

# COMPLEXITY AND DEMOCRACY

De-coding the place of democracy through cross-disciplinary research

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## I INTRODUCTION

Research-methodology awareness is something I wish I was aware of earlier in my education. In an academic context, it is primordial and essential to the production of meaningful and valuable research. It is something complex and needs to be taught and practiced to extract its most beneficial characteristics. It can give a measure of control and autonomy to the process of researching, a framework built overtime of tried and tested methods for learning and producing reliable information and contributing something to the academic realm. In architectural education, we are often rushed through the research process, and there is usually not enough time to produce in-depth research following a certain methodology. However, just the awareness alone is enough to raise the validity of the research we do, that I have so often felt to be superficial. It would allow us to form solid arguments and take strong positions and the design outcome would benefit too. Fortunately, the Complex Projects chair puts a lot of emphasis on research and we follow a strict schedule with many deliverables in a process they call a product-based design development. However, we do not follow or devise a strict research methodology which leads to some of the emic accounts obtained from the field trip to be unreliable, for example.

The research-methodology course opened my eyes to a field of academia I was not very familiar with. So often the first place we go to for research is Google. The internet is a jumble of *stuff* that is difficult to make sense of and extract valuable and reliable information. I realise now that approaching the internet without a research methodology is a huge waste of time. What am I looking for? What am I wanting or hoping to find?

The course also showed me other ways of approaching research. I found interesting the method of using writing and narratives as a design practice. Writing and story-telling is a powerful medium through which to describe the experience of a space. Typically, this is a retro-active process, you write down the experience of a space you visited, a memory. That memory can easily become distorted from reality during the writing process because memorizing something is a selective process. In the lecture on Urban Literacy, writing became a precursor to the design, a design tool. Writing the experience of a space first and then designing it to fit what has been written is an interested reversal, one I consider using in my thesis project.

Typological research can also play a role in my thesis research. My thesis topic investigates the position of architecture within a shrinking democracy and the role public forums and building planning processes can have in increasing citizen engagement and shaping the future growth of New York City. Therefore, a typological study of formal democratic spaces such as public forums, the agora, courthouses and parliaments can frame my project within a long historical context of democracy. So far, I have found that democratic infrastructures (public hearings, online forums) are present in New York City but their influence is usually minimal, or absent, and other stronger forces are in place that completely bypass the public's opinion.

Democracy is a complex and multi-faceted issue and it aligns with the Complex Projects chair's approach to the role of the architect. The ambitions of the Complex Projects chair are for the architect to play a larger role than that of a designer. To quote the syllabus: "The contemporary architect today must learn to see the world through many lenses: as a planner, organizer, politician, economist, philosopher, strategist, humanitarian and visionary."<sup>1</sup> With each of these lenses comes a different research method, a different heuristic technique and design practice that will inevitably lead to a different outcome. So as architects, if we are to see the world from all these different perspectives, the relevance of research-methodological awareness becomes very important if we are to produce knowledge that is of value to the academic sphere. There are many pitfalls that must be avoided. According to Ray Lucas, "multiple or divided research methodologies will split the researcher's attention and even allow inconsistencies to emerge."<sup>2</sup> Therefore, we should be vigilant because a muddled research method will be difficult to respond to. However, Lucas also wrote that architects should not be restricted to "one single paradigm of research" because architecture is a "complex, multifaceted field of study, meaning that no single approach can tell you everything you need to know."<sup>3</sup> It seems that the risks of a divided research methodology and the emergence of inconsistencies are high in an architectural research project because of this inherent complexity.

## II COMPLEX METHODS

The research work we do in Complex Projects is done in groups and is very much defined by the Complex Studio's product-based design development strategy. To understand the complex nature of Midtown Manhattan, we began our research by making 1:1000 physical model of the site. Through this context led research, an etic account of the city, we were able to extract quantitative data regarding building heights, morphology of the city and identify neighbourhood locations based on low-rise and high rise clusters. This was a research-on-design of the city as a whole that helped us become familiar with it. Lucas explains that context-led research can "allow a typology to be established"<sup>4</sup> which is what we observed in practice. The act of modelling the buildings made us aware of the repeating building morphologies that can be found in the site: the low rise tenement blocks, the set-back buildings that resulted from New York City's zoning laws, the modernist slab skyscrapers and most recently the ultra-thin needle skyscrapers. Making the model was powerful heuristic technique for this contextual research. According to Groat and Wang in *Architectural Research Methods*, the use of a physical model is a representational tool and does not fall under a simulation research methodology.<sup>5</sup> At a later stage, the model could be used for simulation research to test the effects of building mass on sunlight for example, but this would require accurate tools to simulate sun paths and intensities which we don't have access to.

Descriptive research using mapping as a quantitative technique was made using hard data obtained from governmental websites. Once several maps had been produced, we began our analytical research to understand more profoundly what was happening in the site. Another of Lucas' descriptions of contextual research outlines the notion of the *unique*. He says that "this kind of contextual study seeks to understand what it is that sets a place apart as different and specific."<sup>6</sup> The Complex Projects studio also required us to identify what is unique about the specific area of study assigned to our group compared to other groups'. The historical research of this site was important to defining the character and uniqueness of our group's corner of Midtown Manhattan. Our group's site was the first to develop after Downtown Manhattan and has the highest number of landmarks, this is its unique characteristic. We carried out predictive research to speculate on which areas will be developed in the future and why by comparing our data to other groups' data and applying global theories of urbanization as defined by Saskia Sassen in *The Global City: New York, London, Tokyo*.<sup>7</sup>

The idea for my personal research project on democracy in the city emerged from an inductive research into new developments occurring in the Sutton District of Midtown Manhattan, New York. Local residents are currently protesting the construction of a new super-tall luxury residential tower in their neighbourhood. Through a community-based planning initiative, they were able to change the zoning law within their neighbourhood to prevent any more out of context buildings being built.

This sparked a socio-politically engaged research that recalls the work of Henri Lefebvre's *The Right to the City*. Like author Don Mitchell, I can apply Lefebvre's concept to the Sutton District case study to question the possibility of challenging the neoliberal forces that dominate the real estate market and silence the voices of people who inhabit the urban realm.<sup>8</sup> By placing my research within this theory, it gives me a framework, or scaffold as Lucas puts it, for "discussion and informed debate."<sup>9</sup> I mentioned that this was an inductive research because the Sutton Place example led me to a wider research into democracy and architecture which comes with a world of theories and studies. First trying to define what democracy means etymologically are all the different variants such as direct democracy, social democracy, radical democracy and most recently post-democracy and de-democratisation. Professor Colin Crouch introduced the term 'post-democracy' to describe a state that represents a small group of business elites instead of the ordinary people in society. The idea that we may be entering an age of post-democracy means my research intuitively orients itself towards etymological research and historical research as an attempt to obtain knowledge that might inform how my design might try to reverse this process of de-democratisation. It is a quest to answer the question: Where did we go wrong? I am researching democracy with a cross-disciplinary methodology because many perspectives are involved: the historical, anthropological, theoretical, philosophical and none of them can stand alone. My research is attempting to find out how, in an age of post-

democracy, the mechanics of a radical democratic state can influence the physicality of a public forum for debate in New York City.

Architecture is perhaps the only physical manifestation of this complex and ubiquitous system involving many players with a lot of power.<sup>10</sup> My research methodology will consist partly of typological studies of democratic spaces such as 'Theatres of Democracy' by XML and TU Delft for the 2014 Venice Biennale. This study focused on a comparative study of the architectural features of world parliaments and the prevailing use of the semi-circle in the design of parliaments globally. However, this research is rather limited in the depiction of democracy, because democracy is not only carried out in parliaments. The four organs of democracy: the executive, the judiciary, the legislative and the media occupy different spaces, and cyberspaces within democracy, not to forget the public space, the street, the square – the agora. Democracy is something that cannot physically be seen, meaning that a typological research alone is insufficient.

Hence I enter the realm of the phenomenological and the idea of place-making. To strengthen democracy in the city, the building, its placement in the city and the space itself must communicate its intentions and create space for formal and informal meetings between people. As Erik Swyngedouw describes it in *Post-Democratic Cities*:

*“A genuine democratic sequence starts from an axiomatic egalitarian position, recognizes conflicting socio-spatial process and radically different possible urban futures and struggles over the naming and trajectories of these futures. It is about re-centring the political as a space of dispute/litigation/disagreement.”<sup>11</sup>*

The idea that architecture can influence social behaviour such as dispute or disagreement is one that has a long history. Whether it is possible or not, it is certainly true that historically, architectural typologies have been applied to facilitate certain behaviours such as churches, schools, museums, concert halls, etc. Understanding the link between space design and behaviour requires a cross-disciplinary research methodology to de-code the many intricate complexities involved.

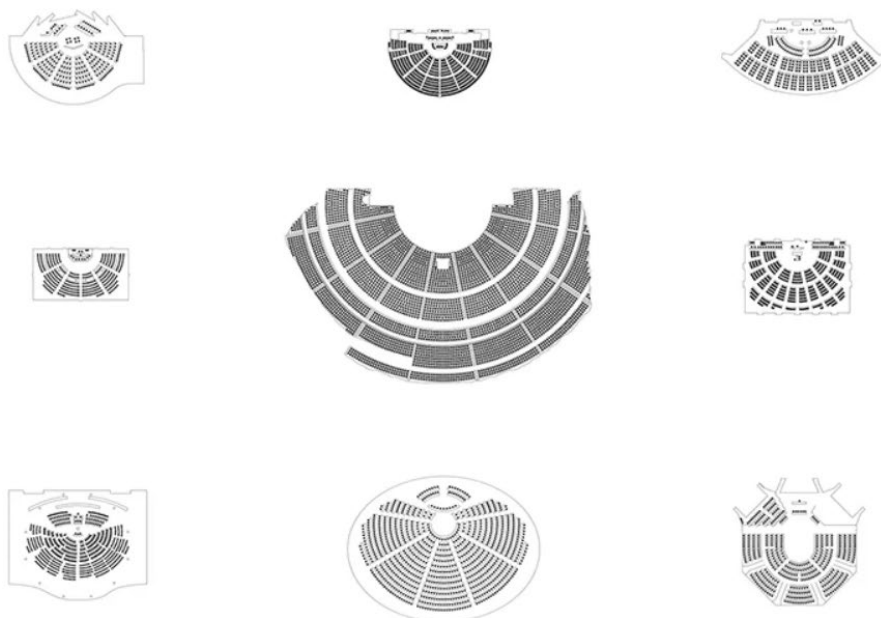


Figure 1: 'Theatres of Democracy'. Diagrams of political congregation spaces. A typology study showing the dominance of the semi-circle done for the Venice Biennale in 2014 by XML and TU Delft

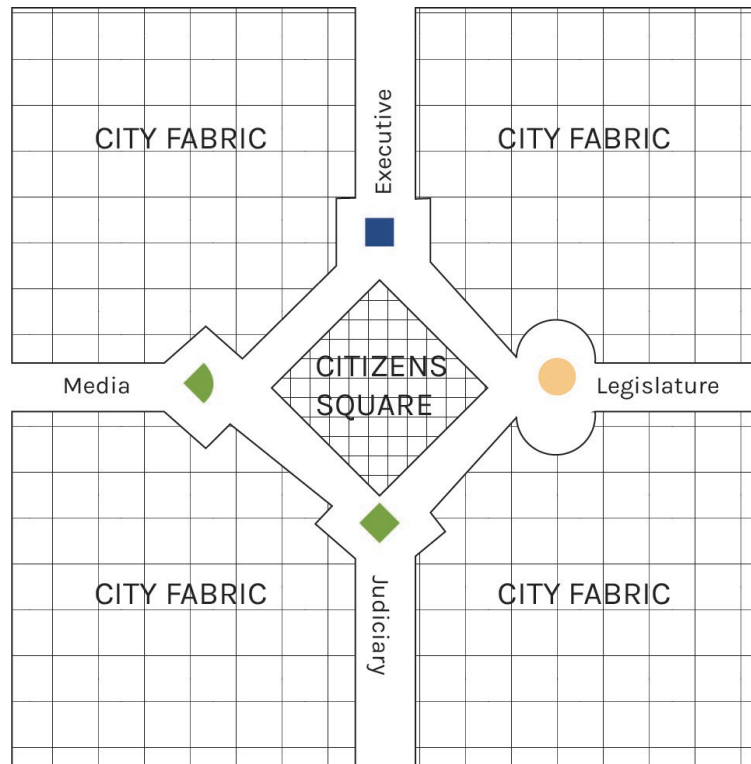


Figure 2: 'The Ideal Democratic State'. Diagram redrawn from Maggie Keswick Jencks detailing the four 'organs' of democracy in constant competition.

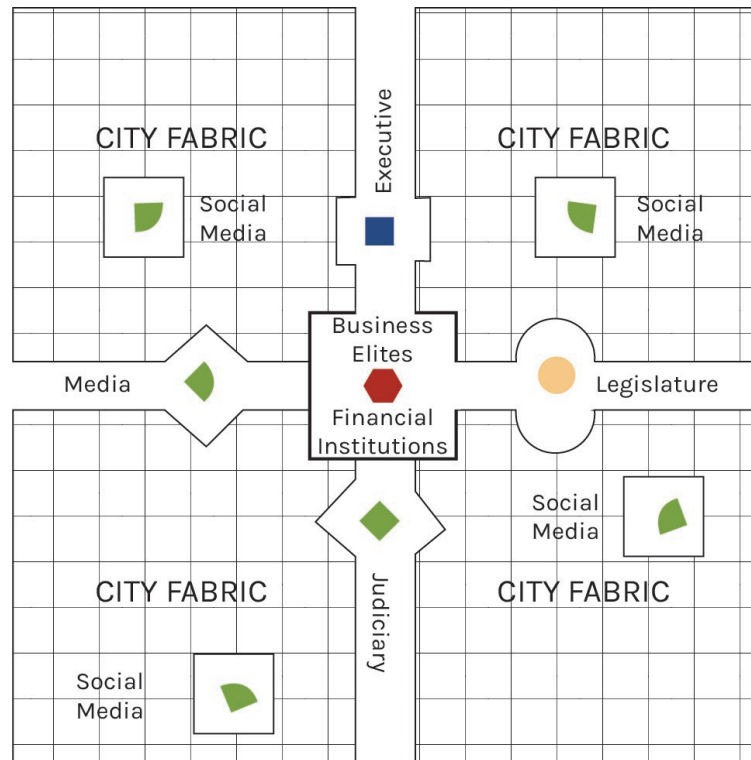


Figure 3: 'The Post-Democratic State'. Adapted diagram showing a post-democratic state where the interests of the people are no longer represented, replaced by the interests of business elites and financial institutions.

### III THE ARCHITECT AS SOCIAL EMANCIPATOR

Historically, the cross-disciplinary research methodology has been fundamental to architectural research since Vitruvius. In his publication, *The Ten Books on Architecture* he wrote:

*“The architect should be equipped with knowledge of many branches of study and varied kinds of learning, for it is by his judgement that all work done by the other arts is put to test. This knowledge is the child of practice and theory.”<sup>12</sup>*

At the time Vitruvius was writing, the terms ‘science’ and ‘arts’ had different meanings. Whereas today ‘science’ is equated with positivist research, it used to be more synonymous with ‘knowledge’ and ‘arts’ with fabrication and practical skill.<sup>13</sup> The role of the architect is changing too from the master builder to a division of skills between architects, engineers, industrial engineers and more.<sup>14</sup>

The 20<sup>th</sup> century architect overtime became more involved in the potentials for architecture to play the role of social emancipator. The Modern Movement in architecture adopted a positivist and functionalist ethic. Spearheaded by Le Corbusier, the movement saw buildings as machines for living in. Alberto Pérez-Gomez in *‘Architecture and the Crisis of Modern Science’* describes the process by which the buildings in the modernist age lost touch with the human body. Beginning in the 17<sup>th</sup> century with a dissolution in the link between the human and the divine, translated into geometry and numbers, he uses French architect Claude Perrault as an example of this change. The 18<sup>th</sup> century saw a split between faith and reason, which introduced the positivist ethic as the only valid method for describing reality. Architecture becomes an inanimate object, without symbolic value. The architecture of Etienne Louis Boullée and Claude-Nicolas Ledoux both have utopian socialist ideals and use form to express functional purpose.<sup>15</sup> The 19<sup>th</sup> century divides the ‘necessary’ structure from the ‘contingent’ ornament in architecture, making the ornament a redundant architectural feature. It was also perceived as an expression of elitism, exemplified by Adolf Loos’ *Ornament and Crime*.

According to Pérez-Gomez, cross-disciplinary architectural research between architecture and the social sciences in the 20<sup>th</sup> century is stuck in a positivist epistemology. He argues that Post-Modernism’s use of decoration on “technological structures with arbitrary historical quotations” is proof of architects still operating within positivism. He also criticises for the same reason the increased influence of behavioural psychology within architecture because the focus is on “relations among elements” instead of “semantic references to the reality of human values.”<sup>16</sup> He saw phenomenology and the “rediscovery of the primacy of perception” as the only tool to resolve the crisis of modern science because of its balanced combination of transcendental and formal dimensions of human experience.<sup>17</sup>

David Seamon, a writer for the *Journal of Environmental Psychology* in 1982 suggested the genius loci, or place, could reunite formal and transcendental. Place-making today has become a buzzword in the architectural discourse and the mentioning of it can thwart any productive conversation around the topic. Like the term ‘sustainability’, these original and intriguing ideas become buzzwords that lose their meaning because they are over-used or misused.

### IV DEMOCRACY AND PHENOMENOLOGY

Ultimately, like many others before me, I am concerned with how architecture can change society or can produce some political or social effect. Throughout history, from Marx to Henry Lefebvre to the Situationists, the idea that architecture can change socio-economic and political structures is met with some scepticism.<sup>18</sup> As in Talk 2 on The Architect and the Public, I need to consider the role of design versus the actual use of the building. The lecturer said that by studying the praxis of architecture, we can study the reality of user experience. So what is the appropriate user experience of democracy in the city? Is a democratic society something you experience? The act of voting, debating, arguing is, but how do people experience democracy in the city? Talk 3 on phenomenology

helped me reflect on the experience of architecture and democracy. If I apply Kevin Lynch's mapping method, what would people draw as the image of democracy in the city?

Architecture and democracy is researched to this day and positioning myself within this ongoing discourse is challenging. Pedro Aibéo has been researching the link between architecture and democracy. He wrote that "cities are designed by architects constrained by the rules set by physics and politics (most notably democracy), which by definition are the matters of the city (polis)".<sup>19</sup> For Aibéo, the downfalls of democracy is ignorance. Therefore, his research proposes a quantifiable metrics system that makes "the relationship between Architecture and Democracy [...] more understandable for all citizens."

The cross-disciplinary methodology seems appropriate because I can apply several fields of knowledge to one concept, democracy, which itself encompasses a range of subjects. However, I also adopt the phenomenological perspective in trying to investigating the *place* of democracy within the city. The phenomenology of place aligns itself temporally after Pérez-Gomez's investigation into the crisis of modernity. His publication was written in 1983 and a lot of time has passed since. We know now with the exponential increase in the role of Big Data and simulation research and artificial intelligence that we are now deeply embedded in a positivist approach to world understanding. Performance-based design which is an approach used by Shop Architects in New York uses parametric design and simulations that relies on sensors and data to design the most efficient design. Computer programs can generate thousands of design options in seconds and choose the one that performs best when given certain environmental conditions. However, this efficiency often lacks meaning and does not include the transcendental as outlined by Alberto Pérez-Gomez.

I mentioned Alberto Perez-Gomez's publication because I position my project at the open end of this discourse on the crisis of modernity and equate it with a crisis of democracy. There is a clear linear argument to explain how human thought distanced itself from the irrational, the unexplainable and how architecture expressed this in return. What role did democracy play in this evolution? I agree with the idea that humans yearn for expressing things through metaphors, that somehow using analogies and poetics speaks more clearly than science. I do not agree with the idea that we should reunite the formal and the transcendental, because it implies a return to something in the past, back to how it was before. However, I do believe that with advances in artificial intelligence, simulations and quantum computing, we will eventually develop technology that will progress faster than we are capable of understanding. The marriage between technology and the city will become that connection between the transcendental and the formal Pérez-Gomez was looking for.

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- <sup>4</sup> Handa, 12.
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- <sup>17</sup> Groat, 185.
- <sup>18</sup> Bernard Tschumi, *Architecture and Disjunction* (Cambridge, Mass: MIT Press, 1994), 5.
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### Images:

Figure 1: 'Theatres of Democracy' Study by XML and TU Delft. URL: <https://www.designboom.com/architecture/xml-monditalia-venice-architecture-biennale-06-19-2014/>

Figure 2: 'The Ideal Democratic State'. Own drawing. Diagram redrawn from Maggie Keswick Jencks detailing the four 'organs' of democracy in constant competition. URL: <https://www.architectural-review.com/essays/charles-jencks-on-democracy-at-the-venice-biennale/8665415.article>

Figure 3: 'The Post-Democratic State'. Own drawing. Adapted diagram showing a post-democratic state where the interests of the people are no longer represented, replaced by the interests of business elites and financial institutions.