



## ***Artifact & Affect***

M.ARCH. MATIAS DEL CAMPO

M.SC. SANDRA MANNINGER

**Matias del Campo** studied at the University of Applied Arts Vienna (A)/ 2006 Research visit in Los Angeles (USA), Schindler Scholarship, MAK Artists and Architects-in-Residence Program/ guest professor at the Dessau Institute of Architecture (D), Lecturer at UPenn, University of Pennsylvania, curator Architectural Biennale Beijing, 2008 & 2010

**Sandra Manninger** studied architecture at the Vienna University of Technology (A) / 2006 Research visit in Los Angeles (USA), Schindler Scholarship, MAK Artists and Architects-in-Residence Program / guest lecturer at the Dessau Institute of Architecture (D) and guest professor at the ESARQ, Universitat Internacional de Catalunya (E)

mdc@span-arch.com

ms@span-arch.com

### **Abstract**

The main aim of this paper is to explore the manifold planes of possible communication between various fields of expertise triggered by two specific conditions: Artifact and Affect. The relation between the conditions is described by the application of computer numerical control and the artifacts of the process grinded into the surface condition. Resulting in opulent novel conditions which can be read in multiplicitous ways.

Keywords: Artifact, Affect, Robots, Fabrication.



## Artifact & Affect

### *open ended strata of communication*

#### Percepts and Affect

The Deleuzian differentiation between the disciplines of philosophy, art, and science is based on the idea that these disciplines analyze reality in specified different ways. This rigorous differentiation is based on the conclusion that the main task of philosophy is to create concepts, whilst the arts create novel conditions of percepts and affects, and science produces theories based in quantitative methods that rely on rigid, functive, referential points, such as absolute zero and the speed of light. All three of them, philosophy, art and science, are considered to be diverse ways to organize the metaphysical flux *pari passu*, without hierarchy or supremacy over the other, *separate melodic lines in constant interplay with one another*.<sup>1</sup> Consequently philosophy, art and science can be considered essential and equal as well as creative and practical in a simultaneous manner, resulting in the assertion that Deleuze is asking questions of functionality and practicability akin to “how does it work?” or “what does it do?” replacing more traditional inquiries of identity, like “is it true?” or “what is it?”.<sup>2</sup>

#### Rise of the Molecular Machine

Following the before mentioned methods of classification the term *Artifact* can be described as an object produced or shaped by human craft, in particular objects of historical or archeological interest as well as tools and weapons. In that extent the example of the BigDog<sup>3</sup> robot by Boston Dynamics serves as a splendid opportunity to speculate upon the artifact on intelligent war machines. Prototypes of Predatory Machines have been already deployed to a number of Battlefields marking the emergence of Autonomous Weapons, such as the *Talon* System by Foster Miller<sup>4</sup>. Contemporary Autonomous war machines in fact do not act completely Autonomous, albeit some robotic UAV's (Unmanned Aerial Vehicle) are capable to execute operations entirely autonomous there is still a man in the loop, a human being who controls the ethic behavior of the machine, and thus infusing the robot with instances of morality. The decision process between the information delivered by the robot and the human factor is needed in the exemplary case of weapons usage and the differentiation between combatants and civilians<sup>5</sup>. This development marks a point of singularity where the opposition

between man and machine cease to oppose each other, resulting in the fusion of both conditions into each other and thus becoming one single war machine, forming a substantial example of artifacts within the machinic phylum<sup>6</sup>. It should be briefly mentioned that in fact this last condition is tightly knotted to Gilles Deleuze's idea of the desire for *Molecular Machines*<sup>7</sup> formed by social machines, instead of being mechanically composed and manipulated in order to form a complex molar machine. An example of a Molecular Machine adopted from popular culture is the T-1000 Robot from the James Cameron directed Terminator 2 Movie<sup>8</sup>. The Mimetic alloy composition of the robot allows for a shape shifting process, rendering the matter's abilities to adopt every form it gets in contact with, as long as it is not mechanically complex. The resulting behavior can be described as a pliant spatial condition created by numerous components forming a collective entity, a population affecting its environment in multiplicitous, intricate manners.



Fig. 1: Boston Dynamics Big Dog, image Courtesy of Boston Dynamics.

The similarities between such a statement as this and the subjective concerns of - for example – Hume, who describes personal identity as a jumble of perceptions, Kant considering the subject as both a synthetic construct & a construct of synthesis and even Nietzsche with his idea of the "I" as nothing other than a grammatical exigency, are noteworthy. Considering these conditions the individual subject, the ego, can no longer be perceived as the fundamental basis upon which everything else can be built. It is not an Ursprung from a special point of mystical origin, but rather, emerges from the necessary affects, and capacities for being affected, of bodies.<sup>9</sup>



Fig.2 T1000 Robot, Terminator 2, Judgement Day

In contrast to the condition represented in the fictional concept of the T-1000, the affect created by industrial robots can be spliced in two components: The machine itself, and thus the moments of affect within the machine, and secondly the artifacts created by the machine itself, which represent pliant conditions. What enables the machine to produce endless variations within their fabrication process is the numerical code controlling the curvilinear movements of the robot based on calculus. This process possesses a high potential for the creation of ornamented surfaces defined by the milling artifacts, which can be considered an



Fig.3 Kuka industrial robot cutting a path into foam. Lamp Prototype © SPAN 2008

inherent condition of the applied mode of material organization. The described subtractive method of material organization converts a spline mesh into a tool path, resulting in corrugated surfaces bearing qualities of corduroy like patterns, formed by the artifacts left by the continuous tooling path. The ornamentation of the surface does not emerge from a specific design process, but is intrinsic information within the numerical condition of the spline derived surface, stored information within the formal qualities of the object, like the pattern on an animal skin follows the comprehensive geometry and core information, the corrugation resulting in the milling process follows the constitutive mathematical and geometric conditions of the surface. If ornament were seen as applied decoration, as it has been since the invention of the decorative arts, then it would be transformed by a Deleuzian sensibility. But if it is posed as a question of fused interacting processes then it is a primary concept for Deleuzian provocation.<sup>10</sup>

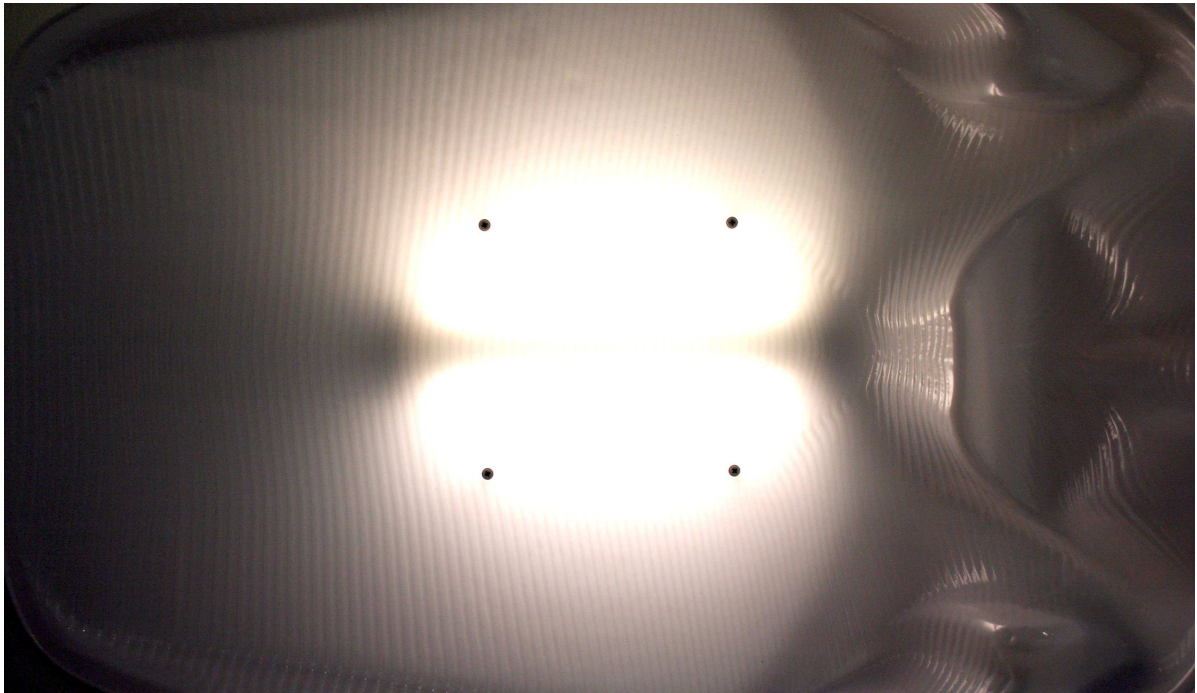


Fig.4 Corrugated , Cordroy surface condition on panels for the exhibition design  
The Austrian Winery boom, on show in the Austrian Cultural Forum NY, Fall 2007

The trajectory of this narrative is the relation between, communication, design and the machine, based on numerical control. The plane of thinking created by the relation of those to the spliced condition between molecular machine and mole machine and the emergent opportunities in the communication between disciplines propelled by the artifact. Beyond the description as a physical object, *artifacts* include products of the human conception or agency. Ideas can be described as artifacts of human conception models. Technology has uncovered another strata of observation, making processes and features previously invisible to the human eye visible with the aid of radiology or electro-cardiography, those images can be described as the artifacts of processes unfolding in our cone of vision. Finally and Artifact can be the result of an inaccurate observation, an effect or result generated by faulty technology or false assumption in the scientific investigation of a specific experiment. This final definition is able to create unprecedented results, patterns in the data that follow novel conditions in its ballistic trajectories; unfolding in surprising conditions able to generate affects in the process.



## Affect of the plane of Immanence

If we consider immanence to be a plane of geometry, we can read it as abstract or virtual plan unbound from a mental representation, resulting in a formless, univocal, self-organizing process differentiating from itself and thus creating qualitative conditions in alignment with Deleuzian understandings of metaphysical and ontological qualities such as transcendental subjects, agency and real structures as described by Deleuze and Guattari in *A Thousand Plateaus*:

"Here, there are no longer any forms or developments of forms; nor are there subjects or the formation of subjects. There is no structure, any more than there is genesis." <sup>11</sup>

The lineage of this mode of thinking results in a plane of immanence constituted of an intricate relationship between complex networks, intensive forces, particles, connections, relations, conditions of becoming and ultimately affect.

"There are only relations of movement and rest, speed and slowness between unformed elements, or at least between elements that are relatively unformed, molecules, and particles of all kinds. There are only haecceities, affects, subjectless individuations that constitute collective assemblages. [...] We call this plane, which knows only longitudes and latitudes, speeds and haecceities, the plane of consistency or composition (as opposed to a plan(e) of organization or development):"<sup>12</sup>

## Artifact, Affect and Works of Art



Fig.5 Scumak 2 by Roxy Paine

Artificiality is often regarded as a defining characteristic of works of art for example, this is an essential condition in George Dickie's analysis, according to which a work of art is an "artifact of a kind created to be presented to an artworld public". The condition of artificiality is plausible only if the concept of artifact is understood in a wide sense in which

intentionally created events and processes (e.g., performances) and works which have instances (for example, musical and literary works) are regarded as artifacts. According to condition, the condition of artifactuality in this sense is equivalent to the requirement that a work of art should have an author. Some philosophers of art have rejected the condition of artifactuality, using instances of “driftwood art” and analogous examples as counterexamples. According to condition, this view has the seemingly paradoxical consequence that a work of art need not be a product of anyone's work and need not have an author. Other philosophers have responded to such examples by extending the concept of artifactuality in such a way that the presentation of a natural object as an object of aesthetic appreciation counts as an “intentional modification” required for artifactuality. If the expression ‘artifact’ is used in a sufficiently wide sense, the condition of artifactuality clearly holds for artworks, but it is equally obvious that not all works of art (or works in general) are artifacts in the narrow sense of the word. In aesthetic evaluation and criticism, however, they are treated as if they were artifacts. Artifacts in the wide sense form an ontologically heterogeneous collection: some of them have instances (literary works and musical compositions), others are singular objects (e.g., paintings), and there are also abstract artifacts, for example, fictional characters, which have authors but are neither concrete particulars nor have such particulars as instances. As Amie has pointed out, abstract artifacts do not fit the traditional division of entities into concrete physical particulars and ideal abstracta<sup>13</sup>.



Fig.7 Scumak 2 by Roxy Paine

### The Relation to affect.

Ultimately the artifact in its representational construction can serve as a launching pad for a twofold process. Primarily it can serve as an interface between disciplines, provided there is a communal etiquette of understanding, a common language. The previously mentioned process of CNC milling, or of numerical control in general, represents one of those opportunities, where a specific aspect of technology serves as a lingual interface between

disciplines. To mention just one example, the authors communication with a Tissue Engineering lab can form a base for further discussions on the relation between specific technologies, and its advanced techniques, computational software artifacts and its potentials to generate novel conditions as well as serving as universal language between disciplines. In the specific example the use of advanced software and fabrication tools generate a jargon between the disciplines, which creates an immanence of understanding, enabling both fields to inform each other and thus enrich the potential results of individual or communal efforts. In the process, between material behavior, processing technique and resulting artifact conditions the immanent qualities of affect emerge, informing multiplicitous planes of perception and communication. In opposition to the concept of vacuous forms awaiting content to fulfill their destiny the forms themselves become active productions, affecting and being affected on a constant level by other concepts, representations, images and bodies. Thus creating a continuous relation between artifact, affect and the intensive conditions creating continuously varying environmental pressures.

## **References**

1: Gilles Deleuze Negotiations, 1972 -1990, Columbia University Press 1997, P.125

2: Gilles Deleuze Negotiations, 1972 -1990, Columbia University Press 1997, P.21

3: BigDog is a quadruped robot that walks, runs, and climbs on rough terrain and carries heavy loads. BigDog is powered by a gasoline engine that drives a hydraulic actuation system. BigDog's legs are articulated like an animal's, and have compliant elements that absorb shock and recycle energy from one step to the next. BigDog is the size of a large dog or small mule, measuring 1 meter long, 0.7 meters tall and 75 kg weight.

Retrieved from the Boston Dynamics Webpage 03.26.2009,

<http://www.bostondynamics.com/content/sec.php?section=BigDog>

4: TALON Operations is in the process of building several distinct "families" of robots that will be able to perform a variety of tasks, and will all be operated with one universal control unit. Today, TALON Ground Robotics includes four "families" including the MAARS Robot (Modular Advanced Armed Robotic System)



5: Most countries are bound to international [laws of war](#) (such as the [Geneva Conventions](#)). These laws govern the conduct of participants in war (and also defines combatants). These laws place a burden upon participants to limit [collateral damage](#) through proper identification of targets and distinction between combatants and non-combatants. It is in this area where the use of completely autonomous weapon systems is problematic, since it is difficult to assign accountability to a person. It is for these reasons that current designs still incorporate an element of human control (a "man in the loop") – meaning that a ground controller must authorize weapons release. Retrieved from Wikipedia 03.23.2009

6: See also Manuel de Landa, *The Machinic Phylum in Technomorphica*, V2 Publishing, Rotterdam 1997

7: See also Gilles Deleuze and Felix Guattari, *Anti Oedipus: Capitalism and Schizophrenia* Volume II, Viking, New York, Original work published 1972

8: *Terminator 2: Judgment Day*, commonly abbreviated as *T2*, is a [1991 action-science fiction film](#) directed, co-written and co-produced by [James Cameron](#). It stars [Arnold Schwarzenegger](#), [Linda Hamilton](#), [Edward Furlong](#) and [Robert Patrick](#). It picks up around ten years after the events of *The Terminator* and follows [Sarah Connor](#), her 10-year-old son [John](#) and a protector from the future (as in the first film), as they try to prevent Judgment Day, a day in the future when machines will begin to exterminate the human race. *T2* was a significant box office and critical success. It influenced popular culture and set a new standard for special effects in action films.[1] The film's [visual effects](#) include many breakthroughs in [computer-generated effects](#), marking the first use of natural human motion for a CG character and the first computer-generated main character.[2] The film won several awards including four Academy Awards for makeup, sound mixing, sound editing and visual effects.

9: Jamie Brasslet, *Emerging Cyber Subjects*, paper was presented at the 'Digital Landscapes of the Mind' conference, central St Martins, nov.1997, at the 31st Comparative Literature Symposium at Texas Tech University

10: See also *The Structure of Ornament*, a conversation of Greg Lynn and Neal Leach, published in *Digital Tectonics*, edited by Neil Leach, David Turnbull and Chris Williams. Wiley Academy Publishings, West Sussex 2004, P.63 –P.68



11: Gilles Deleuze and Felix Guattari, A Thousand Plateaus, University of Minnesota Press, 1987, P.293

12: Gilles Deleuze and Felix Guattari, A Thousand Plateaus, University of Minnesota Press, 1987, P.295

13: Retrieved from the Stanford Encyclopedia of Philosophy, 03.23.2009