

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information		
Name	Sun Ah HWANG	
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Studio		
Name / Theme	Borders and Territories	
Main mentor	Marc Schoonderbeek	Architecture
Second mentor	Florian Eckardt	Building Technology
Argumentation of choice of the studio	<p>My passion has always lied in human sciences — sociology, anthropology and ethnography to name a few — and it has been my ambition as a prospective architect to use space as a mediator between functional programmes and the fashioning of productive social collectives. I am too a strong believer that it is absolutely futile nor is it even possible to invest in spatial design whilst eliminating the painstakingly true realities, say the (global) political developments, growing ecological anxieties and pressured coexistences, as well as economically driven migratory movements, for I am positive that architects have a lot more power than they are aware of to actively manipulate the larger, complex systems for the better or the worse. It was assessed that the Borders and Territories graduation studio had philosophies and virtues that aligned with those of mine, ergo my choice of the studio.</p>	

Graduation project	
Title of the graduation project	The Revolution of the Roundabout: The Arch as the Spectacle between Function and Deactivation
Goal	
Location:	Porte d'Aix, Marseille, France
The posed problem,	<p>To understand the true nature of the mass and its manifestation as crowds, one should first acknowledge that crowds resist, to a fairly rudimentary degree, the logic of individuation and separation. It is in the very power of the collective that physically bonds the mass(es) together, and it is this very bond that often commandeers it to its crumble. Nonetheless, regardless of the impossibility to amass the entire population for such 'empowerment', the modern state would logically oppose the founding of spatial contributors of crowd formation — in what they would label as 'distressing' sizes — as preventive measures for reasons such as hygienic, safety and political hazards, all of which can be shrewd criticisms.</p>

On crowd control, Weizman (2015, p. 11) studies how a roundabout, a “banal, utilitarian [instrument] of traffic management”, feeds to both crowd control as well as revolts and uprisings. Urban roundabouts are essentially intersection points of important axes of a city, which is also the reason why they are naturally located at the start or end of main processions. Contrasting to spaces that are designed for human assembly — such as the popular choices of public squares and boulevards which, in consequence, are most likely monitored and policed — and therefore do not impede with the flow of vehicular traffic, roundabouts often allude to ‘islands’ for they are designed to keep people away.

For one, the continuous flow of (high speed) traffic that surrounds a roundabout manifests itself as a physical impediment that prohibits pedestrian access. As such, while it certainly has the capacity to provide open spaces at its core, these islands are designated to be observed but not utilised. For the other, roundabouts paved the way to liberate road intersections from constabularies; where there is a roundabout, it is now up to the driver himself to administer his own movement.

The roundabout can thus be read as a literal translation of the Foucauldian thoughts on self-regulation and governmentality that fuels this deluded sense of freedom as Deleuze speaks of. It is an instrument that does not only guarantee the free interaction between involved agents, but also provides the possibility to create a frame within which said interaction can transpire. In other words, it is the mixed assortment of a circle imprinted on the urban layer, traffic regulation and the constant fabrication of a modern subject —the driver— who is permitted and expected to self-regulate.

However, perhaps it is these very reasons that attracts uprisings at roundabouts. The occupation thereof displays “the power of tactical acupuncture” (Weizman, 2015, p. 12). It is widely established that human crowds move like waves. This likewise applies to traffic congestion along (major) avenues and streets. Pressuring a single pivotal point of the complex infrastructural network by means of mass gatherings, for instance, would therefore paralyse all in- and outgoing routes, potentially putting the entire traffic system of the city under siege.

It is not only the entropic outcome in urban flow that sets roundabouts as powerful stages for revolts. Spatially, the circular form plays a far more dominant role in the formation of politicised crowds and their respective identities: “the roundabout [organises] the protest in concentric circles, a geometric order that expose[s] the crowd to itself, helping a political collective in becoming” (Weizman, 2015, p. 1). What happens at a roundabout during a revolt is consequently twofold: the space exerts a centripetal force that pulls protestors inwards, whereas law enforcement would seek to generate the opposite, shoving people out and away from the

	<p>core to disperse the crowd that now wields a power too great into individuals that can be contained. The 'precautionary' approach to counteract centrifugal forces of urban disorganisation with design is thus only logical to be one that actively disperses politicised crowds.</p> <p>Porte d'Aix, the triumphal arch of Marseille was one such roundabout. Erected as the new gate into the city, it became a prominent stage for both everyday life and political events. Later in the late 1900s, however, the roundabout took a turn and evolved even further into a square that was aimed to be an attractive, open air public space for the pedestrians. With the square came a metro station and bus stops situated at its peripheries, ironically distanced from the actual square itself by the traffic arteries. Though the plan proposed to activate pedestrian life at the junction and therefore the arch itself, it has metamorphosed into yet a different kind of island; one that is now possible for the homeless and poor to appropriate as transitory dwelling places. Porte d'Aix has grown into what I would coin as 'a deactivated spectacle that is dysfunctional'.</p>
research questions and	<p>To every rise and fall of nations, crowds were vital. They could appear in the form of armies defending their motherlands or revolutionaries rewriting the courses of history, but they are also vital to political baiting beloved by every 'big guy'. Crowds also bring in life to the masses; it is the various social spectacles that we (occasionally) attend to feel recharged and alive, connected by the warmth human relationship provides and the sense of belonging manifested therein. A politicised crowd likewise need not have a political agenda to address nor does it always entail a revolutionary goal; both dominance and resistance can too be accidental by-products of such accumulation. The question of crowding being truly democratic and its capacity to remain as a simple social event is, however, still open to debate.</p> <p><i>To what extent can architecture embrace the transformative qualities of crowding and crowd flow?</i></p> <p>I therefore aim to intervene at Porte d'Aix and return the life the various masses once embraced, ergo the title <i>The Revolution of the Roundabout: The Arch as the Spectacle between Function and Deactivation</i>. I intend to investigate the tension between endorsing and harnessing crowd formation on the one hand and crowd control on the other for I concluded that it is the focal dilemma of modern architecture and planning. It is in this propensity of the mass to crowd and tendency of (state) authorities to encourage crowd formation where there appears to be a tacit acknowledgement of the transformative nature of collective experience.</p>
design assignment in which these result.	<p>With regards to the project, I intend to respond to the following research questions that would unfold into design assignments:</p>

	<ul style="list-style-type: none"> • What are the monumental qualities of Porte d'Aix that attract revolutionaries? What of these should be preserved and what then can be mediated with the new intervention? • What does a space for political rallies entail? In what ways can the centripetal force needed for crowd identity formation be spatialised? • How then should crowd control be spatially introduced to ensure the safe transitioning of the crowds between different phases? • How can other public programmes be interwoven to a political stage? Can they too be forms of crowd control? • How can movement (or crowd flow) be designed to be both liberating and limited?
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Process
Method description
<p>The early stages of research conducted for this project was highly literature based to establish the framework and goals of the project. The writing of the theory paper —part of the studio requirement— brought in depth in my understanding of the human sciences and its close relevance to architecture, which subsequently assisted greatly in defining both my position as an architect and site of research.</p> <p>The theoretical framework was then translated into spatial practices through experimental mappings, predominantly on the study of crowding and crowd flow. Relevant notation systems were specifically invented to address the human responses to space, and identify points and moments of impediments. The <i>Modus Operandi</i> workshop —likewise part of the studio requirement— then helped in spatialising the mappings with a series of experimentations on materials and material compositions. The conclusions drawn from these exercises identified the problem statement of the project, the design approaches and the hypothesis thereof.</p> <p>The subsequent phase of the research and design project would be the constant going back and forth of mappings and model making experimentations with grounds on the theory paper to really push the boundaries of 'what could be'. Conclusions drawn at the end of every step would then yield the spatial elements of necessary for the design project, including the programme, outlook and building method.</p>
Literature and general practical preference
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Reflection

The *Transient Liquidities along the New Silk Road* research programme investigates contemporary territorial conditions —both qualitative and quantitative contributors with a focus on socio-political context— and how they are positioned within the larger urban setting. The studio provides the space needed to explore anomalous spatial conditions that have and/or could emerge due to the (pressured) coexistence of the various agents, it be between humans, humans and the physical environment, or from within the physical environment itself, acknowledge these peripheral existences and translate them into architecture projects.

My research and project revolve around Porte d'Aix that was erected as the new city gate of Marseille. To have explored how once a politically (and socially) prosperous monument turned into a strictly utilitarian instrument, and go as far to become a safe haven for the neglected members of society, I was able to study the significance of an architectural stage in the crowding of the mass(es) and directing crowd flow. The relationship harvested between the people and the object over the period of three centuries consistently (re-)established the identity of the arch like a palimpsest, where the evolution of Porte d'Aix itself could speak of the entirety of the socio-political history of Marseille. To intervene at such a contextually rich site would potentially indicate the mediation of the future socio-political setting of Marseille as such.

I like to believe my project questions the contemporary philosophies of architecture and the multiplicity in the roles of architects in addressing the greater 'human' issues. It has already broken my established ideas of how architecture should head towards the functional, economic and environmentally sustainable paths and that architecture has a far greater power it can yield in rewriting history. Architecture, I believe, must not stand alone; it is a bridge between engineering and the human sciences. Good architecture should therefore be founded on a good understanding of people as both individuals and as collectives. Perhaps the conclusions I would draw at the end of this trajectory may differ from my hypothesis, but I believe that the true value lies in being able to explore the various positions one can take as an architect, which would be the largest gain from my master track and programme.