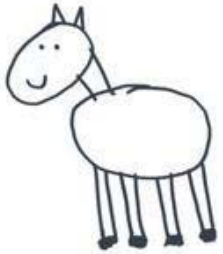
extended drawing

HOW TO:
DRAW A HORSE

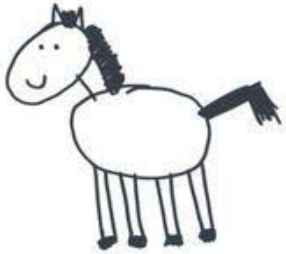
BY VAN OKTOP

(1) DRAW 2 CIRCLES

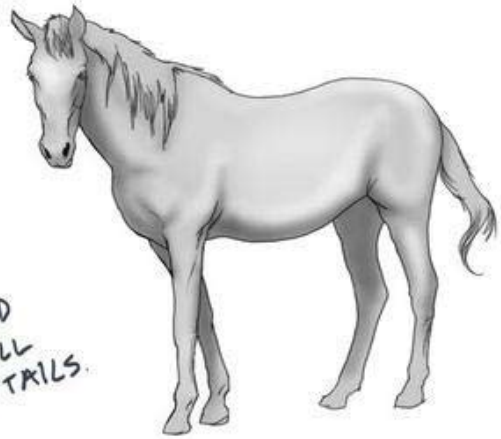
(2) DRAW THE LEGS



(3) DRAW THE FACE



(4) DRAW THE HAIR



(5) ADD SMALL DETAILS.

How does design interact with the medium?
How does the medium interact with design?

extended drawing

design based project which inquires
generative media within design (processes)

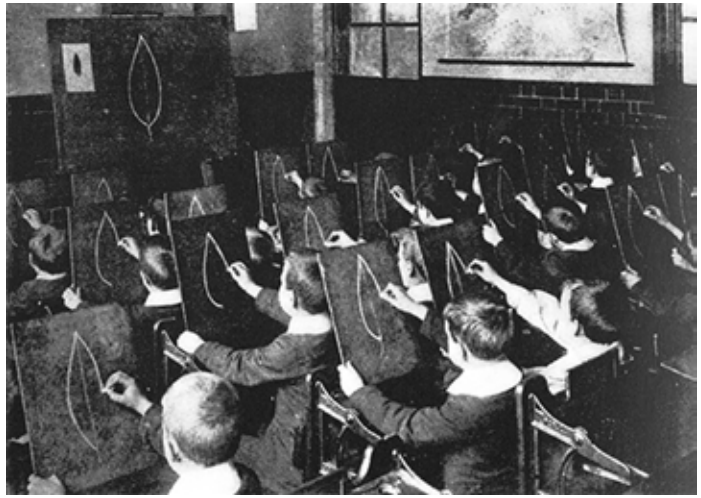
generative = assumes that a tool influences the thinking
media = any extension of oneself (Marshall McLuhan)
design = field of inquiry, specifically architectural design

informed by

design practice — personal design practice +
interviews with colleagues in the field

teaching practice — personal teaching practice teaching freehand drawing +
interviews with colleagues in the field

musical practice — personal experience, research into game-led improvisation +
interviews with improvisitory directed musicians/ artists



What is design-based drawing [what it is-what it is not-what is it used for-how is it used]
How is design-based drawing viewed/approached within practice?
What does it constitute for Extended Drawing?
What is the influence of a medium upon the design process – upon the designed artefact?
What motivates media choice during design processes?
What is the influence of degitalising the design practice and what are the consequences for the design practice?
Do we have to re-evaluate design-based drawing and if so – how?

promoted by
Rolf Hughes
Ann Heylighen

2004: looking for similarities between analogue and digital media.
2012: active blending of media through design, through improvisation

searching for an equilibrium between analogue and digital, between idea and observation

matrix	
analoog	**digitaal**
schets het op papier zetten van een idee **tekening** naar waarheid vastleggen van een object **opwerking** kleurleer, kleurtechnieken **technisch tekenen** mechanische weergave van een probleem **perspectiefleer** 2/ 3- puntsperspectieftheorie, axonometrie **lay- out** het ordenen van informatie	**illustraties** colordraw, illustrator, coreldraw, e.a. **tekening** alle tekenpaketten **beeldbewerking** photoshop, photopaint e.a. **technisch tekenen** Arkey, Star, Vectorworks, Autocad, e.a. **perspectiefleer** 3-D-studioMax, Arkey, form Z, stratavision, e.a. **lay- out** Quarkexpress, Indesign, e.a.

Deze matrix pretendeert geen volledigheid maar neemt enkele van de vele keuzemogelijkheden en paden die architecten kunnen volgen bij het maken van grafische presentaties in zich op. Maquettebouw, fotografie en driedimensionale animaties alsook beamerpresentaties horen ook in dit rijtje thuis maar strikt genomen zijn dit geen disciplines van de architecturale tekenkunde.

IDEE VS. WAARNEMEN

schets
snelle weergave van een idee
potlood, bister, naald, verf...
colordraw, illustrator, coreldraw, e.a.

tekening/ Illustraties
uitwerken van een idee

opwerking / beeldbewerking
kleurleer, kleurtechnieken
photoshop, gimp, photopaint e.a.

technisch tekenen
mechanische weergave van een probleem
Vectorworks, Autocad, e.a.

perspectiefleer
1/2/ 3- puntsperspectieftheorie, parallelle perspectieven
Vectorworks, Autocad, e.a., 3-D-studioMax, form Z,
Rhinoceros, sketchup, samurai3D

modelleren
driedimensionaal maken van een ruimtelijk idee
maquette, 3D-model, ruimtelijke opstelling, installatie

lay- out
het ordenen van informatie
Quarkexpress, Indesign, publisher, e.a.

reproductie
het herwerken van een beeld
mechanisch, digitaal, manueel, fotografisch

processing
vorm- en beeldgeneratie d.m.v. scripting
open composities/ speltheorie

(rapid) prototyping
(snel) vervaardigen van protoypes
stereolythografie, fused deposition modelling
laminated object modelling, selective laser sinering
frezen

teaching

outine an inquired framework to reapproach the teaching of (basics) within drawing in a contemporary design curriculum by designing experiments which inquire relationships between different media.

research topics:

- **relationship and overlap between digital and physical drawing and modelling**
- **balance between skill & dexterity vs. expressing design 'content' and observing the world 'out there'**

The rapid dissemination of digital technology in the last decades of the 20th century has changed our society in such a way that today's students no longer represent the people our educational system was designed to teach. 'New' students think and process information fundamentally different from their predecessors

design research

inquire an (alternative) approach to teach "drawing"

- **design as a way of asking questions**
- **research as a way to ask larger questions which move beyond the limited scope of a particular desgin problem**
- **design-experiments as a way to carry out formative research to test and refine (educational) designs**

back to the classroom.....
into the lab

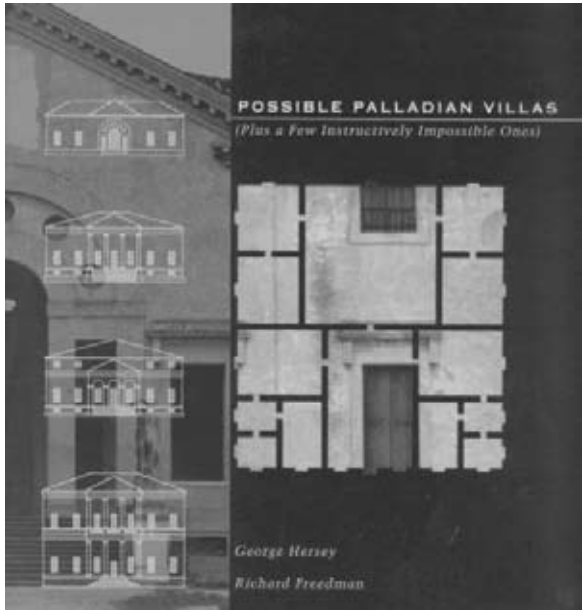
***teaching goal*:**
develop a collaborative (digital/ physical) learning approach fusing the development of skill with designerly thinking
This intention informed the design of two iterative design experiments (14mm/24mm)

a concept
- **insert design**
- **blur boundaries between physical and digital**
- **inquire generative possibilities of different media**

a method

line	**projection**
plane	**modelling**
form/ space	**rendering**

a consequence
- **collaboration between different modes involved**
- **design and define a mediated process**
- **outline collective objectives**



previous experiment inspired the design of a process.
Within 'Possible Palladian Villas" Hersey and Freedman develop 'form' by writing an algorithm which is able to draw Palladian villas 'at random'.
Translating the constraints towards drawing instructions enabled us to experiment with form and space without really designing but through intuitively following a series of rules.
The non-original, unidirectional, historical and non-sensical* of the exercise lead to the decision of designing a similar approach.

* **to introduce a personal design phase we invited the students to redevelop the villa based on a hilarious concept to prove the unlimited capacity of drawing**

teaching+design experiments

Improvised Game Processes as a vehicle to develop form and space in order to learn how to draw and represent architectural constructs.

14mm
+
24mm

Game-Led Composition as a tool for learning:
change focus from “what to play” to “how to play it”
change focus from “what to draw” to “how to draw it”

space +
form
modelling

through { physical, digital, [drawing]

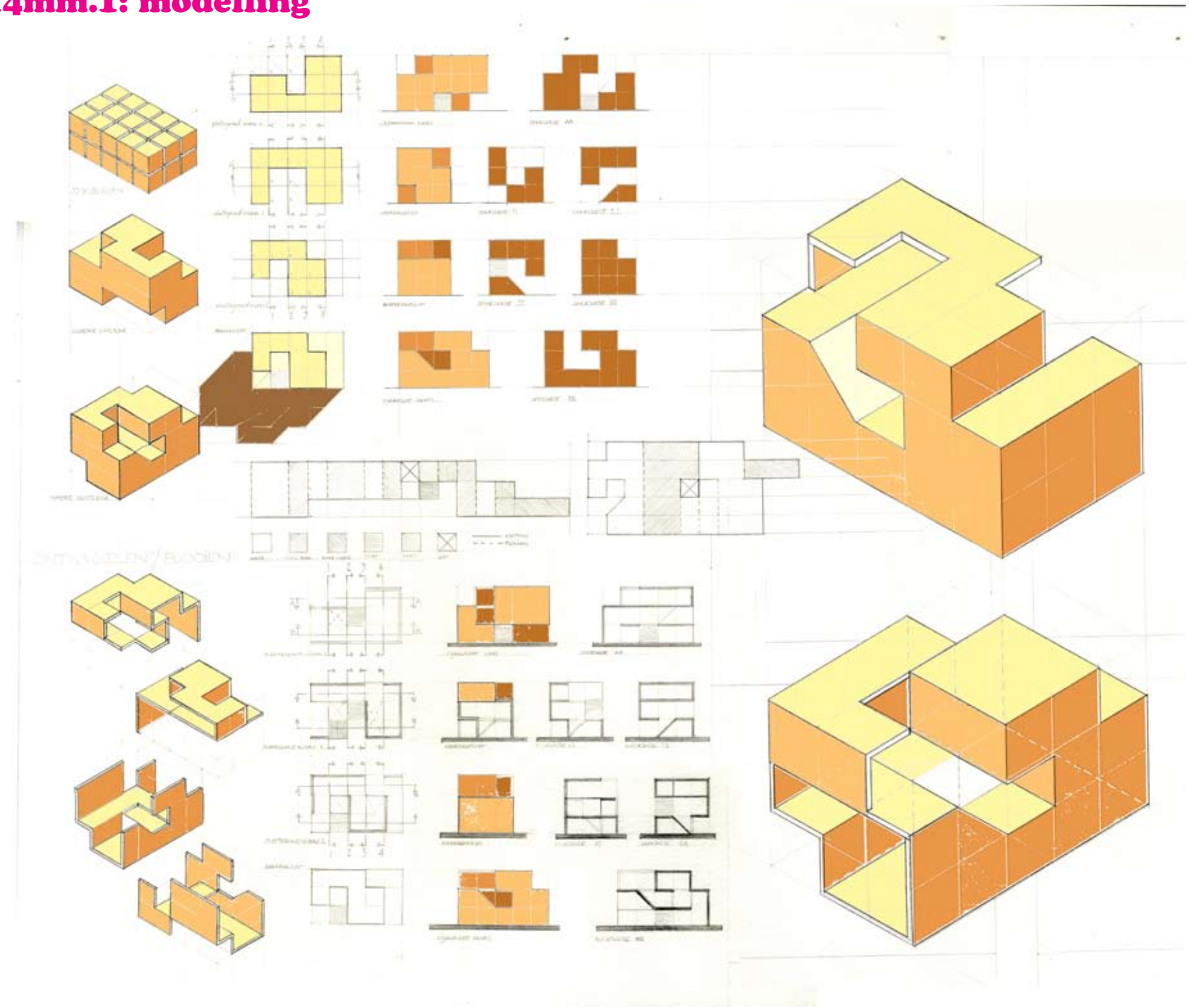
model as a vehicle
to learn how to draw
drawing

through { projection, perspective, [exploration]

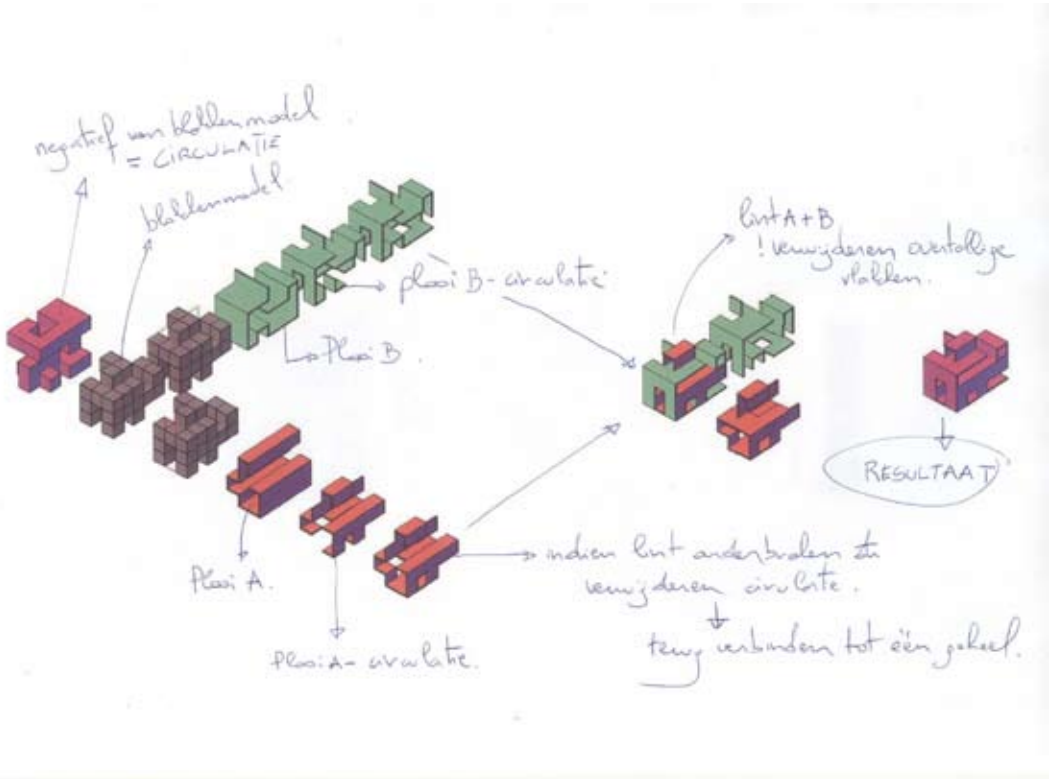
drawing as content
for representation
communication

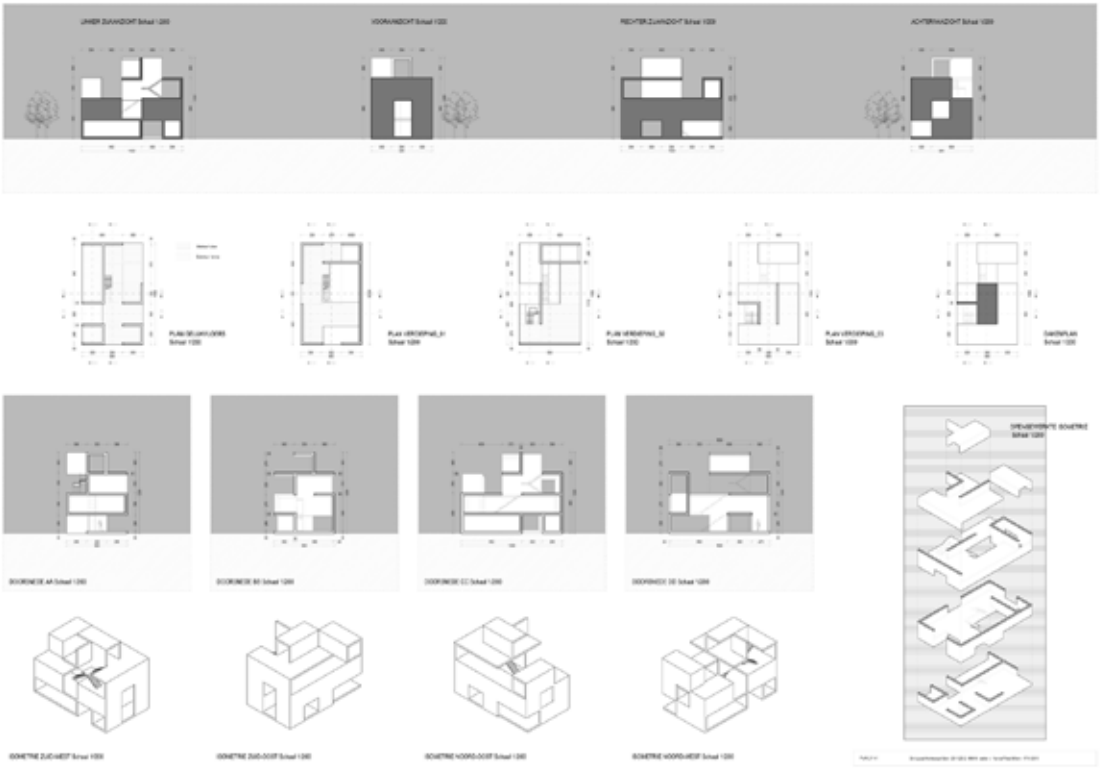
through { reproduction, lay-out, [expression]

14mm.1: modelling



14mm.2: modelling (digital interpretation)

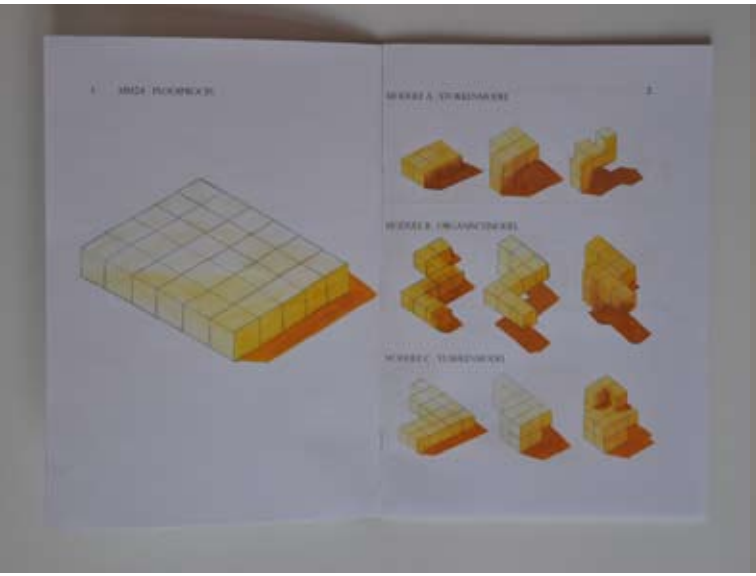


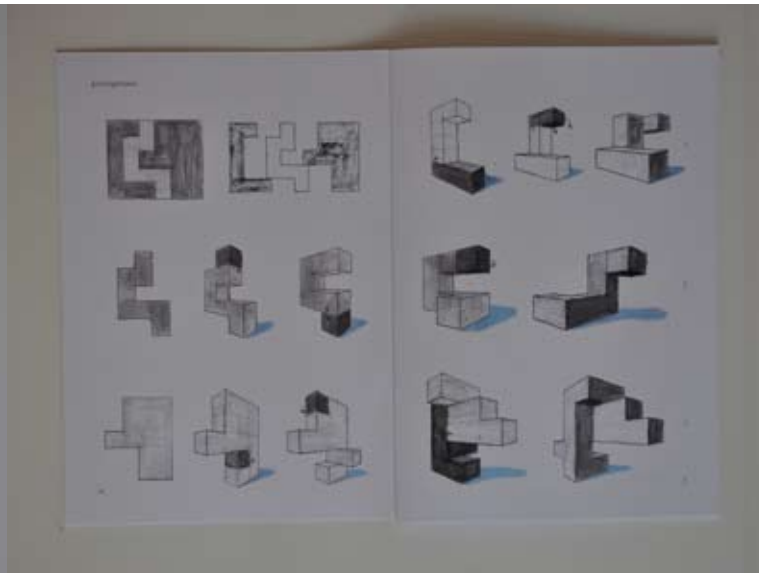


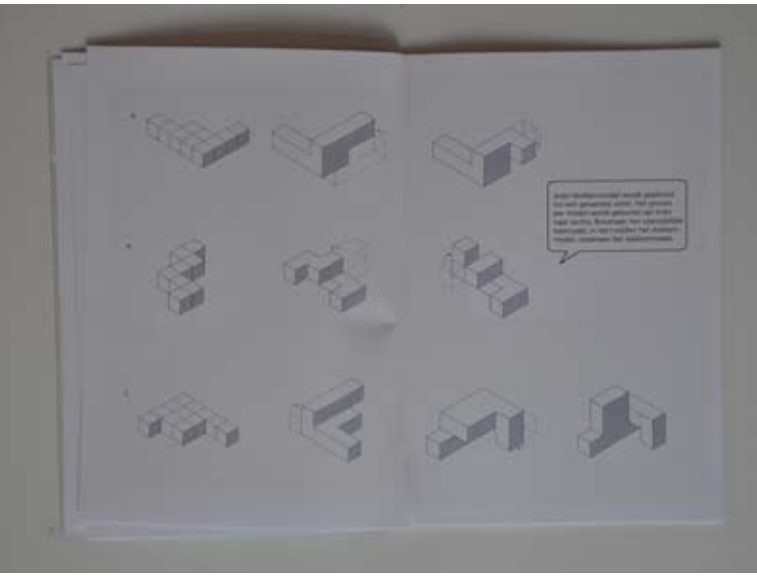
24mm.1: modelling (folding form)

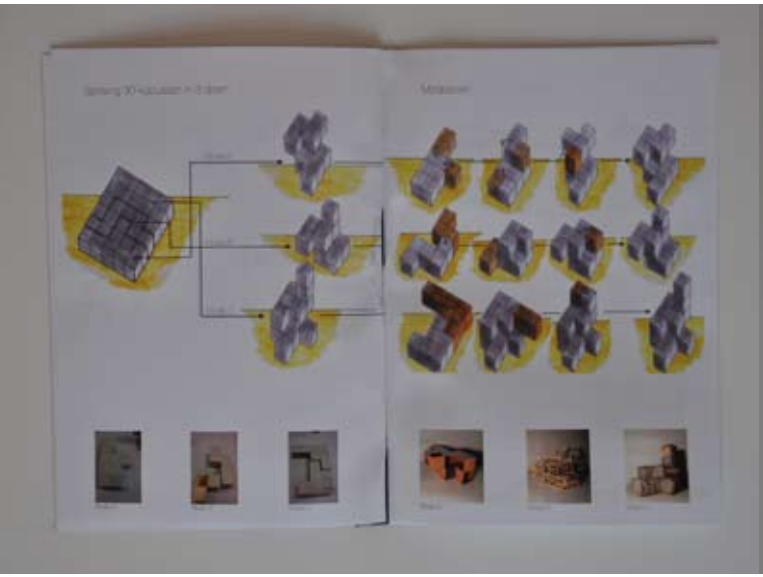
24mm.2: modelling (developing 3 different models)

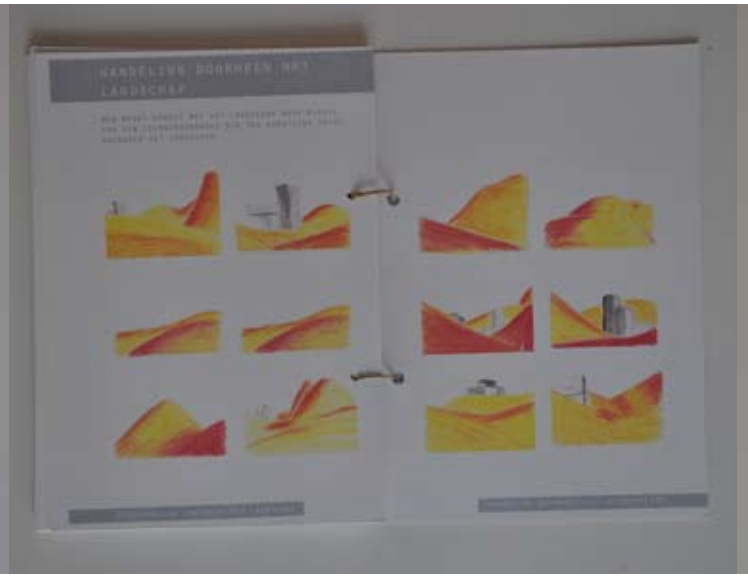
24mm.2: visualising a process

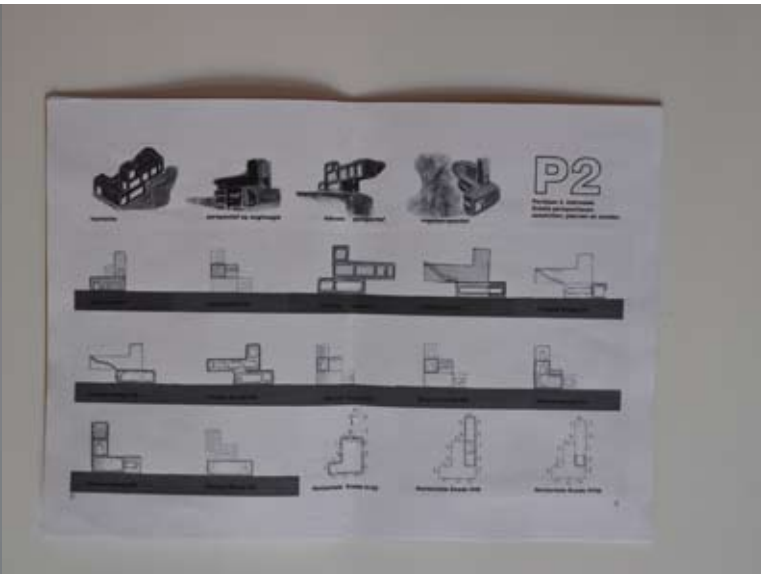




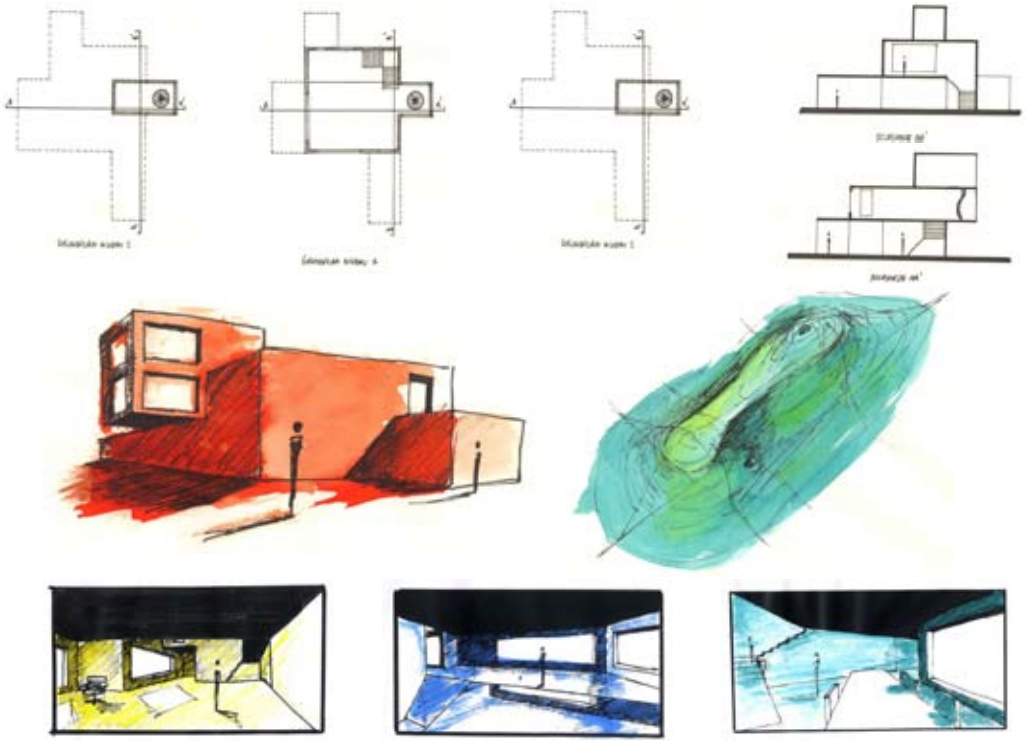


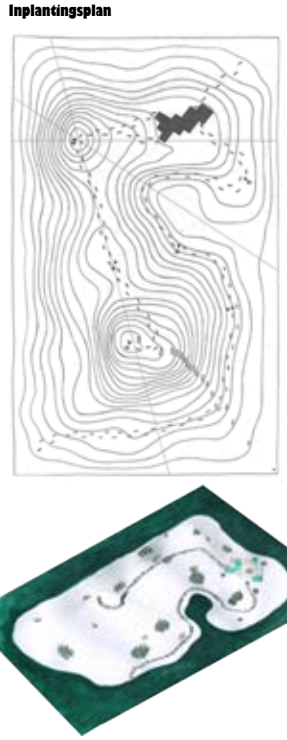


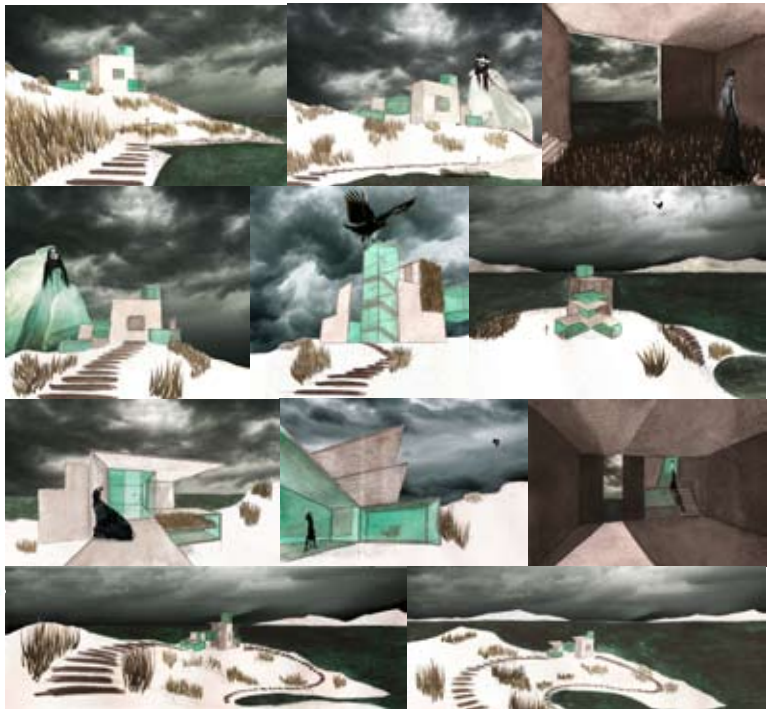




24mm.1: communicating a design within a context







24mm.1: modelling by material and landscape

Evaluation&Discussion:

Design based aspects:

Game generates form but we are still far from '*sketching in ways that facilitate emergence and reinterpretation*' (Purcell and Gero)
Both processes lead to individual and creative structures but more research is needed into the generative possibilities of the media.

vehicle to introduce design-based techniques

14mm = introduces basic drawing techniques, projection, perspective and basic poster communication
24mm = extends upon different techniques (editing, publishing, 3D-modelling) and inquires different forms and aspects of context

Both exercises are able to accomodate the curricular content but there are still some aspects are underrepresented in both exercises:
cylindrical geometry,
drawing from life (observation) and live situations,
other ways of seeing and looking [inquiring the ephemeral aspects of architecture and design]

mediated structure to facilitate collaboration

Process is mediated, communicated and negotiated amongst all parties involved but we still define assignments alongside of each other. The process allows for deviations and different interpretations according to the priorities of the teachers involved.
We should investigate durable ways of collaboration to achieve a certain synergy between the digital and the physical.
The overall goal should be investigated in order to achieve a synergy and enable both realms to interchange phases.