

# Design for Sustainability

teaching, projects and pedagogy

Stuart Walker

# Design for Sustainability

lectures, projects, designing

- different approaches
- hurdles

# Design for Sustainability

lectures, projects, designing

- different approaches
  - lectures – to quickly cover the key issues and areas
  - inquiry based learning projects
    - mini-research projects
      - based in literature review
      - qualitative research – questionnaires, surveys
  - design projects – can be problematic

# Design for Sustainability

lectures, projects, designing

## 1. projects *about* designing – literature-based

- **history** - sparke; dormer; heskett
- **contemporary issues** - thackara; fry
- **theory & pedagogy** - cross; buchanan; margolin



INTELLECTUAL - RATIONAL

# Design for Sustainability

lectures, projects, designing

## 2. projects *for* designing – acquiring information

- **quantitative:** *measuring, testing, objectivity*
- use of - **deductive reasoning**
- **qualitative:** *interviews, observations, objectivity*
- use of - **inductive reasoning**



INTELLECTUAL - RATIONAL

# Design for Sustainability

lectures, projects, designing

- different approaches
  - lectures – to quickly cover the key issues and areas
  - inquiry based learning projects
    - mini-research projects
      - based in literature review
      - qualitative research – questionnaires, surveys
- Both concerned with that which already exists
- Design is concerned with that which does not yet exist – creative potentials

INTELLECTUAL - RATIONAL

# Design for Sustainability

lectures, projects, designing

## 3. learning through projects *with/for* industry

- sector specific
- project-based problem solving
- offer useful experience/contacts
- academic?

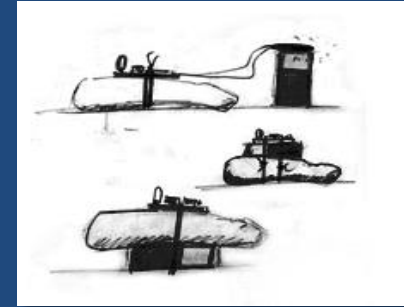


# Design for Sustainability

lectures, projects, designing

## 4. learning *through* designing

- **practice-based:** *creativity, imagination*  
*intuition, experience*
- use of
- **abductive reasoning**



IMAGINATIVE - INTUITIVE

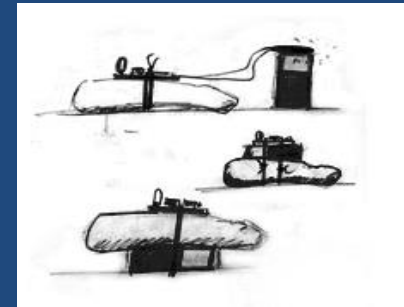


# Design for Sustainability

lectures, projects, designing

## 4. learning *through* designing

- **practice-based:** *creativity, imagination*  
*intuition, experience*
- use of
- **abductive reasoning**
  - moves from incomplete data to most likely solution
  - conclusion is based on **best fit** – judgement is needed



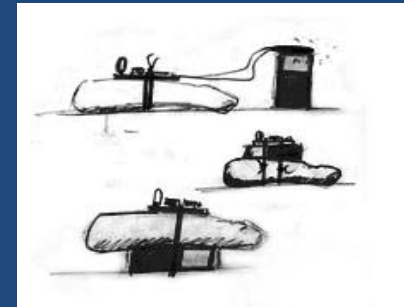
IMAGINATIVE - INTUITIVE

# Design for Sustainability

lectures, projects, designing

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  - used in applied arts including Design
  - appropriate for ‘wicked problems’



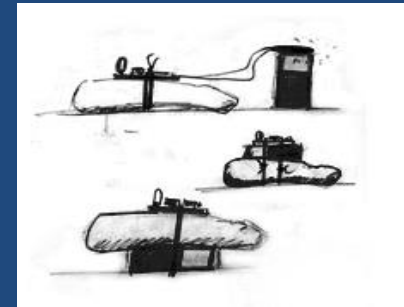
IMAGINATIVE - INTUITIVE

# Design for Sustainability

lectures, projects, designing

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- use of
- **abductive reasoning**
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  - used in applied arts including Design
  - appropriate for ‘wicked problems’
  - involves imaginative leap & visualization



IMAGINATIVE - INTUITIVE

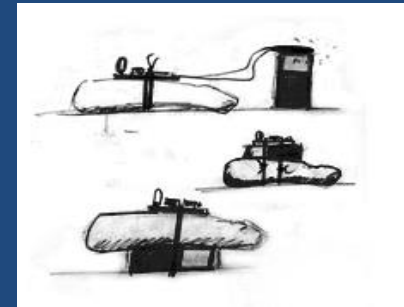
# Design for Sustainability

lectures, projects, designing

## 4. learning *through* designing

- **practice-based:** *creativity, imagination  
intuition, experience*

linked to - **critical inquiry** : *theory and argument*



IMAGINATIVE - INTUITIVE + INTELLECTUAL - RATIONAL

# Design for Sustainability

lectures, projects, designing

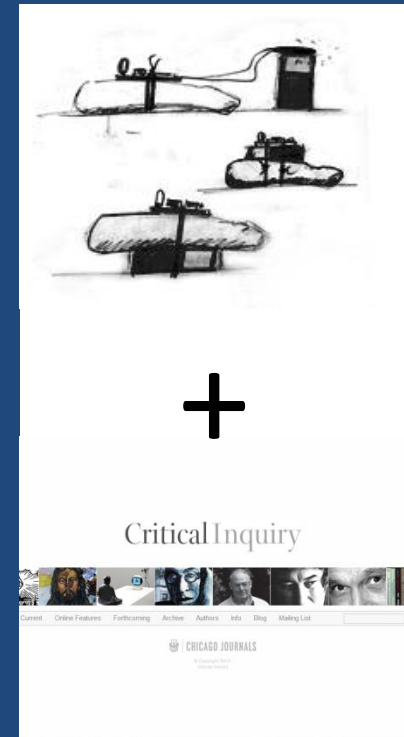
## 4. learning *through* designing

- **practice-based:** *creativity, imagination  
intuition, experience*

linked to - **critical inquiry** : *theory and argument*

- **study + practice**

with a focus on ***design for sustainability***



IMAGINATIVE - INTUITIVE + INTELLECTUAL - RATIONAL

# Design for Sustainability

lectures, projects, designing

combines  
theory, abstraction, generalization  
from study

with  
direct experience of the  
particularities of reality  
from practice

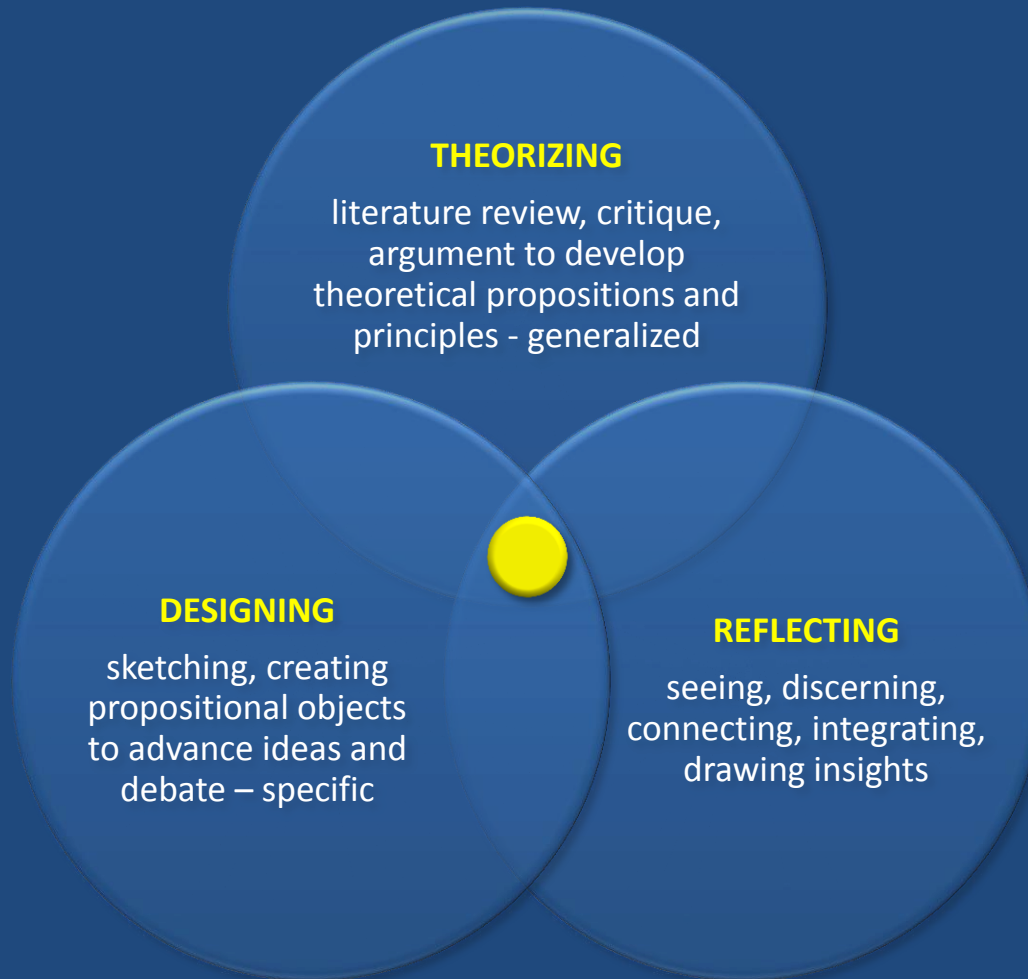
for  
a more holistic material culture



IMAGINATIVE - INTUITIVE + INTELLECTUAL - RATIONAL

# THE DISCIPLINE OF DESIGN

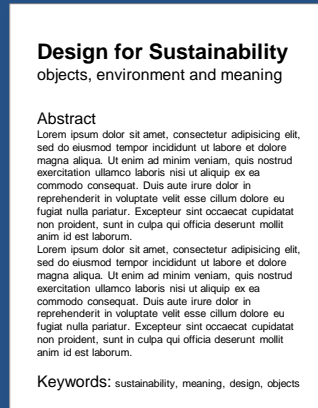
is practice-based



IMAGINATIVE - INTUITIVE + INTELLECTUAL - RATIONAL

# Outcomes of this process

intellectual and imaginative 'academic' outputs



+



academic  
writings

propositional  
objects

IMAGINATIVE - INTUITIVE + INTELLECTUAL - RATIONAL



# Design for Sustainability

lectures, projects, designing

**ELEMENT OF RISK** when *creative designing* is offered as an option

creativity is inherently *uncertain*

- if you knew what you were doing, you'd be doing what you know  
– this is not creative
- creativity is about probing what you don't know
- it's about being on uncertain ground
- being comfortable on uncertain ground

Safer option is not to include creative practice  
Less predictable that other approaches

# Design for Sustainability

lectures, projects, designing

**ELEMENT OF RISK** when *creative designing* is offered as an option

it's difficult to be creative to *a timetable*

- creative ideas emerge
- leaps of insight are unpredictable
- insight and synthesis are *potential* outcomes
  - but are not guaranteed

Safer option is not to include creative practice  
Less predictable than other approaches

# Design for Sustainability

lectures, projects, designing

theory + practice

study + designing

words + propositional objects

thinking + doing