Contemporary design practices use the diagram as an active agent in the development of form and matter into architectural space. Deleuze and Guattari, following Foucault, defined the diagram as an “abstract machine,” which “does not function to represent even something real, but rather constructed a real that is yet to come, a new type of reality.” This formulation emphasizes the diagram’s configuration and its modes of operation through virtuality and potentiality. In this sense, the diagram is the architects’ way of dreaming, the “no-place” encompassing the utopian act. Simultaneously being reality and process, the diagram delays the relation between sign and meaning and gives rise to a shift from architecture as form or sign to architecture of forces, performance, and performativity.

Methodological Model

Haptic Diagrams is a methodological model, which operates criticality within a multiplicity of formal possibilities generated by digital tools. Through this model, design can escape the immediate formal translation of the diagram into architectural form. Cinematic frames and sequences question the conventional architectural modes of representation (plans, sections, axonometrics, and perspectives) and offer new order for experiencing space, event, and movement. In the workshop presented here, students used film footage in order to generate an abstract machine, a conceptual diagram. The cinematic medium availed us of complex spatial-temporal scenarios, in which cinematic language, camera movement, points of view, composition, sound, or narrative, were transformed and mapped into dynamic parametric data and assembled through digital media. The digital model and its diagrammatic base give rise to additional flows, forces, and contexts with which to operate on its data organization. This model generates a multiplicity of solutions rather than a singular architectural form and keeps its relations to “event” and “program” open.

Performative Body in Urban Space

We derive the notion of the “haptic” from Walter Benjamin’s “state of distraction.” In Benjamin’s work, this concept is typically associated with the modern subject who protects himself from a surplus of visual images produced by urban stimuli: alternating visual data, a multitude of directions and contexts, countless consumerist, and fragmented information. Benjamin identifies the cognitive and political potential of modernity’s new technologies and spaces; panoramas, dioramas, photography, and finally cinema all brought about an expansion...
of vision and of other corporeal and sensual perceptions. For Benjamin, it is architecture “that has always experienced collectivity in a state of distraction,” and buildings are appropriated in a twofold nature: “By use and perception—or rather by touch and sight . . . as regards architecture, habit determines to a large extent even optical perception.”6 The tactile and the optic, touch and sight, are folded into each other, reciprocally generating a haptic sensibility. In other words, perception of the built space is always engaged with performative acts in which common or private activities construct identity. These activities are accumulated over time by repetition in space, in this repetition is embedded the subject’s way of action and the potential for change.7

One of the students work analyzed Kylie Minogue’s video clip “Come into My World” (2002, directed by Michel Gondry). In this video clip, Kylie is the “urban Flâneuse,” strolling around a city block; as she circles the square, she returns to the same point four times. Each time, the camera reaches this point, Kylie meets up with her former self and becomes multiplied. Eventually, the frame is full of her duplicated self with different overlaying scenarios in space and time. The intensified urban context brings about Benjamin’s “state of distraction,” demanding from the viewer an active search for traces of differences and repetitions. The initial diagram mapped the repeated yet different paths, transformed by body movement in space (Figures 1 and 2). Later on, the two-dimensional paths transformed into a three-dimensional (3D) spatial fields (Figures 3–5) abstracting the relations of the different urban data. Overlaying the fields unfolds conditions of difference and sameness that collide and overlap (Figure 6). It is the performativity of the body that alters the primary space, generating continuation and discontinuation at the same time.
From Representation to Operation

Another meaning of “haptic” stems from media itself. Space, event, and movement are inherent to the cinematic medium. Anne Friedberg coined the expression “the mobile virtual gaze” to refer to the viewer’s desire to overcome spatial and temporal limitations by observation.8 As the mobility of the gaze became increasingly “virtual,” and the illusion of reality reaches its peak in the moving cinematic image, so the viewer’s body becomes more and more passive.9 With film apparatus, and particularly with the camera itself, came a change in the social conditions of perception, meaning that any attempt to grasp the world is already constantly mediated way of acting in it by language and practices of representation. Benjamin explains how film technology places the observer in the role of a passive critic, as she or he penetrates and ruptures reality through cinematographic operations.10 Being both apparatus and operation, the viewer is already situated in a position that forces him to take action, but this, according to Benjamin, happens in a “state of distraction,” when the “optics unconscious” breach.11

Following Benjamin, we can define haptic perception as an overcoming of the precedence of the optical by means of the optical apparatus themselves. Mediated by technology, the haptic has changed our way of operating in the world, generating a shift from contemplation alone to active involvement. In our methodological approach, the haptic is engaged with the diagrammatic, activating a shift from representation to operation by digital media tools.

Another work from the workshop used the bowling scene from “The Big Lebowski” (1998, 7–8. Camera takes the ball’s view. 9. Pawns in a random explosion.
directed by Joel and Ethan Coen). This scene comprises three sequences: the first challenges conceptions of the masculine body and its performances. The students mapped the protagonist’s choreography of body and bowling ball into a kind of Marey’s chronophotography (Figures 7 and 10) and transformed body motion as disposition of time into a coded controlled surface. The interconnected control vertexes allow manipulation and transformation over the field—transformation of one control vertex transforms the whole surface.

In the second sequence, the camera takes the ball’s view (Figure 8). This scene exemplifies the overcoming of the precedence of the optical by the optical apparatus itself. It is not a representation of the ball but its operation and performance in space (Figure 8). The third sequence shows Pawns in a random explosion (Figure 9), the diagram maps them as mathematical-generated NURBS objects having spatial and temporal characteristics in addition to the 3D geometrical space in which they are displayed (Figure 11). These three parametric procedures continuously accumulate as one operates on the next, transforming the analog chronophotographic study into a haptic diagram.

**Embodying Identity**

This last example uses the opening scene from the movie “Fight Club” (1999, directed by David Fincher). In this scene, while the protagonist sits on the toilet, thumbing through an IKEA catalogue and ironically contemplates his consumerist lifestyle, the camera moves through his condo as it filled up with furniture, transforming around him into a living catalogue with prices floating in space. The diagram was generated by two procedures: the first, mapping furniture emersion by tracing it frame by frame (in plan and perspective views) blurred the furniture’s identity and transformed it into surfaces (Figure 12). The second procedure traced the camera’s movement as a 3D spatial path (Figures 13 and 14). This abstract machine enabled the generation of new spatial objects and showed how new identities of objects, materials, and artifacts can be acquired (Figure 15). In this way, a critical and even anticonsumerism position could be established, reflecting on the IKEA illusion of individuality and on the fact that everybody is having the same “private” space.

Anthony Vidler sees the diagram as a “potent political device, whether internally, acting on the formal and technological devices of architecture itself, or externally, working with the political and psychological program of new social order . . . the diagram can act to galvanize the discourse only if both political form and architectural form are entered into its equation.” The syntax “haptic diagram” displays these complex relations between performance and performativity in contemporary architectural practice and discourse. Digital technology is wrongly perceived as merely being about techniques and optimization and form performance. By this syntax, we raise questions about how can digital design process be engaged with actuality, society, and context.

One of the dangers in digital design teaching is the immediate formal translation of the digital
diagram into architectural form, narrowing the discussion to the aesthetic and technologic aspects of the design object. This prevents architecture from relating to broader social and cultural practices in which architecture is embedded. In our methodological approach, the haptic is engaged with the diagrammatic, generating an active involvement mediated by digital media tools.

In the frame of this short workshop, cinematic materials serve us as available spatial-temporal scenarios, which were transformed into parametric data. Applying haptic diagram as methodological model in design studio (a longer and intensive course) can generate a conceptual tool for developing programs, in which then social and cultural contexts can be related to materiality, corporeality, surfaces, event, and temporality of identity embodied in space.

Notes
1. A clear-cut example of the diagram that works within its historical and social context is apparent in Foucault’s discussion of “panopticism.” Foucault observed Jeremy Bentham’s plan of the panopticon prison as the diagram of modern disciplinary societies. In this way, the Panopticon, detached from its specific use, operates as a “spatial machine”—an expression that manifolds cultural and political conditions and generates the social order as a whole.
3. We refer to Judith Butler’s notion of performativity that relates to the way the subject acquires his/her identity. In J.L. Austin’s term of performative utterance, performatives are speech acts that operate in such a way that saying of it makes it so, it is the action that is executed in the statement itself. Butler expands this concept and defines performativity as the discourse ability (in linguistic and non-linguistic sense) to generate a state of things that it pretends to represent. This ability is founded on repetition and citation of norms and conventions. According to Butler, in this repetition is embedded the subject’s way of action and the potential for change.
6. Ibid.
8. Anne Friedberg, *Window Shopping: Cinema and the Postmodern* (Berkeley: University of California Press, 1993). Here, the term “Virtual” refers to the register of representation itself that can be either simulacral (where the image has no referent in the real) or directly mimetic. That is, the virtual is the effectiveness of representation as the appearance of the actual thing, without the mediation of its materiality.  

9. Ibid.

10. “With the close-up, space expands; with slow motion, movement is extended. The enlargement of a snapshot does not simply render more precise what in any case was visible, though unclear; it reveals entirely new structural formations of the subject.” W. Benjamin, “The Work of Art,” p. 236.

11. Benjamin, “the work of art.”

12. Étienne-Jules Marey, French physiologist, invented a camera in 1882 with magazine plates that recorded a series of photographs; the pictures could be combined to represent movements.