

BRIEF 01:TEST



Jack Munro of DS10 during the [first pin-up](#) demonstrating an experiment with sand and holes by Frei Otto

INTRO:

This is a six week study (24/09 to 01/11), and a period in which to learn new software and concepts, as well as develop your documentation / layout strategy, and in doing so develop an arsenal of digital and representation skills which will be incorporated in your later work.

SYSTEMS:

from Gk. systema "organized whole, body," from syn- "together" + root of histanai "cause to stand".

We will be analysing three generative systems, which you will choose. The systems you choose may be natural, structural, geometrical, physical or mathematical...etc... going from molecules to clouds, from equations to geometrical patterns, from gridshells to ants. The three systems should be based on your interest and could be chosen for their complementarity or radical differences.

METHOD:

We want you to bounce your work back and forth, test digital work in the real world and test physical work through digital simulation, setting up a dialogue and feedback between the two. Bear in mind that we are aiming to understand the underlying rules of these systems. You should be able to make your own experiments, showing these rules and ways to control them. Below is a list of key steps to understand and control your systems:

- **RULES:** Diagram the general rules underlying the creation of your systems.
- **CATALOGUE:** Make a clear catalogue showing their diversity and the way in which they adapt to different conditions.
- **TIME-BASED DIAGRAM:** Look at the ways in which they happen through time, not just the final picture. Work on your own time-based diagrams to show that.
- **MODELS:** Start making models of these systems looking at how you can translate the rules behind them into a material system which you can control and use to design with.
- **PARAMETERS:** Try to understand and convey the parameters at play, both quantitative and qualitative (through the digital and physical models, diagrams, catalogue, models)
- **PORTFOLIO:** Start your own portfolio layout style, this will make you gain time as you won't have to do it again afterwards.

NOTES:

Please remember that your portfolios should serve as living documents, all your physical experiments should be well photographed, set aside a space with good light and a backdrop and ensure your photos are consistent, ie all shot from the same angle, same light etc. Where possible avoid using screenshots from programs as evidence of your experiments, or if essential then spend some time in cleaning the images up, removing the backgrounds or window borders.

CLASSES:

This period will be accompanied by regular parametric software training sessions where you are encouraged to explore techniques and develop your skills in computational design including parametric tools, environmental analysis, physics modelling, recursion and iteration through the use of (Rhino3D and Grasshopper; environmental analysis in (Geco, Diva, Ecotect and Vasari); physics modelling in (Karamba, Kangaroo, Millipede); recursion (C#, Python, Processing and Hoopsnake) and rendering classes (Maxwell and V-Ray)

TIP:

Use this time wisely to get your hands dirty and learn digital techniques as the skill set you build up in these weeks will set you up for much of the rest of the year. Do not hesitate to ask questions on the online forums such as Grasshopper3d.com, StackOverflow.com (and other stack exchange forums). Learn code concepts on codeacademy.com.

OUTCOME:

- 1) A rough portfolio covered in feedback and notes with all your results.
- 2) A well presented portfolio professionally and clearly detailing your research.
- 3) Clear diagrams showing the parameters and processes at play in generative systems.
- 4) A grounding in the digital technologies, using digital tool to help your design process.
- 5) Lots of well photographed rough sketch models and models to bring on the pin-up.

READING:

-A bibliography is available on <http://wewanttorearn.wordpress.com/bibliography/> and some of the essays are available on the dropbox/essays.

-Look at Frei Otto's IL series of books as a good example of recording experiments in a clear fashion, even though the experiments themselves may be work in progress.

-Look at what Deleuze and Guattari mean by systems in the essay Rhizome.

Read the Field condition by Stan Allen to understand relationships.

-Look at examples of portfolio pages from last year's first brief. Some of them are in the dropbox/2011-2012 Portfolios others can be found through the blog under the Students tab in the menu, example: <http://wewanttorearn.wordpress.com/dan-dodds-portfolio/>