



# [Cultural prostheses]

[and their spatial consequences]

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## Abstract

The premise for the Advanced Architectural Design Studio, led by Prof. Dr. Theodore Spyropoulos at the Städelschule Architecture Class is to explore the idea of “body architecture”, that is to think of its implications and entailments for the production of architecture. The studio understands space as an interface that has the capacity to raise connections between people and the city, and that explores the body as a site for examining communication, behavior and the experience of the world<sup>1</sup>. This approach understands the body not as a holistic, finite entity nor as a set of proportions that conform a physical site but understands the relationship between the psyche and the body and acknowledges the potential they have to become a site for collective interfacing. The concept of social prosthesis is then examined, as a way to engage with the psychological space, that has the potential to empower the wearer: “body architecture” becomes the exploration of identity and the psychological aspects that constitute our everyday.

***The final implicacies include the interaction and communication between the wearer and the audience.***

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<sup>1</sup> These ideas were expressed throughout the development of the studio and also displayed as a text on the Advanced Architectural Design exhibition at the Städelschule Rundgang 2018.

## *The body*

A recent historic referent is architect/designer Lucy McRae, which has been using the term “body architecture” to describe and delimit her particular interest in the intersection of different mediums, such as dance, architecture and design (Taha 2010). McRae’s interest on the body is related to both the alteration of the human silhouette and in the assimilation of technology into the body to question the ways in which the body could be shaped and in the search of its own humanity (McRae 2015). Even when this approach seems contemporary, the relationship between the body and architecture is not a new discussion. other architects such as Diller+Scofidio have also found relevance in the idea of the body and its relationship to architecture, even to the point that their first solo exhibition, in 1987, was even named “Body buildings” (Diller Scofidio+Renfro n.d.). Interestingly enough, their interest also regarded the intersection of different mediums, such as performances, body apparatuses and architectural sets, in the search of an understanding of architecture that could go beyond the building (Moon 2016).

However, even before the previous cases, the body has always been a subject that has served as an inspiration and as a source of discussion in architecture. This relation has been noted by G. Teyssot on his essay: “Hybrid Architecture: An Environment for the Prosthetic Body”<sup>2</sup>, starting with Vitruvianism, that understood the figure of the body as a canon, as a set of geometrical paradigms that served as a literal model for the transformation and construction of the art and built environment, shifting later towards Mechanicism on the XVII that explained the world as a complex conglomerate of beings interacting on their own, outside of the human influence, where the body is no longer the center of cognition; then bouncing back to Sensualism on the XVIII, that responded to the notion of the body as the essential source of understanding of the universe through experience, and later throughout

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<sup>2</sup> This article was published on *Convergence: Hybrid Identities in Digital Media. Volume 11*, on 2005. This article is based on the preface of the book *Flesh: architectural probes* by Diller+Scofidio from 1994, under the name “The mutant body of architecture”.

XIX Organicism that explained the universe as a set of smaller but whole parts that define the collective behavior of larger organized parts, and to *Dwelling machines, or machines for living* from Le Corbusier, which implied a standardization of the human condition, so that it accommodates the needs of architecture. Through this analysis Teyssot identifies a dismissal of the imitation of the body and deems necessary to rethink the relationship between the body and the built environment in the different practices of daily life.

Moreover, there is another dimension that can be noted in the understanding of the body: the mental, psychological aspect. The body is not only a set of measurements, a physical construct that operates under the laws of physics, but also a set of behaviors and reactions that are governed by a psyche that operates under a society and beneath an overarching contemporary condition, one that has been acknowledged as the condition of modernity: Trauma (Vidler, *Warped Space* 2000). The idea of trauma has emerged as an interest of psychoanalysts on the XX century and has permeated onto many different fields such as art, history, novels, cultural philosophy and others, and it has transcended its initial clinical concept associated mostly with sexual abuse (Leys 2000). Vidler points out that, in modernity, phobias and neuroses have been normalized and are part of our daily lives. Through his scope there is a phobic space which is the result of the projection of the fears and anxieties onto the modern city and architecture, with a genealogy that can be traced back to agoraphobia and claustrophobia in the late XIX, as the result of the construction of metropolis spaces, that created never before seen spaces that some people found unsettling. However, when Vidler's interest exists on the representation of this space and in its relationship with the built environment, on the disturbing forms that architecture and the city display as a result of the trauma condition, such as in the angular shapes of Libeskind, it is the effect of the trauma condition what becomes of interest, such as behavioral traits and the maimed capacity of individuals to interact with space and with other people, relating also to concepts of self-confidence and body image.

This body then, based on the mental space of the individual, is important because the effects of trauma can transcend different realities, both man-made and natural, and can be found in all ages and groups (Jarzombek 2006), and because it affects his experience of the world. As an example, one of the manifestations of trauma could be SAD, or social anxiety disorder. SAD has been studied under many names, such as shyness, social withdrawal, speech anxiety, stage fright and others (Leitenberg 1990), and it can trigger different behavioral traits that can range from blushing, to trembling, to having a shaky voice, to a difficulty to make eye contact, and can derive on the disruption of daily routine, resulting in the avoidance of stranger for fear of embarrassment out of talking to them, or in the fear of being the center of attention (Hofmann and DiBartolo 2014). However, even when these traits come in different gradients and can be also situationally restricted, for example on specific situations like giving a speech or when blushing in company of a date, these behavioral qualities give us glimpses on what it is that makes us uniquely human (Hofmann and DiBartolo 2014).

The question then becomes, if there is a body that displays anxieties that cripple its ability to interact with others and with the environment, what could be the relationship that architecture could have towards the body? In order to empower the wearer and to mediate his anxieties, the concept of cultural prosthesis is presented, as devices that engage both with the immediate environment and with other people.

### ***Social prosthesis***

On contemporary terms and in current understanding, the idea of prosthesis goes beyond the replacement of a missing part. It has evolved to entail not only the concept of a spare but also the ideas of enhancement, augmentation and extension. It is being used in many different fields and practices beyond the medical profession, it has mutated to the point that it describes any interaction between the body and technology. This adoption of technology in our lives and into our bodies has been identified as a “prosthetic

impulse” (Smith and Morra 2007). As devices prostheses could provide of agency to the psychological body in what would seem a natural step, as in posthumanism the body itself is understood as the initial prosthesis we all learn to use, so that its extension or manipulation is just a normal step in its development (Hayes 1999), it would only be natural to include them into our daily lives.

The experiences that illustrate the development of the prosthesis could point to the early works of Rebecca Horn, whose understanding of prosthesis, starts with the acknowledgement of the limits of the human body, that is later set up for amplification. First, on her sculptural piece “Overflowing blood machine” (1970), she tries to expose, in an almost visceral way, the inside of the body by generating new organ-like structures that bring the internal systems of the body towards the outside<sup>3</sup> through a set of quasi-surgical equipment consisting of pumps and tubes filled with a red blood-like liquid that are displayed around the body, resembling veins. Later, on another piece called “Finger gloves” (1972), where a glove with prosthetic finger extensions attempt to explore the intimacy between the body and the surroundings, through the use of lever-action, the finger attachments are able to change the sensations in the hand as they are augmented (Garzon 2012), her prostheses serve the purpose of experiencing the immediate world on a different way, one that triggers discovery, exploration and playfulness. A similar interest is shown by other artists such as Stelarc, who has also worked with medical instruments and prosthesis. For example, on the “Third Hand” (1980) he studies the relationships that arise between technology and prosthetic extensions, that are not understood as replacements but as incorporations to the body, not as signs of deficiency but of excess (Stelarc 2011). Through the understanding of the vulnerability and the limits of the body (Teyssot 2013) and the alteration of the architecture of the body it is possible to adjust and extend its experience of the world.

Another, perhaps more incisive example is the work of Krzysztof Wodiczko and his idea of “critical vehicles”. Based on his own experience in

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<sup>3</sup>Stated on the display caption of the piece on the Gallery label, September 2004, from the Tate Collection.

Poland during the 70's and his different immigrations to Canada and USA. He identifies groups of people that have experienced some type of trauma and are usually left without a voice (mostly victims of alienation and marginalization (Wodiczko 1999)) and designs different types of equipment that serve as mediating tools that empower the wearer against the limitations produced by the trauma, but that also serve as tools for communication towards the public, delivering ideas and sensations that evoke a change that Wodiczko deems urgent. For example, the "Homeless Vehicle Project" (1988–89) addresses the suffering of living on the streets of New York during winter<sup>4</sup>, which is dealt through the design and implementation of a mobile unit that covers with basic needs such as water storage and enclosing for sleep, while making this issue apparent to the bystanders, or on the "Tijuana projections" (2001) where he literally gave voice to abused women of Tijuana, that suffer continuous violence and discrimination<sup>5</sup>, by projecting their faces onto a huge sphere-like building called "El Centro Cultural"; or on the "Vehicle (War Veterans)" (2006–2010)<sup>6</sup> where the aim was to solve the social and psychological needs of war veterans (Frac Centre-Val de Loire Collection 2016), addressing it by creating a self-contained environment that moves along with the body, becoming a statement of isolation, and a protective shell.

When the previous examples present a mediating aspect to them, it is also important to note that they are also instruments for expression and communication. This act of communication resonates with the concept of speculative design of A. Dunne and F. Raby. The couple usually starts with the identification of cultural aspects in order to engage with them on different scenarios. One of these scenarios are physical fictions<sup>7</sup>, defined as props for a non-existing film that makes the viewer imagine the setup in which this object would exist, they invite the viewer to actively engage with the designed piece,

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<sup>4</sup> During the winter of 1987–88, an estimated 70,000 people were homeless in New York. Though a significant proportion of homeless individuals are the deinstitutionalized mentally ill, a growing majority of them are not. Furthermore, both the sane and insane homeless share the same immediate, life-threatening condition: they have no permanent shelter and no safe place to go.

<sup>5</sup> Talk about the drama of the maquiladoras.

<sup>6</sup> Done in collaboration with Prof. Dr. Theodore Spyropoulos.

<sup>7</sup> As stated on their book *Speculative everything: design fiction and social dreaming* from 2013.

which would be interpreted differently by each spectator. These props must be functional and designed to invite thinking about everyday life ideas that might not be apparent; they challenge the beliefs of the material culture (Dunne and Raby 2013), their main objective is to incite the beholder to take ownership of the presented idea.

So, when the prosthesis is providing nurturing and almost psychological therapy on the wearer<sup>8</sup>, it also has to become a cultural instrument, in order to invite the spectator to engage with a different perspective of things, generating a space of attention and a space of silent dialogue. The design of these artifacts opens up new possibilities, as they can also interact with other beings, having a potential to become a site for collective interfacing (Colomina and Wigley 2016).

### ***Spatial consequences***

When architecture on its more traditional terms could be understood as a space-making strategy, the kind of space that is here becoming of interest, amid the interaction of behaviors between social and material interaction (Spyropoulos and Spyropoulos 2010) evolves as the potential that the cultural prostheses have to enable collective participation is acknowledged and, under the studio premise of being time-based, become into an event space. This space has a specific attitude towards the crowd, people become part of architecture, resonating with the understanding of space as a performance, because, after all, there is no space without event (Tschumi 1990), an event that is as much the activation of space through the movement of bodies (Khan and Hannah 2008) as with social interaction. This architecture then, is that of the street, of the social interaction and of the everyday. It is not programmed,

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<sup>8</sup> It is important also to note that it is a goal that this apparatuses become only transitional, as they would be successful in their purpose once they are not anymore needed.



you can carry it yourself, it transcends its utilitarian features, as in “Fun Palace” (1964), the audience becomes the performance.

Body architecture then becomes the design of tools, almost a camouflage, a psychological space that is carried around, its purpose is to shed you from anxieties and insecurities in order to explore space and to enable participation with the collective. In this scenario everyone becomes a performer and an assistant, the prosthesis becomes a social interface that allows people to communicate in ways that could, perhaps, be more human.

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