

Abstract - **Sketch Diagramming** – a contemporary approach to architectural drawing

I would like to contribute a series of drawings for the exhibition and/or a paper for the group session discussions.

In my Ph.D. project I approach architectural drawing as a notational system with the main capacity of orchestrating things and thoughts rather than depicting them. Drawing's operational capacity as a notational system (usually translating between drawing and building) operates both through iconic likeness, indexical impact and symbolic specification¹. Architectural drawing employs both digital and analogue notational systems² and can be conducted with hand, manually by software, or by writing algorithms that produce drawings. Here I will elaborate the notion of *sketch diagramming*. *Sketch* indicates a loose, searching and developing process, and *diagram* indicates more rigor; maybe even a set of rules or a logic of reasoning. Nevertheless, diagrams can be both graphical - amounting in graphical works or paintings³ - as well as digital⁴. Sketch diagramming in the creative process can be thought of as a generative drawing game where rules can be employed, changed or invented as one draws, unspecific of drawing tool. When the rule-set of a sketch diagram becomes clear, it starts being a digital diagram and stops being a sketch diagram.

Architectural drawing as sketch diagramming is an intermediary and responsive link which can be used to direct and negotiate a span from graphical intuitions to strict rules towards basically any chosen situation. It can orchestrate indeterminate and fragmented rule-sets and sometimes turn them in to determinate ones.

When sketch diagramming there is indeterminacy both at the end of the draughtsman, in the sketch diagram itself, and – depending on the strictness of the rules and the clarity of signification-, also and at the end of the outcome: a building, a drawing or a software. The lines of a musical score are the structure that facilitates the placement of notes, which are signs that carry unambiguous meaning. In combination the structure and the inventory, the notes, describe a musical work where syntax and semantics are clear. That is a digital diagram⁵.

But maybe it is more interesting when we invent our own notational systems and sketch diagrams as it has been done by musicians such as John Cage or Iannis Xenakis. In their work transformations of the conventional musical notational system let new kinds of music emerge. In architecture, grids, structures, diagrams, notations and drawing techniques are all mediators and notational systems which I think of as sketch diagrams. They are operational but invisible or only schematically presentable. They are placeholders used to orchestrate different inventories. They can employ more or less complete sets of rules amounting up to an outcome with or without clear meaning, and be negotiated and developed towards new kinds of mediation. Architectural drawing like Daniel Libeskind's *Chamber Works*, for instance, leaves almost all meaning open, it is a-signifying: there are no signs and no structure, thus the receiver must interpret to an extreme degree.⁶

1 I use Charles Sanders Peirce's semiotic concepts.

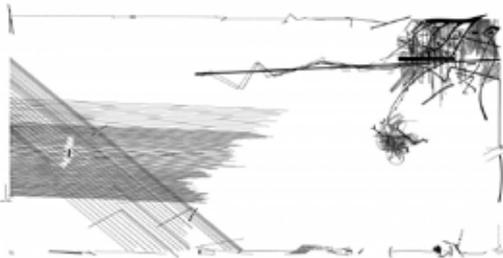
2 Nelson Goodman, *Languages of Art*, (Indianapolis/Cambridge: Hackett Publishing Company, inc., Second Edition, 1976). Goodman does not exactly say it like this, but I use his definitions of the analogue and the digital.

3 Gilles Deleuze, *Francis Bacon – The Logic Of Sensation*, (Minneapolis: University Of Minnesota Press, 2002, first edition published 1981) p. 81-90

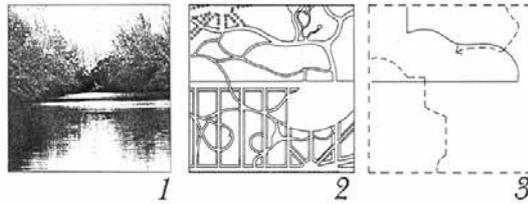
4 Stan Allen says that all notations are digital diagrams, but not all diagrams are digital diagrams. Stan Allen, *Practice: Architecture, Technique and Representation, Expanded Second Edition*, (Abingdon and New York: Routledge, 2009), p. 50

5 According to Nelson Goodman, *Languages*, p. 160-161

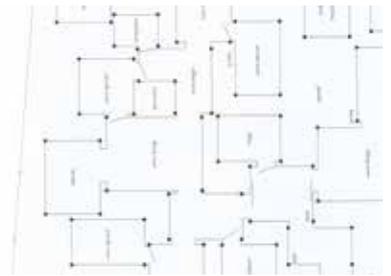
Without at all wanting to devaluate the quality of such drawing we might call it explicitly *graphic*, whereas drawings such as Bernard Tschumi's *Manhattan Transcripts* are part rule-based and part graphical. They have some unambiguous meaning, and leave some aspects open to interpretation. For instance, sometimes they refer to a site and employ known drawing techniques and notational forms with clear readability, and other times they are subjective moves. Yet other architectural drawing notations such as Junya Ishigami's *Group House* are strictly rule-based and as such they can be transposed into a digital diagram. In *Group House* - a residency for old people - traditional Japanese houses are recycled and arranged according to a diagrammatic plan⁷. Because the traditional Japanese house is built according to Tatami measurements, Ishigami 'only' has to lay out the plan- structure to show where the recycled houses should be placed. The rest of the meaning is self-evident to those knowing of the Tatami 'code'. Thus *Group House* almost functions like a contemporary mat-building. These three examples show a scale spanning from the strictly graphic to the strictly rule based, showing how different rules allow for different actions and different restraints. Therefore the set-up of rules becomes (or has always been?) an important design activity (both consciously and unconsciously) that reaches into the domain of ethics, asking: what does this technique enable, how does it let the architect act? And what kind of architecture does it enable the architect to produce?



Daniel Libeskind, *Chamber Works*, 1983



Bernard Tschumi, *Manhattan Transcripts*, 1976-1981



Junya Ishigami, *Group House*, 2013

Exhibition proposal – **'Room Becomes Scape'** and **'Living Table'**

I often take sketch diagrams and drawing techniques that already exists and try them out in relation to another context. For instance, I took the developed surface drawing technique⁸ and tried it out on my working room. To develop a surface in descriptive geometry is both to fold a two-dimensional plane into a three-dimensional space, as in origami, and to fold the adjacent surfaces of a three-dimensional body out so that all its faces can be shown on a flat plane without distortion. An origami folding thus is a developed surface diagram signifying mountain and valley folds. As opposed to orthographic drawing, origami diagrams describe 3D objects embodied in the material they are made of; the paper. In the course of experimenting with the technique on my working room, I began combining it with other techniques, such as superimposition. During the process a ramification

6 Robin Evans, *In Front of Lines That Leave Nothing Behind*, in AA Files 6, May 1984, http://www.arch.cuhk.edu.hk/server1/course/21c5321/02_Readings/01_Required/08_Evans_In%20Front%20of%20Lines%20That%20Leaves%20Nothing%20Behind.pdf

7 See Arch+ August 2012 issue, *Tokio – Die Stadt Bewohnen*, p. 128-133

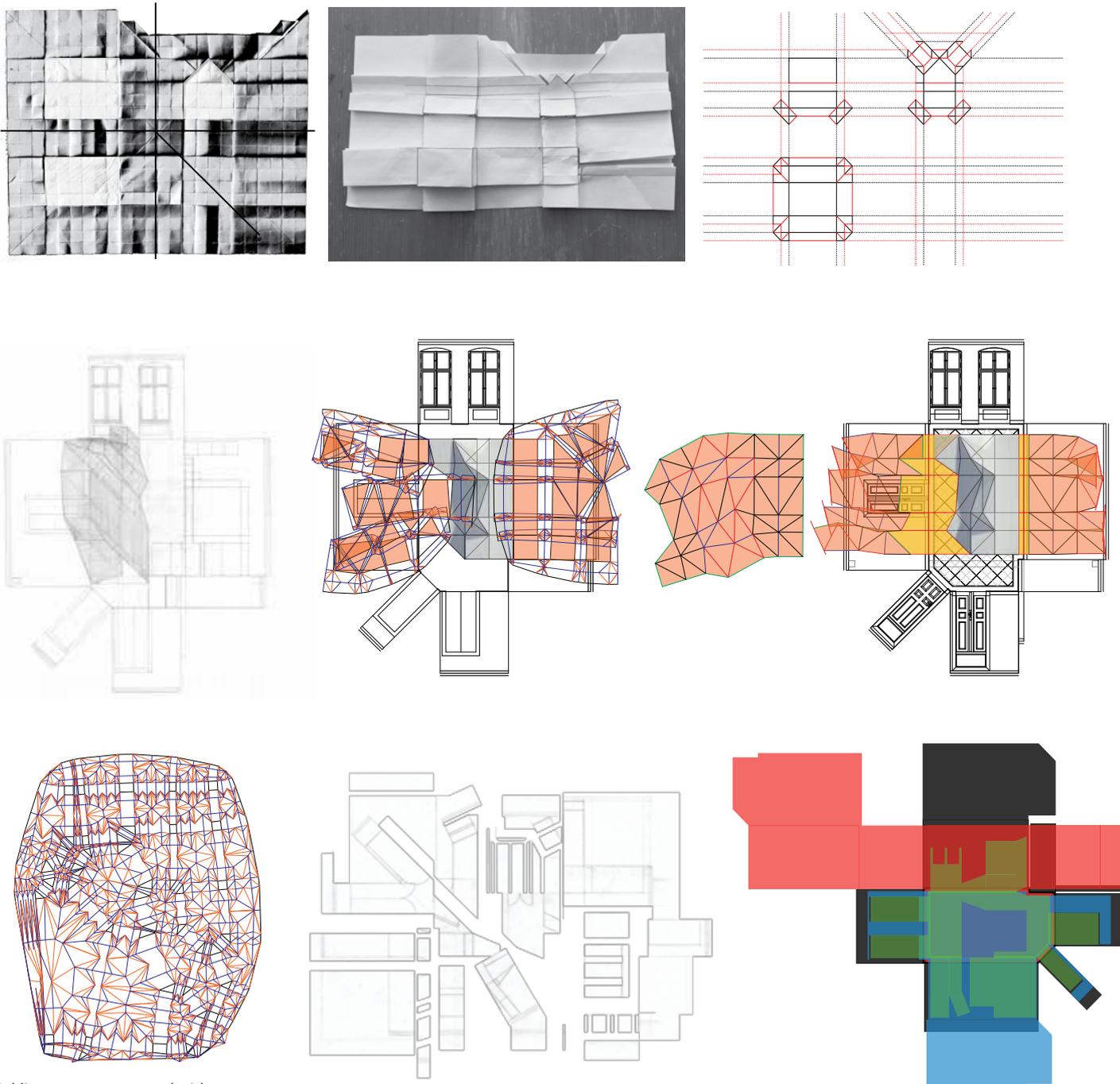
8 Robin Evans, *The Developed Surface – The Brief Life and Death of an 18th Century Drawing Technique*, in *Translations from Drawing to Building and Other Essays*, (London: Architectural Association Publishers, 1997), p. 195-233

9 Tomohiro Tachi developed an origami folding software, <http://www.tsg.ne.jp/TT/software/>

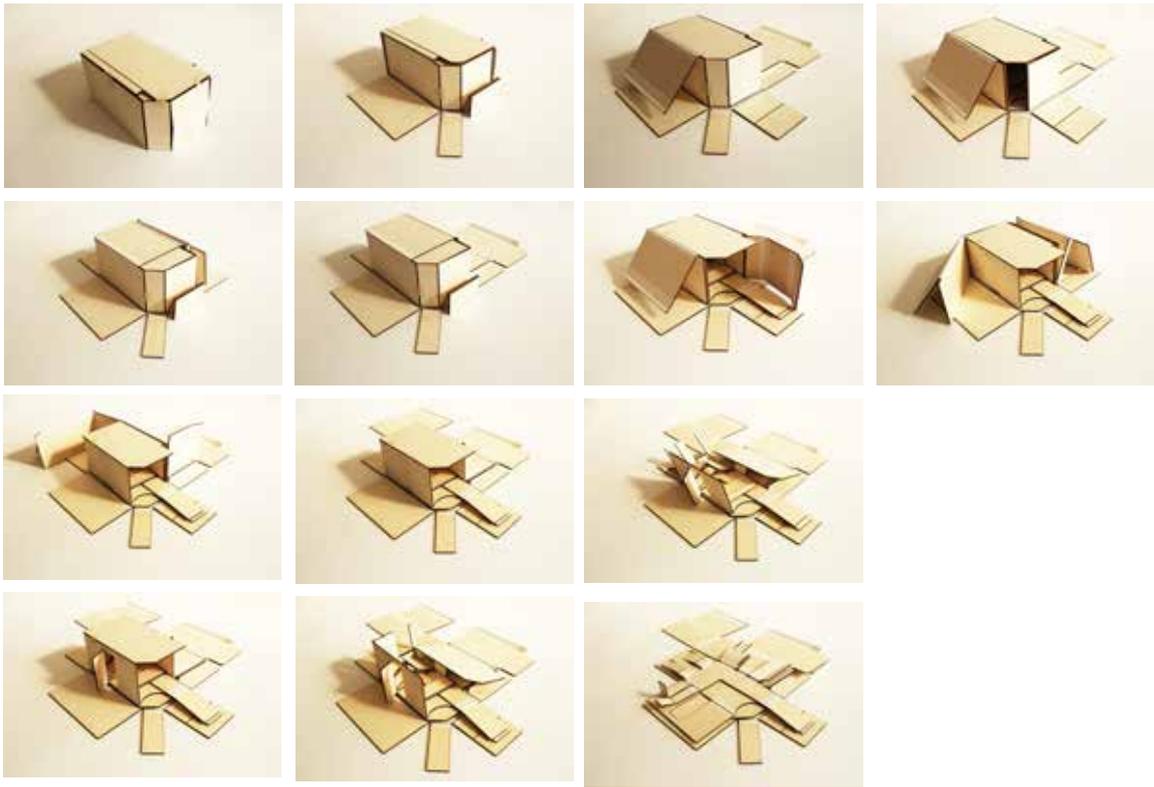
arose between a rule-based folding set-up, - a folding pattern-software⁹- and my subjective way of folding. The outcome of the latter is a reconfigurable toy-like object showing a room that can be reconfigured into a (land)scape.

In *'Living Table'* I do not start out from an already given technique, but from events around a material constellation: the life around the dining table. I see the table as a stage that can be populated with an adaptable inventory which can accommodate a range of different situations. I try to register the event and map it out (still in progress). If I succeed, then we can investigate if the diagram revealed can be made general, like a drawing technique, and be a mediator in other scales and situations. One of the challenges here is to invent a notation specific to the situation and try to generalize it.

ROOM BECOMES SCAPE



Folding pattern generated with Tomohiro Tachis' *Free Form Origami*



LIVING TABLE - work in progress

