

# METATOOL

Dan Taeyoung / dan@dantaeyoung.com

**For Sept 22, 2015:**

## **Video tutorials:**

Grasshopper conceptual / technical intro  
(Skip this if you have Grasshopper experience)

Node Logic: <http://www.youtube.com/watch?v=1axWr-19nEM>

Grasshopper Intro: [https://www.youtube.com/watch?v=YjqjLXu0q\\_0](https://www.youtube.com/watch?v=YjqjLXu0q_0)

METATOOL examples:

Wallmaker: [https://www.youtube.com/watch?v=wMf\\_nfEkMc4](https://www.youtube.com/watch?v=wMf_nfEkMc4)

Spidersac: <https://www.youtube.com/watch?v=x1ARiVm4qF8>

## **Reading for Class 2's discussion:**

Bruno Latour, "A Cautious Prometheus? A Few Steps Toward a Philosophy of Design (With Special Attention to Peter Sloterdijk)", pages 7-11

Mark Hansen, Bodies in Code: Interfaces with Digital Media, p38-45  
(excerpts attached)

## **Assignment 1: Grasshopper intro / Tool-hacking: (Due Sep 29)**

**1. Finish the Spidersac tutorial.**

**2. Tweak/hack the Spidersac Tool to create a new tool, designed for subterranean architectures.**

Example ideas: Utilizing the Solid Union / Difference / Intersection components, modify the tool to design a series of subterranean architecture, semi-sunken into the earth. Add different types of layers and logic to generate passageways between buildings/facilities, linked together by passages.

In your editing process, make sure that you are changing at least one aspect of the form-generation process and one aspect of the representational mode that changes how the tool 'feels'.

The goal is not to design a project, but to play around and understand the limits of the tool you have created.

**3. For 9/22, post your in-progress screenshots on the Tumblr:**  
**<http://gsappmetatool-fall15.tumblr.com>**

## **Bruno Latour, “A Cautious Prometheus? A Few Steps Toward a Philosophy of Design (With Special Attention to Peter Sloterdijk)”**

When we say that “Dasein is in the world” we usually pass very quickly on the little preposition “in”. Not Sloterdijk. In what? he asks, and in where? Are you in a room? In an air conditioned amphitheatre? And if so what sort of air pumps and energy sources keep it up? Are you outside? There is no outside: outside is another inside with another climate control, another thermostat, another air conditioning system. Are you in public? Public spaces are spaces too, for goodness sake. They are not different in that respect from private spaces. They are simply organized differently, with different architectures, different entry points, different surveillance systems, different soundscapes. To try to philosophize about what it is to be “thrown into the world” without defining more precisely, more literally (Sloterdijk is first of all a literalist in his use of metaphors) the sort of envelopes into which humans are thrown, would be like trying to kick a cosmonaut into outer space without a spacesuit. Naked humans are as rare as naked cosmonauts. To define humans is to define the envelopes, the life support systems, the Umwelt that make it possible for them to breathe. This is exactly what humanism has always missed.

...

When you check on your space suit before getting out of the space shuttle, you are radically cautious and cautiously radical... you are painfully aware of how precarious you are, and yet simultaneously, you are completely ready to artificially engineer and to design in obsessive detail what is necessary to survive. Whereas modernist or anti-modernist philosophies of history are always considering only one narrative (that of progress or the failure of progress), Sloterdijk is the rare thinker who shows how the stories of both emancipation and of attachment are a single story. This unification is possible provided that you deeply modify what it is to be “in the world”: the cosmonaut is emancipated from gravity because he or she never lives one fraction of a second outside of his or her life supports. To be emancipated and to be attached are two incarnations of the same event, provided you draw your attention to how artificial atmospheres are well or badly designed.

The concept that is key for reconciling those two sets of passions and for inventing this strange role of a precautionary Prometheus, is that of explicitation. Explicitation is a consequence of the concept of envelopes. The envelope is a term that will surely draw the attention of architects and designers: we are enveloped, entangled, surrounded; we are never outside without having recreated another more artificial, more fragile, more engineered envelope. We move from envelopes to envelopes, from folds to folds, never from one private sphere to the Great Outside.”

Full essay here: <http://www.bruno-latour.fr/sites/default/files/112-DESIGN-CORNWALL-GB.pdf>

## **Mark Hansen, Bodies in Code: Interfaces with Digital Media, p38-45**

If the key question, as Gil suggests, is the “essential way the body ‘turns onto’ things,” then technics can hardly be excluded from the primary operation of the phenomenal body. Merleau-Ponty seems to grasp this crucial point in his analysis of the blind man’s stick. Like the feather in the woman’s hat or my unreflective sense of my car’s width, the stick does not function as an explicit, cognitively assessable enhancement of the body image, but rather as an immediately practical, unthematizable expansion of the body schema:

“The blind man’s stick has ceased to be an object for him, and is no longer perceived for itself; its point has become an area of sensitivity, extending the scope and active radius of touch, and providing a parallel to sight. In the exploration of things, the length of the stick does not enter expressly as a middle term: the blind man is rather aware of it through the position of objects than of the position of objects through it. The position of things is immediately given through the extent of the reach which carries him to it, which comprises besides the arm’s own reach the stick’s range of action. If I want to get used to a stick, I try it by touching a few things with it, and eventually I have it ‘well in hand’, I can see what things are ‘within reach’ or out of reach of my stick. There is no question here of any quick estimate or any comparison between the objective length of the stick and the objective distance away of the goal to be reached. The points in space do not stand out as objective positions in relation to the objective position occupied by our body; they mark, in our vicinity, the varying range of our aims and our gestures. To get used to a hat, a car or a stick is to be transplanted into them, or conversely, to incorporate them into the bulk of our own body.”

Merleau-Ponty concludes that habit “expresses our power of dilating our being-in-the-world,” which today more than ever means “changing our existence by appropriating fresh instruments” (143). Lodged in the “body as mediator of the world,” habit comprises a “rearrangement and renewal of the corporeal schema,” the “motor grasping of a motor significance” (145/142/143). Importantly, what happens in such schematic rearrangement is a passage between the body proper and the world of things, an increase in power and scope of the body’s coupling to (and indifferentiation from) the environment. This is what Gil means when he speaks of the body “turning onto” things: at stake is a “transplantation” of the body into things and an “incorporation” of things into body that, with each new habit and thus each new prosthesis, leaves the boundary between them that much less discrete.