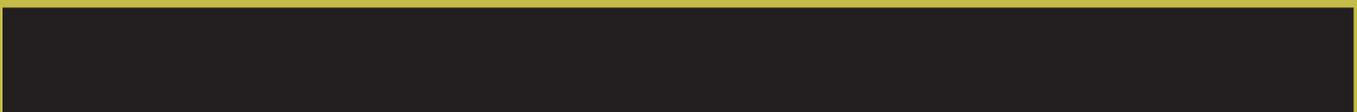


SOLIDNA



A research on soliDNA:
On fixed, non-moving space that is flexible in itself
Architectural Design
Gerrit Rietveld Academie

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INTRO:

A research on solidDNA, on fixed space, non-moving space that is flexible in itself.

A research where debate and guest lecturer from disciplines that are not directly related to architecture are crucial for defining the exact question.

Why did we want a research on solidDNA?

IMRPINT:

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Fred. Roeskestraat 98
1076 ED Amsterdam
The Netherlands
T: 020 – 5711600

<http://www.gerritrietveldacademie.nl/>

Research and Workshops:

Ed van Hinte, Dorine van Hoogstraten
and the 1st- and 2nd-year Architectural Design students

Initiative and Editing:

Henri Snel M.Arch. (Head, Architectural Design,
Gerrit Rietveld Academie)

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To turn matters upside down is often a successful and inspiring approach in architecture, a way to get a different line of thought started. In our department students tend to make everything flexible.

Non flexible is confusing, I suppose. There is never a design for fixed space – whatever that may be. Since our students have a strong visual focus it would be good to start from there: to go from images to theory and maybe back to images again. In the end nine doll's houses were made. They have fixed forms but most of them can be used in a flexible way.

Either the volumes are movable, or the visitor is confronted with a strict route where fear of water has to be overcome to be able to sleep, or nature dictates the flexibility of the objects.

The spatial solutions are quite diverse and force us to observe in a flexible way to be able to understand the context of the solutions.

HENRI SNEL, SEPTEMBER 2009

THE SOLID

THEORY

Theory is like food. You need it to grow as an interior architect, even though you're not always hungry. But when you are hungry, it can taste good even if you don't know in advance what your body and brain will do with it. Ed van Hinte and I were the cooks that prepared a menu in advance and then improvised as the season went along, dealing with influences that we did not control and welcoming surprises.

Between September and December 2009 we got some very different guests to lecture and we debated with the students of the first and second year in Architectural Design. We went to a 19th century military site near IJburg and talked about possibilities for the reuse of the site for recreational purposes.

We debated about what solid could mean, we saw movies, listened to an architect, a philosopher, a theologian, a garden historian, an artist and a researcher of the Mennonites. We worked at auction house Christie's and went to Ikea concept center.

Many questions were raised on different themes. We had to talk a lot about architectural solidness because solid is such an obvious term in architecture. Solid is about bunkers, about a material like concrete, about solid as a rock, as a

brick, as a tree, as a pyramid. A submarine is solid, for everything in a submarine is designed with a clear purpose. Should designers make submarines, or do people need a choice? A grid is solid as well: it defines the space, but leaves space inside the grid open for change.

Architect John Habraken spoke about his theory, where certain parts of buildings can be more solid because they have longer life spans than other.

DORINE VAN HOOGRATEN

SOLID



DOLL

ADVENTURE

The best procedure to learn how to design is to intensely experience the adventure of creation. The more often you go through the spiral of meeting challenges until you arrive at a satisfactory result, the better. It teaches architecture students to find a balance between the requirements brought in by context and the criteria they have to decide upon themselves. This can be confusing at first, not being familiar with the feelings that come with the process, particularly when teachers seem to continuously change demands.

That is what Dorine van Hoogstraten and I did. And there was a good reason for this, which was not to complicate life for students on purpose, but rather that the whole Solid project to us was an extended and complicated design adventure as well. At the start the only thing we had was a rather abstract theme that we wanted to explore. And in the back of my head I knew that in the end some kind of design assignment had to be come out of it, for the reason mentioned before, but in the beginning I had not got the faintest idea what it was going to be.

The theme arose from my observation that about half of the graduates of the previous year left important design decisions to users. This is not uncommon, because of an almost standard traditional democratic mindset among students in design and architecture, which nowadays is nurtured by the promises of the open source principle. Generally though, leaving too much to users or customers is rather unrealistic. They simply prefer their acquired artifacts, for which they paid, to be ready and designed for them. A good illustration is the fact that toy shops used to sell quite a lot more plastic assembly kits for models than they do now. These days the airplane model has been put together and done up for the customer, because he can afford to simply buy the whole thing. On the other hand the do-it-yourself market is thriving, mainly because in this day and age it saves money. For architects and designers it is important understand this dilemma and its evolution. Therefore the main issue became the understanding of rules: their origin, which ones you set as a designer and which ones you leave to users. Because of the observation that students tend to leave decisions to users the main question became: how can the designer achieve maximum control, and be satisfied.

Henri Snel, the head of the department, came up with the idea for the title: SolidDNA, a contraction of Solid and of

course DNA, the by now somewhat mythical set of genetic properties, that are believed to determine development, and do so to a rather disappointing extent. Their influence is not as far reaching as current science fiction stories lead us to believe. As a metaphor for designed properties it works quite well, but as the process went on it sadly disappeared. Solid on the other hand, quickly became a household notion in theme discussions. One of the reasons for this was that it already is a cliché in the architectural discourse. I didn't know this beforehand, but particularly in the beginning it led to some misunderstandings. Another word that became quite important was dictatorship. A dictator is in control, so dictatorship is a metaphor for the main attribute of the architect in this project. Throughout the project process it remained quite an interesting notion, with some side effects of being taken too literally.

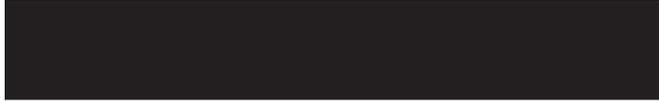
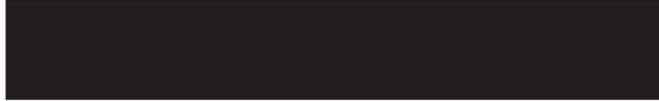
The project started with an exploration of what Solidness implies in design. Dorine describes the various theoretical approaches elsewhere. For me it implied searching for an angle to actually make students embark on a design process. The first requirement of my concern was definition of scale. This was not all that difficult, since I already had some experience with doll's houses. Their scale is 1 : 12,5 and it simply stems from "1 inch equals 1 foot". The main advantage is that it enforces attention for detail, which is important when it concerns setting rules for 'users', or 'inhabitants'. Another advantageous condition is that, if necessary, real examples are available and interior decoration stuff is available in toy shops.

The next requirement that needed to be established was context. There had to be some kind of model community that could partly determine the rules by which houses were to be designed. As it happened Erik de Jong unknowingly provided the idea with his guided tour through the Plantage neighborhood in Amsterdam, part of which is the Artis Zoo. The history of this area provided a wonderful chain of changes to embark on. In the back of my mind I was imagining large doll's houses across the street, to replace existing buildings, a rather harmless academic exercise. However, instead the group preferred to develop a new neighborhood on the parking lot next to Artis. Consequently the group was split up in nine groups of three students. Small groups tend to be more creative than larger ones. The subdivision was mapped on a 3 x 3 lot distribution on the fictitious build-



THE PROCESS

Comment



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ding site. The first explorations were undertaken with the perspective of a workshop to really design and build doll's houses, modeled on the characteristics of the building site with each group determining its own principles of setting rules, or being dictators. In this stage the houses were mainly large maquettes.

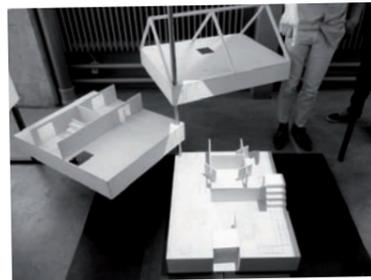
Then suddenly there was this major opportunity. Dorine had been looking for a place outside the academy to do the workshop, to protect participants against the distractions of a familiar environment. The final candidate space was provided by auction house Christie's. Their possible interest was that well designed doll's houses could perhaps be auctioned. This put an extra layer on the design requirements. Apart from being a model of a fictitious house, it now had to be well made to be attractive as an object and it also had to become a real toy. 'Playability' became a new requirement and it also remained the main 'confusion agent' of the project.

Some groups were more successful than others in dealing with the extra layer of toy design. Admittedly it is not an easy change handle. On the other hand the process that Dorine and I went through in gradually designing the assignment made the project unexpectedly realistic. As a designer it may occur that you work for a doubtful commissioner that keeps on changing what she or he wants. Good designers have to be able to keep their act together under such circumstances. SolidDNA thus turned into a process of nine ways of adapting. By comparing processes groups can inspire each other.

ED VAN HINTE



Originally **THE PANORAMIC TOWER** stood out in the middle of the doll house neighborhood. Turning a tower into a toy remained a partially resolved challenge. Half of the toy was a rat elevator, the other half being an advanced electronic periscope to look around from above. Two toys were merged into one. A choice was not made, probably because the tower had this strong presence that was difficult to change.



The basic principle of **ENFORCING DAILY LIFE THROUGH DESIGN** was cooked up very well from the outset. In the process, however, the group was too eager to actually executed the first idea into a definitive object. Because of this it became difficult to explore various options and there was no opportunity to elaborate on the potential of certain details. Using a projector to illustrate them was a very smart idea to hide that.



The group started with a wild and funny idea for **A DANGEROUS DOLL ENVIRONMENT** and in the end came up with a rather bland concept of **A STACKING SYSTEM FOR ROOMS**. The group worked hard but kept on coming up with new ideas for the first stage without choosing. The potential of the first ideas somehow disappeared. It probably has been a matter of not making a clear distinction between strength and weaknesses.



A ROOM FOR CONCENTRATED ALMOST MEDITATIVE ART STUDY already had a certain introvert doll house quality as a model. The only strict rule that could not be expressed in design was the one that said that all 'dolls' had to leave as soon as one decided to go. The group came up with interesting ideas of scale warp: real objects becoming toys as scaled down objects for dolls. The design is expected to work well as a collection of playful objects.



In the first stage the idea of ecological **FOOD SHARING AND EXCHANGE** was made to look very promising. Later on the group got caught up in research on **FOOD CYCLES**, but it succeeded in retrieving a nice collection of playful objects to confront players with the complexity of life cycles. Some objects, particularly the double bowl, could work separately, which is also a weakness. It is not really a convincing whole, yet.



Fascination for mutual openness between neighbors led to an intriguing concept for an apartment building in which neighbors could continuously be aware of each other, almost to the level of **VOYEURISM**. This is difficult to translate into a toy. The group succeeded very well, but could have taken the concept one step further into toy world by a slightly more playful approach to room negotiations.



In the beginning the group focused on **THE ECOLOGIC CYCLE OF FOOD**, particularly bread. From a certain point being locked up in this cycle turned the concept into an idea for **A MAZE DOLL'S HOUSE**. This is a puzzling paradox, since the one who plays needs to pretend lack of overview. A Sci-Fi movie about shifting rooms provided an answer, but negotiating changes between the two sides of the room puzzle remained a rather theoretical part of the principle.



Ecology was the major inspiration and a lot of research was done to discover technical ways and **GADGETRY FOR ENERGY EFFICIENCY**. The sheer amount of possibilities turned into a drawback for turning an energy efficient model house into a toy. The potential is clear, but as a toy it lacks a certain straightforward simplicity. Too many small literal translations of principles covered up an overall idea.

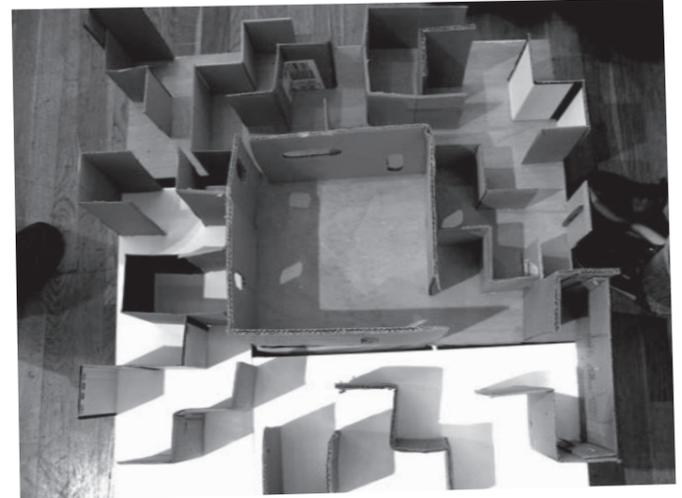
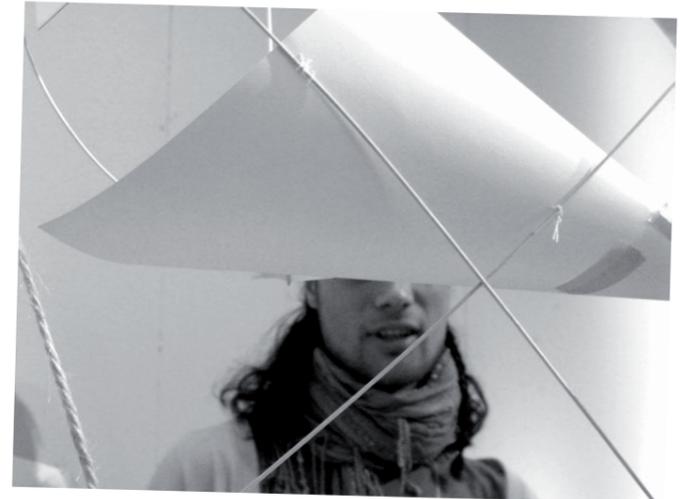
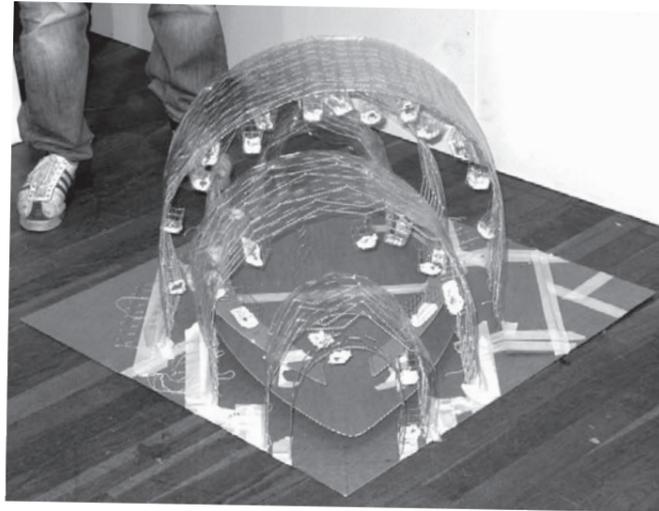


The idea of a house with inhabitants subject to the whims of nature was translated quite well into **A DOLL HOUSE FOR OUTSIDE**. Inhabitants of the house are directly turned into children that play with the house. It is a realistic idea for a new toy. According to my opinion this design was the most convincing.

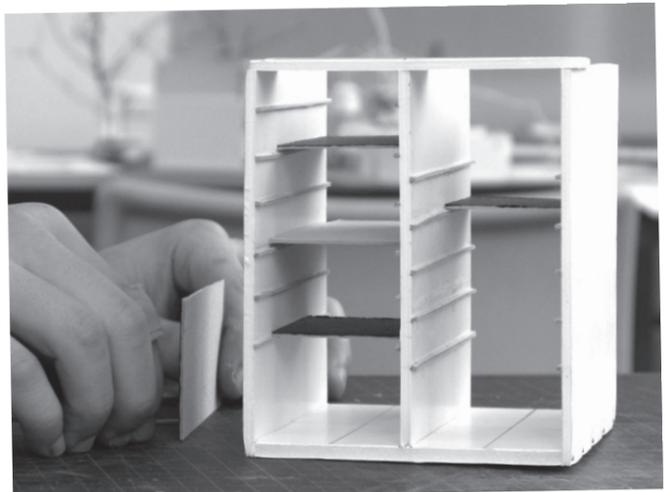
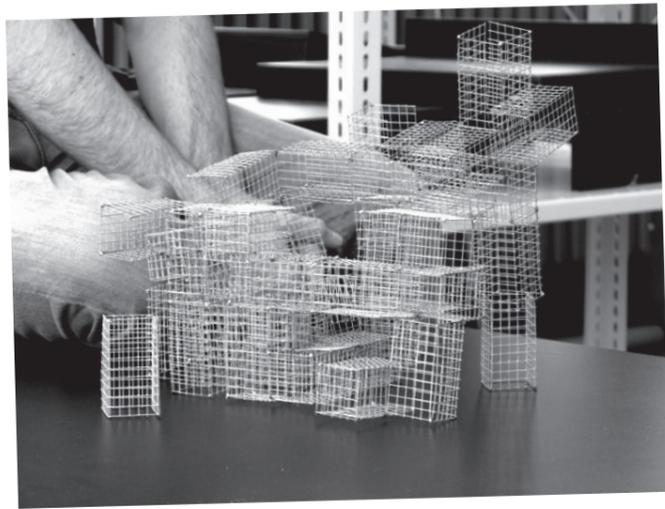


WORKSHOP

CHRISTIES



INTERMEDIATE RESULTS



SOLIDNA

ALL WORKSHOP PARTICIPANTS

Akira Negishi
Anna Navndrup Pederson
Bin Xu
Casper Kienjet
Chris Bakker
Claire van der Boog
David Benz
Elise Oussoren
Geert-Jan Sarlemijn
Gijsbert Worst
Haruka Uemura
Ivo Clason
Jeanne d'Arc Umubano
Jiin Shin
Julia Fischer
Karoenja Woudenberg
Lidiya Koloyarskaya
Li Wang
Marcin Przybyla
Mark Bakema
Mireille Hofwijk
Mirte van Laarhoven
Quinten Corbey
Satoki Kuwano
Stefan Barut
Trimo Kromotaroeno
Vanessa van Tiggelhoven

2009/2010 PROGRAM

September 7, 2009 **Debate** > brainstorm
September 14, 2009 **Excursion** to Fort Diemerdam
September 21, 2009 **Debate**
September 28, 2009 **Lecture** John Habraken,
architect and theorist
> about choice and control
in the built environment
October 5, 2009 **Lecture** Ed van Hinte
> about lightness
October 12, 2009 **Film** > Cities for the people
(2000) by Jan Gehl and
L. Mortensen
October 26, 2009 **Debate** > about utopia
October 26, 2009 **Lecture**
Peter-Paul Verbeek, philosopher
> about the morality of objects
November 2, 2009 **Lecture**
Erik de Jong, garden historian
> at the Plantage and Artis
November 16, 2009 **Lecture**
Hans-Dirk van Hoogstraten,
theologian, in the Tomaskerk
> about sacred spaces and objects
November 23, 2009 **Lecture** of Cynthia Hathaway,
designer and researcher,
> about the Mennonites
November 30, 2009 **Lecture** Barbera Visser
> about authenticity dilemmas
December 7, 2009 **Debate**
January-April 2010 **Design** of the doll's house
January 11-14, 2010 **Workshop** @ Christies
March 1, 2010 **Film** Cube (1997)
by Vincenzo Natali
March 22, 2010 **Excursion**
to Ikea Concept Center, Delft
April 26, 2010 **Presentation**
of the doll's houses