

224.302 09: spatial design special topic

re-design: project 2

"Natural systems take from their environment, but they also give something back. The cherry tree drops its blossoms and leaves while it cycles water and makes oxygen; the ant community redistributes the nutrients throughout the soil. We can follow their cue to create a more inspiring engagement - a partnership - with nature. We can build factories whose products and by-products nourish the eco-system with biodegradable material and recirculate technical materials instead of dumping, burning, or burying them. We can design systems that regulate themselves. Instead of using nature as a mere tool for human purposes, we can strive to become tools of nature who serve its agenda too. We can celebrate fecundity in the world, instead of perpetuating a way of thinking and making that eliminates it. And there can be many of us and the things we make, because we have the right system - a creative, prosperous, intelligent, and fertile system - and like ants, we will be "effective."

McDonough, W. & Braungart, M., (2002). *Cradle to cradle : remaking the way we make things*. New York: North Point Press. p 155.

In this project you are asked to work in a small group to:

_design a habitat that employs sustainable and regenerative design strategies and

_represent this in a manner (annotated drawings or photoshopped drawings showing inhabitation) that clearly defines what who you are housing and what green strategies were employed in the design.

As with project 1 you will again be using design as a means by which to critically reflect upon our current cultural practices, and to test out new ways of thinking and making. Your design proposal will summarise and synthesise how design-based critical thinking can make sustainable change.

BRIEF:

Working as a small group you will engage in an ecological and regenerative design project - a group housing project for a combination (specific numbers determined by you) of single people, couples, small nuclear families and large extended families.

The aim of the project is to demonstrate new ways of creating sustainable urban communities through an ecologically designed housing development that integrates with the local built fabric and community.

As this is an ecological design project you will need to design space for growing plants as a means of encouraging a sustainable environment for local birdlife or as a means of growing food etc (dense urban organic agriculture) or cleaning stormwater or greywater etc.

As this is a regenerative design project you will be expected to aim for a nett positive generation (of energy, clean water, food, plants etc).

In particular you are to consider the following:

WHAT: what is the specific brand or identity of your work - how do you differentiate it from all the rest? Is the focus on solar power or garden communities, or

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walkable communities or tidal power or

WHERE: is the intervention. You have a choice of site as follows:

_urban site: Wellington central: on top of or within an a portion of an existing building

_water site: the marina beside Te Papa

_other - propose a site

You can source archival material including building plans from the Wellington City Archives or if using green or 'blue'-field sites such as the marina may use aerial photographs and maps sourced from the internet.

MATERIALS: you may use materials and processes that are currently still speculative or in development as a means to challenge current thinking and to open up the possibilities (ie shell based ceramics / spinach based thin film solar photo-voltaics etc) - as well as current sustainably sourced or manufactured materials.

THE GROUP: Each group of three must contain at least one year four or year three student as a means of ensuring that there is a fair deployment of resources and knowledge.

The project requires you to develop sustainable and positive working relationships between the group. Remember that in professional practice you will almost always be working in teams - your challenge is to be a good colleague and to manage your own work as well as the effective working of the group as a whole in order to produce a strong design project. Try to reach agreements by consensus rather than by decree.

PROJECT REQUIREMENTS:

Concept development work [what is your point of difference - how is this expressed through design]

Site analyses: site measures / maps / diagrams of use of the site etc

Sketch design documentation: site plan, floor plans, sections, elevations

Experience drawings or representations (films, photoshopped of models, perspectival images etc): which show spatial qualities, light qualities, materiality, how the space is inhabited and by what species etc

Hand-in to digital drop box week 12 Tuesday 11.30am and present work [physical outputs to table 10B01]

ASSESSMENT:

The project will be assessed to the extent that:

the student has contributed to group discussions and critiques and to the work

that the group has: defined how sustainable design ideas will be explored within their design project and;

has communicated the findings from this investigation in visual, written and designed material that shows excellent craft and formal resolution and communicates who the development is designed for and what sustainable strategies are employed;

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and has presented the work in an oral presentation

LEARNING OUTCOMES:

On successful completion of this paper a student should be able to:

1. Demonstrate an understanding of the relationship between current building practices and sustainability.
2. Synthesise and explicate their knowledge within a design project

WEEKLY + SEMESTER SCHEDULE:

Refer schedule 302 on blog

REFERENCES:

McDonough, W. & Braungart, M., (2002). *Cradle to cradle : remaking the way we make things*. New York: North Point Press.

Benyus, J. M. (1997). *Biomimicry: innovation inspired by nature*. New York: Morrow.

Fuad-Luke, A. (2005). *The eco-design handbook: a complete sourcebook for the home and Office*. London: Thames & Hudson.

Steffen, A. (2006). *Worldchanging: a user's guide for the 21st century*. New York: Abrams.

Refer also the Diller and Scofidio pdf on the blog

CONTACT:

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Email for an appointment or fill in the sign up sheet outside my door if you wish to see me during office hours: a.m.yates@massey.ac.nz.