators and doors exiting to the sculpture garden.[28] The feeds from these cameras were then displayed on monitors, protruding from the walls and ceilings by way of wood and metal mountings, in the projects rooms on the ground floor of the museum.

Within the room, the monitors were attended by two non-functional chairs, one inverted and attached to the ceiling, embossed with text from *The Parasite* by French philosopher Michel Serres readable only in a mirror, and the other bisected and mounted to the wall opposite a convex mirror. An omniscience view of the room was rendered impossible, for no matter where one stood, there was always a blind spot.[29] The installation's focus on both the museum and its visitors, through its play on the term parasite—the result of the opportunistic, voyeuristic and interruptive way the cameras and spectators engaged—resulted in a reframing of the assumed order of optical authority. The spectators first enjoy the position of watching other patrons enter the museum, only

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[28] Dimendberg, p. 52.
[29] *Ibid*, p. 55.

to be faced with the discomforting realization that they too must have been filmed and watched, and will be again, without any control over who views them.

There are two primary reasons for bringing *Para-Site* into this discussion. First, it was the work that brought them to the attention of critics, scholars and practitioners interested in the mixing of architecture and media.[30] Second, within the context of their oeuvre, *Para-Site* is significant for foregrounding their preoccupation with vision, the body, and space in architecture. Moreover, *Para-Site* made explicit their critique of traditional human-centric design, which they argue does not consider the modern experience of space and time as both biological and technological:

> Our installation will interpret its context as the interface between two conditions:
>
> - The museum as a surrogate site for the architectural project, a **para-site**
> - The museums as a cultural site for the interrogating architectural **parasite**.
>
> The **para-site** provides a fictive space; the **parasite** exerts an actual force.[31]

Para-Site thus suggests both a dependency on, and pleasure attendant to, not just to the act of looking but to the technologies that support it. But more importantly, the installation explored technology and visuality in relation to the architecture of the institution: the type of looking explored is specific to museum culture and is enabled by the architecture of the museum environment. While their work is not the first to contend with issues of surveillance—Bruce Nauman's *Video Surveillance Piece (Public Room/Private Room)* (1969-`970) and Dan Graham's *Opposing Mirrors and Video Monitors o Time Delay* (1974) are both works that predate DS+R's installation and which the studio would have been responding to—by the time the architects were

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[30] Dimendberg, p. 59.
[31] Elizabeth Diller and Ricardo Scofidio, *Project 17*: Curatorial Exhibition Files, exh. #1524, Museum of Modern Art Archives, New York, quoted in Edward Dimendberg, *Diller Scofidio + Renfro: Architecture After Images* (Chicago: University of Chicago Press, 2013), p. 53.

actively practicing, video surveillance of this kind was no longer unfamiliar new technology to public, and thus carried a different weight.

The technology in *Para-Site* neither dominates the conversation nor serves as an invisible support; rather it suggests dependency, even symbiosis, wherein spectator and spectacle become conjoined. The museum did not record any of the footage, so the feeds lacked the ability to be rewound or replayed; as a result, the camera ecosystem becomes a frustrated panopticon, in which visibility is both known and ubiquitous, and through knowledge of this ubiquity becomes a form of control.[32] The parable of control presented by *Para-Site* is one that is only possible because it taps into deep-seated anxieties about how we look at the world, and how that world has started to look back at us.

This early work by DS+R dramatizes the relationship between the technological and the social through the act of the inescapable gaze, and acts as a precursor to their later foray into institutional building projects. *Para-Site* plays out their twinned critical interest in visuality and space in a smaller scale, and positions them at the forefront of contemporary concerns regarding technology and architecture. By drawing on the work of Serres, they are situating the installation within a historical, biological and technological framework that articulates the ways in which our social environments construct the individual, their relations, and their lived experience.[33] In codifying the act of looking, the work both reinforces (we look at the museum) and undermines (the museum looks back at us) the social contract of the public museum with its audience, through its relationship to modern scopic technology.

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[32] Elizabeth Diller and Ricardo Scofidio, *Flesh: Architectural Probes* (New York: Princeton Architectural Press, 1996), p. 163.
[33] *Ibid.*

2.1 – Contextualizing DS+R

Founded in 1979, the architects started their studio at a time when architecture was being shaped by pluralities emerging from the collapse of High Modernism. Architecture between the 1950s and the 1970s had gone through an epochal shift with the deaths of three of major architects, Frank Lloyd Wright in 1959, Le Corbusier in 1965 and Mies van der Rohe in 1969, resulting in the breakdown of the Modernist paradigm. The disarray that followed saw the discipline re-evaluating its relationship to the Modernist commands of order and clarity set at the start of the twentieth century.[34] During this period, Robert Venturi published *Complexity and Contradiction in Architecture* (1966), which critiqued Modernist architecture for its dogmatic adherence to self-cancellation and totalizing universality, and advocated for a pluralistic, permissive and contextual architecture.[35] The architecture from the 1970s onward became increasingly rife with contradictions as practitioners began to once again look openly towards the past, rather than eschewing it.

By the 1980s, two tracts developed within architectural practice that dominated the discourse moving forward: self-referential post-modern architecture, and paper architecture. The latter borrowed from existing design language to communicate form and make it readable, while the former can be roughly defined as the architectural thought and design that is unbuilt or unbuildable and thus remains confined plans, blueprints, writings and drawings.[36] The term "paper architecture" arose from the direct engagement of architects with critical theory – particularly those

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[34] Daria Ricchi, "New York Stories," *Diller + Scofidio (+ Renfro): The Ciliary Function: Works and Projects 1979-2007*, edited by Luca Molinari (Milano: Skira, 2007) pp. 13-14.
[35] David Watkin, *A History of Western Architecture*, 4th ed. (New York: Watson-Guptill Publications, 2005), p. 660.
[36] Dimendberg, pp. 13-14.

of the post-structuralist philosophers and critical theorists, whose works were increasingly circulating throughout the North American academy.[37] This occurred simultaneously with the "debate 'about architecture'" that was related to the lack of work during the economic difficulties of 1970s and early '80s.[38] New York in the 1970s was a city of tensions, which was only exacerbated by the onset of a recession brought on by the oil crisis in 1977, which that carried into the 1980s.[39]

This period was characterized by instability and scarcity of resources; the urban duress that resulted saw increased poverty and homelessness, a rise in crime rates, and clashes between establishment forces and protestors.[40] During this fractious time many urban buildings were deliberately destroyed so their owners could collect the insurance on them, and because there was a surfeit of funding, fewer buildings were being raised to replace them.[41] The buildings that did result were awarded to the more commercial designs, while those more engaged with the theoretical debates by and large remained unbuilt and their architects working in the orbit of the academy were labeled "paper architects."[42]

Though isolated from the so-called "real world," disciplinarily architecture became a "crucible for interdisciplinary debate and interchange."[43] If the architecture of the early twentieth century engaged in some interdisciplinary exchange with painting, by the late twentieth century

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[37] Dimendberg, pp. 13-14.
[38] Ricchi, p. 15, Crucially, this theoretical debate would bring attention (and later work, once the economy had stabilized) to architects such as Zaha Hadid, who became known for her Constructionist architectural drawings and designs long before she ever realized them in built form, and Daniel Libeskind, known for his writings and drawings more so than his built work.
[39] *Ibid*, p. 13.
[40] *Ibid.*
[41] *Ibid.*
[42] *Ibid*, pp. 15-16.
[43] *Ibid.*

that exchange had moved on to sociological and cultural theory and critique.[44] The rise of paper architecture was not merely due to a poor construction market resulting from the recession, but also an outcome of the "neo-Marxist theories in circulation in the late 1960s according to which the built object became understood as a pawn to the dynamics of the market whose opposition must be escaped, thus rendering built architecture corrupt," [45] and resulted in a generation of architects who constructed and communicated through journals, books, and drawings. While this was generative for the discourse and legitimized new avenues for the conception, production, and exhibition of architectural images and theory, it was also illustrative of just how wide the gap between discourse and praxis had become.

Cooper Union for the Advancement of Science and Art in New York had a hand in furthering this controversial divide. The well-known academy was one of the centres where, under the stewardship of John Hejduk who served as dean from 1975 until his death in 2000, the discourse of architecture was modernized.[46] Hejduk, while an active artist, architect and intellect in the New York art scene of the 1970s, was most influential through his work as educator for the young artists and architects coming up through school.[47] He placed a great deal of emphasis on

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[44] *Ibid.*
[45] Ricchi, p. 15.
[46] Dimendberg, p. 16.
[47] *Ibid*, p. 17. Hejduk was charming and charismatic, and a modernist architect committed to the idea that successful architecture intervened in lived space to enfranchise its users while still being self-reflexive of its built form. In the 1950s, during his time at the University of Texas, he, along with the architect Robert Slutzky, developed a design model they called the nine-square problem: within a simple three-by-three grid, design a plan or create a model that emphasized the frame and its constituent elements and their interactions, and formalized a geometric approach to the teaching of design. It was a solution to a problem of architectural pedagogy that both Hejduk and Slutsky identified as resulting from the discipline curriculum being moribund. While an effect tool for educators wanting to expose weakness within student design, this transcendental approach to design decisions was heavily criticised by later generations of architects for its complete disconnection from the context of the world and use, and its overemphasis on self-contained formalism. "Years later, Hejduk acknowledged its transcendental, if not Platonist, roots by noting that 'the nine-square is metaphysical. It always was, it still is form me … It is one of the classic open-ended problems given in the last thirty years. The nine-square has nothing to do with style. It is detached: the nine-square is unending in its voidness [sic].'" (*Ibid.*)

language, and promoted the idea that storytelling and architecture existing on the same continuum, allowing architecture to function poetically and allegorically as well as practically.[48] At Cooper Union architecture was considered as "autonomous, independent of its professional implications," and the academy was organized around the autonomy and purity of the subject unaffected by the external world.[49] Further complicating the academic discourse were the two competing strands of critique that became dominantly taught: the "textual" discourse, influenced by cultural studies and the writings of Manfredo Tafuri, and the "architectural" discourse (often called critical architecture) which is associated closely with the work of Peter Eisenman and focuses on formal critique.[50] Thus Cooper Union include studies of "modern classics," which included the works of Le Corbusier and Frank Lloyd Wright, while eschewing more contemporary theory, meaning a student could find Proust and Gide in the school library with ease, but not Venturi's book.[51]

2.2 – Criticalities

It was under Hejduk that Elizabeth Diller studied and Ricardo Scofidio taught. They founded their studio in 1979, the year that Diller graduated from the architectural program at Cooper Union. Scofidio had been working as a professor there, and had a close relationship with Hejduk.[52] Due to their respective tenures at Cooper Union, the studio was deeply embedded in the cultural and political discourse of both the school and the city from the outset. Of the things that Diller and Scofidio took from their relationship with Hejduk and the school, and that still mark their work, the "penchant for conceptual polarities, a distrust of closed systems, and a high tolerance, if not

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[48] Dimendberg, p. 17.
[49] Ricchi, p. 15.
[50] Simpson, "Some Notes on the Disciplinary Practices of Diller + Scofidio (+Renfro)," p. 23.
[51] Deane Simpson, "Interview D+S (1)," *Diller + Scofidio (+ Renfro): The Ciliary function: Works and projects 1979-2007*, ed. Luca Molinari (Milano: Skira, 2007), p. 52.
[52] Dimendberg, pp. 18-19.

liking, for ambiguity"[53] are the most prevalent. They became known as a studio first for their paper architecture, as well as their performance and installation work, before ever raising a building – indeed, this was one of the major criticisms leveraged against them early in their career.[54]

Though much of their early buildings were confined to paper, Diller and Scofidio always made clear that their work operated within a long network of intellectual antecedents foregrounding the criticality of their approach to the discipline, as "[space] is inherited and is always attached to geographies, histories, and policies."[55] They were never fully satisfied with being confined to paper, as they saw it as a "bad alternative" and "weak substitution" for architecture, rather than a redefinition of the discipline.[56] For both architects, architecture, like the body, is controlled, manipulated and defined by both private and public interests; moreover, space is always already constructed before it is coded into architecture, so space could never be truly "transparent" or "universal" because architecture is contracted to perform a regulatory function that colluded with the systems that employed it.[57] They argue that a contemporary critical architecture must navigate between the "moral constraints of modernism's autonomy from the

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[53] Dimendberg, p. 17.
[54] GeorgesTeyssot, "The Mutant Body of Architecture," *Flesh: Architectural Probes*, Elizabeth Diller and Ricardo Scofidio (New York: Princeton Architectural Press, 1996), p. 08
[55] Simpson, "Interview D+S (1)," pp. 51-52.
[56] *Ibid*, p. 51.
[57] Diller And Scofidio, p. 39. In their first monograph, to which they also contributed as the principal writers, they explicate this concern with the example of the architecture of the traditional bank, while simultaneously nodding to the contemporaneous work of media artist Dan Graham: while the exterior form of the bank was 'democratized' in the 50s and 60s through the Miesian curtainwall—which itself had become a visual shorthand for transparency within capitalism—the sheets of glass draped over the modernist form of the bank created the illusion of clarity, an architectural slight-of-hand to redirect the viewer's attention away from the fact that regardless of its glass walls, the banks' core operations still remained as opaque as any behind a neoclassical facades. (*Ibid*)

social domain" and "postmodern anxiety over the body's potential loss to the dominating forces of technology" in order to recognize the material and cultural body that it helps to tacitly create.[58]

Thus, for example, their early architecture comes not in the form of buildings necessarily, but pressed shirts, furniture, and mirrors recoded into dysfunction, counter intuitiveness, and hostility – all some type of object which conditions, or are conditioned, by space. It is this diagonal approach to the discipline that drew Diller and Scofidio together early on: Diller was a student of art and photography—originally intending to become a filmmaker—before turning her education towards architecture, and similarly Scofidio came to the discipline with a deep enthusiasm for pop culture, and his solo work often contravened Modernist convention.[59] His interests often put him at odds with the politics of professional practice, to the point where he quit practicing professionally, and it was his involvement with Diller convinced him to take it up again.[60]

Diller, conversely, came to the profession almost by chance. As a student, Diller found herself lingering on architectural discourse more than any other, fascinated by the potential it had as one multimedia strand of a larger interdisciplinary way of engaging with space, and eventually graduated from Cooper Union with a Bachelor in Architecture.[61] She has stated that she received her degree almost by default, without the intention of ever becoming an architect, because she was attracted to the theoretical possibilities and the rigor of it.[62] However, while she lingered on architectural theory more than any other discipline, and perhaps because she approached it as an outsider, she maintained a critical distance from its orthodoxy:

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[58] Diller and Scofidio, p. 39.
[59] Dimendberg, pp. 16-17.
[60] *Ibid*, p. 18. This period is also discussed in Justin Davidson's article, "The Illusionists."
[61] Justin Davidson, "The Illusionists," *The New Yorker*, May 14th 2007, http://www.newyorker.com/magazine/2007/05/14/the-illusionists.
[62] Simpson, "Interview D+S (1)," p. 50.

I was attracted by John Hejduk's enigmatic teaching style. After a session with him you felt like you learned something but you couldn't articulate what it was. He also had a profound distrust of the profession that was attractive to me. He felt it was corrupt and intellectually bankrupt. Students studying architecture under Hejduk were trying to figure out how to situate architecture among other disciplines. He promoted a rigorous but a freeform type of research. It was at Cooper that I learned about interdisciplinarity. But I was a bit of a contrary [*sic*] in the school. While others were reading poetry, I was looking at the work of environmental artists like Gordon Matta-Clark, Robert Smithson and Dan Graham and artists at the edge of performance like Chris Burden and Vito Acconci … also, performers like the Wooster Group and Phil Glass. I was feeding off of everything but architecture.[63]

Diller's scepticism towards the tenets of architecture predicated her interest in postmodernism and vernacular architecture, which were shifting to the fore in architectural theory.[64] The ambivalence she held towards the discipline came across strongly in her work, even as a student. This can be seen in such early projects at Cooper Union such as *Chair, Loosely Termed* (1976), in which she built a poplar frame on which was tethered bags filled with cotton and sand. The seat of the chair could be made by stacking the bags either on the frame or directly on the floor, and was a clear challenge to the traditional and assumed verticality and stability of the category "chair."[65] Diller's interest in the permeable nature of category boundaries reappears repeatedly throughout the studio's history and work.

Scofidio, meanwhile, had come from a music background with an avid interest in popular culture—in particular, pulp fiction, automobiles, and B-movies.[66] These interests predisposed him to drift towards technological media like photography and video installations, and literary interests,

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[63] Simpson, "Interview D+S (1)," p. 50.

[64] *Ibid*, p. 52. Though Venturi's book *Complexities and Contradiction in Architecture* (1966) became hugely popular with those interested in the various possible directions architecture was headed as it moved away from modernism, ironically, according to Diller, Hejduk was openly hostile to the volume and had forbidden it from the school.

[65] Dimendberg, p. 20.

[66] Simpson, "Interview D+S (1)," p. 50.

which evidenced themselves in his deep love of science fiction.[67] He had also been a student at Cooper Union before going on to receive a Masters of Architecture from Columbia University in 1960. Not long after receiving his Masters he belonged to a practicing firm and held a teaching position at Cooper Union, becoming well known for his draftsmanship and his mathematical, methodical approach to design work.[68] This systematic approach to his architectural drafting shows up regularly in the studio's oeuvre and, occasionally, is the central focus of a project – as was the case with the design of their (ultimately uncompleted) *Slow House* (1991), which won both the jury's interest and a magazine cover of the 38th annual *Progressive Architecture* competition.[69]

Scofidio had become increasingly frustrated with the compromises necessary to practice architecture in a professional capacity during the late 1960s and early 1970s, and this disenchantment culminated in a break from the field: "In the early and mid-1970s [he] had become disillusioned with architecture and dissolved a three-way partnership and more or less retired from architecture. [He] felt it was impossible to move the discipline forward."[70] Once the pair began collaboratively sharing studio space in 1977, it was Diller's investigative, historically-informed approach to the discipline that provided Scofidio with a framework to escape what he saw as the traps of praxis, and they formalized their studio in 1979.[71] Their collaboration quickly created a distinct new identity: D+S, and they jointly signed all the work produced.[72] They would not add

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[67] Ricchi, p. 16.
[68] Simpson, "Interview D+S (1)," p. 50.
[69] Dimendberg, p. 68.
[70] *Ibid*, p. 18.
[71] *Ibid*.
[72] Simpson, "Interview D+S (1)," p. 50.

the 'R' to the D+S of their studio until 2004, when Charles Renfro joined them as the third named partner, after having worked with the firm since 1997.[73]

Renfro studied at Rice University and later received his Master of Architecture from Columbia. As with his colleagues, architecture cannot be merely scenic for Renfro, but must also be both challenging and self-conscious.[74] This is evidenced in the Blur Building, designed for the 2002 Swiss Expo, and one of the first major projects in which he served as project-leader.[75] Blur, a complex structure meant as both an immersive environment and a habitable medium, was a building made of fog, generated from Lake Neuchâtel by Yverdon-les-Bains, where the exposition was held, and designed to emulate a natural weather system.[76] Blur was a deliberate destabilization of the categories of "building" and "vision"; the fog prevented visitors to the site from seeing anything, and the elements that traditionally demarcated a building—things like walls, glazing, and distinctly bounded space—were absent.

Despite all evidence to the contrary, DS+R do not consider themselves postmodernists. Neither, however, do they consider themselves modernists. Their work engages with modernity and modernism regularly, in part because of the legacy of Modernism that all late twentieth century artists inherited, but also because they see it as an impossibility to ever move far enough away from its influences order to see them in perfect objectivity.[77] Rather than claiming either title, DS+R are more interested in a critical exploration of the modernist project, and they do so by

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[73] "Studio," DS+R, accessed June 1, 2017, https://dsrny.com/?index=true&section=studio. There is some issue with exact dates for Renfro's joining of the firm; several written sources claim that he joined in 2000, but the studio's own website gives the date of his joining the firm as 1997, and so I am deferring to their records.

[74] Poppy De Villeneuve, "What Made Me: Charles Renfro, Architect." T-Mag Interview Webseries, *The New York Times*, March 28, 2014, http://tmagazine.blogs.nytimes.com/2014/03/28/what-made-me-charles-renfro-architect/.

[75] *Ibid.*

[76] Dimendberg, pp. 150-153.

[77] Simpson, "Interview D+S (1)," p. 54.

acting as a cultural and disciplinary aggregate. Their emphasis on systematic organization, intermedia, and interdisciplinarity allows them to disregard boundaries between discrete artistic categorization. It also indicates the influence of two specific figures on the studio's operations: the artist Marcel Duchamp (1887-1968), and the engineer Clarence "Kelly" Johnson (1910-1990).

Duchamp's presence haunts all of DS+R's oeuvre, but is most strongly felt in their earliest works. They saw him as an indeterminate figure, occupying a multiplicity of different disciplines and spaces without being fixed within them.[78] They've remarked that his indifference to artistic boundaries enabled his "experiments" and sanctioned the artist's ability to "question, admonish, critique, and playfully ridicule existing norms in order to transcend the status quo."[79] The other connector between Duchamp's work and that of DS+R, and almost as important to the studio as his interdisciplinary slippage, is what they refer to as his "non-retinal" approach to examining vision, which arose from his fascination with the quotidian products and extended to the technology involved in industrial production.[80]

An early work by D+S called *A Delay in Glass*, or *The Rotary Notary and His Hot Plate* (1987) is their most explicit recall to Duchamp, responding directly to his *The Bride Stripped Bare by Her Bachelors, Even, or Large Glass* (1915-1923) in the form of experimental theater, directed by Susan Mosakowski. In an act of "ignition," they adapted Duchamp's static art object in to a time-based stage-play that shifted between visual dimensions.[81] The architects' reading of *The Large Glass* focused on its opacity as a fundamental thematic, and wanted to recreate the visual composition in

[78] Simpson, "Interview D+S (1)," p. 55.
[79] Nan Rosenthal, "Marcel Duchamp (1887-1968)," *Timelines of Art History*, The Metropolitan Museum of Art, New York, 2000, quoted in Dean Simpson, "Some Notes on the Disciplinary Practices of Diller + Scofidio (+Renfro)," *Diller + Scofidio (+ Renfro): The Ciliary Function: Works and Projects 1979-2007*, edited by Luca Molinari (Milano: Skira, 2007), p. 21.
[80] *Ibid*, p. 55.
[81] Dimendberg, p. 40.

a three-dimensional plane. They developed a stage set which recreated the divide between the upper and lower sections of Duchamp's work, by setting up two panels on the stage: a lower plane of stretched rubber that rotated 360 degrees on a hinge, and a mirror-like upper plane of reflective Mylar hung at a 45-degree angle, and so "[the] apparatus always permits the audience to see one character actually and the other virtually."[82] This solution drew on the common practice of architects to shift between planes of visual representation—from plan to section to elevation and back again—in a spatial and temporal transcoding of the visual and narrative elements of *A Large Glass*.[83] The work is less homage, more experiment, and thus in keeping with Duchamp's own mode of production. Beyond that, it indicates the willingness of the studio to utilize the specificity of site, program, and materials to support the creation of specific spaces and experiences.

If Duchamp's presence is most strongly felt in the investigative "why" that DS+R keep asking, then Clarence Johnson's influence is felt in the organizational "how" of their studio structure. Scofidio has been vocal about his admiration of the Skunkworks research and development division of the aerospace company Lockheed Corporation (now Lockheed Martin) as headed by Johnson.[84] Johnson, an aeronautical and systems engineer, led the Skunkworks through a variety of challenging projects with an interdisciplinary team, and the success of the division has been largely attributed to the organizational culture he implemented. His approach advocated for a hands-on shop floor, which "fostered a culture of innovators, chance takers and rule benders" whose informality encouraged experiment.[85] Structurally, DS+R follows the

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[82] Elizabeth Diller and Ricardo Scofidio, "The Rotary Notary and His Hot Plate (A Delay in Glass)," *Diller + Scofidio (+ Renfro): The Ciliary function: Works and projects 1979-2007*, ed. Luca Molinari (Milano: Skira, 2007), p. 66.
[83] Dimendberg, p. 40.
[84] Simpson, "Some Notes on the Disciplinary Practices of Diller + Scofidio (+Renfro)," p. 25.
[85] *Ibid*.

Skunkworks model, and their studio functions as part-laboratory, part-workshop, part-home factory; when they initially formed the studio, they lived and worked in it and would continue to do so until 2000, which gave it the informal feeling of a home garage.[86]

DS+R also took from the Skunkworks model the way in which it "dissolved the vertical distinctions between designers, fabricators, and testers," emphasizing the importance of feedback between roles, and allowed for more agile responses to the specific needs of a project.[87] For the studio, this allowed for built experiments that were fast, inexpensive and flexible, and the blurring of these roles supported the "dissolution of the disciplinarily regulated border between: the virtual, the traditional domain of the architect; and the material, the domain of the builder or fabricator."[88] This vertical collapse has enabled the studio to implement a further horizontal fusion of generalist and specialist roles, which in larger firms are more discrete and compartmentalized. The internal mobility enabled by this organizational model has allowed the architects a suppleness to not just imagine new spaces, but to problematize them and disrupt them.

2.3 – Perception and Visuality

Space and visuality are an intimately connected dialogue for DS+R, which predates even the first joint work produced by the studio.[89] Their work has always attempted to address spatial conventions, but particularly those that we have been "blinded" to through familiarity, making one of the questions they ask in every project, "what are 'the optical terms of engagement' within these

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[86] Simpson, "Some Notes on the Disciplinary Practices of Diller + Scofidio (+Renfro)," p. 25.
[87] *Ibid*, p. 26.
[88] *Ibid.*
[89] Nicholas Baume, "It's Still Fun to have Architecture: an interview with Elizabeth Diller, Ricardo Scofidio, and Charles Renfro," *Supervision* (Cambridge, MA: The MIT Press, 2006), p. 179.

various spaces?"[90] There has been an undeniable shift towards an ocular-centric culture, enabled by communication technologies and shored up by the ubiquity of visual mass media. Diller refers to this as the "culture of vision," and identifies it as the ways in which images circulate and dominate daily life and exist in tension with ontological origins of those images.[91] The architects argue that we see the world through a variety of different cultural filters, and that those filters are in a constant state of flux; within the modern context of glass architecture and surveillance technologies, this means that visuality is constantly adapting to the omnipresence of technology within mass visual culture.

Modern visual culture as we recognize it today developed out of both the rise of consumer culture of the late nineteenth century, and the rapidly shifting scientific and philosophical discourse surrounding the functioning of human vision.[92] Here the work of visual cultural historian Johnathan Crary becomes fundamental in developing what is meant by visuality and how it is deployed within the studio's body of work. Crary's book, *Suspensions of Perceptions: Attention, Spectacle, and Modern Culture* (2001), is particularly useful for understanding DS+R's fascination with the subject. Crary's task in *Suspensions of Perceptions* is to delineate the issue of modern attention, and how "[much] critical and historical analysis of modern subjectivity during this century has been based on the idea of 'reception in a state of distraction'," a concept that has been spooled out by others from the nineteenth century forward, such as philosopher and cultural critic Walter Benjamin, and predicates a "widespread assumption that, from the mid-1800s on, perception is fundamentally characterized by experiences of fragmentation, shock and dispersal."[93]

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[90] Baume, p. 179.
[91] *Ibid*, p. 180.
[92] Jonathan Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture* (Cambridge, MA: MIT Press, 2001), p. 13.
[93] *Ibid,* p. 1.

Crary's investigation into the branching issues surrounding attention and perception is apparent even in the work's title—which he notes implies both "absorption *and* an absence of deferral."[94] His main argument is that the only way we can understand modern distraction is "through its reciprocal relation to the rise of attentive norms and practices,"[95] which arose during the late nineteenth century and continues to affect our understanding of this issue today.

The Modernist understanding of vision was born from a severing of the concept of vision from that of perception, and was necessary for the "instrumentalizing of human vision as a component of machinic arrangements […]," by relocating perception to the biological body, creating the duel categories of "subjective vision" and "autonomous vision."[96] Through linking perception with biology, attention could then be ascribed to psychology. Attention thus became something defined by specific external sensory reception: "[rather] than a faculty of some already formed subject, it is a sign, not so much of the subject's disappearance as of its precariousness, contingency, and insubstantiality."[97] Attention, under this definition, becomes a fragment of larger scientific, disciplinary, and administrative apparatuses, and could be put into service not merely for the acquisition of empirical data through observation, but also as a way of stabilizing and objectifying relations between objects, people, and power structures.[98]

The two major theorists that Crary explicitly links to attention are Michael Foucault and his account of Western modernization as a system of power relations of discipline and control, and Guy Debord and his theorization of the spectacle as a set of social relations mediated by images.

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[94] Crary, p. 10.
[95] *Ibid.*
[96] *Ibid*, p. 13.
[97] *Ibid*, p. 45.
[98] *Ibid.*

Crary argues that in the nineteenth century, "attention took shape as an object in relation to the concrete organization and management of education and labour,"[99] thus making attention inseparable from the Foucaultian notion of the disciplinary institution. However, Crary inverts the panoptic model Foucault developed to explicate the power relations represented in this new context, by switching the placement of the subject/object positions in the relationship between attention and the individual. Attention, in this strata of social relations, becomes "a strategy of control and a locus of resistance and drift, or more often an amalgam of both." [100]

By contrast, Crary characterizes Debord's theory of "the society of the spectacle" as social relations which are in turn an effect of mass media and visual images, circulating and isolating individuals from a sense of community within society.[101] He argues that the strategies of isolation Debord identifies run parallel to Foucault's identification of the production of docile bodies, but more specifically, both are identifying diffusion mechanisms through which power relations are reified, normalized, and internalized. The development of mass visual culture in the late nineteenth century becomes about the management of attention, and thus a form of non-coercive power. Key to Crary's discussion is the issue of spectacle, which he argues should be conceived of less as the carnival-esque mode that the term brings to mind, and more as how the phrase appeared in Debord's original French, *comportement hypnotique*: trance-like behaviour.[102] Elaborating upon this reading, Crary says:

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[99] Crary, p. 73.
[100] *Ibid.*
[101] *Ibid*, p. 74.
[102] *Ibid*, p. 73. Further discussed in footnote 181 of Crary's text.

Spectacle is not primarily concerned with a *looking at* images but rather with the construction of conditions that individuate, immobilize, and separate subjects, even within a world in which mobility and circulation are ubiquitous. In this way attention becomes key to the operation of non-coercive forms of power. This is why it is not inappropriate to conflate seemingly different optical or technological objects: they are similarly about arrangements of bodies in space, techniques of isolation, cellularization, and above all separation. Spectacle is not an optics of power but an architecture. Television and the personal computer, even as they are now converging towards a single machinic functioning, are antinomadic [*sic*] procedures that fix and *striate*. They are methods for the management of attention that use partitioning and sedentarization, rendering bodies controllable and useful simultaneously, even as they simulate the illusion of choices and "interactivity."[103]

There are several issues at hand here that enrich our understanding of visuality as deployed by DS+R across their works, but particularly the issue of spectacle as an architecture of power rather than an optics, and how this render bodies useful and controllable through affixation striation, is important. A useful example of how the studio approaches this problem exists in the form of the Brasserie (2000), their retrofit of the restaurant in the Seagram Building by Mies van der Rohe. The project was to reconceptualise the dining area, after it had been damaged by a fire in 1995, to create a space that drew people in while navigating between the structural language of the external building, and the theatricality desired by the client.[104]

However, there was a site problem that needed to be resolved first: the room, despite its location in a building well known for its high Modernism, was a basement with no exterior views, and they needed to generate visual interest in the social space from the street.[105] They solved this issue by manufacturing a view; they connected the interior and the street through fifteen closed-circuit cameras that displayed blurred snapshots of the patrons entering the building at a several second delay, in televisions mounted in a bank over the bar. Much like *Para-Site*, the Brasserie's

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[103] Crary, pp. 74-75.
[104] Dimendberg, pp. 137-138.
[105] *Ibid*, p. 139.

visual conceit played with the notion of surveillance, performance and control, but also added to this the notion of celebrity spectacle, with the stills recalling unfocused photos by the paparazzi.[106] Concerns that patrons would find the ubiquitous camera footage off-putting were allayed shortly after the restaurant reopened, with some diners not even noticing the surveillance cameras at all, and at least one expressing their disappointment that the images from the broadcast were not available online.[107]

In the Brasserie, eating becomes tied to the spectacle of socialization, and the socialization is constructed in much the same way the room is; which is to say consciously and specifically. In relation to this project, Diller has said, "We produced an electronic transparency to the street to compensate for the stone interface [of the room]. If glass could not be used for vision, what role could it play?"[108] The answer to her question plays out in the finished project. If the broadcast were available online, otherwise accessible, they could then serve as an evidentiary databank, and could be "methods for the management of attention that use partitioning and sedentarization, rendering bodies controllable and useful simultaneously."[109] New media technology has come to be an issue of visuality. With increasingly rapid advancement of technologies (and specifically optical technology) visuality became more deeply imbricated in the exhibitionary apparatus of modern architecture, and the "spectacular" docile bodies are produced as distracted, isolated consumers for a mass-produced commodity culture. Modern spectacle and spectatorship within this context are built up, built *in*, as a technology of separation.

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[106] Dimendberg, p. 140
[107] *Ibid.*
[108] Simpson, "Interview D+S (1)," p. 54.
[109] Crary, p. 75.

2.4 – Sight/Site

Diller Scofidio + Renfro's interest in architecture lies in the ways in which space is constructed and how vision plays a role in that action. They have articulated repeatedly that architecture does not, or rather should not, see space as a blank slate upon which to inscribe itself. For the studio, site always means 'situation', and dealing with the specific socio-cultural-material conditions to a given space; to intervene in a space, the architects must look through a "thick perception" built out of the various cultural filters that modulate and construct our spatial understanding, of which vision dominates.[110] To DS+R architecture is technology itself, "a man-made system involving many social systems to which a new layer is now added: responsive systems, new materials, and new visualizations and fabrication techniques."[111] The studio's use of technology is almost always in service of this vision-space dichotomy, because they are never interested in foregrounding or fetishizing the technology, but in its effect.

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[110] Simpson, "Interview D+S (1)," p. 52.
[111] *Ibid*, p. 53.

Chapter 3: Fearful Symmetry - Information, Interfaces and the ICA

Diller: The computer is a red herring. The medium is only partly the message.

--Nicholas Baume, "It's Still Fun to Have Architecture: An Interview with Elizabeth Diller, Ricardo Scofidio, and Charles Renfro"

The day the Boston ICA opened, while the architects watched, a man entered the mediatheque and paused at the top of the deeply angled bleachers and looked down across the dozens of computer monitors, running screensavers of incessant, horizon-less water, at the large single-paned window dominating the bottom end of the room and facing out to the harbour. The size and angle of the window work to deliberately edit the view by allowing neither horizon nor shore within the frame, only water. Apparently, the man paused there for a long moment, watching the play of light and water, then turn and left, saying aloud: "It's amazing what you can do with high definition."[112] Though anecdotal, this story illuminates how DS+R attempt to resolve their interest in visuality in the ICA, which they see as stemming from "the shift towards an ocular-centric culture" and their subsequent desire to explore the "inadequacies of two-dimensional architecture in representing multi-dimensional space-time," an issue that seems distinctly linked to the modern context of technology.[113] The shift to a scopic-centered culture was enabled by the spectacularization of social relations through technological advancement started during the nineteenth century is deeply ingrained in DS+R's work, and particularly in the ways in which they view architecture as a technology which works to structure social relations through space.

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[112] Davidson, "The Illusionists," *The New Yorker,* May 14, 2007, http://www.newyorker.com/magazine/2007/05/14/the-illusionists.
[113] Baume, p. 179.

The Boston ICA is not the architects' first attempt to work through such a question set, as architecture is being more deeply tied to digital technology than ever before. However, the ICA is uniquely situated within the studio's body of work as it sits at a distinct turn in their history, where they were transitioning from largely paper architecture and smaller-scale interdisciplinary works towards a more direct and prolonged engagement with modern institutional architectural construction. As a result, the building becomes a highly-charged project within the architects' evolving dialogues about digital technology and architecture. As their first finished piece of institutional architecture, it codifies the firm's place within current architectural practices as well as their vision for what ideals contemporary museum architecture should aspire to. Two years after the ICA was completed, in December of 2008, Diller gave a lecture at the Getty Museum in which she outlined these ideals, many of which can be readily identified in the finished building:

1. Not play down to the audience it attracts.
2. Embrace the fact that art is only part of the museum's offerings.
3. Aspire towards inefficiency.
4. Distribute unprogrammed space throughout.
5. Revoke rigid codes of conduct.
6. Be easily rescripted.
7. Neither compete with nor only support the art it houses.
8. Recognize the architecture of the museum does not have to be the centre of attention.
9. Accept the museum has a responsibility to new trends in art.
10. Expose the public to new ideas in art.[114]

While several these dictums are—or should be—part of the vocabulary of any well-considered design, at least three of these principles could just as easily refer to computer coding as they could architecture. When Diller speaks about "unprogrammed space" the words function on several different levels; first, the architectural programme refers to the document wherein the design research is outlined, the building strategies clarified and the client requirements for the space have

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[114] Dimendberg, pp. 168-169.

been formalized. However, "unprogrammed" could just as easily allude to the fact that, on a computer, hardware is fixed while the software that controls the function of the computer is mutable. Similarly, when she brings up point six, and the idea that the space can be "rescripted," she is recalling not just the performative narrative script of the playwright and theater, but also a specific form of programming language that can be used by the less technically skilled user to rapidly reconfigure a program—and by extension a computer—for a new purpose or use.

The slippage here between the language of architecture and programming is not accidental. While modern usage of the word "technology" is frequently embedded in a mechanistic understanding of the term, the other definition of technology is as a collection of methods, techniques and skills that require active use. The latter usage has been somewhat eclipsed by the rise of information technology, but it is one that DS+R specifically allude in their rhetoric. On multiple occasions the studio has asserted both that architecture is technology, and more specifically, that it is digital technology. In an interview from a small monograph on the ICA, when asked if technology plays an important role in their work, the firm responded:

> We believe architecture is technology. If by technology you mean digital, we believe that architecture's smallest units are bricks and pixels. But technology is only a means to an end, a tool to enhance space making. Common to all of our works is the opening of architecture to new technologies in which "smart" and "dumb" systems can find new relations. This includes sustainable systems, the exploration of new materials even from unlikely sources such as aerospace and medicine, and the use of traditional materials in new ways.[115]

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[115] Iwan Baan et al., *Diller Scofidio + Renfro: Institute of Contemporary Art (ICA), Boston* (Barcelona: Polígrafa Ediciones, 2011), p. 27.

This response makes it clear that the firm sees architecture and the digital as different points along a continuum of technology, which for them is an actionable set of skills and tools for accessing the underlying ideological issues of space that each term entertains. This position is articulated again and again by the studio, both in their writing and in their projects. For example, when we consider that the studio calls "bricks and pixels" the smallest architectural unit in light of the anecdote of a man mistaking the mediatheque window for a screen, we can see that, as Crary noted earlier, it's not inappropriate for that conflation between these technologies to occur, because under that definition of technology, they are of the same ontological order.

However, this doesn't mean there is not a potential danger in seeing equivalence between a window and a screen, between the transparency of glass and the transmissiveness of the computer screen. Critical Studies scholar Anne Friedberg, writing on the shifting role of windows as perspectival metaphors, objects, and technologies, makes the case for a modern understanding of the window as a exemplifying the logic of new media systems. Windows and screen frame space: they allow the viewer-user to engage with the material surface of the wall, while still being separated from it.[116] With both window and screen, the image facing the viewer-user is likely moving to some degree, and necessitates a material reconciliation of bodily immobility with visual mobility. Frames are boundaries, but more, they are discrete spaces in themselves. As liminal spaces, frames operate in two main ways: first they function as thresholds through which tensions between the immobile state of the individual spectator and the mobile nature of the images on the surface are negotiated, and second, the frame bounds the "spectatorial space" (the material space)

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[116] Anne Friedberg, *The Virtual Window: From Alberti to Microsoft* (Cambridge, MA: The MIT Press, 2009), p. 5. This conundrum of fixed viewer/unfixed view has been something explored by film scholars since cinema was developed and exhibited in the late nineteenth century.

from "cinematic space" (the immaterial space), creating distinction.[117] It is the limits of these frames that bind the limits of the world. But where the window provides a theoretically unmediated view of the external world, the screen is more functionally related to a mirror, or at least to lenticular glass—it provides a glimpse of the outside, but always in a conditional way.

The ICA has been described, by the architects and by others, as a machine for looking, and indeed the building is a self-conscious optical apparatus whose function is to mediate the visitor's relation to the site through visual choreography. The studio has spoken about how one of the biggest challenges on a practical level was how to balance the spectacular visuality of the physical site, and particularly the distraction of the waterfront view, with the mandate of the institution.[118] The solution they arrived at was to use the external form of the building to mobilize an ocular-centric programme to mediate between the spectacle of the site and scripted spaces of the interior, while simultaneously designing an interior form that replicated the external mediation of site/space, but did so between the institutional and the building.

To put this in another way, the building acts a valve which regulates the viewer's experience of the space by navigating between two somewhat competing models: the envelope of the building acts as an interface between the world and the institution, while the interior spaces, and the mediatheque chief among them, become an internal interface to the exterior – or, to deploy a concept from Alexander Galloway, an *intraface*, a black-box system that negotiates ideological layers of the interior with the (literal and metaphorical) architecture that supports it. DS+R has adapted the language of new media to discuss the terms of their engagement with the Boston ICA. To better understand why they have utilized this language, I introduce Tizana Terranova's concept

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[117] Friedberg, p. 6.
[118] Baume, p. 196.

of network culture as a framework for this discussion, before turning my attention to the work done by Galloway on how the effect of the inter- and intraface has impacted the conversation around cultural production, to understand how to navigate the building's design in the context of the architect's rhetoric.

3.1 – Terranova's Information Culture

It is imperative for any discussion of digital technology to articulate what the terms of its engagement are, and what is at stake in that engagement. While DS+R have indeed adopted the language of new media, and in many cases the language of code, to talk about their works, at times such language glazes over what they are really talking about: information. Socially, the twenty-first century has seen large swaths of the world move towards what Tiziana Terranova calls a network culture. Terranova, the Italian information theorist and activist, has devoted most of her scholarship to exploring issues surrounding labour in a digital milieu, and transparency within information systems.[119] Her scholarship is invaluable when thinking through the issues raised by the construction of the ICA as they relate to the way in which its architectural rhetoric interacts with its technological function.

For Terranova, a network culture can be "characterized by an unprecedented *abundance* of informational output and by an *acceleration* of informational dynamics."[120] Information overload and how we process and regulate that overload, then, is key to what constitutes contemporary global culture. Interconnectedness becomes another touchstone in a network culture, one that is both a result of the informational deluge of the overload, and an attempt to diffuse it through

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[119] Tiziana Terranova, *Network Culture: Politics for the Information Age* (London: Pluto Press, 2004), p. 1.
[120] *Ibid.*

communication systems.[121] Drawing briefly on the work of Paul Virilio, who has suggested that we are speeding towards a cultural catastrophe propelled by this surplus wherein space-time and materiality itself are threatened with complete dissolution in the face of the immateriality of information, Terranova disagrees with his conclusion that such dynamics will be the result. She instead argues that "if there is an acceleration of history and an annihilation of distances within an informational milieu, it is a creative destruction, that is a productive movement that releases (rather than simply inhibits) social potentials for transformation."[122] In her reading, network culture is completely entwined with "*network physics* (that is physical processes of differentiation and convergence, emergence and capture, openness and closure, and coding and over-coding) and a *network politics* (implying the existence of an active engagement with the dynamics of informational flows)."[123] In other words, Terranova sees the emergence of network culture as having the potential for a shift towards radical transparency as a means of resistance against fascist deployment of opacity within informational system.

For Terranova, though information is still treated as the content of a communication, she argues that this is a misunderstanding of what information is and how it actually functions. Specifically, she contends that information needs to be understood as a complex, dynamic relation between signal and noise, and that if contemporary culture seems to be taking on an informational characteristic, this is because cultural processes are increasingly being conceived of in informational terms, and with informational attributes.[124] Thus is becomes important to think of information increasingly as "*environments* within which contemporary culture unfolds" because

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[121] Terranova, *Network Culture*, p. 2.
[122] *Ibid*, pp. 2-3.
[123] *Ibid*, p. 3. Emphasis in quotation.
[124] *Ibid*, p. 7.

information is no longer merely signification, but now a site supporting and surrounding the production of meaning.[125]

Information also poses a problem concerning perception. As explained by Crary previously, perception was annexed to biological function in the nineteenth century, as a means of instrumentalizing vision as a component of the mind rather than body. Attention, thus separated out with vision, becomes a disciplinary organization system used to stabilize and objectify relations between people, objects, and power structures. In this conception, it is attention that attends to the creation of social apparatuses. Terranova, however, argues that it is perception filtered through information that constructs social and power dynamics to and within the material environment. According to her, information organizes perception and the body, through the production of bodily habits emerging within the framework of social relations:

> Information is not about brainwashing media effect, but it does also involve a level of distracted perception; it thus informs habits and precepts and regulates the speed of a body by plugging it into a field of action. In this sense, the informational dimension of communication is not just about the successful delivery of coded signal but also about contact and tactility, about architecture and design implying a dynamic modulation of material and social energies.[126]

What Terranova articulates here—that information works with distracted perception to organize and modulate the physical environment—is a "return of communication to its minimum conditions [making] the whole field of culture and society (not simply media) open to the informational redesign and hence, *to the action of code*."[127] This is an important point to consider within the context of DS+R's rhetoric regarding the Boston ICA. As noted, the architects speak variously of the building (and other works in their oeuvre) in the language of information technology: they refer

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[125] Terranova, *Network Culture*, pp. 8-9.
[126] *Ibid*, p. 19.
[127] *Ibid*, emphasis added.

to the deliberate "cropping" of visual information, and how walking "out to the Founders Gallery is like a QuickTime VR"[128]; of the "bricks and pixels"[129] that make up architecture's smalls units and of how the site is "encoded" with information; the ways in which architecture is a "responsive system,"[130] and how this can be "turned on and off."[131] This is a self-conscious effort on their part; the studio has said repeatedly that they are not interesting in "perpetuating the distinction between 'smart' and 'dumb ' systems, but rather the effect of these systems."[132] The connection here is between information and space, and the way that information organizes, translates, and enacts it. The ICA embodies the principles of informational space both rhetorically and architecturally, varying the social and material components of the building to create dynamic, immersive, perceptive environments.

Terranova argues that informational space is inherently immersive, because it is nearly impossible to simply observe informational space as it is a constantly shifting ground upon which signification develops. However, not all space is informational space, nor even informational space all the time; there is still divergence between representational and informational spaces.[133] Space does not become informational because of technology, but rather:

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[128] Baume, p. 187.
[129] Baan et al, p. 27.
[130] Simpson, "Interview D+S (1)," p. 53.
[131] Baume, p. 187.
[132] Simpson, "Interview D+S (1)," p. 53.
[133] Terranova, *Network Culture*, p. 37.

[When] it presents an excess of sensory data, a radical indeterminacy in our knowledge, and a nonlinear temporality involving a multiplicity of mutating variables and different intersecting levels of observation and interaction. Space, that is, does not really need computers to be informational even as computers make us aware of the informational dimension as such. [...] It is not so much a three dimensional, perspectival space where subjects carry out actions and relate to each other, but a field of displacements, mutations and movements that do not support the action of the subject, but decompose it, recompose it and carry it along.[134]

The suggestion here is that, ultimately, information determines the mediation of a space, and does so not because of technology, but almost despite it. Returning to think of the ICA for a moment, the architects talk about the way the building crops, edits and choreographs the visitor's experience of the site, filtering the information the individual receives as they transverse the building through a series of displacements, mutations and movements. This recalls Terranova's point very strongly, and in that light, it becomes possible to think of the building as a physical manifestation of the informational milieu that Terranova argues helps to modulate social and power dynamics. Diller has said that one of the things the studio was very conscious of having to control was the visitor's access to, and experience of, the distraction of the waterfront view.[135] Thus the visual organization of the spaces of the ICA rely on strategies of concealment and revelation, to cultivate a series of moments of interrupted perception in the viewer. The architects have said this was their solution to the visual overstimulation of the site, and that the "interrupted focus of a museum visit intensifies [one's] vision,"[136] but it also works, if considered through the lens of Terranova's work, as means to introduces the complex interface that mediates the relations between the institutional space and the spectator.

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[134] Terranova, *Network Culture*, p. 37.
[135] Baume, p. 186.
[136] *Ibid.*

3.2 – Galloway's Interface Effect

Over the last several decades, the concept of the interface has gained increasing scholastic popularity. The work of Alexander Galloway has taken the concept to task, and produced a rigorous study of it in *The Interface Effect* (2012). An analysis of his argument is central to a nuanced look at how the Boston ICA operates within the framework of a technologized mass media culture. The book concerns itself with the philosophical, practical, and ideological origins of the interface and how this has culminated into a specific effect as it is currently deployed within cultural criticism. Tracing writing on new media back to Lev Manovich's *Language of New Media*, Galloway quickly and concisely sets-up his framework, utilizing Manovich as a position both to move away from and work against. Spawned from emergent '90s utopian internet culture, Manovich's work is culturally and historical contingent, and as Galloway's notes, the text's strength comes from its analyze new media technologies as aesthetic, and poetic, objects.[137] His central thesis is that the interface has been traditionally conceptualized as a threshold or boundary between different states of reality, and that it is a mistake to limit ourselves to discussing them as such:

> Interfaces are not simply objects or boundary points. They are autonomous zones of activity. Interfaces are not things, but rather processes that effect a result of whatever kind. […] they bring about transformations in material states. But at the same time *interfaces are themselves the effects of other things*, and thus tell the story of the larger force that engender them.[138]

With this definition articulated, he proceeds from here to map the "trauma" of the interface effect which resides "on the mediating thresholds of the self and world" and informs the control allegory of interface culture.[139] Galloway develops this allegory throughout his text, and it is key to

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[137] Galloway, *The Interface Effect*, p. 3
[138] *Ibid*, p. vii. Emphasis added.
[139] *Ibid*, p. 9.

reconciling the optical intellectualism of DS+R with the architectural optics of the Boston ICA, as both our understanding of the interface effect within the ICA and this allegory hinge on reformulating the term 'visual' as distinct from 'visible.'

Galloway addresses this issue in his initial criticism of the "overinvestment in the cinematic," which he argues is a result of the socio-cultural fascination with digital technology—more specifically the increased reification of the computer as an aesthetic—and that this emphasis abdicates too much political ground while problematically framing "cinematic immobility as the default condition of the human-computer interface."[140] The radicalism of Galloway's statement lies in the premise that, unlike the camera which is forever playing out the dynamic of viewer/viewed, the computer is a definitive break with previous visual arts because of its proximal relation to the world. A computer is already always an object first - and beyond that, that object is never human, but data:

> In contrast to cinema, in order to be in a relation with the world informatically, one must erase the world, subjecting it to various forms of manipulation, pre-emption, modeling, and synthetic transformation. […] The promise is not one of revealing something as it is, but in simulating a thing so effectively that 'what it is' becomes less and less necessary to speak about, not because it is gone for good, but because we have perfected a language *for* it."[141]

Galloway makes it clear that what is represented by the computer is not *presence* in any anthropomorphic sense, but instead *effect*. The computer is always a relationship of command; as an object, the computer is subject to a set of actionable, manipulable, instructions that define its possibilities of enactment, and which receives inputs from the operator which then translates them into a "condition of the world's expression."[142] This is in large part why it is necessary to move

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[140] Galloway, *The Interface Effect*, p. 5.
[141] *Ibid*, p. 13.
[142] *Ibid*, pp. 22-23.

away from Manovich's position in *The Language of New Media*, Galloway argues, because Manovich can only look towards new media by returning to artifacts from its past, like cinema. Galloway further contends that such a definition of new media becomes a *mise en abyme*, an infinite recursive loop, making all media today an issue of "synecdoche (scaling a part for the whole), not indexicality (pointing from here to there)"[143] and ultimately his counter to Manovich: that rather than seeing new media through the (occasionally literal) lens of the cinematic eye, we should instead approach it as an ethic. That is, rather than an ontological system through which to encode the world, we should be thinking of the computer as a set of executable processes, a method, used to enact something upon the world.[144]

At first glance, it seems impossible to reconcile with DS+R's continual mobilization of optical rhetoric with Galloway's argument that new media technology should not be considered through as visual ontology. However, if we consider that they themselves are utilizing the older definition of technology, which classifies the term as a set of tools, skills or methods and thus aligns itself more with Galloway's use deployment of the concept of the new media ethic, it

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[143] Galloway*, The Interface Effect*, pp. 8-9. Galloway here cites a quote from *The Language of New Media*, in which Manovich says: "To summarize, *the visual culture of a computer age is cinematographic in its appearance, digital on the level of its material, and computational (i.e. software driven) in its logic.*" He argues that this means that Manovich "puts a premium on media as pure formal devices" rather than as political engagements. Though Manovich's work is not apolitical, and he considers it "dangerous to deny questions of form, poetics and aesthetics" due to his time in the USSR, it is ironically this same concern that, according to Galloway, works against him at times. Though sympathetic to Manovich's project, Galloway ultimately deems the questions of *what* and *why* raised by the work to be less intellectually interesting then the question of *how*. (*Ibid*)

[144] *Ibid*, p. 22. Cinema has been central to the development of media theory in the twentieth century, and a large part of its supremacy has been its ontological nature. According to Galloway, this has resulted in the pervasive logic that other media are ontological in the same way. He disputes this, arguing that while "the computer is not *of* an ontological condition, it is *on* that condition. It does not facilitate or refer to an arrangement of being, it remediates the very conditions of being itself. […] The computer has so degraded the ontological plane, that it may reduce and simulate it using the simple principles of logical relation. Being is its object, not its experience." (pp. 21-22) Understood as an ethic (i.e. practice), the computer moves away from an ontological definition—a definition that was already dubious because the terms commonly associated with the machine (that is, possibility and definition) are also the primary terms used in the definitions of the machine itself—and moves towards a definition as an interface, "a process or active threshold mediating between two states." (p. 23)

becomes possible to move the frame of the discussion from that of their optical theater to something closer to the black-box system of Galloway's interface effect. Just as Galloway sees the computer not as an object, but as "a process or active threshold mediating between two states,"[145] so too can we see that the Boston ICA as the mediating result of the negotiation of the various active processes involved in its creation.

According to Galloway, since the 1980s and 1990s the "catoptrics of the society of the spectacle is now the dioptrics of the society of control. Reflective surfaces have been overthrown by transparent thresholds."[146] Thresholds have become emblematic of our current era, Galloway argues, and as they become more dominant within cultural and media discourse, thresholds have become more closely linked to technology, and subsequently remediation. For Galloway, "[frames], windows, doors and other transparent devices […] achieve more the less they do,"[147] because there is an inverse relationship between how immersive or intuitive, how naturalized, the threshold device becomes, and how thoroughly it erases traces of its own presence, its own operability, and thus technology "risks falling out of media altogether."[148] The result is a counter-intuitive loop of self-annihilation; much like the medium that must self-efface to achieve mediation, technological "operability engenders inoperabililty," as these "systems work because they don't work. Non-functionality remains essential for functionality."[149] He traces this problem-set to the ontological question of either Iris or Hermes – mediation as immanence or as interpretation. However, Galloway's work searches for a way out of this binary system, and in

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[145] Galloway, *The Interface Effect*, p. 23.
[146] *Ibid*, p. 25.
[147] *Ibid.*
[148] *Ibid.*
[149] *Ibid*, p. 26.

doing so looks to the middle route, the in-between-ness of new media, and thus arrives at the interface.

The interface and the medium are not the same thing, or not quite the same thing, though they have often been collapsed together, because the interface is never a *thing* and always an *effect*.[150] The problem with the conflation of medium and interface comes, Galloway argues, from the remediation model "wherein media are essentially nothing but formal containers housing other pieces of media."[151] This concept, most clearly articulated by media theorist Marshal McLuhan, redefines the medium as a more advanced container for previous mediums – layers of media nested within other media, each new format an intervention into the previous.[152] It is from this model that the idea of the interface surfaces, from the transition between these nested mediatic forms, a point of "'agitation' or generative friction between different formats."[153] It is here that the risk of collapsing distinction between medium and interface occurs. However, Galloway suggests that while all media conjures up these liquid moments of transition, full of slippage and indeterminacy between the edges and the centre, the interface is unique in that it also an independent space which belongs to neither.

Galloway's argument assumes two understandings of interfaces: one born from the remediation model of media, which he discards as the less interesting definition and more problematic, and the other he extracts from the notions of thresholds, which leads him to the space between the outside and the inside. He is explicit in connecting 'the outside' to the social, the historical and the political, but leaves 'the inside' undefined, though he seems to tacitly aligns it

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[150] Galloway, *The Interface Effect*, pp. 30-32. A brief aside here: I am setting aside his discussion on his methodology, not because it is unimportant, but because the ultimate point of it is to point to the ways in which the interface itself is historical, and methodology itself is an interface.
[151] *Ibid*, p. 31.
[152] *Ibid*.
[153] *Ibid*.

with the individual, the material and information. Extracting from French author Francois Dagognet the idea of a "fertile nexus" which is "an 'area of choice' between Muse and poet, between the Divine and the mortal, between the edge and the centre,"[154] The question Galloway identifies Dagognet asking broadly is, what is the edge and the center, or the image and the frame, and how do we know where one begins and the other ends? Dagognet addresses the issue of distinction between edges/centres, images/frames challenged by digital media, by conceiving of the threshold as a fecund zone between two "worlds" where elements can run and mix, but retains enough autonomy to remain apart from those which it creates space between.[155] However, this conclusion does not completely satisfy Galloway, thus leading him to respond:

> The interface is this state of 'being on the boundary.' It is that moment where one significant material is understood as distinct from another significant material. In other words, an interface is not a thing, an interface is always an effect. It is always a process or a translation. Again, Dagognet: a fertile nexus.
> To distill these observations into something of a slogan, one might say that *the edges of art always make reference to the medium itself.*"[156]

The fact that the interface is always an effect foregrounds the necessity of questioning the relations within and without the image, and how they are externalized or internalized, create coherence or incoherence.[157] If we take these questions as apply them to the ICA, we can begin to understand

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[154] Galloway, *The Interface Effect*, pp. 32-33.
[155] *Ibid*, p. 32.
[156] *Ibid*, p. 33. Emphasis in quotation.
[157] *Ibid*, p. 36. Contrasting illustrations by Norman Rockwell and Richard A. Williams to work through this problem set, Galloway argues that Rockwell's work can be read as a mediation on the interface itself, as there is a "circulation of coherence within the image that gestures towards the outside while ultimately remaining afraid of it." (p. 34) This is evident in the images and meta-images embedded in the work, all of which allude to an outside that is left invisible or unrealized by the "off-white nowhere land" the painter works from within. (p. 35) A further layer of meaning results from this being a magazine cover—another threshold, one opening our viewership into the magazine body. All these relations create a diegetic "[circuit] of intensity" within the work, but not an entirely closed circuit, for the viewer can still step outside the image, even if the local relations within the work cannot. (p. 36) In juxtaposition to Rockwell, Williams' illustration (also a magazine cover) nods to the local circulation of image relationships in the work *and* gestures to the exterior. The addition of acknowledgment of the viewer's gaze increases the

the ways in which the building form creates a circuit of spectatorship as the viewer traverses the space. Starting at the ground floor, the viewer's line of vision is directed away from the exterior site, as the window-wall lining the north-west side of the building gives way to the spaces of the interior. Moving up through the building's central elevator, the back of which is a transparent glass wall, the individual is provided a section view of the various floors in the ICA, only to have that view repeated interrupted by cuts of the exterior harbour as the lift shifts between floors. Upon exiting to the main gallery, as the viewer moves throughout the rooms, the building provides deliberate opportunities to be distracted by the outside.

This fractured, distracted interior track does not pretend the gallery exists in a hermetically sealed cube, but rather acknowledges the external spaces of the site while still referring to the building itself, and such an acknowledgement acts to intensify the coherence of the visual system of the ICA while reinforcing the visible incoherence, both pushing visually out to the edges of the building while those edges fold back in on themselves. Visitors to the building are persistently and repeatedly made to occupy a state of transition. However, because the building continually returns to that moment when it shifts the visitor between states, and in the process continually addresses itself as a perpetual threshold, it never settles in to a stable set of internal relations and thus never becomes a workable interface.

The unworkable interface is the threshold that cannot be crossed. This leads Galloway to assert that, if windows and doors usually make no impositions of representation on those things

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intensity of the interior circulation, and creates a centrifugal force that spins the viewer back to the edges of the image, to the outside, even as it pulls the edges inward. If Rockwell's image alluded to the interface while simultaneously suggesting that they do not exist, stressing a "coherent, closed, abstracted world", Williams' image, Galloway argues, resolves this problem by "forever returning to the original trauma of the interface itself. (pp. 38-39) Reveling in the disorientation of the shattered coherence, the second image makes no attempt to hide the interface" and the image "disassembles into incoherence." (p. 39) As such, it becomes an unstable, unworkable interface.

that pass through them, they can on occasion be closed, leading to a perpetually circular discourse "around openness and closedness, around perfect transmission and ideological blockages."[158] It therefore becomes necessary for Galloway to develop a workaround for these blockages, and he does so by developing a new mediatic layer:

> The intraface is the word used to describe this imaginary dialogue between the workable and the unworkable: the intraface, that is, *an interface internal to the interface*. The intraface is within the aesthetic. It is not a window or a doorway separating the space that spans from here to there. Gérard Genette, in his book *Thresholds*, calls it a 'zone of indecision' between the inside and the outside. It is no longer a question of choice. As it was with Dagognet. It is now a question of nonchoice. The intraface is *indecisive* for it must always juggle two things (the edge and the center) at the same time.[159]

The intraface functions between edge and centre, both suturing them together and keeping them separate, and it is here that Galloway locates the ideological space necessary for the aesthetic object to become political. He argues that politics enters from the edges—those historical and material realities in which the work is developed and exists in—because the edges are the indicators of the outside, the social.[160] The intraface is a secondary interface within a work that has been subsumed by that work, but its mere presence within the medium serves as a distinct, unambiguous reminder that there is an outside, a social field, in which the work exists and participates.

The complex local relationships of a work of art only becomes more so in the presence of a form like the Boston ICA, which certainly utilizes the logic of thresholds to engender its disorienting, disruptive effect of presence on visitors, and is made explicit in the mediatheque. This room, which occupies a space adjacent to the centrally-located elevator—indeed, when the elevator terminates on the main gallery floor, the back of the elevator looks directly into the mediatheques' sleek sub-lit chrome and glass interior – is both the literal and figurative centre of

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[158] Galloway, *The Interface Effect*, p. 40.
[159] *Ibid*, p. 42. Emphasis in quotation.
[160] *Ibid*, pp. 41-42.

the building. Like Galloway's conceptualization of the intraface as "an interface internal to the interface,"[161] the mediatheque serves as an indecisive space in the heart of the gallery. Stepping into the room it is impossible not to notice the ways in which the room's minimalist aesthetic visually recalls the Apple computers installed at each terminal; however as the viewer explores the room and moves closer to the large window at the lowest point in the room, the visual space of the room opens significantly, allowing the unruly exterior site into the programmed space of the room. Moving within the length of the room disrupts the editorial control of the window and provides a glimpse of the site beyond the control of the architecture.

The intraface becomes key to a political reading of a work of art, because it is only through its gesture towards the outside, the social world that interacts with and leaves impressions upon the inside, that allows for the interface to be more than mere palimpsest. Galloway contends this is also where the McLuhanian model of interface/intraface as window-door shows its inadequacy, as it can only ever show the interface as remediation.[162] Galloway's goal throughout his discussion of the interface's effect on contemporary cultural criticism has been to find a way out of the binary of immanence or interpretation, coherence or incoherence, and as such he suggests a third possible framework for considering the interface's effect: ideology.

Considering coherence and incoherence as values within a spectrum, Galloway argues that these terms "refer to the capacity of forces within the objects, and whether they tend to coalesce or disseminate" leading him to conclude that from such terms arises a "continuum, which one might contextualize within the twin domains of the aesthetic and the political"[163] to create regimes

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[161] Galloway, *The Interface Effect*, p. 40.
[162] *Ibid*, p. 44.
[163] *Ibid*, pp. 46-47. Coherence and incoherence, aesthetic and political, are then paired and divided, and then paired and divided again, to arrive at four modes which can be used to define the quadrants of Galloway's regimes of signification: the ideological, the ethical, the poetic, and truth. Of these various regimes, "the first mode is dominant (albeit often maligned), the second is privileged, the third is tolerated, and the final relatively sidelined." (p. 51)

of signification. These regimes drift in and out of favour as conditions dictate, but Galloway argues that our cultural is in the process of shifting away from a previously held ideological regime based on Louis Althusser's model of ideology, which sees ideology as "imaginary relationships to real conditions," to simulation which, as Galloway puts it, is "'imaginary relationships to ideological conditions.' In short, ideology gets *modeled* in software."[164] As we socially move away from his model of an ideological regime and into what Galloway calls an "ethical regime" (ethical as in a broad set of principles and practices within a normalizing framework), those dominant aesthetics disassemble into incoherence as the politics of the work becomes increasingly coherent.[165]

The relationship between ideology and software is, above all, an allegorical one. Working closely with an essay by Wendy Hui Kyong Chun, "On Software, or the Persistence of Visual Knowledge", Galloway extracts two main concepts from her work: that software is an "analogue" to ideology and that it is a "functional" analogue.[166] Software becomes analogous to ideology because, at a very basic level, software is always a "technology of simulation"[167] which bridges the gap between machinic form and its virtual output. Software is mimetic, it acts as a model rather than scaffolding for the ideological. Picking up on the similarity between an Althusserian expressive theory of ideology and the way in which software functions, Galloway notes that "the structure of ideology resembles, more or less, an architectural drawing of a house […] Ideology emerges not strictly as the house itself, but as a figurative projection of one layer onto the other."[168] Similarly the dialectical relationships between software and the social becomes an issue of

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[164] Galloway, *The Interface Effect*, p. 52. He continues: "So in the very perfection of the ideological regime, in the form of its pure digital simulation, comes the death of the ideological regime, and simulation is 'crowned winner' as the absolute horizon of the ideological world." (*Ibid*)
[165] *Ibid.*
[166] *Ibid*, p. 55.
[167] *Ibid.*
[168] *Ibid*, pp. 55-56.

reproduction, whereby the conditions of the simulation are both reproduced and resolved within the matrix of the symbolic language of programming code.

Through the fetishistic logic of capitalism, the amorphous "soft" ware of the computer has been separated out from the "hard" within the technical relationship between informatics machines; in many ways, this can be seen as analogous to the division of attention from the gross body, as discussed by Crary earlier. The effect of the interface becomes one of segregation – aligning software with the semiotic image, and hardware to mere base technology.[169] This alignment gives primacy to the persistent concept that the computer is a visual device, while the hardware (ironically the most visible aspect to new media technology) seemingly falls away. Therein lies perhaps the most circular logic of the interface's effect, which Galloway articulates pointedly:

> Thus we arrive at a paradox: *any mediating technology is obliged to erase itself* to the highest degree possible in the name of unfettered communication, but in so doing it provides its own virtuosic presence as technology thereby undoing the original erasure. "What is software," Chun writes, "if not the very same effort of making something explicit, or making something intangible visible, while at the same time rendering the visible (such as the machine) invisible?" Language wants to be overlooked. But it wants to be overlooked precisely so that it can more effectively "over look," that is, so that it can better function as a synthetic and semantic system designed to specify and articulate while remaining detached from the processes of specificity and articulation. This is one sense in which language, which itself is not necessarily connected to optical sight, can nevertheless be "visual."[170]

What Galloway and Chun are driving at here is that a distinction needs to be made between the visual and the visible within discussions of new media, as the visual is not the same as the visible. While the latter has been generally understood as a product of biologic sight, the former has been (and continues to be) conceived of as a cognitive operation born from epistemic conceptualization,

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[169] Galloway, *The Interface Effect*, pp. 60-62.
[170] *Ibid*, pp. 62-63. Emphasis added.

as previously discussed through the work of Crary.[171] While the rhetoric of new media has leaned into collapsing the two terms, there is value to separating them out because, as noted by both Galloway and Chun, on the one hand it serves as an allegory for the social; on the other hand, it signifies the double bind of the "transparency" of the information age.[172] Software is designed to make the intangible visible, but only at the expense of complete self-erasure; the interface must mask the codified labour of its software operations. The non-optical, symbolic logic of software has been leveraged into a dominant form of intellectual conceit within visual culture dialectics, despite the fact that the computer is a non-optical non-visual machine.[173] The fetishization by visual culture of the physical interface acts to obscure the actual operations of the machinic interface; software becomes the "medium that is not a medium. Information interfaces are always 'unworkable'"[174] because they are rarely telling the story of their own operation, but rather gesture away from themselves at something else.

Within this framework, the DS+R's Institute of Contemporary Art (2006) is a remarkably prescient elaboration of Galloway's argument, made six years prior to the publication of *The Interface Effect*. The architects have noted at time that the commission of the ICA caused them to re-evaluate their relationship to the institution, having previously only really known the gallery wall from the perspective of the artist—that is to say, they had only previously occupied institutional space as displaying artists.[175] DS+R have also been candid about their choice to work

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[171] Galloway, *The Interface Effect*, p. 61.
[172] *Ibid*, p. 63.
[173] There is a rich discussion to be had here about the principles of reflection and obfuscation that are central to coding, but such a digression decenters the flow of the discussion here. Galloway expends a concentrated effort to unmask the ways in which information is discussed as visual and then visibly obfuscated to ensure and shore up the efficiency of machinic operations. See, Galloway, pp. 64-67, for further discussion.
[174] *Ibid*, p. 69.
[175] Dean Simpson, "Interview D+S (+R) (2)," *Diller + Scofidio (+ Renfro): The Ciliary Function: Works and Projects 1979-2007*, edited by Luca Molinari (Milano: Skira, 2007) p. 125.

on site-specific installations outside of the bounds of the museums' walls as being an institutional critique, as it removes the work from the value-creation and regulatory function of the museums' purview. By taking on the project of the Boston ICA, the studio moved from guests of the museum to self-conscious hosts "with great scrutiny about the mechanism of the museum—the thresholds between the museum and the street, the curatorial text, the holdings of the museum, its history, its board, its walls, even the whiteness of its walls."[176] The result of this disquiet with the position the ICA occupies between art, the social, and institutional authority, manifests in the various ways in which the building directs the individual within the space, both their vision and their body.

However, this mediation is rarely admitted to by the architecture of the building proper, which is why the mediatheque becomes paramount in our attempts to resolve the unworkability of the form of the building with its' mandate. The mediatheque intercedes in the dialog between the building, site, and programme. The room, which had been in every iteration of the design from the moment the commission was awarded, is a meeting point between the edges and the centre. The mediation and remediation of the water by the window and screens in the room do not imply immanence, and neither does the space take any pains to hide its materiality – indeed, there are visible seams in the window pane where the large glass panels join up, and the computer terminals look like terminals. Rather than trade-upon the postmodern cliché of the computerization of the modern world through technology, the mediatheque suggests that architecture is indispensable as a nexus between virtual reality and physical space.[177]

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[176] Simpson, "Interview D+S (+R) (2)," p. 125.
[177] Dimendberg, p. 167.

3.3 – Thresholds, Frames, Flows

There are two primary ways to approach the ICA: one is from along the Harbour Walk, and the other is from the street. Approached from the street, you gain access to the main lobby; there is a clear partitioning of space in this approach, a divide between the inside and the outside created by the glass and steel framework that surrounds the doors and directs one into the central flow of the reception area. Approached from the Harbour Walk, however, your first encounter with the building is the wood composing the public walkway. This surface is public space, "democratic space that belongs to the citizens of Boston,"[178] that has been turned into a primary architectural element that is extended and folded up into the exterior skin of the building, culminating in the grandstand with raked seating, then flattening into a stage before performing another fold to become the ceiling/floor of the exhibition space in the cantilever. The public surface of the walkway is seamlessly integrated into the various spaces of the building. The ambiguity generated by the architectural wrap here is both material and semantic; the gallery pulls the outside in, and slips the inside out. Similarly, the mediatheque is visible from almost all exterior approaches, a projection cut out of the exterior envelope of the building, overlooking the water like a door propped slightly ajar so one can just peek through. This room is the only element of the initial 2002 design of the Boston ICA to remain in all iterations of the design,[179] and it is this space which negotiates this theoretical framework of thresholds as mediatic devices.

While the architects have repeatedly borrowed the language of information systems and new media to talk about their work, in the Boston ICA they have gone a step further and embodied it in the material design of the museum as well as the immaterial programme. In line with

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[178] Baan et al, p. 72.
[179] Dimendberg, p. 266.

Terranova's suggestion that informational space is built not from the presence or absence of the computer, but from the excess of sensory data that generates indeterminacy through displacements, mutations, and movements, the format of the ICA is such that it is continually producing and reproducing the ways it mediates the site to the sight of the viewer. The visually distracting social spectacle of the waterfront site was at odds with the needs to the museum as an inward-facing cultural site. The firm has stated that they wanted the views of the harbour to be "always partial and fleeting,"[180] alternately concealing and revealing itself to the visitor. There is a distinct parallel that can be drawn here between the function of the architecture and the function of software, which itself has been shown on a dialectic level to be analogous to the way in which ideology functions.

The self-conscious nature of the architectural programme of the ICA utilizes elements of spectacle, informatics rhetoric, and new media cachet as an intellectual "red herring." The firm's position within technologic discourse has always been explicitly interested in the effect of the technology, rather than any transcendental ontology derived from it.[181] The building mobilizes informatics rhetoric as a commentary on that same rhetoric. The programme bears this out by enacting the slippage between sense-data/information, transparency/opacity, and the outside/inside. The building attempts to find equilibrium within these dynamics, to varying results.

It succeeds in generating a space between architectural drama and visual intensity; from the list of aesthetic and intellectual principles given by the architects at the outset of this chapter, they have managed to realize the majority of the elements therein. Self-conscious of the more traditional and ceremonial aspects of the museum as an institution, they explicitly equated their

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[180] Baan et al, p. 18.
[181] Simpson, "Interview D+S (1)," p. 53.

building less with other institutional architecture and "more as an interface with the art."[182] DS+R have succeeded in creating an environment that has built-in "inefficiency," that can be "rescripted" and has "unprogrammed" space throughout, both to disrupt vision and to refocus concentration.[183] However, to do so they have had to enact an extraordinary degree of control choreographing the interior and exterior environments. So far the discussion has centred on the ways in which the building works, both in the sense how it functions and what it succeeds at doing. The next and final section will discuss the ways in which the architecture of the Boston ICA does not work, and undermines the intellectual and ideological goals put to it by the firm and surrounding scholarship, as well as avenues of potential future scholarship.

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[182] Dimendberg, p. 168.
[183] *Ibid*, pp. 168-169

Chapter 4: Conclusions - Bugs, Bodies, Features and Futures

> Diller: Like the museum, the architecture has a responsibility to raise the consciousness of the of the public. The museum selects what is important for the public to see; the architect creates what is important for the public to experience.
>
> --Nicholas Baume, "It's Still Fun to Have Architecture: An Interview with Elizabeth Diller, Ricardo Scofidio, and Charles Renfro"

At one point, during the construction of the building, the mayor of the city of Boston visited the site of the new Institute of Contemporary Art and was toured through the almost-completed museum. When he was brought to then-unfinished Long Gallery (later, formally, the Founders Gallery), the tour stopped to admire the vista provided by the hallway gallery, which spans the entire fourth floor and overlooks the harbour. The panoramic view of the waterfront was declared by the mayor to be "optimal" and shouldn't be impeded.[184] However, the architects had already planned for the space to be installed with lenticular glass from floor to ceiling, so that as the visitor walked the gallery the view would open up before them and close behind them, the glass acting as a limit controlling the dissemination of the site's visual context, as in keeping with the rest of the rhetoric of the building.[185] Immediately following this event Jill Medvedow, the museum's director, overruled those design plans and the window-wall was install without any visual disruptions.

This anecdote introduces two important elements to the rhetoric being deployed around the Boston ICA. First, it shows that there is often a discrepancy between what the architects intend

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[184] Dimendberg, p. 186.
[185] *Ibid.*

and what the client desires. Frequently the latter win out, impacting the effectiveness of whatever criticality is being imparted by the designers and, as in this case, altering the building's final iteration. The decision to not install the lenticular glass in the Founders Gallery ultimately undercuts the thrust of the firm's critical praxis; without the intermediary surface of the glass to mediate the panoramic spectacle, the site of the building becomes exhibitionary in the same way as the art it hosts. It does not take much of a leap for the visitor to see the window less as a critical aperture calling attention to role of the museum as an institutional and visual apparatus, instead becoming pure visual pleasure, an "animated scenography."[186] The Founders Gallery makes explicit the ties between technology and entertainment, and how architecture mediates between those two complexes; how the friction generated by this relationship works to produce the "technologized subject" [187] that Rosalind Krauss saw as a peril of the late capitalist museum-industrial complex, and something that the Boston ICA seems particularly vulnerable to.

Second, this moment in the building's history introduces the subjective body into the architectural equation. Embodiment is not a new problem within architecture, or indeed within the plastic arts. The art and architectural historian Carol Duncan has formulated a useful definition of the art museum as a ritual artifact born from a multifaceted set of power relations to its viewing public.[188] For this discussion, Duncan's definition should be reformulated as follows: the experience by the body of space, organized by architecture, is an intricate set of relationships of power. Architecture is always the imposition of a complex material and temporal matrix upon space, and the experience of that space is always tied to embodiment. Elizabeth Grosz has

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[186] Baume, p. 187.
[187] Rosalind Krauss, "The Cultural Logic of the Late Capitalist Museum." *October* 54 (1990): 3–17. doi:10.2307/778666, p. 17.
[188] Carol Duncan, *Civilizing Rituals: Inside Public Art Museums* (New York: Routledge, 1997), pp. 4-5.

commented that "[architecture] is a discipline, not unlike medicine, that does not need to bring the body back to itself because it's already there, albeit shrouded in latency or virtuality."[189] In this way, bodies are the unspoken condition that defines the form through their absence and, in Grosz's view, make architecture particularly open to outsider deconstruction and intervention. This might account for why self-classified "independents" and "apostates" like Diller and Scofidio centered their studio around interdisciplinary praxis rather than more conventional building practices, and why they have spent so much of their careers exploring the ligaments connecting embodiment, buildings and tech.

In previous sections, this work has centered around the influences of the firm, how those influences affect their intellectual rhetoric, how DS+R joins their architecture to wider ideas around informatics and new media, and how the Boston ICA expresses those various elements within its design. However, to experience architecture is always to become enmeshed in a tangle of time, space, movement, and vision. This discussion has so far neglected the fact that the ICA, beyond theory, is a built and *used* space: it's a site that sees daily interaction and transformation, and not always in ways envisioned by the studio. As such, there is value in looking at the ways in which the ICA, in concert with the shifting dialogues about new media, the database and computerization, has undermined, re-purposed, and transformed its intellectual claims through use over time. The remainder of this document focuses on the possible consequences and contradictions of the building's actual lived use in relation to its form and critical theory-informed programme, and avenues forward for potential future research.

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[189] Grosz, pp. 13-14.

4.1 – Technology, Entertainment, and Architecture

Advances in technology have often been the driving factor in the development of increasingly sophisticated (and increasingly omnipresent) entertainment commodities. As Crary points out, the centrality of the computer screen as a solitary perceptual experience and primary means for the distribution and consumption of modern entertainment commodities was born out of the same techno-logic behind the Kinetoscope and phonograph.[190] In a capitalist system, it seems, the twinning of technology and commodity becomes a ouroborous, the needs of one feeding the other. Terranova points out that the relationship between perception, distraction and images in an informational milieu is tied to the development of mass culture in the twentieth century, and how the modern ecology of images creates a need for the aesthetic management of perception, one that ultimately results in an economic response, in the form of perception management companies.[191] An even more specific connection is made by Galloway when he compares the formal similarities the way in which software in media technology is structurally similar to ideology, from which he argues the commodity is virtually synonymous.[192] What all three theorists are pointing towards is the way in which technologies and commodities enable one other; it is in the space between that we can situation architecture and entertainment.

A potential explanation for how DS+R's building might fit into this dialogue comes from architectural historian Victoria Newhouse, and her discussion of the "museum as entertainment," in which she identifies an aesthetic category that has become overwhelmingly major metropolitan

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[190] Crary, pp. 31-32.
[191] Terranova, *Network Culture*, pp. 140-144.
[192] Galloway, *The Interface Effect*, p. 68.

public museum design.[193] This form, which she identifies as having begun in the late 1970s, and which she defines as the impulse of museums to maximize the pleasurable experience of cultural consumption, is reflected in the architecture of these spaces emphasizing the art experience as an act of gratification, diversion and luxury.[194] Newhouse argues that it is this entertainment impulse driving the expansion—and increasingly deep integration—of ancillary gallery services, like food and shopping, in the architectural design of new (or augmentation of existing) museums, and which can risk shortchanging the institutions' exhibitions as such a focus emphasizes "making the whole [museum] more important than the parts."[195] She notes that the architectural characteristics for such museums tends to be dramatic scale, to maximize public attention (and more importantly attendance), and that the often-outsized atrium-entrances can be at odds with the successful presentation of the art housed within, leading some buildings to increasingly resemble large, impersonal corporate headquarters.[196]

Newhouse foregrounds the streamlining of the museum experience in these space with a telling statement from Thomas Krens, former director of the Guggenheim, in which he remarks

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[193] Victoria Newhouse, *Towards A New Museum* (New York: Crown Publishing Group, 2006), pp. 190-191. The other types she identifies are: the "cabinet of curiosities" (p. 14), a mode primarily seen in private museums who don't have the same burden of funding as public museums, and thus the buildings tend to be less attention-seeking and more intimate, drawing on the long history of private collections displayed among the intimacies of the owner's private lived spaces; the "sacred space" (p. 46), which aligns with the more traditionally thought of rectilinear hermetic "white cube" described by Brian O'Doherty in 1979, and in which the architecture is designed to serve the art and foster an environment of contemplation and reverence. "Wings that don't fly (and some that do)" (p. 138) is what Newhouse calls architectural additions to existing buildings, and are generally understood as interventions or dialogues with the architecture of the museum to which they are added. The "monographic museum" sees architecture that's intended to illuminate some aspect of the individual the building is dedicated to, or which "the artist themselves may designate the conditions for viewing" (p. 312), while the "museum as environmental art" was intended as an alternative to the neutral white cube, so the architecture of such a museum serves less as mere background and more as an expressive, active, complimentary component of the viewing experience. (p. 220) She is also clear that all the types of museum building she identifies are still being built, but that the cachet of some of them have lessened.
[194] *Ibid*, p. 191.
[195] *Ibid*, p. 324.
[196] *Ibid*, p. 306.

that the art museum is "a theme park with four attractions: good architecture, a good permanent collection, prime and secondary temporary exhibitions, and amenities such as shops and restaurants."[197] In this view of the art museum, all of the context of the environment – the architecture, the art, the services – becomes subservient to the experience of the space. As with the ICA and the Founder's Gallery, walking through that long hall with its literally spectacular views on unmediated display, the site is commodified by the framing, turned into a giant window display. Indeed, this has been a specific criticism levered at the studio by Hal Foster; he argues that interdisciplinarity has become a normative practice within the arts, and symbolic of the late capitalism which is predicated so heavily on interconnectivity; as a result, Foster argues, DS+R participate in the culture of consumption they seek to critique by presenting displays of display as a substitute for deep engagement with the culture or structure they seek to appraise.[198] This is a core issue with the museum-as-entertainment model too—in trying to appeal through a sort of pleasure-house organization, the art shows become displays of display simply in order to get bodies in through the door; come for the exhibition, stay for the gift shop.

Rosalind Krauss in her essay "The Cultural Logic of the Late Capitalist Museum," sees this as part of a larger problem. The essay, written in 1990 and inspired at least partially by the very public leveraging of the Guggenheim's collection by Krens, closes with Krauss bringing up the preeminent specter of corporate culture industry, Disneyland, as a museological Ghost of Future Past:

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[197] Newhouse, p. 191.

[198] Hal Foster, *The Art-Architecture Complex*, (New York: Verso Books, 2013), pp. 95-96.

And it does not stretch the imagination too much to realize that this industrialized museum will have much more in common with other industrialized areas of leisure – Disneyland say – than it will with the older, preindustrial museum. Thus it will be dealing with mass markets, rather than art markets, and with simulacral [*sic*] experience rather than aesthetic immediacy. […] *The industrialized museum has a need for the technologized subject*, the subject in search not of affect but of intensities, the subject who experiences fragmentation as euphoria, the subject whose field of experience is no longer history, but space itself […][199]

The concern that Krauss raises here—the anxieties over the relationship between art, technology and the museum—and the language used by Krauss, bears more than a passing resemblance to both the language used by DS+R in their various discussions of the building, and the anxieties attendant to the building's form. However, their design of the ICA shows less of an attempt to counter the effects of the industrialized museum, and more of an attempt to accommodate these new aspects of museum culture and the art market.

In many ways, what the studio has done with the ICA is a form of perception management, much like the consultancy firms that cropped up within military and intelligence circles in the 1990s (and later, the commercial sector) meant to control and manipulate the rapidly developing image ecologies and informational milieus.[200] Though intended to communicate the studio's sense of social responsibility, in this context Diller saying "the museum selects what is important for the public to see; the architect creates what is important for the public to experience" takes on a decidedly more problematic understanding.[201] However, this acknowledges something that Krauss was not privy to at the time of her writing; the ubiquity of information that enables the individual to become "technologized" has now become the ambient background noise of the digital era. As Terranova's work has illustrated, information is no longer merely the content of communication in the modern world, but also the building blocks of the environments we occupy as a society. For

[199] Krauss, p. 17. Emphasis added.
[200] Terranova, *Network Culture*, pp. 140-141.
[201] Baume, p. 186.

all their criticality regarding techno-visuality, DS+R created a design meant to work *within* the information age's industrial museum complex, rather than against it.

The specter raised in passing by both Krauss and Newhouse of the theme park—and specifically Disneyland—as an example of entertainment par excellence is worth teasing out a little more, because it illuminates something else that undercuts the efforts of the ICA's criticality. Disneyland as a theme park is designed to unify arts, technologies and commerce together to create a total system that offers an seemingly mythic, harmonized world to its audience.[202] It is the way that Disneyland is structured as a total (and potentially totalizing) system, a *Gesamtkunstwerk*, that brings Krauss and Newhouse to compare the contemporary art museum with the amusement park.

While the concept of the *Gesamtkunstwerk*, or total work of art, originated in nineteenth century Wagnerian theater, it serves as a useful framework for understanding the connection Krauss and Newhouse make between Disneyland and museums, and my efforts to address why the ICA's design of accommodation counteracts its attempts at critique. The simplest definition of *Gesamtkunstwerk*, according to Matthew Wilson Smith and discussed briefly in the introduction, is that the total work of art occupies both the best and the worst aspects of an ideological system because it is continually striving for a unification of disparate parts, and thus it can slide all too quickly from a total aesthetic system, to a totalizing system.[203] The result is that the *Gesamtkunstwerk* is a system always in tension; it can be humane or oppressive, contingent on whether or not the longing for totality within the bounds of the system reaches for incorporation or absorption.[204] Regardless, Smith cautions us, the total work of art is never a solution to the

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[202] Wilson Smith, p. 116.
[203] *Ibid*, p. 9.
[204] *Ibid*, pp. 9-10.

problems of the alienating effect of technology, ideology, mass culture and modernization, but a symptom of tensions embedded in the dialectics that birthed it.[205]

For this reason, Wilson Smith categorizes Disneyland as *Gesamtkunstwerk*, noting that the theme park project was Disney's attempt to "create a grand unification of all the arts, welded to commerce and technology."[206] Moreover, it is within Disney's gesture that we see the explicit link between media technology innovation and the total work of art; according to Wilson Smith, while that connection has always been present, it had never before been so baldly displayed, and it was this specific element of the Disney adoption/intervention of the *Gesamtkunstwerk* that explicated the entrance of the total work of art into the realm of commodity culture.[207] In creating his theme park as a single "mythic" world played out over interlocking architecture, media, and performances, Disneyland "offered a way of nationalizing the American masses while simultaneously assuaging postwar anxieties about the perils of mass culture."[208] The totality of the theme park, like the totality of the museum, is a complex assemblage of mediums which together

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[205] Wilson Smith, pp. 187-188. The *Gesamtkunstwerk* always oscillates between being an aesthetic programme and a social one. As a result it can be easily leveraged into a totalizing system by a fascist agenda, simply by reproducing the systemic logic of the *Gesamtkunstwerk* itself and ignoring the politics underpinning the system. Smith notes this when he delves into the inescapable connection of Wagner (and therefore the *Gesamtkunstwerk*) to Nazism, saying:

> What [Walter] Benjamin famously called the aestheticization of politics under fascism could be found on every level of culture. On one level there were mass rallies, the enormous building projects, the Party broadcasts and the propaganda films. On another level there was a thoroughgoing transformation of the structure of everyday life by replacing Christian holidays with National Socialism celebrations, forcing all children to join Party youth corps, replacing labour unions with the Party Labour Corps, establishing the *Sieg heil* as a universal greeting, distributing *Mein Kampf* to every German household, and so forth. Beneath such transformations lay a deeper conception, explored in detail in several studies, of the *Volk* itself as raw clay to be sculpted into organic unity by the hand of a master artist. (p. 100.)

[206] *Ibid*, p. 116.
[207] *Ibid*.
[208] *Ibid*, p. 121.

organizes the individual's experience of the site just as a script would organize a play. Through the unification of various parts, Disneyland foregrounded the theatricalization of consumerism, and then raised that consumption to the level of ideology.[209] By including Disneyland under the umbrella of the *Gesamtkunstwerk*, we see a mass-cultural evolution which widens the concept's reach beyond the confines of its Wagnerian beginnings, as the "unification of media in the theatricalization of capital"[210] spreads beyond the theme park and into most aspects of urban architecture and design.

The ICA's architecture replicates some of the key elements of the Gesamtkunstwerk, first in the way that every aspect of a visitor's interaction with the building is pre-planned, from the approach via the exterior site, to the path taken inside the building, and carefully calculated choreography designed to engender a specific experiential reaction to the various individual parts of the building. Entertainment can be variously defined as an action that provides pleasure, a spectacle of some kind, or an act of reception or hospitality; as the mandate public art museum has moved away from repositories meant to safe-keep authority, traditions, and certain objects deemed culturally precious, and towards more fluid representation of a broader community made up of multifaceted social norms and cultural capital, it seems clear that the institution's ability for pleasure, spectacle and hospitality is only going to be foregrounded further, aided by technology that is less tool and more environment.[211]

Second, the enmeshment of ancillary services into museum programming becomes an ever more central part to a visitor's total experience of the art. In the Boston ICA, you enter through the

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[209] Wilson Smith, pp. 132-133.
[210] *Ibid*, p. 133.
[211] Susana Smith Bautista, *Museums in the Digital Age: Changing Meanings of Place, Community, and Culture* (Lanham, MD; AltaMira Press, 2014), pp. 1-4.

support services before being transported above them to the vertiginous floating world of the gallery spaces, an explicit acknowledgement by DS+R of the heightened importance of the theatrical unification of the disparate commercial and industrial aspects of the contemporary institution, as well as a dramatization of their role in supporting it. However, because of the way in which the building is structured, you must exit via the same route, passing through those same support services on your way out; whatever pointed critique is imparted through literalizing capital's role in the material base support of the museum is dulled by the necessity of exiting through the gift shop.

4.2 – Future Buildings, Future Bodies

At the outset of this project, the words of philosopher Maurice Merleau-Ponty were invoked so as to foreground a problem set which, while it has permeated the background of this project, is ultimately beyond the scope of this thesis. Citing a passage from his essay "Eye and Mind", which discussed his conception of vision, and particularly how individuals experience depth within linear perspective, the opening epigraph gestures towards an element within the ICA's dialectic on vision and technology that neither DS+R or this project can successfully resolve; that is, drawing connections as heavily as they do from the ocular-centric realms of visual media, both the building and the discussion of it become a phenomenological push-pull between the architectural necessity of mobility and material, and the cinematic necessity of immobility and immateriality. As demonstrated by the programming of the ICA's design, technology becomes a filter for experiential engagement with the architecture, and with the art inside it.

Returning to Merleau-Ponty, when he says that he sees the bottom of the pool, not "despite the water and the reflections" but "through them and because of them,"[212] he is saying that we, the viewer, understand that underneath the water the tiles lining the pool are regular and square, but that the thickened medium overlaying them is not something that necessarily needs to be subtracted in order to see them. The distortions, shadows, and reflections are not deformations of the thing underneath, but instead renders its materiality visible and grounds it in the world. It is, hopefully, not grossly inappropriate to connect this thought to the discussion at hand, though slightly reformulated: in the ICA, we experience the space not despite the architecture, not despite the digital, but through these things and because of them.

The digital architecture of the ICA becomes that thickened medium that grounds the materiality of the invisible thresholds it addresses in the world; it mediates between the virtual and the real, by being a little of both. The Boston ICA is a living space; it is one that sees constant habitation, and as such cannot remain static. While the phenomenological understanding of architecture and virtual space within this thesis has been informed by the work of Elizabeth Grosz, there has not been space to unpack some of the more interesting questions that arose during this project. As a meaningful conversation of the phenomenological consequences resulting from DS+R's deliberate intervention into visuality and interface theory vis-a-vie architectural design exceeds the limits of this document, this section points to a few direction that this discussion could take in future research. What, for example, is the difference between the concept of virtuality and that of virtual reality, and what does the former offer the practitioners of the discipline that the latter does not, or cannot? If virtuality is not restricted to merely technological innovation and

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[212] Maurice Merleau-Ponty, "Eye and Mind," *The Merleau-Ponty aesthetics reader: Philosophy and painting*, edited by Michael B. Smith and Galen A. Johnson (Evanston, IL: Northwestern University Press, 1993) p. 142.

accepted to reside within the real (and therefore the material, the body, the building), where are its limits? Another questions that arises from Grosz's writing is that, like the separation of perception from the biological function of vision discussed earlier, the separation of the mind from the body has been a pervasive thought in philosophical theory, mathematics, and computational sciences, threading these discipline with a sort of utopic "fantasy of disembodiment."[213] This leads to the question of how the body—and along with it the embodied differences like gender and race—fits into these spaces, and the design of these spaces.

As always, writing about technology is like trying to hit a moving target; by the time such a project is started, some of these questions may have already been discarded as uninteresting, answered, or obsolete. Given that Grosz's book was published in 2001, there have been significant shifts in the dialogues around such issues, and these issues warrant a better look. Related to that is how has the concept of "cyberspace" and the virtual have changed since the ICA was built. What does the virtual offer architecture, that the material form doesn't? What role has the computer come to preside over within architecture beyond complex calculations and simulations? How do these critical frameworks apply to later institutional buildings in the oeuvre of DS+R, as they have done a number of new museums, and renovations/additions to public art museums since this project, and how has that been affected by (and how do they now affect) the field of architecture? Has their blending of architecture and media, these "smart" and "dumb" systems, become merely surface effects and a surface of effects? Diller has asked if, having switched from outsiders to the institution to the hosts of the institution itself, did critique even still matter, and if it did would their work be "a-critical or post-critical"?[214] It would be interesting to compare their soon to be

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[213] Grosz, p. 83.
[214] Deane, "Interview D+S (+R) (2)", p. 125.

completed Museum of Image and Sound in Rio de Janeiro, Brazil, with the Boston ICA; the needs of the site and the design of the museum echo those concerns in the ICA; a rich discussion could be had on whether or not the studio had improved upon this techno-visuality centred programme.

4.3 - **Summation: The Pool and the Web**

Architecture is always a relationship of power; the space shaped by architectural systems in turn shapes the socio-cultural experience of the individual within those spaces. Museums are never static structures, but always actively constructing social and political environments for the individuals moving through their spaces. The goal of this thesis was to show that the design of the Boston Institute of Contemporary Art holds a unique position within the dialogue concerning the relationship between architecture and technology, and to explicate that the role of the computer within architecture, beyond aesthetics, is one of mediation.

To accomplish this, this thesis has looked at the history of the architecture studio responsible for the building and how DS+R were creating a critical framework for it through an overt focus on visuality and a subvert focus on interface theory. The historical separation of the vision/perception from attention was used to illustrate how this division parallels the later segregation of hard- and software within computational discourses, thereby creating the persistent alignment of amorphous, intangible software with the visual, and giving primacy to the fetish of the computer as a visual device rather than symbolic machine, and thus becoming an unworkable interface. Similarly, the ICA gives shape to this logic of separation through the way in which the building is really designed in two parts: the exterior form of the cantilevered body, and the interior space of the mediatheque, which intercedes in the unworkable dialogue between building, site and programme by becoming an intraface, an intersection between the virtual and the real. This project

has significance because it provides a frame for understanding how technology is shaping our material spaces, and even for rethinking what can be thought of as space.

While working on this project, the biggest limiting factor to its strength has been its size—to do justice to the subject, further scholarship is needed. The topic, even pared down, is large and there is an ever-growing body of research supporting it as more scholars become interested in how technology interacts with architecture. When the ICA was completed in late 2006, the technological landscape (and our understanding of things like augmented or virtual reality, mixed media systems, even the internet and computers) has shifted radically in the intervening decade since. For example, 2007 was the year that Apple Inc. released the iPhone, which had a profound effect on phone design and fundamentally altered how individuals accessed the internet.[215]

It seems a fascinating coincidence, then, that DS+R completed this building, which itself was very much embedded in the socio-techno discourse of the moment, just before that discourse drastically changed. As previously noted, the ICA was not the only public art museum that was being "technologized" to better serve the its viewing public, but where other buildings being constructed or altered around this same period tended to focus on systems integration to better fit an increasingly participatory mode of museum culture,[216] the architectural programme for the ICA was singularly devoted to the conceptual conceit of visuality and remedial interface, and it would be both valuable and interesting to see how the reception and use of the building over time compares to other museums of the same era and the way they have approached these same concerns.

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[215] Tim Bajarin, "How Apple's iPhone Changed These 5 Major Industries," TIME Magazine, June 26 2007, accessed April 10, 2018, http://time.com/4832599/iphone-anniversary-industry-change/.
[216] Smith Bautista, p. 5.

This is what makes the ICA such an interesting object, both within the studio's own oeuvre and the wider discourse – it is an ideological shifter of sorts, both emblematic of the technological age and left behind by it. We can see this dynamic at play within the ICA itself, in the way that the mediatheque has actually been used by the museum, as opposed to the way it was designed to be used. Throughout the architectural drawings meant to communicate how the space would operate on an functional, and ideological, level we see a very specific idea of how the environment was to be organized: the rows of seats slopping down throughout the room are divided into individual seats, each with an single monitor and computer terminal (with keyboard and mouse) attached. Design documents have illustrations of users sitting and using the terminals—one person per terminal—and each illustrated user looks squarely at the monitor, engaging solely with the computer. It was a very specific vision for the use of the room.

When I visited the museum in 2014, the organization of the room had been changed: the individual seats had been replaced with long banquets and cushions, the individual monitors were halved to single large monitors, meant to be shared. There was no longer any type of keyboard or mouse, as the monitor was a touch screen: both an advance in technology, but also a limit on the ways in which the museum-goers could utilize the technology. The terminal I sat at felt like trading a personal computer—and all the operability that format provided—for a tablet, a computational format maximized for content consumption. Though the mediatheque was always intended to be a virtual extension of the space for patrons to look "digital artworks or also curated artworks off the web,"[217] during my visit it was a largely empty room with darkened monitors and a view of floating water. Currently showing at the museum is an exhibition called *Art in the Age of the*

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[217] Elizabeth Diller, "The Blur Building and other tech-empowered architecture", *Ted Talks* video, 19:24, December 2007, https://www.ted.com/talks/liz_diller_plays_with_architecture?utm_campaign=tedspread--a&utm_medium=referral&utm_source=tedcomshare.

Internet, 1989 to Today. It has an online component, a website, that seems to operate as a blog, a reality-adjacent art space, an exhibition catalogue, and an interactive didactic panel. They do not mention if you can access the website from the terminals in the mediatheque—which, while I was visiting, could not access the Internet—but if you cannot access the website there, it has been optimised for mobile.

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