A THESIS PROPOSED TO EXPLORE THE REASONS AND MOTIVATIONS BEHIND THE ARCHITECT'S INTEREST IN REFLECTION ABOUT DESTRUCTION IN THE TWENTY-FIRST CENTURY

Brief description of the thesis: I propose to explore the reasons and motivations behind the architects' interest in reflection about *destruction* in the twenty-first century. The link between architecture and processes of decline; deterioration; decomposition; decay; decrease has been visible and got amplified many times at least since Giovanni Battista Piranesi's etchings and writings in the 18th century. By historically situating to the twenty-first century, I try to underline a reference to a moment that takes "destruction" not just as a process by which phenomena, as well as architectural objects, are subjected to just like any other temporal and spatial entity. Instead, I want to offer an empirical analysis of how destruction has become a subject of inquiry, for architects and scholars who write on architectural history and theory, as a form of strategic intervention into the built environment.

I also want to argue that this interest is rooted in an understanding of architecture that is coherent with the consolidation between the limits of scientific tools at hand and challenging, complex problems in science with the advancement in scientific technology that shifts the epistemology of science towards a new-materialist context. With this thesis, I aim to demonstrate that an architectural practice that investigates "material" aspects of architectural research and design, continues to strive to expose the political and social role of architectural research and design. This, I find worth inquiring deeper, as historically, I suspect that the turn to instruments and professional practice that resonates with the role of a technician by the architect, coincides with materialism discourse's interference with architectural theory. This could be regarded as a response to the crisis in the social role architects claimed before this within projects of modernisms around the globe. The contemporary literature on the inference of scientific method into an architecture that leads to a re-evaluation of architecture and the architect's role in the society inspires me to elaborate further. The inspiration comes from the thread between the Soviet Rationalist architects' psychotechnical laboratory established in 1927 in the Higher Art and Technical Studios in Moscow (VKhUTEMAS) and Harvard Experimental Psychology Laboratory in the late nineteenth century in the work of Anna Bokov (2015) and its further investigations in the recent year by curator and scholar Evangelos Kotsioris with the exhibition *Lab Cult: An unorthodox history of interchanges between science and architecture* in 2018 in The Canadian Center of Architecture in Montréal. Their ongoing research that is published and not published describes the way how this dichotomy between the autonomy of architectural design and research that provides a genealogy of how new materialist discourse could have been infused by granting architects a techno-centric domain, with which I can speculate that the contemporary architect re-introduces the political domain back in to the discourse. This is amplified when the materiality embedded in architecture becomes translated into the non-architectural domain of political theory today. Hence, my first conjecture would be to take this as a response to the crisis in architectural modernism brought about in the second half of the 20th century. This conjecture is founded upon the crisis of the project of modernism, leading to a kind of architectural practice that sought disciplinary autonomy and professional ground by appropriating technology, as well as inventing administrative and technician roles to the architect.

I propose that this observation can be tested through a scrutiny of the degree of infusion of debates on materiality and new-materialism into the architectural discourse. On a broader level, I suspect that the reason why those architects who are interested in destruction -a counter-intuitive architectural intervention to the built environment- lies in their understanding of the materiality embedded in architecture in a way that overrides the conceptualization of architectural domain as responsive to the

context design activity takes place. These endeavors may have the potential to shape epistemological endeavors outside the architectural domain and to change the ontological landscape of scientific knowledge. The contemporary studies on architectural and design pedagogy and its negation with the built environment belonging to the scientific research and the extending domain the physical space of a laboratory brings about has attracted the interest of academicians and researchers from architecture art and history. (Bokov, 2015; Helal 2015, 2016, 2018; Kotsioris 2013, 2018) My proposal intends to join this conversation and introduce a research question that seeks to provide a foundation for the social and political context of this, that is present in those studies, but secondary to their discussion. Within this framework, the use of the techno-centric domain being expanded with architect's responses to the crises and violent interventions to the built environment could be either regarded as another attempt to affiliate architecture with a social role; or a response to the political, economic and social structures of contemporary global capitalist project with its tools of surveillance and governance that are at the service of architects as well.

Why do I want to work on this proposed thesis? There exists a body of literature that negotiates the introduction of computers into architectural design and practice and also the advent of the discourse on materialism in architecture. (Alexender, 1965, 1975; Broadbent et al., 1969; Campo, 2011, 2017; Kotsioris, 2015; Petit, 2015; Radman et al., 2017) With this thesis, I want first to present an argument that a conceptual understanding of being able to see design problems as they are presented with the computational tools accessible to the architects can be studied in relation to a materialistic shift in architecture. After establishing this connection, I will present an alternative reading to materiality in architecture. This time I will look into the domain of contemporary art that problematizes around artefact and object as a source of knowledge production (Hito Steryl: Christov-Bakargiev, 2018; Kader Attia: Ammirati, 2016; Jalal Toufic, 2017). I will argue that this path is traveling through the social theory that speaks to the domain which architecture that studies violent interventions to built environment but also is fed by the architectural theory and research reciprocally, in contrast to what appears to me as not being the case in the relationship between architecture and scientific method. This could be my perspective on the existing literature, if I could argue that these artistic attempts also feed the materialism discourse in architecture, and what is more, this relationship is what allows architects to do not only experiments with what is acquired from outside the architectural domain but can interfere with a domain outside architectural practice and participate in changing its methods. I want to test whether these examples have a common characteristic, such as looking at the destruction, trauma, or such. If this is the case, I would be asking if this can be read as a response to the loss of the social role of the architect. From my outlook on this problem today, I tend to understand that the loss of the architect's social role is one of the reasons why a techno-centric materiality discourse could make its way into the architectural research and design methods I want to discuss in my thesis. This refers to the crisis architecture went through after the project of modernism, which does historically coincide with the introduction of computers as advanced computational tools to be appropriated in design and research methods.

Significance and relation to existing literature, and how will it differ from others in the area? The relationship between science and architecture is documented and discussed thoroughly. While some have underlined this relationship in order to turn architecture into a precise science, others underlined how design practice and research could inspire scientific thinking. In March 2018, The Canadian Centre for Architecture presented this interchange between science and architecture with the exhibition titled *Lab Cult: An Unorthodox History of Interchanges Between Science and Architecture*, which was curated by Evangelos Kotsiori (2018). Kotsiori makes use of the metaphor of a lab as a space of cult. The architectural element laboratory is presented as a secluded area of innovation where the truth about nature

is revealed. The curatorial talk Kotsiori gave for this exhibition elaborates on the three fundamental elements attached: architecture, people, and instrumentation (2018). By pairing one historical case from science with one from architecture, the relationship between the three fundamental elements of the lab is investigated. Around themes of "Designing Instruments, "Measuring Movement," "Visualizing Forces", "Testing Animals," "Building Models" and "Observing Behaviour", the curator explores "working concepts, methods and protocols have been exchanged across different time periods between scientists and architects of diverse disciplinary backgrounds, such as architecture, psychology, engineering, physiology, mathematics, industrial design, computer science and others" (Canadian Centre for Architecture, Press Release: LAB CULT, 2018).

In the interchanges between science and architecture, Kotsiori presents the idea of the lab being used as a metaphor against the idea that the designer is a creative genius (2018). Kotsioris introduces the exhibition by putting emphasis on the inherent link between the curricula and exercises in architecture schools to the late 19th-century experiments on visual perception; theories of scientific management to contemporary understanding of ergonomics and spatial efficiency which find applications from office environments to kitchen arrangements in our homes; the development of behaviour psychology to theories of urbanism before and after the World War II; theory of cybernetics of the 1940s and 1950s to our daily interaction with the sensory systems are everywhere from the automatic control doors to elevators to bathroom flashes and thermostats, and so on (CCA, 2018). Hence the exhibition presents this relationship between science and architecture more than about getting inspired but looking at new ways of doing. Anna Bokov further articulates one of these pairings, between Harvard Psychological Laboratory from 1892-1916 and VKhUTEMAS Psychotechnical Laboratory from 1927-30, and in the book *Analytic models in architecture* that presents a repertoire of attempts to develop "scientific" and "experimentally verified" approaches to architectural pedagogy and design (2015). While the exhibition presents an assortment for each pair in a way that it becomes hard to distinguish which artifact in-display belongs to the domain of science and which belongs to the domain architecture, the paired historical cases have a distinct pattern. It is always the case that the scientific case precedes the architectural one.

What the exhibition *Lab Cult* demonstrates, has a translation in the architectural research through the works of those who "pioneered the discussion on architectural materialisms and the emerging figures of the younger generation who are currently researching the subject" as portrayed by the editor of *Architectural Materialisms: Nonhuman Creativity*, Maria Voyatzaki (2018, 1). Most of those figures are working in "labs" that investigate new ways of "practicing" architecture. Works of these architects and designers are not products of designerly genius, but "hands-on experimentation and tooling as well as with isolating domain-biased research" (Voyatzaki, 2018,1). Apart from architects and designers per se such as Mark Burry, Vera Bühlmann, Pia Ednie-Brown, Lars Spuybroek, Alicia Andrasek, Marcos Cruz, Kas Oosterhuis, artists like Julienna Preston, film-makers, philosophers, mathematicians and computer programmers like Levi R. Bryant, Jussi Parikka, Manuel DeLanda practically engage in such research, and initiate the conversation on what Voyatzki refers to as Architectural Materialism along with the publication *Critical and Clinical Cartographies: Architecture, Robotics, Medicine and Philosophy* (Rahman, et al., 2017). This collection of a similar variety of contributors also engages in "entering a field of recently developed 'discourses' and 'practices'" that are established in the research into human-machine interfaces and medicine predominantly. Arie Graafland argues, the works found in this book question architecture's "current disciplinary boundaries, and are successfully transgressing them" (*Graafland*, 2017, 22). A similar logic can be found in another source of a collection of inquiries in the issue of the journal *Footprint's* Autumn 2014 volume that is titled as "Dynamics of Data-Driven Design." As the editors describe, the issue is dedicated to examining the interface between the

development of data-driven techniques and design conceptualization. This focus on the use of data in representation and generative methodologies applied in architectural design and research methods may be the latest edition of what Kotsiori paired in the exhibition. With the data-driven design, even artistic production finds the ground on which creative work would be allowed precision and objectivity. What all these efforts have in common is that, as the variety of technological tools accessible to the architect advance, an ontology of design appears that is more reciprocal to methods outside the architectural domain. The way materialism discourse finds its way into architectural theory resonates and amplifies Christopher Alexander's stance about the use of computers, and advanced technology in architectural practice, similar to a hammer at hand: "We do not wander about our houses, hammer and saw in hand, wondering where we can apply them" (Alexander, 1965). I want this to be one of my primary arguments to present with my thesis: the materialistic shift in architecture is a response to the demand of reaching a conceptual understanding and see the problems as they are presented with the computational tools accessible to the architects. However, I also want to question whether materiality embedded in architecture and its translation into the non-architectural domain of political theory has the potential to change the ontological landscape of scientific knowledge, which I find not to be the case at the moment. This, I will refer to as I investigate the relationship of architects and designers' responses to crises in the built environment through their professional use of advanced computational, documentation, and representational techniques as instruments their professional engagement allows them to appropriate.

Interdisciplinarity is one of the concepts materialism discussions bring about in architecture. This is true for the arts, as well. Stelarc's Survival Research Laboratories is one of the seminal references to exemplify how art meets "interactivity, networked culture, cyberculture, virtual reality, artificial intelligence, robotics" that leads to an understanding of the "posthuman" (Smith, 2005, ix). Stelarc's negotiation between humans and machines demands to respond to the technological environments in which pure biological species fail to adapt effectively (Jane Goodall, "The Will to Evolve", 1). I suspect that there is a pathway from Stelarc's response to this "evolutionary crisis" to the form changing, shifting, decaying, decomposing, and composted architecture of R&Sie… .In this path, "interdisciplinarity" can be referred to as "an architecture of hybridization," as Mennan calls the work of R&Sie… (Mennan, 2004, 18-19). In such hybridizations, experiments can be designed if the architect is willing to negate it, where the architect, as an actor, can even become annihilated.

However, there is also another pathway that intersects the politics and the materiality in response to what Kevin D. Haggerty and Richard V. Ericson introduced as "The surveillant assemblage" in the early 2000s. In response to -maybe the one singular architectural element that had the capacity to interfere with the domain outside architecture, until what I argue to be the infiltration of materialism into architectural discourse,- they re-evaluate Bentham's Panopticon's surveillance technology, as emphasized by Foucault, and introduce its rhizomatic dispersion and transgression from the state apparatus (Haggerty, et al., 2000). It is the same context, which grants architecture and art the materiality. This context is where the minds, bodies, and things entangle to become more "intimately enmeshed with material systems and objects" (Coole, 31). This second pathway I can identify within architectural research and practice that responds to materiality is more responsive to the "surveillant assemblage" than they are responsive to the lab of a scientist and the methods that are applied and advanced in there.

"*Handbook of Tyranny* provides a basis for everyone who wants to fight tyranny," says Theo Deutinger in the introduction (Deutinger, 2018, 75). The cover of *Handbook of Tyranny,* with Leonardo Da Vinci's Vitruvian Man, placed slightly off a gun shooting target on a red background, implying that this is a reference book, similar to what Ernst Neufert's *Architect's Data* claimed for generations of architects

since its first publication in 1936. This is not a coincidence, and clearly, *Architect's Data* can be read in parallel to the attempts of the architect borrowing the precision scientific method promised in the late nineteen century and throughout the twentieth century. This handbook, however, subverts the idea of guiding architectural representations. *Architect's Data* is a collection of design elements architecturally depicted with measurements and representations that contributed not only to architectural practice but to architectural education and pedagogy as well. Architectural blueprints in the *Architect's Data* were inheriting a homogeneous set of ergonomics, culture, and aesthetics that equated users to identical subjects, which were represented by the Modulor of Le Corbusier. *Handbook of Tyranny*, on the other hand, is critical of what it catalogs and challenges the context in which they are made possible. Deutinger is suggesting: "to draw is to minimize, realize, and internalize" (Deutingeri, 2018*,* 7). The handbook is an attempt to comprehend the logic behind the instruments associated with separation, surveillance, and incarceration, which the sovereign states' use is made possible by appropriating the syntax of orthographic drawing used in technical architectural representations.

The French philosopher, Étienne Balibar, has been inquiring into the same domain with a different lens. (Balibar, 2011) The architect Theo Deutinger inquires into tools of tyranny and represents them as if they were the architectural categories of modernity found in the *Architect's Data*, where Balibar's inquiry is into political categories of modernity. I refer to the series of public lectures that elaborate on "transnational citizenship" which Balibar has been giving since 2006, specifically to the public lecture at Columbia University on November 3, 2011, titled "Strangers as Enemies." In this talk, Balibar elaborates on the emergence of new subjectivities of the modern form of capitalism that can be read in parallel to globalization, with events unfolded in the aftermath of 9/11. Balibar's talk addresses the contemporary context: "we are irreversibly entering the era of post-national politics and economics, and this is perhaps what ought to be problematized." (Balibar, 2011) Balibar's problematization re-visits an archaic question of politics and philosophy: the relationship between the subject and the citizen. Hannah Arendt in *The Origins of Totalitarianism* posited one of the most-clear reformulations I came across this question in the context Balibar refers to (Arendt, 1976).

Arendt draws attention to a critical moment where the "structure of European civilization" shatters with "the explosion of 1914 and its severe consequences of instability" in relation to the first World War (1976, 270). With the two consecutive World Wars and events following them, Arendt posits the problem as: "the seeming stability of the surrounding world that made each group forced out of its protective boundaries" no longer looked like "an unfortunate exception to an otherwise sane and normal rule" (1976, 270). In the chapter "The Decline of the Nation-State and the End of the Rights of Man," Arendt re-situates the European subject: This subject, who has been dominating philosophical and political inquiries, starts to negotiate itself as if it was from outside the domain of Europe. What is especially interesting to me about Arendt's inquiry is that such questioning could easily tend towards the domain of morals and ethics, if not teleology. However, Arendt does not seek any remedy but instead puts forward a description of historical events, in order to make sense of what is at stake from what she had access to observe in the aftermath of the Second World War and before the Cold War. Arendt's inquiry is not historiographical but puts forward arguments based on legal documents, institutions, organizations. I take the liberty of considering Arendt's work as part of the thread weaved in the twentieth century by thinkers like Carl Schmitt, Walter Benjamin, Michel Foucault, Gilles Deleuze, Giorgio Agamben. This thread is where the political subject, with its rights to be a citizen, is re-evaluated in terms of its right to be the subject it can be. All those thinkers provide studies of governance, which depict the society concerning the methods to control and administer the domain accessible to the sovereign. I wonder whether, in their inquiry into what we may call as a genealogy of governance after Foucault's intervention, one could identify a trend to appropriate

hermeneutics to understand the material world. I am thinking of the way Jeremy Bentham's panopticon was analyzed by Foucault and the way it might have altered the way we read philosophers like Arendt, to re-visit and negotiate their ontologies of the political bodies and their governance.

As the full title of Balibar's talk already suggests, referring to a built object, that one does not intuitively assign as a product of design, Balibar's talk presents a depiction of a global picture of governing and administering populations in a moment when "the War on Terror reaching an implicit closure, and the European construction entering into an existential crisis" (Balibar, 2011). Echoing Arendt's postulation of the decline of the nation-state, Balibar discusses the disintegration of modern State sovereignty through the intentional or unintentional failure of a specific kind of intervention to the built environment that is supposed to separate what is inside from the outside: walls. Both Balibar and Arendt address the same problem in their contemporaneous moments, which are distinct from one another, yet similar in what they signify for both thinkers. What is different is that Balibar's public lecture diverges from Arendt's work as it stands on a study of a physical object, that one can empirically, and more specifically, architecturally observe, document, and analyze - as Deutinger does in the *Handbook of Tyranny*. Balibar borrows from political theorist Wendy Brown and discusses that, whether architecturally designed or engineered, the success of the archetype "wall" as a governing tool does not lie in its capacity to obstruct access physically. (Balibar, 2011) In its demise as a border or barrier but continuous resurgence as a regulatory structure, archetype wall replaces the treatises, institutions, and organizations, which were giving shape to the sphere of politics Arendt was addressing.

Brown postulates that "states persist as non-sovereign actors and many characteristics of sovereignty … appear today in two domains of power that are, not coincidentally, the very transnational domains of powers that the Peace of Westphalia emerged to contain within or subordinate to nation-states: political economy and religiously legitimated violence" (Brown, 2010, 23). What is striking for me is that this rather complex and sophisticated analysis of the shift in the State sovereignty is rooted in Eyal Weizman's study and analyses of the wall as a "technology of separation and domination in a complex context of settler colonialism and occupation" (Brown, 2010, 30). As mentioned before, the use of architecture or materiality shaped by or shaping the mode of governance is not necessarily substantial. However, Eyal Weizman's study of the Israeli occupation of the Palestinian territory through a rigorous architectural lens providing the basis for political theorists and philosophers' inquiries indicate that design epistemology and methods' are affecting ontologies outside of architectural practice and theory.

Whenever something is portrayed as a perfect fit for a job that looks too obvious to require what is proposed, cynicism helps to expose the logic behind the tools appropriated. Theo Deutinger's handbook is an example of cynicism that does not necessarily point to a failing case though. Whereas, Weizman's study of the "Israeli Security Fence" first establishes that what is discussed at hand cannot be registered as a fence. However, it is a wall that comes with a dense infrastructural intervention to the built environment that is not only aimed at controlling the transition from one domain to another but affects the way Israeli State could govern the Palestinian territories. Nevertheless, at the same time, Weizman reveals the elasticity of this very rigid-looking and costly infrastructure as: "the ongoing fluctuations of the wall's route … registers a multiplicity of technical, legal, and political conflicts over issues of territory, demography, water, archaeology, and real estate, as well as over political concepts such as sovereignty, security, and identity." (Weizman, 2007, 162) Weizman's study does not only introduce the complexities and intrigues embedded in the technology the wall represents. It is also a reminder of what is seldom considered as a designed structure, is, after all, an architectural product, with multiple authors even if a registered architect was not employed on the project (Weizman, 2007, 161). Once the wall is rendered

within the domain of architecture, it also becomes architecturally inspected, documented, analyzed, can lead to further experiments with all the complexities it carries along. The wall can be bended, sliced, detonated, put to a series of trials architects appropriate in their design research and methods as illustrated by Weizman: "within this new political space, separate security corridors, infrastructure, bridges, and underground tunnels have been woven into a bewildering and impossible Escher-like territorial arrangement that struggles to multiply a single territorial reality" (Weizman, 2007, 182). Weizman's object of inquiry is as material as it can get, even though Weizman's study is imbued with as much theoretical and critical thinking Balibar, Arendt, or Foucault's analyses are.

Materiality embedded in architecture and its translation into a non-architectural domain of political theory, or genealogy of design grants Weizman a ground which I find exciting and should be studied concerning architectural research and design methods that are accessible to architects contemporaneous with Weizman. Even though this is a similar task undertaken by Theo Deutinger in *Handbook of Tyranny*, the way the architectural tools accessible to architects are applied serve slightly different purposes. Theo Deutinger's attempt is closer to the radical interventions into the architectural domain with "paper architecture" in the1960s and 1970s by groups such as Superstudio, Archigram, Archizoom. The use of architecture as a medium to expose and discuss relevant contemporaneous social, political, and economic problems is an aspect of architectural practice since Vitruvius. With advanced techniques and tools, architects can have control over the aesthetics, detail, and complexity of ideas put forward about the world out there to transform. Weizman's work can also be read accordingly.

In the 2011 collection, *Beyond Biopolitics: Essays on the Governance of Life and Death*, Weizman is a contributor along with anthropologists, sociologists, political scientists, and performance artists such as Ann Anagnost, Steve Goodman, May Joseph, Brian Massumi, Fred Moten and Randy Martin (Clough et al.*, 2011*). Weizman's contribution is in what the editors call "a transdisciplinary effort to account for and critically engage the multiple tendencies and trajectories that have both informed neoliberal governance and found expression in its reformulation today" (Clough, et al., 2, 2011). Here Weizman pays close attention to the development of military-technological tactics of the Israeli Defense Forces in targeted airborne assassinations during the second *intifada* "Thanato-tactics." In the book *The Least of All Possible Evils*, Weizman draws a correlation between Israeli military tactics appropriated in the offensive siege of Gaza and humanitarianism in light of Arendt's 1963 book *Eichmann in Jerusalem* and the following discourse on the logic of lesser evil. Weizman also appears to be a critical reference for Grégoire Chamayou to formulate a theory of the drone (Chamayou, 2013). Weizman's practice helps Chamayou to address the relationship between agency, experience, and warfare with the technology drones introduce to the warfare and hence, to the domain of governance.

I do not intend to single out Eyal Weizman as a contemporary researcher whose study is relevant to those who inquire into governance or ethics of modern warfare. My interest in his work lies in questioning whether the attention Weizman's work attracted is related to its being a collection of inquiries into a territory that stands out as a laboratory for studying governance in the era of post-biopolitics; or whether it is because the methodologies Weizman is negotiating within the works listed above and in the work of the research cluster *Forensic Architecture* at Goldsmith University, London represent an ontological shift in the epistemology of research that is not limited to architecture but extends to other disciplines, such as anthropology, archaeology, or forensics. This question is a reformulation of the question I present at the beginning of this piece. Equivalent to Weizman's work, Laura Kurgan would stand out as another architect whose architectural practice is introducing satellite imagery not just as an advanced mapping tool but in terms of the logic behind the satellite imagery's production, access and circulation (Kurgan,

2013). In the case of Kurgan, satellite imagery is introduced as a representational method. It is discussed in terms of its potential for the architectural domain, the work of the laboratory, which Kurgan directs (Center for Spatial Research in Graduate School of Architecture, Planning and Preservation in Columbia University in New York), also focuses on the material conditions behind conflict zones and geographies. As stated in the brief description of my thesis proposal, I want to test whether these examples have a common characteristic, such as looking at the destruction, trauma, or such. The answer seems to be affirmative, but I would also like to be able to respond to this question by looking at other architects' studies on destruction, violence, and the way they are studied in architecture. Andrew Herscher's *Displacements: Architecture and Refugee (2017);* Lucia Allais' *Designs of Destruction: The Making of Monuments in the Twentieth Century (2018)* are two examples I can study in relation to Weizman and Kurgan's work to identify whether architecture's recent interest in destruction coincides with a shift towards materiality that seeks more than professional autonomy. Inspired from these questions, I consider the studies in the architectural domain that are responsive to the context design activity takes place and can be critical of this context. My interest lies in questioning whether the contemporary architectural practice and theory is shaping the epistemological endeavors outside the architectural domain and changing the ontological landscape of scientific knowledge, at least in the field of anthropology and criminology as demonstrated in the work of Eyal Weizman. I am confident that existing studies provide clear case studies and arguments for the scientific community and advances in technology and scientific methods infiltrating into architectural research, pedagogy, and design methods and change the way architects locate themselves. However, I am not as confident whether this is a reciprocal relationship, or if it can be, or if it should be.

There are four enclaves of study and research I have identified to respond to my research question so far. With the research I undertake to propose for this thesis, I aim to be able to have an understanding of how these questions could be framed and answered within the academic discourse of architectural design and research. All these enclaves have sub-claves and implications for further enclaves. Until the first meeting of this committee, I want to focus on the first enclave and reassess others by then.

Enclave one: the relationship between scientific knowledge and architectural design and research methods. I propose this proposal to turn into a study of existing literature and literature around this literature that put forward a similar research question about how the architectural design and research method can transgress its epistemological domain and have a reciprocal relationship with the scientific community outside architecture and design. I have an understanding of how studies on destruction, trauma, and violence alike can infiltrate to epistemologies of anthropology, social theory, and politics. However, I am suspicious whether this is because architectural methods can engage in a reciprocal relationship with the scientific method, or is it because those studies present spatial laboratories that provide case studies rather than a method to alter scientific community at large. I am assuming the answer is going to be neither of these suggestions and something else, which I hope to be able to articulate at the end of this research. Bruno Latour (1986) and Anna Bakov (2015) can provide a link between scientific method and architectural research and design methods.

Enclave two: materialism studies within architectural research and practice. I hope this survey of works to feed my existing reading of the notion of destruction in order to be able to discuss materiality in architecture. I already have a blueprint of the material on what elaborates on destruction, decay, removal, or subtraction from the built environment, which still can be expanded or condensed. I need feedback from the study mentioned above whether I would want to provide a study of the literature from the architectural domain, regardless of their association with materialism or not. So far, I have come to an

understanding that this literature can be grouped around three nodes. Destruction studied concerning war and conflict; destruction studied concerning preservation and conservation; destruction studied as a method in architectural design and research. What I find familiar in all these groups is that destruction implies an intervention that is violent or not, seeking to govern, control, manipulate the built environment. I want to look at the works that I come across through this lens and see if there is any case that challenges this perception. The works which are appropriating removal as a strategy in their architectural practice might have the potential to present a challenge to this, such as the work of R&Sie… , however, I would be offering a comparative study with examples from art, such as the work of Gordon Matta-Clark. Lucia Alais (2018); Andrew Herscher (2017; 2010); Robert Bevan (2007) presents studies that can be studied around politics of destruction, conditions which make destruction inevitable or desirable in a political and economic sense, for those who have the power to intervene to the built environment. With the work of Mark Wigley (2018), Keller Easterling (2014), how destruction, removal, subtraction from the built environment can be approached as a tool appropriated by the architects can be discussed. Following this, architectural works –I can think of Piranesi, R&Sie…, or Simone Pizzagalli at the moment that uses removal; decay; destruction; subtraction as a method can be introduced to present whether it applies to architectural practice today. My argument would be, what is counter-intuitive to architects to think about in their practice can bring about the materiality in their disciplinary practice, as I hope to find ways to demonstrate in this study. If I am right in this assumption, I believe the genealogy of destruction-subtraction-removal strategies would not lie in studies that study war, post-conflict, disaster contexts directly, but in the work that architects seek alternative grounds to demonstrate their professional expertise, in the work of paper/virtual architecture, critical, theoretical, and performative engagements. I am thinking of Aubin and Carrasco's edited volume on the use of live performance by architects: *Body Building* (2019).

Enclave three: materialism studies outside the domain of architectural practice and research. Another body of work I might need to study further is on the literature, that is introducing materiality as term architects are deeply involved in. I need to elaborate on materialism and what is meant by "new-materialism" as widely circulated in Barrett and Bolt (2013); Lange-Berndt (2015); Witzgall and Stakemeier (2017); Voyatzaki (2018). This is an attempt at finding nodes and connections between materialism discussions with the architectural discourse. To do this, I have to address how I can engage with the materialism discussions outside architectural discourse. Hence at the end of this study, I can provide a possible way of reading the relationship between architectural materialism and the materiality discussions in the twentieth century. One starting point I intuit, which is subject to change, is the old and boring question of reality, the attempt to seek the true nature of things. As much as this represents a dichotomy in philosophical inquiries, it can also be found in the history of architecture and how architects resolved the tension between humans and nature through their practice. So maybe, I can trace how materialism was able to consolidate the conflict between the nature of things and human reason. Richard Vitzthum (1995) and Johnston (2015) are two philosophers whose works provide an account of empirical observation in scientific knowledge pairing with objectivity appraisal without overlooking the challenges demonstrated by studies on the history of science. What is more, Johnston has co-authored a book with Malabou (Johnston, 2013). Malabou's *Ontology of Accident* (2012) can provide another outlook, as it refers to the "plasticity of destruction" that can be translated into the materiality in the architectural discourse I hope to establish in my study of existing literature on destruction.

Enclave four: works that appropriate tools accessible to architects to document, represent, and analyze built environment within a social scope. One of the primary research nodes I want to work my way around is regarding the contemporary architectural practice that is not necessarily bound to

discussions around architectural materialism. However, I find to be more than relevant to that discourse, and question why the connectedness between techno-centric studies and practice of architects is not underlined with reference to their work. This is where I seek to provide empirical analysis regarding the existing literature and practice that is *transgressive* rather than interdisciplinary architectural practice. By making transgression italic, I want to imply that there is a way architecture can transgress, which could be closely related to interdisciplinary. Rather than infused or influenced by methods architects borrow, appropriate or have to incorporate in their work due to the changing nature of building and construction, which would demand an interdisciplinary approach, in the works of Forensic Architecture, there is this potential to transgress into forensics, anthropology, and even law. Even though I am suspicious of devoting this whole discussion to study Eyal Weizman's work since the early 2000s, at this stage, I want to propose that this might allow a particular strain of architectural practice to be exposed and diluted for testing my argument. Weizman's work always collaborates with others, such as Susan Schuppli, Thomas Keenan, and Forensic Architecture.

What is more, their work can be studied in parallel with the work of Laura Kurgan. The geographical situatedness of both research institutions, their setup, their ambition, as well as their funding, collaborations, and participation with other institutions and works, can identify what I mean by transgression. I would also argue that the precursors of their work lie in art rather than architecture. These two cases may represent existing and contemporary bodies of works of art and architecture defining a new terrain of research for those who have access to architectural tools and spatial-geographical analysis of the historicity of events. I suspect that these works are artistic endeavors that speak of new materialism in their becoming. This domain is not necessarily design-oriented. Hence architectural materialism's leaning in humans could be dismayed in the new materiality discussions in art. With the work of Forensic Architecture, I would be trying to suggest that the creative method that studies what is an extension of the mind, whether derived from it or not, the material object, the thing, the artifact that challenges the human perception of the world as given are no longer critical intellectual takes on society. Instead, they claim to be profoundly objective and scientific inquiries. While I believe this can be identified if the materiality discussion in the art can be discussed about architectural materialism, I believe it would be an aspiration too far-reaching to argue for at the moment. I find it relevant to discuss that, both in art and architecture, discourse on materiality finds a ground on inquiries into destruction, trauma, loss: catastrophy. In other words, in responding to conflictual and controversial issues, moments, that are hard to depict or discuss, new materiality provides a skeleton on which creative experiments are conducted, which turn into architectural practice as in the case of Forensic Architecture. I do not think this is coincidental. There is a logic that can be identified in how materiality discourse allows authors to respond to catastrophes, crises, traumas. I argue that there lies a tension in the work of Gordon Matta-Clark and the work of Susan Schuppli, Kader Attia, Hito Steryl. It feels uncanny to relate their attempts to the attempts of professionals in architecture. However, I want to address that, even though historically those two "schools" of materialism and professions have diverged, today they are forming one thick thread. Forensic architecture or data-driven architecture can be a symptom of, or response to, what Kevin Haggerty and Richard Ericson refer to as "surveillant assemblage." Nevertheless, also, it is a resolution of the tension that was not negotiated between the school of materiality in architecture and new materialism discussions in art. While Matta-Clark can be thought of as addressing this tension, I do not think it attempted to address the potential negotiation between the two today.

 BIBLIOGRAPHY

Alexander, Christopher et al. *The Oregon Experiment*. New York: Oxford University Press, 1975.

Alexander, Christopher. "A Much Asked Question about Computers and Design." In *Proceedings of Architecture and the Computer: First Boston Architectural Center Conference*, 52-54. Boston, MA: Boston Architectural Center, 1965.

Allais, Lucia. *Designs of Destruction: The Making of Monuments in the Twentieth Century*. Chicago: The University of Chicago Press, 2018.

Ammirati, Allessandra, ed. *Kader Attia: Reflecting Memory*. Pistoria: Gli ori, 2016. Published on the occasion of the exhibition *Reflecting Memory* at the Centre Pompidou, Paris, France.

Aubin, Charles and Carlos Minguez Carrasco, eds. *Body Building: Architecture and Performance*. New York, NY: Performa, 2019.

Arendt, Hannah. *The Origins of Totalitarianism*. New York: Schocken Books, 2004.

Balibar, Étienne. "Strangers as Enemies: Walls are all over the world, and how to tear them down." Lecture, Columbia Unviersity, New York, NY, November 3, 2011.

Barrett, Estelle and Barbara Bolt, eds. *Carnal Knowledge: Towards a 'New Materialism' through the Arts*. London: I.B.Tauris, 2013.

Bokov, Anna. *Analytic Models in Architecture*. New Haven, CT: Yale School of Architecture, 2015.

Broadbent, Geoffrey and Anthony Ward, eds. *Design Methods in Architecture*. London: Lund Humphries, 1969.

Brown, Wendy. (2010) *Walled States, Waning Sovereignty*. Cambridge, MA: The MIT Press, 2010.

Browning, Gavin, ed. *The Studio-X New York Guide to Liberating New Forms of Conversation*. New York, NY: GSAPP, 2010.

Campo, Mario. *The Alphabet and the Algorithm*. Cambridge, MA: The MIT Press, 2011.

Campo, Mario. *The Second Digital Turn*. Cambridge, MA: The MIT Press, 2017.

Canadian Centre for Architecture, *LAB CULT An unorthodox history of interchanges between science and architecture,* 2018. https://www.cca.qc.ca/cca.media/files/11516/10426/LabCult_PressEN.pdf.

Chamayou, Gregoire. *Theory of the Drone,* trans. Janet Lloyd. New York, NY: The New Press, 2015.

Chupin, Jean-Pierre, Carmela Cucuzzela and Bechara Helal, eds. *Architecture Competitions and the Production of Culture, Quality and Knowledge: An International Inquiry*. Montreal: Potential Architecture Books, 2015.

Christov-Bakargiev, Carolyn, ed. *Hito Steyerl*. Milano: Skira, 2018. Published on the exhibition *City of Broken Windows* at the Castello di Rivoli, Museo d'arte contemporanea, Rivoli, Italy.

Clough, Patricia Ticineto and Craig Willse, eds. *Beyond Biopolitics: Essays on the Governance of Life and Death*. Durham: Duke University Press, 2011.

Coole, Diana. "New Materialism: The Ontology and Politics of Materialisation." In *Power of Material/ Politics of Materiality*, edited by Susan Witzgall and Kerstin Stakemeier, 27-41. Berlin: diaphanes, 2017.

Deutinger, Theo. *Handbook of Tyranny*. Zürich: Lars Müller Publishers GmbH, 2018.

Easterling, Keller. *Subtraction. Berlin*: Sternberg Press, 2014.

Forensic Architecture. *Forensis: The Architecture of Public Truth. Berlin*: Sternberg Press, 2014.

Galison, Peter and Emily Thompson, eds. *The Architecture of Science*. Cambridge, Massachusetts: The MIT Press: 1999.

Graafland, Arie. "Introduction: A Research into Human-Machine Technologies - Architecture's Dream of a Bio Future" in Andrej Rahman and Heidi Sohn, eds., *Critical and Clinical Cartographies: Architecture, Robotics, Medicine, Philosophy,* 21-59. Edinburgh: Edinburgh University Press, 2017.

Gropius, Walter. "Computers for Architectural Design." In *Proceedings of Architecture and the Computer: First Boston Architectural Center Conference*, 41-42. Boston, MA: Boston Architectural Center, 1965.

Haggerty, Kevin D. and Richard V. Ericson. 2000. "The Surveillant Assemblage" in *British Journal of Sociology* 51, no.4: 605-622.

Herscher, Andrew. *Violence taking place: The Architecture of the Kosovo Conflict*. Stanford, CA: Stanford University Press, 2010.

Herscher, Andrew. *Displacements: Architecture and refugee*. Berlin: Sternberg Press, 2017.

Hilal, Sandi and Alessandro Petti. *Permanent Temporariness*. Stockholm: Art and Theory Publishing, 2018.

Jencks, Charles. *What is Post-Modernism?* New York: St. Martin's Press, 1986.

Johnston, Adrian. *Prolegomena to Any Future Materialism*, vol. 1. Evanston, IL: Northwestern University Press, 2013.

Johnston, Adrian. *Prolegomena to Any Future Materialism*, vol. 2. Evanston, IL: Northwestern University Press, 2019.

Johnston, Adrian and Catherine Malabou. *Self and Emotional Life: Philosophy, Psychoanalysis, and Neuroscience*. New York, NY: Columbia University Press, 2013.

Koolhaas, Rem. *Delirious New York: A Retroactive Manifesto for Manhattan*. New York, NY: The Monacelli Press, 1997.

Kotsioris, Evangelos. 2015. "Enter the Computer" in *The Architectural Review* 237, no.1416: 104.

Kotsioris, Evangelos. 2015. "Pavlov's cube(s): An Architecture for the Soviet Computer Network" in *New Geographies* 7: 149-157.

Kotsioris, Evangelos. 2018. "Sensing Architecture" in *Perspecta* 51: 227-243.

Kotsioris, Evangelos. "Curator Talk: Lab Cult", Opening Lecture, LAB CULT An unorthodox history of interchanges between science and architecture from Canadian Center for Architecture, Montréal, Québec Canada, March 22, 2018. https://www.youtube.com/watch?time_continue=48&v=hjvtHgRyfE4

Kurgan, Laura. *Close up at a distance: Mapping, Technology, and Politics*. Brooklyn, NY: Zone Books, 2013.

Lange-Berndt, ed. *Materiality*. Cambridge, Massachusetts: The MIT Press: 2015.

Latour, Bruno and Steve Woolgar. *Laboratory Life: The Construction of Scientific Facts*. Princeton, NJ: Princeton University Press, 1986.

Malabou, Catherine. *Ontology of the Accident: An Essay on Destructive Plasticity*, trans. Carolyn Shread. New York, NY: Polity Press, 2012.

Mennan, Zeynep. "Delicious Decay" in R&Sie… architects. *Design Document 5: Corrupted Biotopes _ R&Sie… architects / France*, 18-19. Seoul: DAMDI, 2004.

Petit, Emmanuel, ed. *Analytic Models in Architecture*. New Haven, CT: Yale University Press, 2015.

Phillips, Stephen J. *Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture*. Cambridge, MA: The MIT Press, 2017.

Radman, Andrej and Heidi Show, eds. *Critical and Clinical Carthographies: Architecture, Robotics, Medicine, Philosophy*. Edinburgh: Edinburgh University Press, 2017.

Rothman, Roger and Ian Verstegen. *The Art of the Real: Visual Studies and New Materialisms*. Newcastle upon Tyne: Cambridge Scholars Publishing, 2015.

R&Sie… architects. *Design Document 5: Corrupted Biotopes _ R&Sie… architects / France*. Seoul: DAMDI, 2004.

Smith, Marquard, ed. *Stelarc: The Monograph*. Cambridge, MA: The MIT Press, 2005.

Spieker, Sven, ed. *Destruction*. Cambridge, MA: The MIT Press, 2017.

Toufic, Jalal. *What was I thinking?* Berlin, Sternberg Press, 2017.

Tschumi, Bernard. *Architecture and Disjunction*. Cambridge, MA: The MIT Press, 1994.

Venturi, Robert. *Complexity and Contradiction in Architecture*. New York: The Museum of Modern Art, 1966.

Vitzthum, Richard C. *Materialism: An Affirmative History and Definition*. Amherst, NY: Prometheus Books, 1995.

Voyatzaki, Maria, ed. *Architectural Materialisms: Nunhuman Creativity*. Edinburgh: Edinburgh University Press, 2018.

Weizman, Eyal. *Hollow Land: Israel's Architecture of Occupation*. Brooklyn, NY: Verso Books, 2007.

Weizman, Eyal. "Thanato-tactics" in *Beyond Biopolitics: Essays on the Governance of Life and Death, edited by* Patricia Ticineto Clough and Craig Willse,177-210. Durham: Duke University Press, 2011.

Weizman, Eyal. *Forensic Architecture: Violence at the Threshold of Detectability*. New York: Zone Books, 2017.

Witzgall, Susanne and Kerstin Stakemeier, eds. *Power of Material/Politics of Materiality*. Berlin: diaphanes, 2017.

Wigley, Mark. *Cutting Matta-Clark: The Anarchitecture Investigation*. Zürich: Lars Müller Publishers GmbH, 2018.