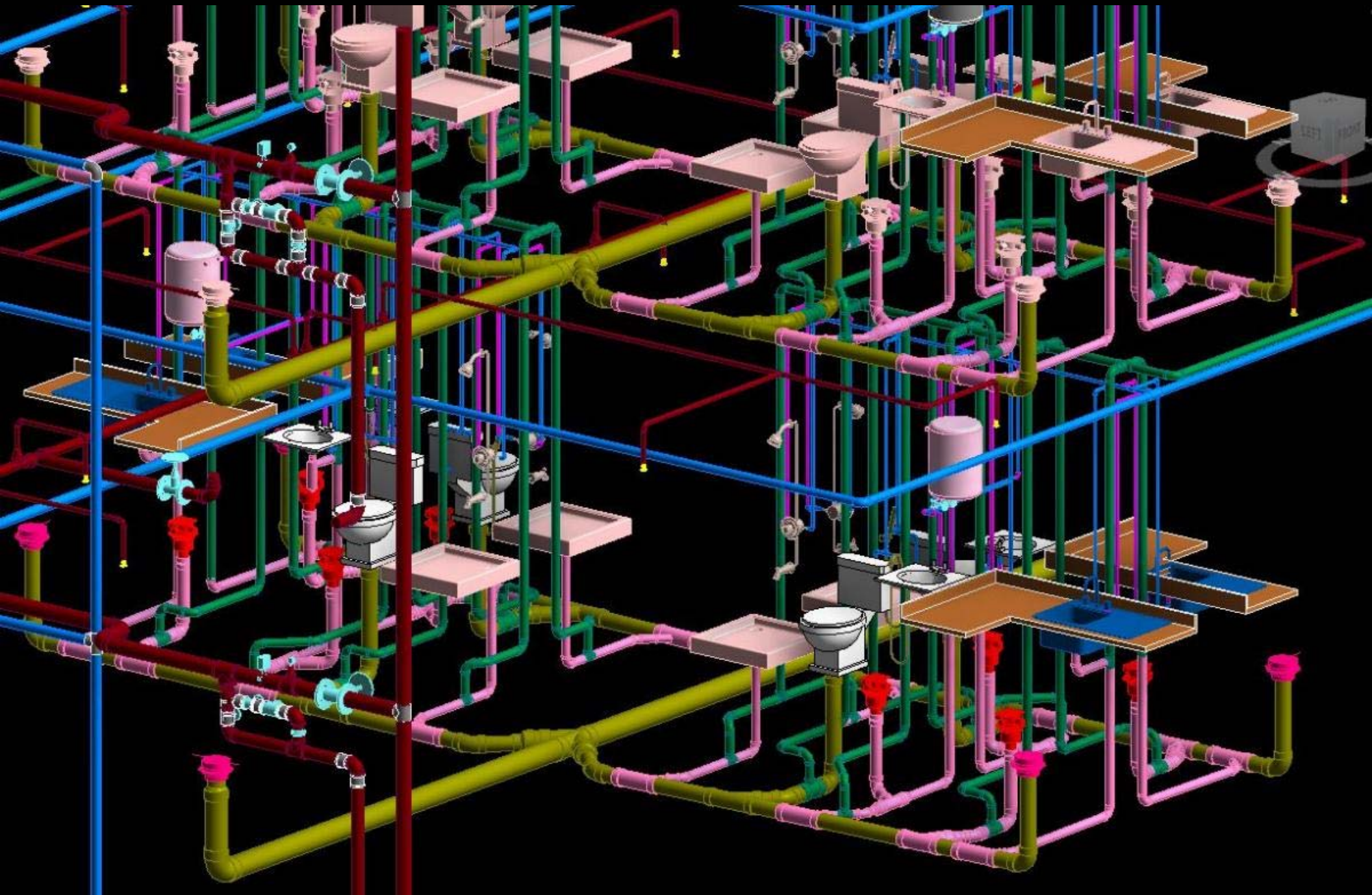


ARCH 521: MEDIA TECH VI: WORKFLOWS: FALL 2018
Federico Garcia Lammers



Post-orthographic production, let stop saying post-digital.

why do we not use technical
language to describe
contemporary outputs? /
what type of stuff do Building
Information Modelling
processes produce?

**Everytime you spin a model
around inside a computer
an orthographer falls down
dead. No amount of clapping
will reinstate orthography
as the primary system of
architectural production.**

Everything is Already an Image

John May. Log 40



**The status of computational
images in the work of MILLIØNS.**

John May and Zeina Koreitem.

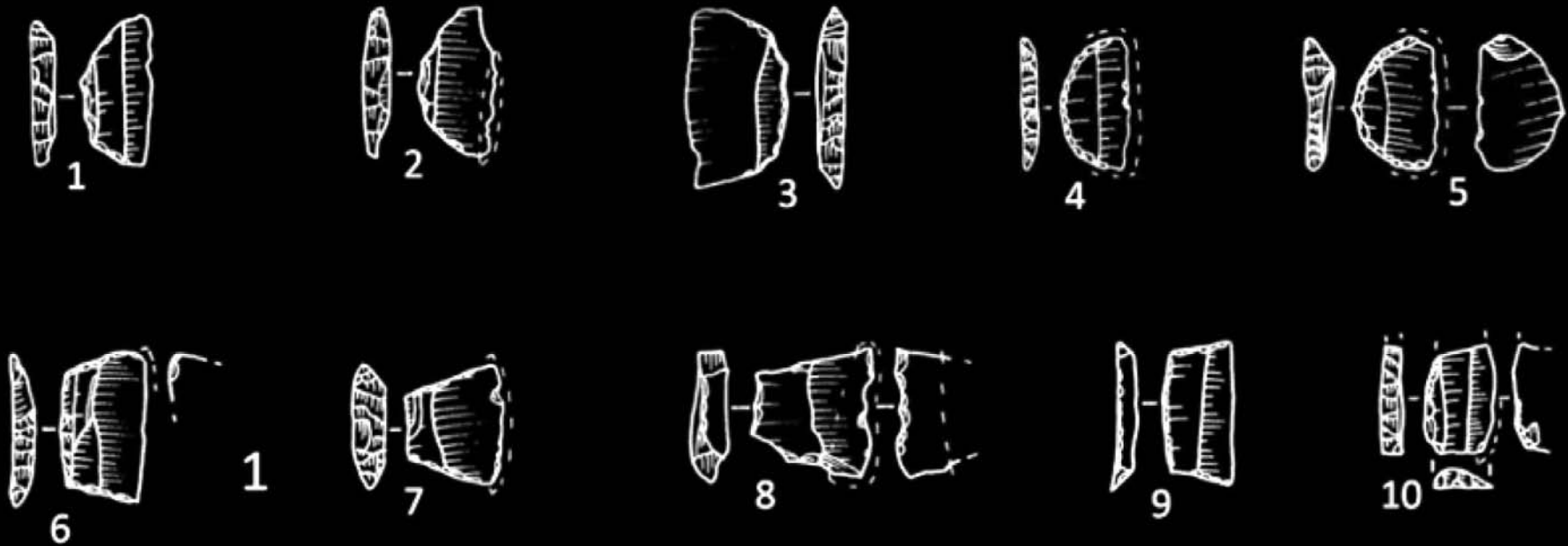
Three Axioms.

What is an axiom?

Axiom 1

There are no pretechnical forms of thought. There are no ways of thinking that remain isolated from technical acts.

Modern fallacy: ideas exist apart from their technical formation.



Early Neolithic geometric microliths.

**Technical life is inseparable from
processes of hominization.**



Cave of Forgotten Dreams. Werner Herzog. 2012

How does John May define the difference between technics and technology?

Axiom 2

Nothing technical is ever merely technical. There are no “minor technicalities”; or rather, all technicalities are tethered, in some way or another, to the deepest regions of consciousness.

Life's **technical immersion is
not a problem to be solved but
a condition to be continually re-
understood.**

**The best philosophies of techinics
are, strictly speaking, useless.**

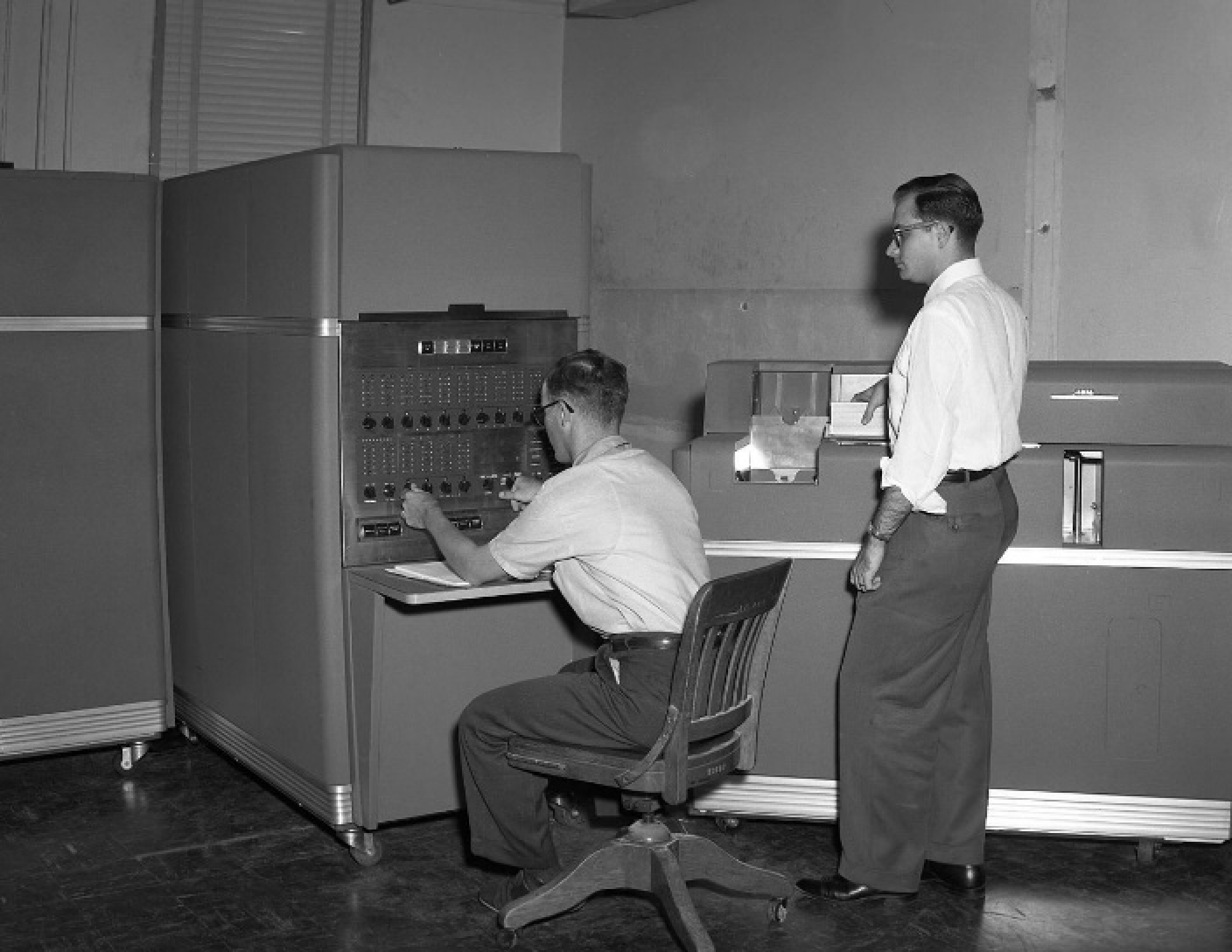
Axiom 3

The specific conception of time embedded in a technical system is inseparable from the forms of thought and imagination it makes possible or impossible.

**Distinct technical ages
are bound up with distinct
conceptions of time.**

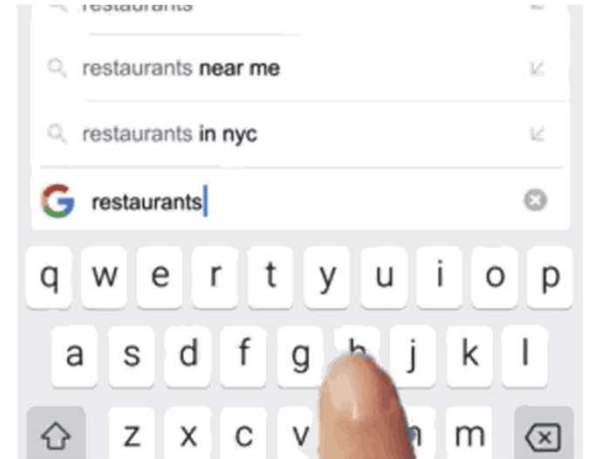
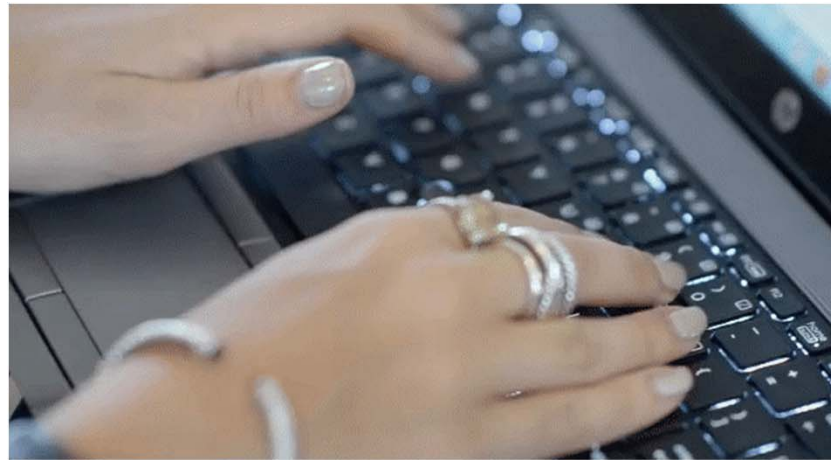


Storehouses of the cumulative knowledge and wisdom we now refer to as “culture”.



How is the **storage speed** of the medium is deceive for the forms of **consciousness** with which it is associated?

The pace with which any system allows us to record our thoughts and actions is inseparable from the ways of life it makes possible or impossible.



**Three axioms driven through
three primary categories of
visual depiction:**

Drawing

Photograph

Image

Why are these the three categories we should be interested in?

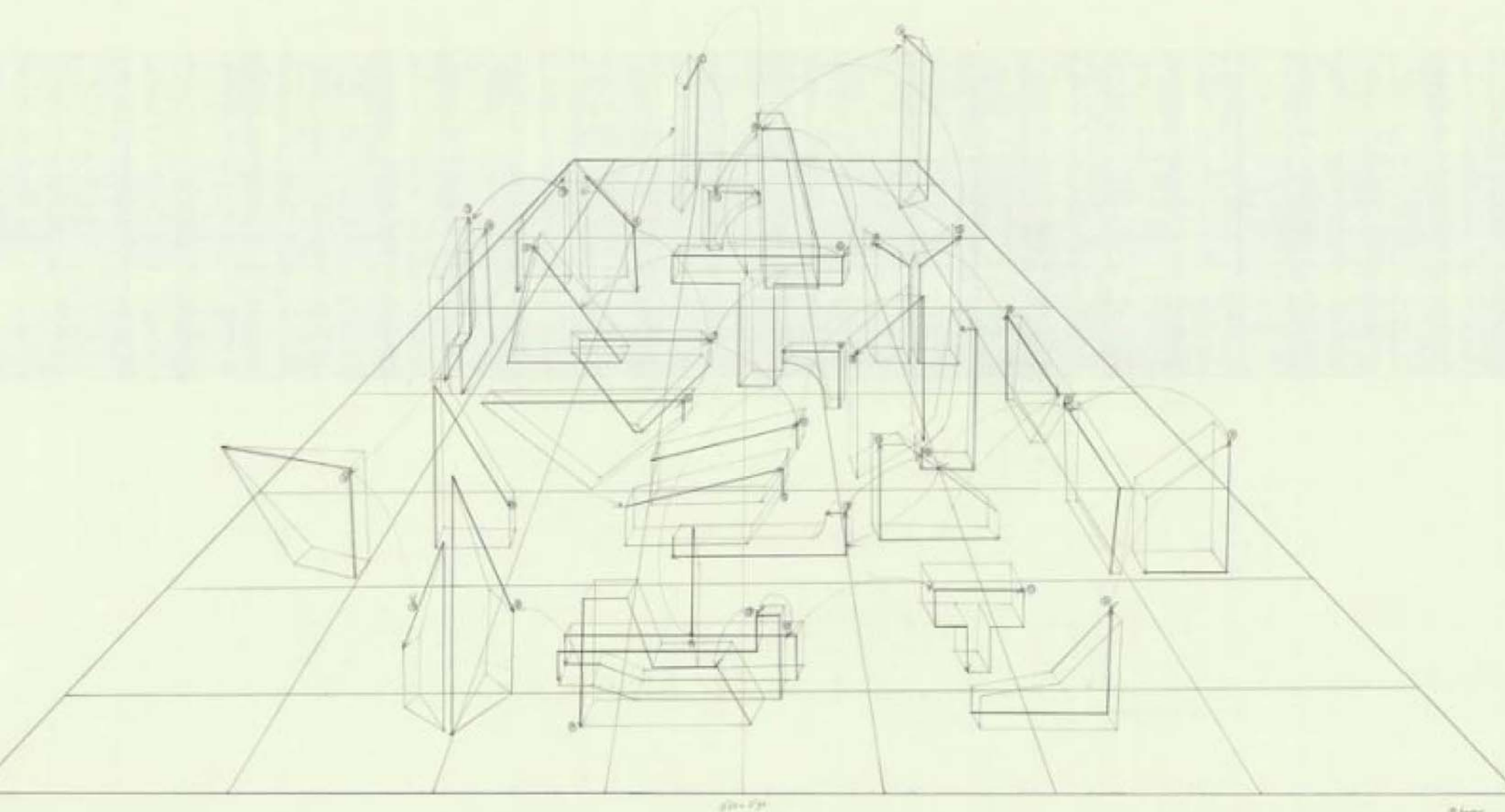
What do they reveal about contemporary architectural culture?

**Contemporary architecture
is quick to hybridize and
assign value and interest to
the ill-defined or ambiguous
characteristics of visual outputs.**

What if we consider the slippages between those three categories as evidence of a **chronic confusion**.

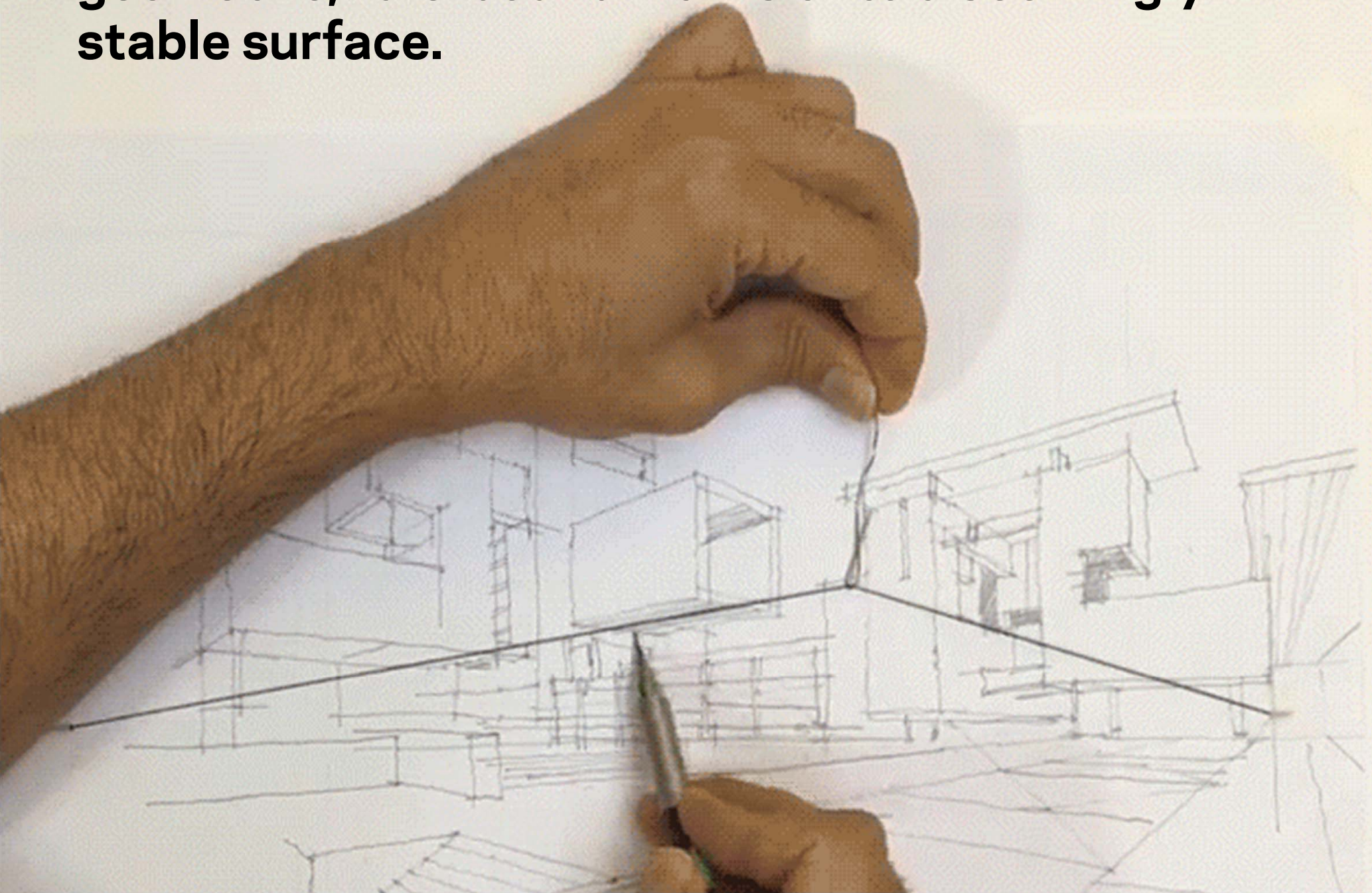
What if we consider a minimum set of **technical criteria** for the world we attempt to describe and work in.

Drawings



gpa - 1/20

Hand-mechanical gestures that inscribe or deposit geometric, rule-bound marks onto a seemingly stable surface.

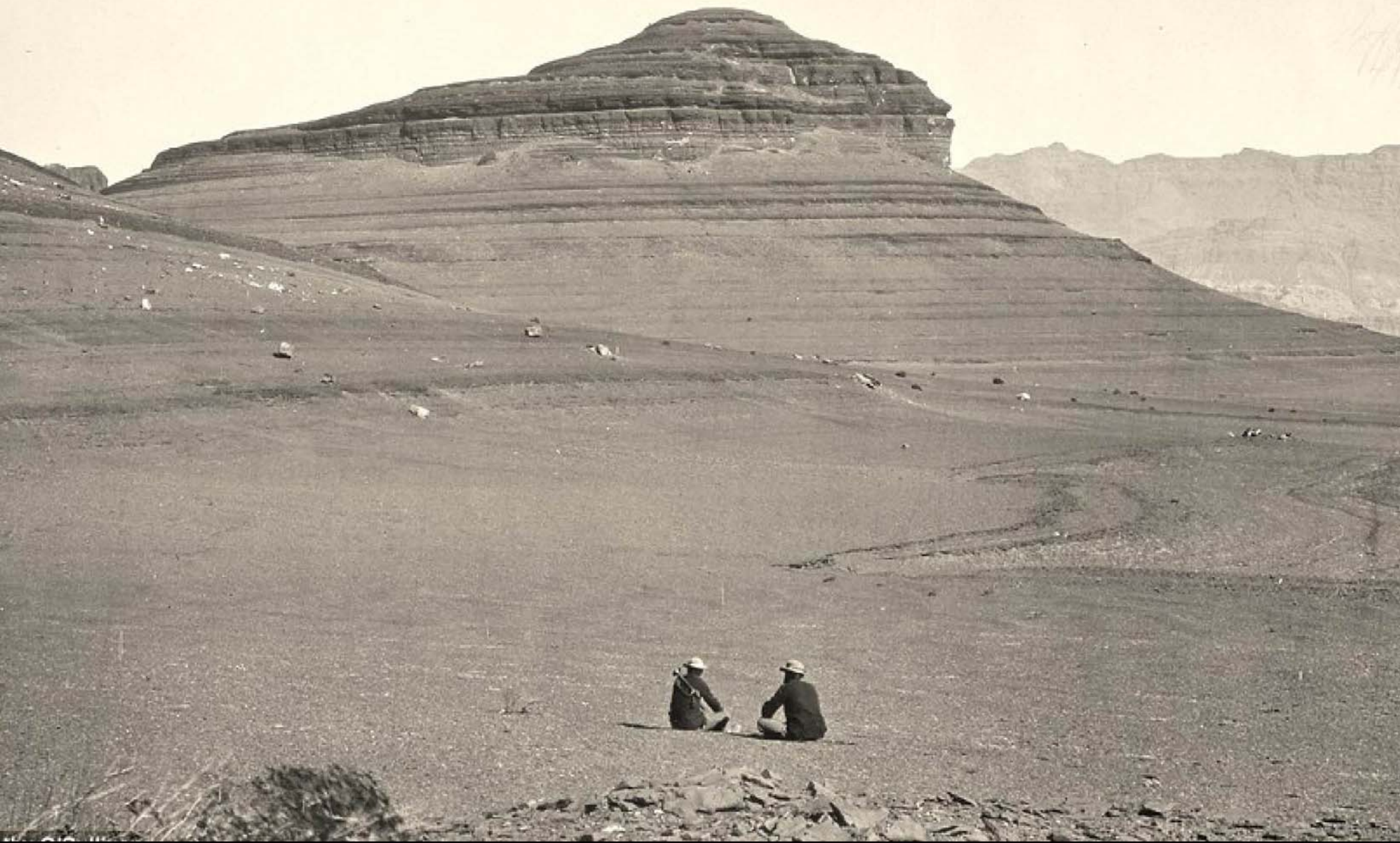


Hand-mechanical depiction is static: Once drawn, drawings do not move. The movement comes from the synchronization between **hands and some **external organ** (straight edges, compass, squares, etc.)**



Gestures are predictable, regular, controlled, and approximately repeatable; their coordination is mechanistic.

Photograph



**Technically, all photography is a form of heliography:
The writing of the sun. It is the exposure of chemical
substance to the sun.**

The photograph is a **mechanical-chemical** visual format,
completely separate from the
technical act of drawing.

**Why did the invention
of photography amount
to a regression in visual
mathematization?**

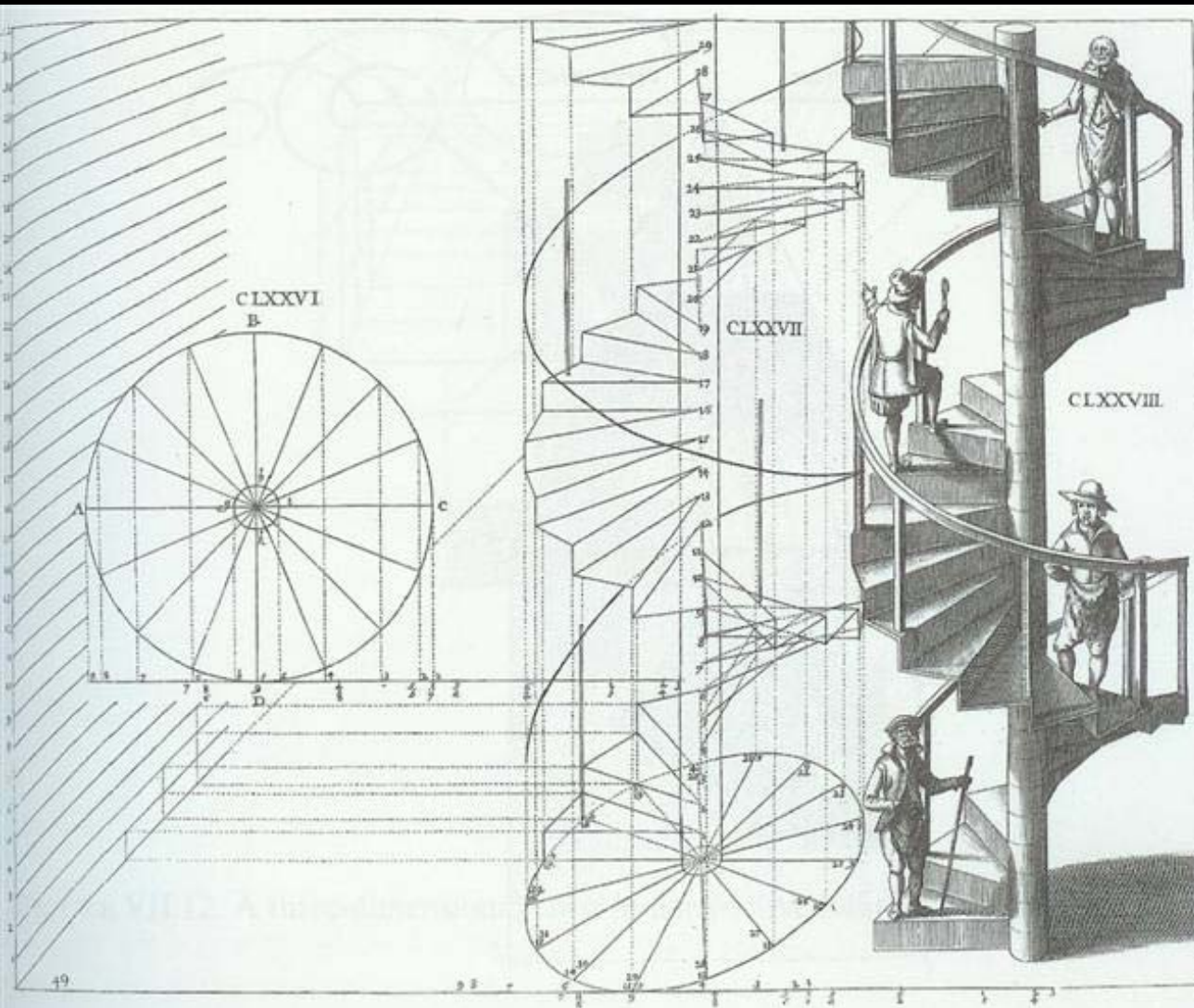
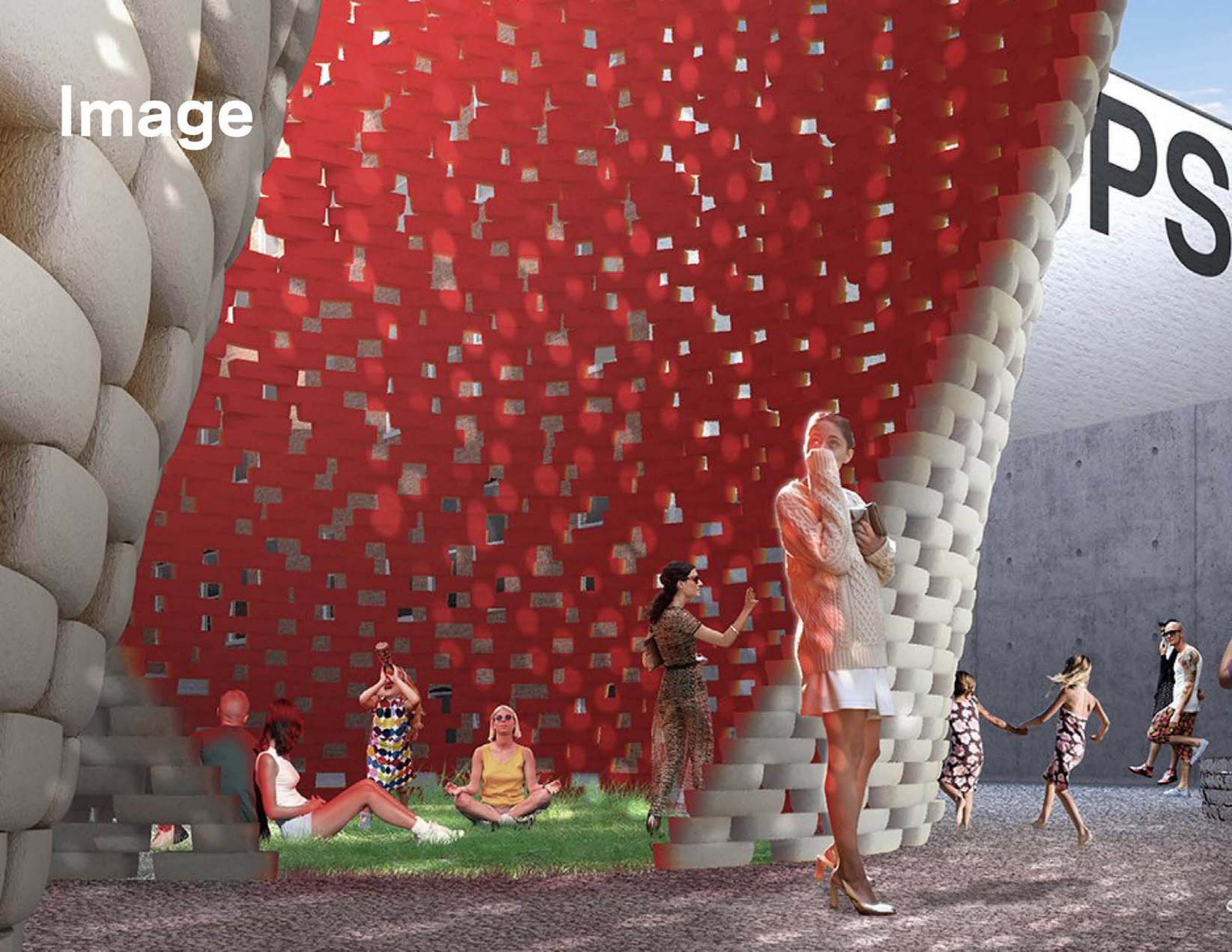


FIGURE VII.10. A staircase in perspective. Marolois 1614, figure 178.

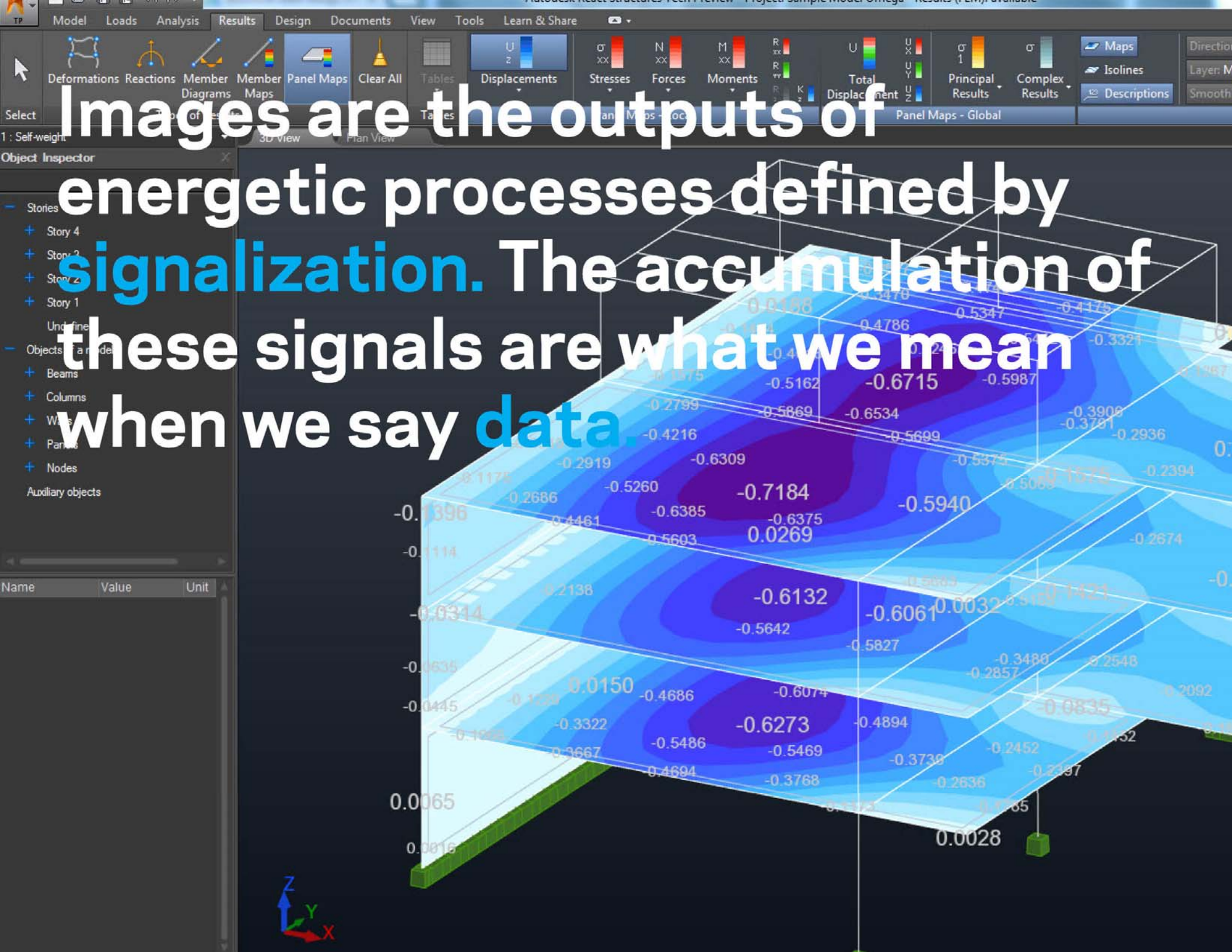


**The mathematics of a photograph
always remain locked within its
chemical composition.**

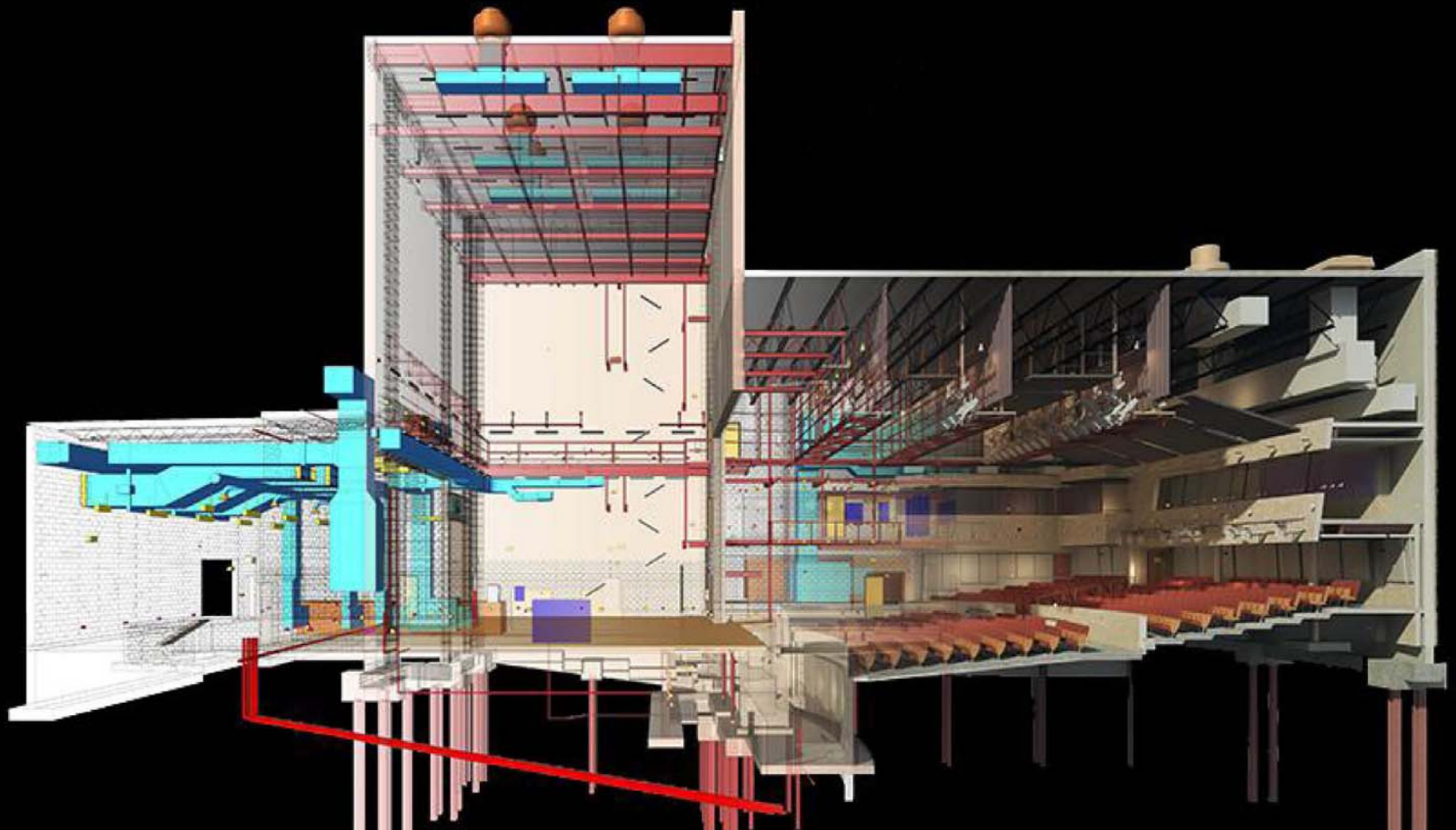
Image



Imaging is a form of **photon detection**. Unlike photographs, in which scenic light is made visible during chemical exposure, all imaging today is a process of detecting energy emitted by an environment and chopping it into discrete, **measurable electrical charges called signals**.



All images are data, and all imaging is, knowingly or not, an act of **data processing**.





Next

Why are images inherently dynamic? Why do we think of them as fixed.



Normal

Clarendon

Gingham

Mojito



Filter

Edit



Next

Why are images inherently dynamic? Why do we think of them as fixed.



Crema

Ludwig

Aden



Filter

Edit

**Photography as written light;
Imaging as detected energy**

**Inaccurate language that reflects
a shallow understanding of the
technical world we live in.**

**~~Digital Photographs~~ don't exist
~~Computer Graphics~~ don't exist**

This will kill that...

ŒUVRES DE VICTOR HUGO.

POÉSIES.

ALLÉLUIAS, cinquième édition, 2 vol. in-8°,
gravures et vignettes. — LES ORIENTALES,
cinquième édition, 1 vol. in-8°, orné de gravures.

22 fr. 50 c.

ŒUVRES, sixième édition, 1 vol. in-18, orné de
6 fr.

DRAMES.

1 vol. in-8°. 7 fr. 50 c.

troisième édition, 1 vol. in-8°, orné d'une gra-
6 fr.

ROMANS.

ŒUVRES, troisième édition, 4 vol. in-12. 12 fr.

ŒUVRES, troisième édition, 3 vol. in-12. 9 fr.

LE JOUR D'UN CONDAMNÉ, quatrième édition,
in-12. 4 fr.

Sous presse :

LE JOUR D'UN CONDAMNÉ,

,
ŒUVRES,
avec vignettes.

PARIS. — IMPRIMERIE DE COSSON,
Rue Saint-Germain-des-Prés, n° 9.

NOTRE-DAME DE PARIS.

TOME PREMIER.



PARIS,
CHARLES GOSSELIN, LIBRAIRE,
RUE SAINT-GERMAIN-DES-PRÉS, N° 9.
M DCCC XXXI.





Orthography



Dignificemur in die
Vlaccio tunc
Illi qui omni
am erandi
et dominus
vixem ora
tionem mee **Q**uia in di
nauit auiem suam in
et in diebus meis inuoca
bo **C**urru dederunt
me dolores mortis et pe
ricula inferni inuenerunt
me **T**ribulationem
et dolorem inueni et no
men domini inuocaui
Commune silem aia
meam in misericordia die

Orthography is a geometric gesture that arranges marks into legible lines and texts.

MEETINGS WITH
REMARKABLE
MANUSCRIPTS
CHRISTOPHER DE HAMEL

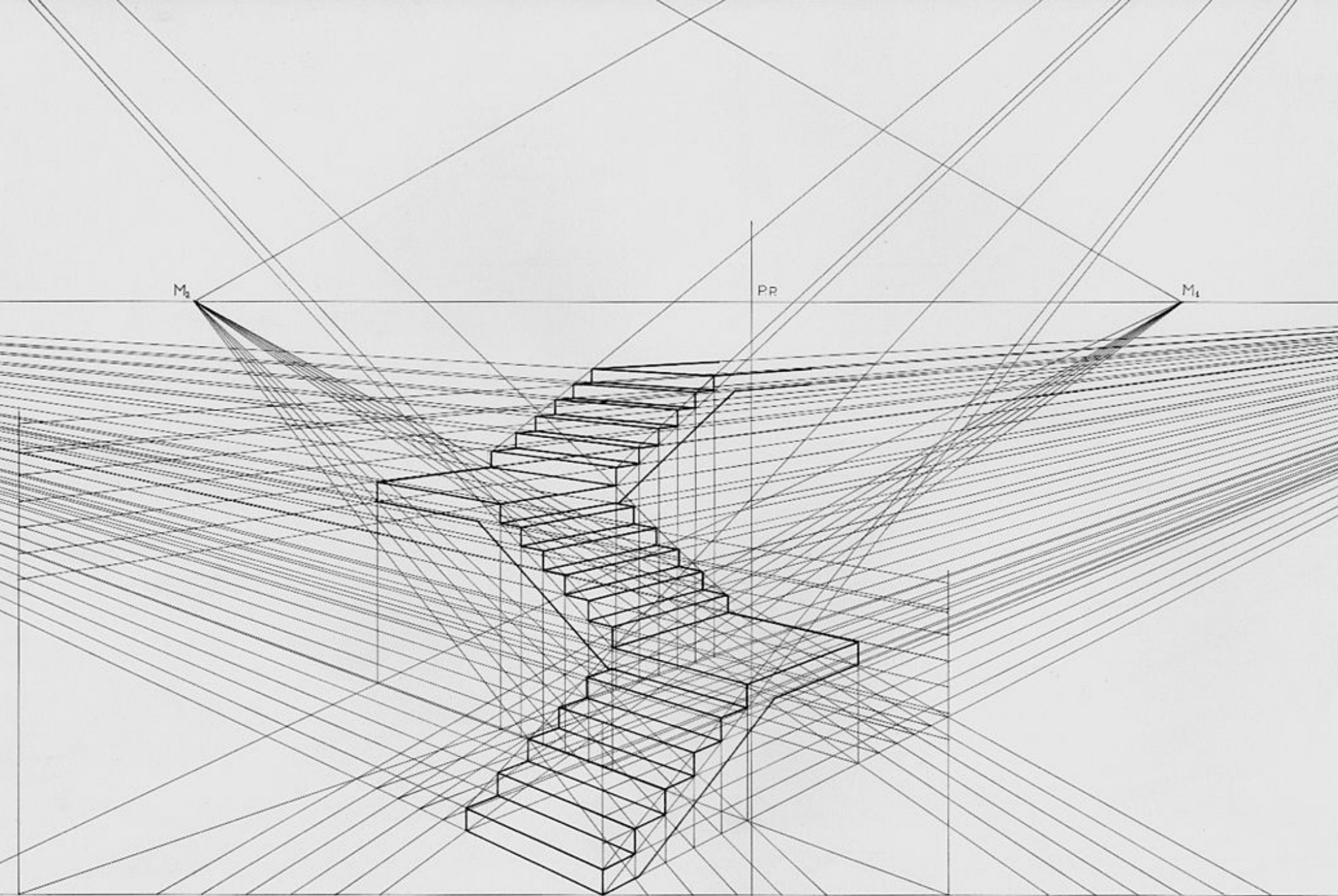


'An endlessly
fascinating and
enjoyable book'
NEIL MACGREGOR

**For the orthographer the world
was geometry, as both text
and drawing.**

What is “linear graphism”?

Thought is structured by **rule-bound lines** with beginnings and ends. Orthography brought the notion of **literacy into the world.**



If you are reading this right now you are engaged in a form of “**linear graphism**”, knowingly or not, orthographic systems brought new objects and objectives into the world.

Orthography transformed a visual world of non-linear, associative markings, into a linear depiction of the world.



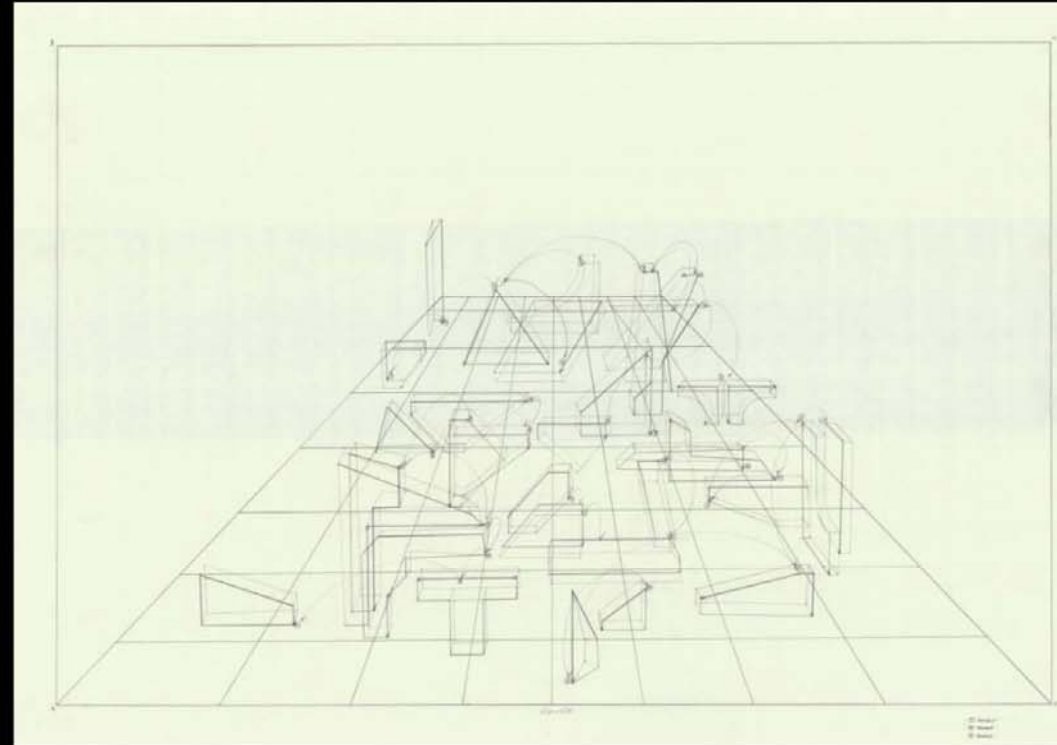
**Why were history and
orthography co-emergent?**

**Orthography generated two
competing visions of the world:**

**Alphanumeric handwriting
(speech)**

**Orthographic drawing
(silence)**

Drawing is a form of nonalphabetic orthography.

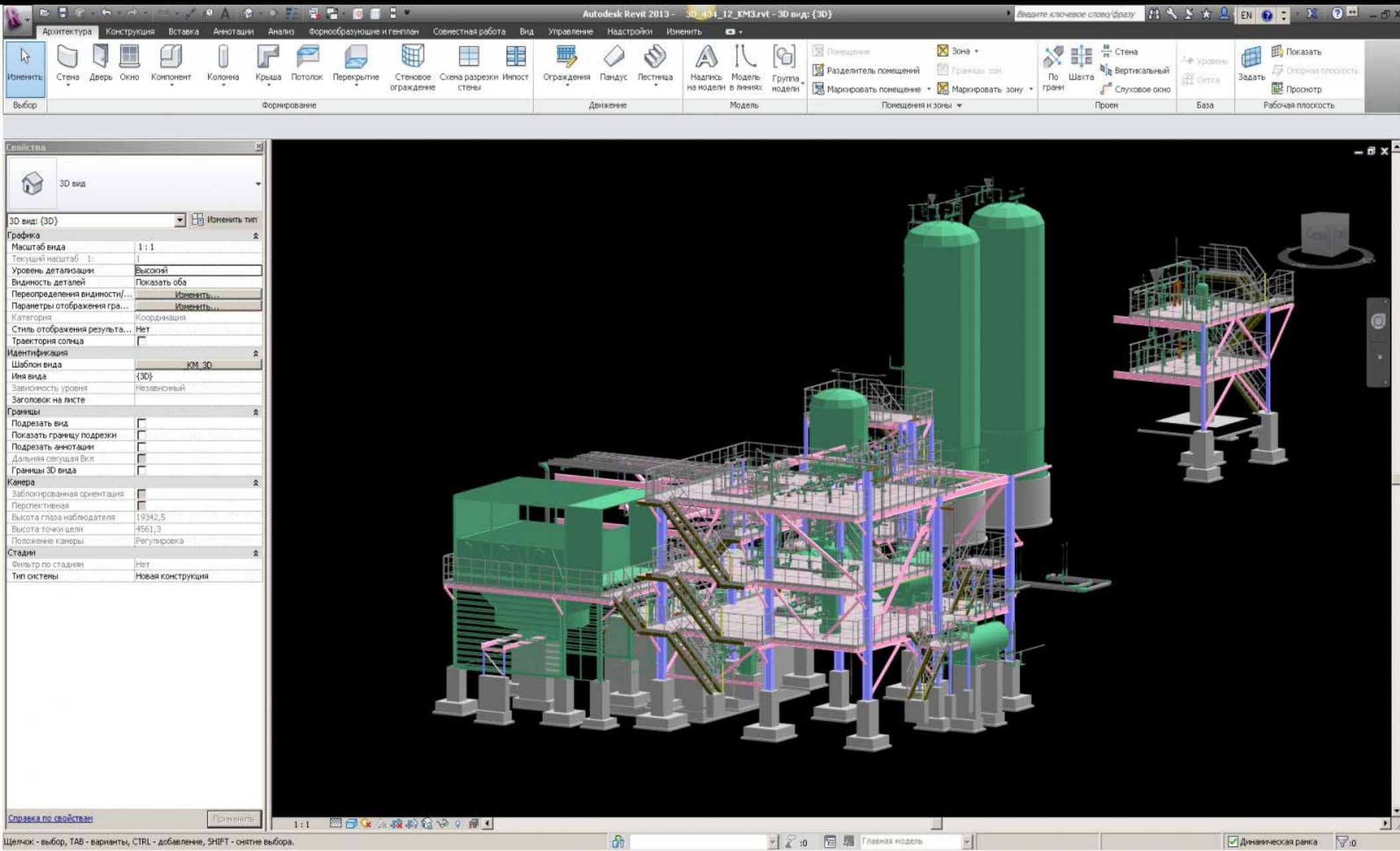


The fact that prior to the emergence of orthographic writing, time was conceived of as a circle or cycle is proof that we are not born thinking linearly.

Linear thinking is a product of our culture and the technical systems that are at play, such as scientific management.

**How do cultures train themselves
out of linear orthographic thinking?**

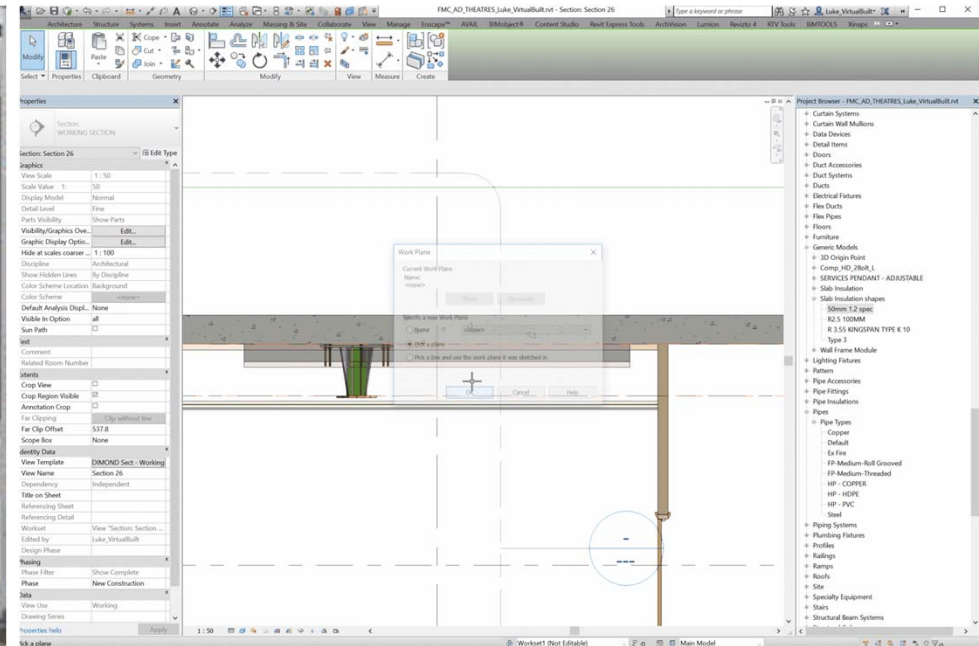
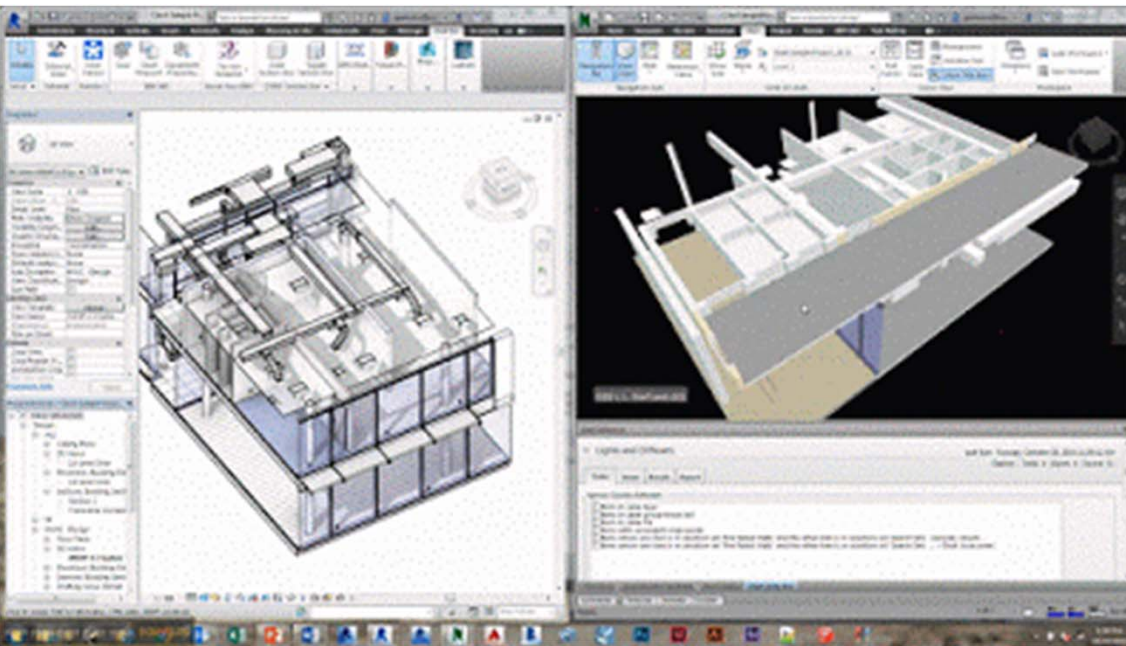
Post-orthography



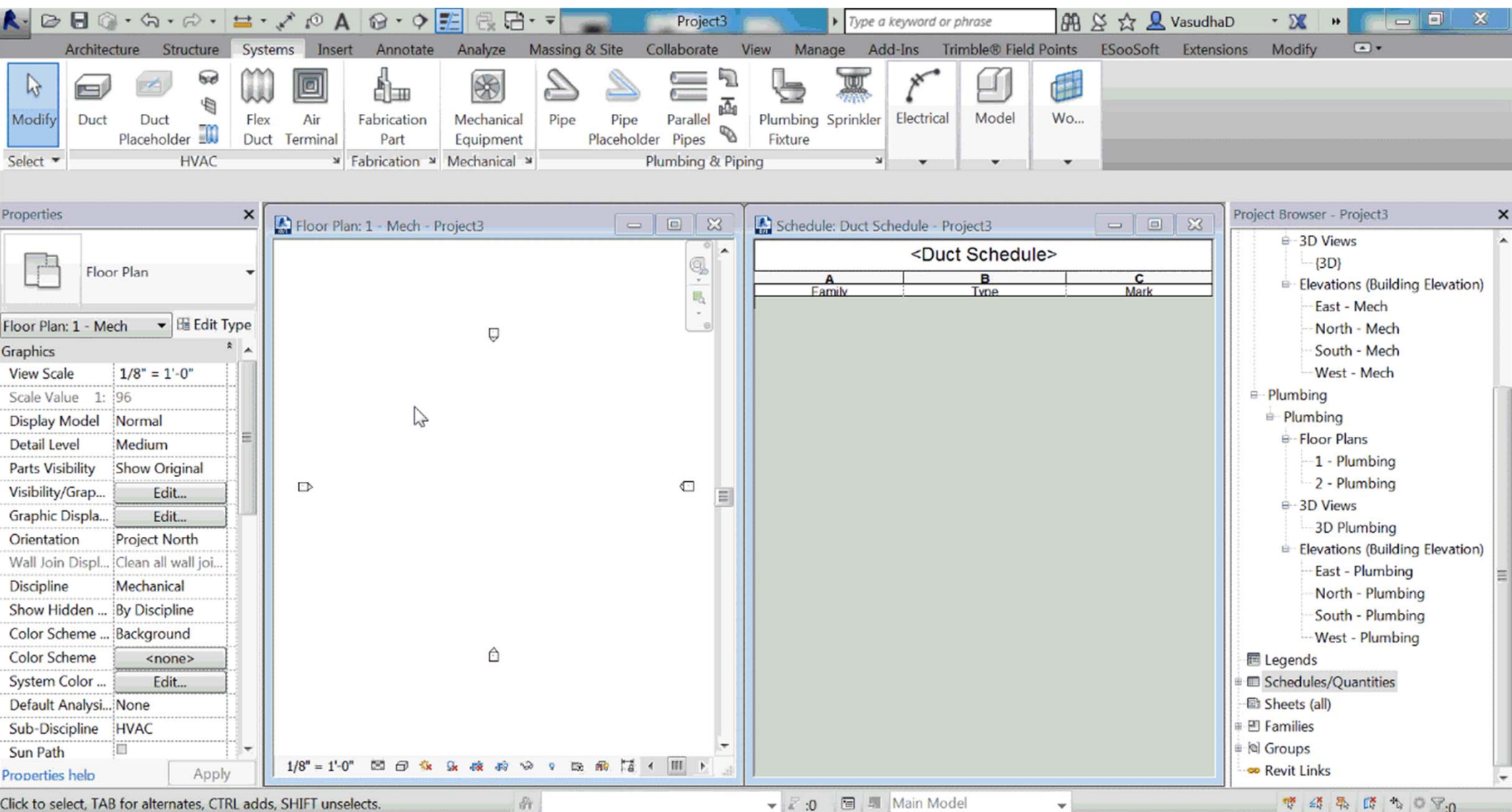
**Post-orthography doesn't mean
that drawing is dead or useless.**

**If the world of the orthographer
was simultaneously a text and
drawing; what is the world of the
post-orthographer?**

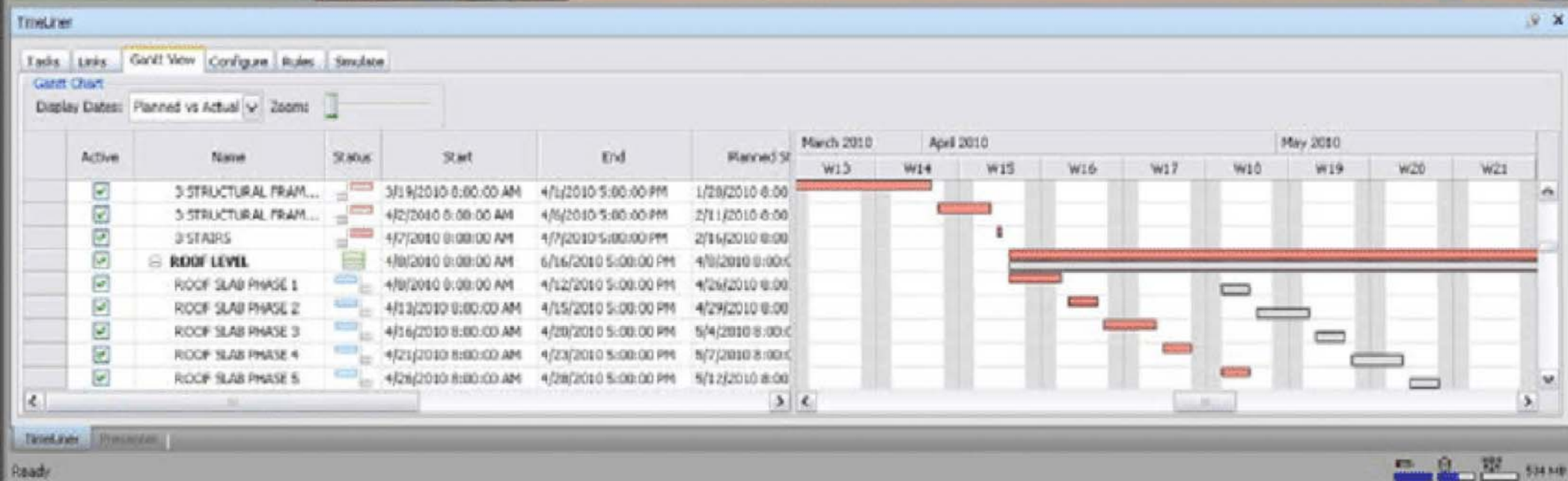
Simultaneously image and model



How do post-orthographic systems enmesh our work in “real time”?



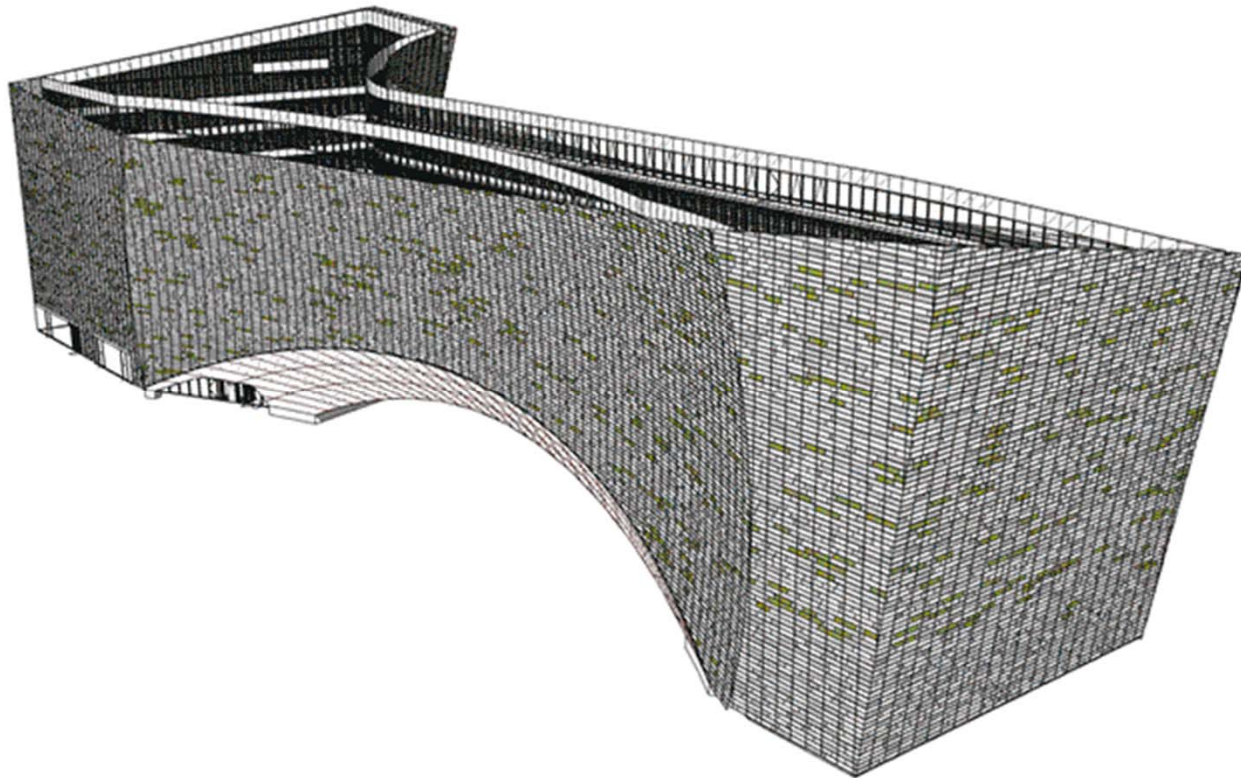
Real time is the time of statistical thought - it generates a probabilistic conception of time that is non-linear.



An image and **model is latent with **infinite images** and probable outcomes at the finger tips of its technical production.**

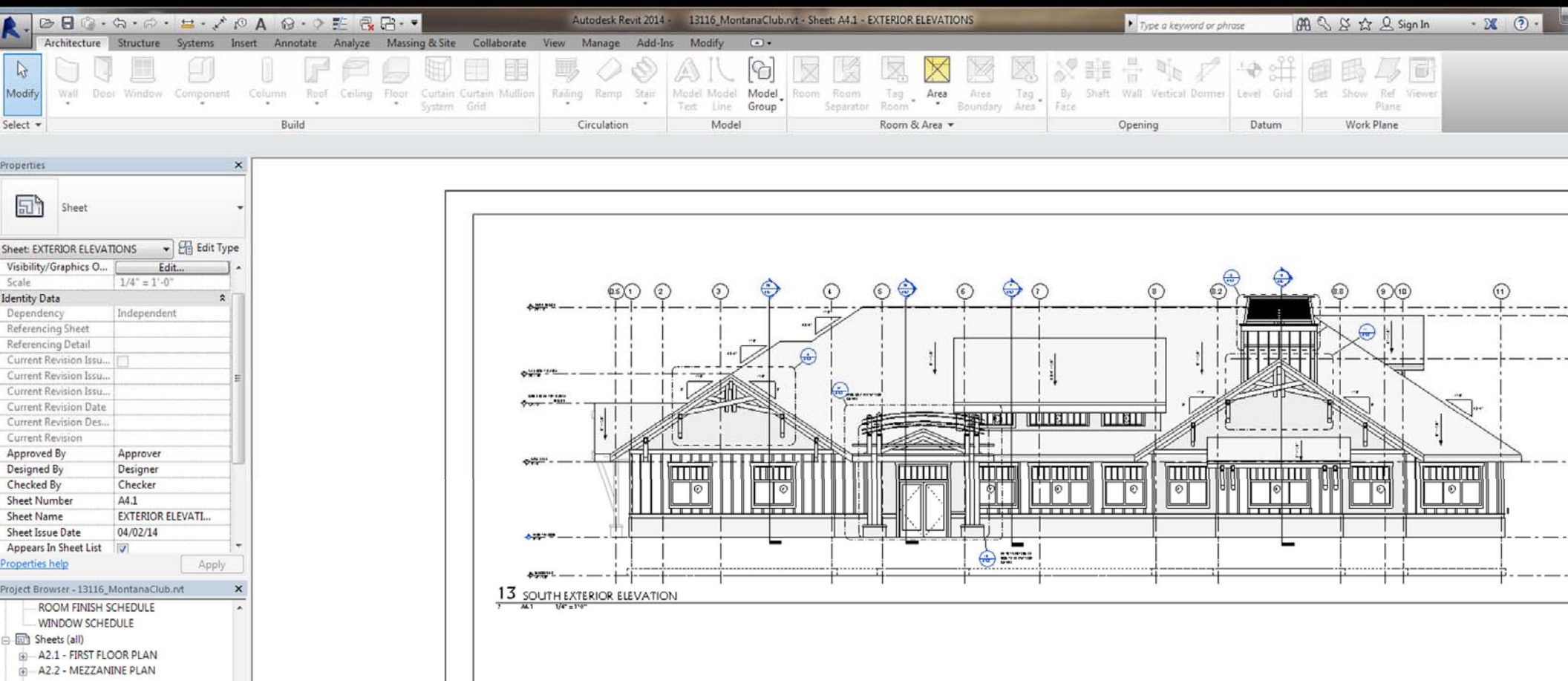
A drawing and text is latent with many probable outcomes, but its production is limited by its technical system.

Models contain simulations of all possible future drawings.



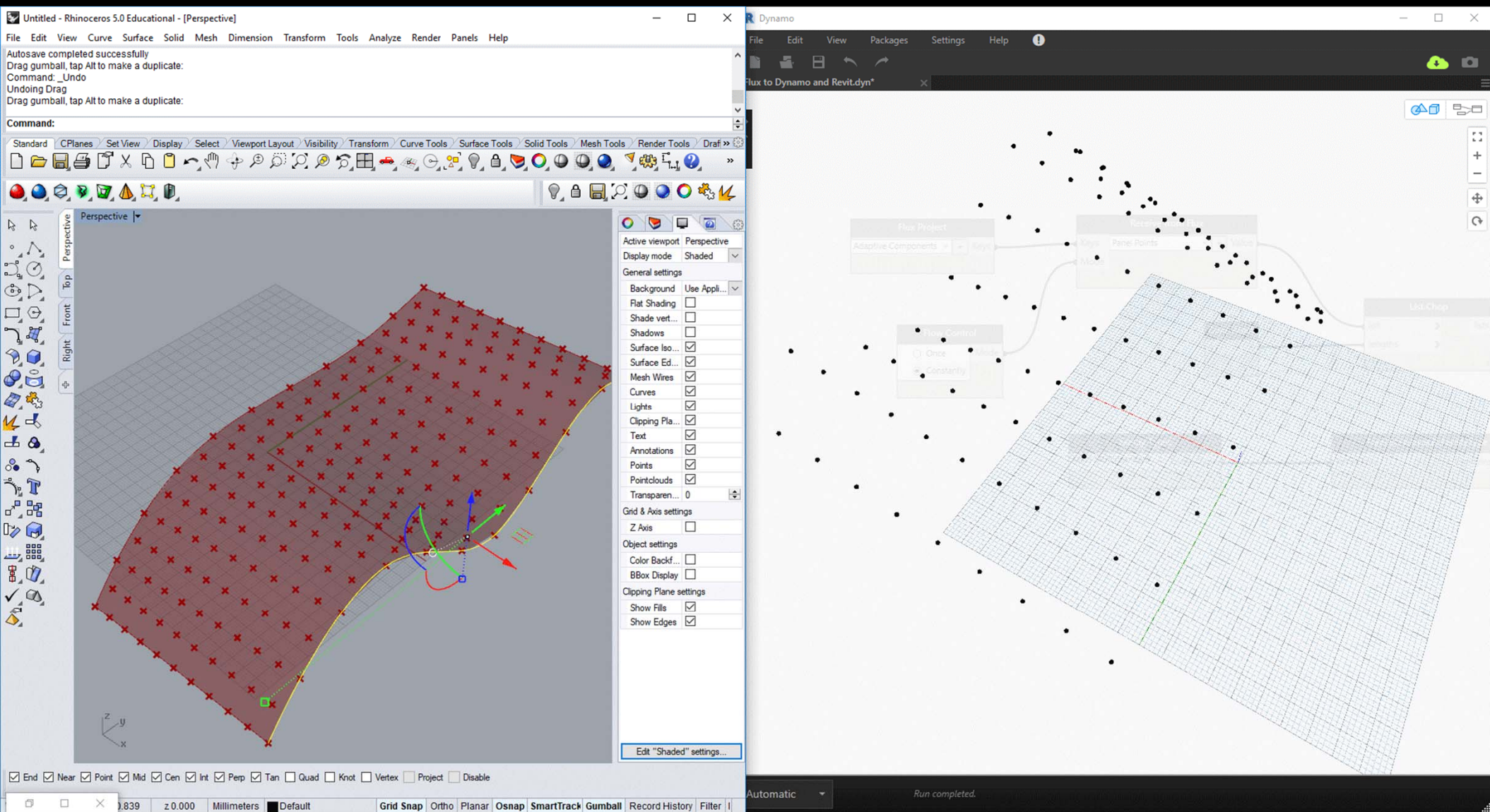
Using the “**Make 2D**” command or making a “**Revit Section View**” is not at all like drawing an orthographic plan.

The outcomes of these commands are simulated orthographic results; **2D reports** (images) from **3D objects** (models).

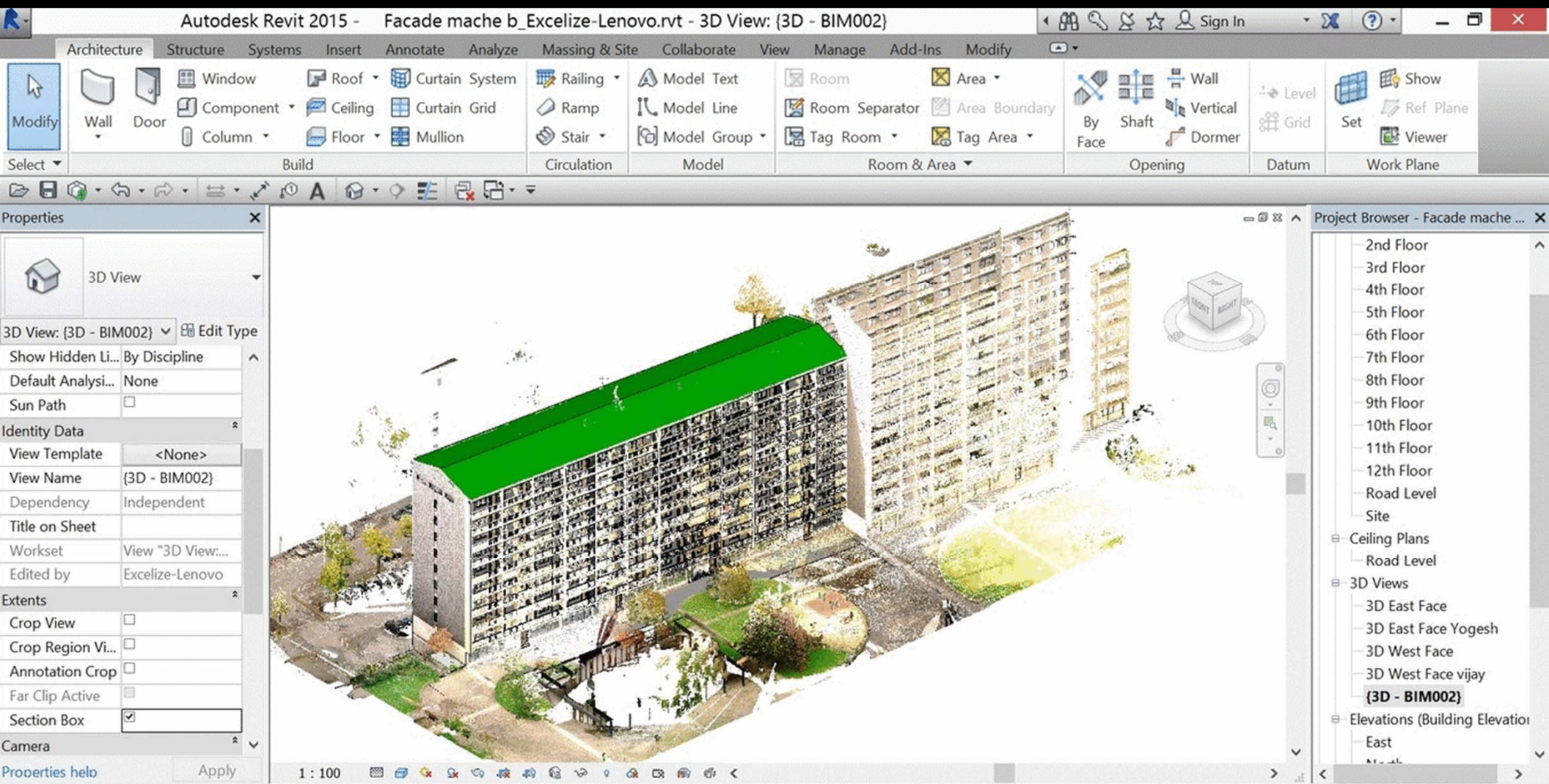


Why does John May refer to images as a presentation and not a representation of the world?

Up-to-date, real time models of the world.



**The always - present experience
of all calculable possible future
states - the logic of real time
modeling - is very different from
an orthographic imaginative
framework.**



Click to select, TAB for alternates, CTRL adds, SHIFT unselects.

Workset1 (Not Editable) 0 Main Model

Editable On MakeAGIF.com

Spin the model right - round - right round, and other tacit critiques of students' "digital work", or rather, our ubiquitous post-orthographic production techniques.

Pseudorthography

Pseudorthography is not fake,
it simply means we have not
yet come up with terms and
conditions for this visual digital
sphere we work in.



Modify | Title Blocks

Properties

D 24 x 36 Horizontal

Title Blocks (1) Edit Type

Graphics

Scale 1/8" = 1'-0"

Identity Data

Sheet Name 4TH FLOOR FRAMING PLAN ...

Sheet Number S-104F

Sheet Issue Date 02/11/12

Checked By Designer

Designed By Designer

Approved By Approver

Sheet Width 3' 0"

Sheet Height 2' 0"

Other

Date/Time Stamp 02/11/12

File Path

Drawn By Author

Properties help Apply

Hospital_Structural_DocumentationsheetsDone.rvt - Project Browser

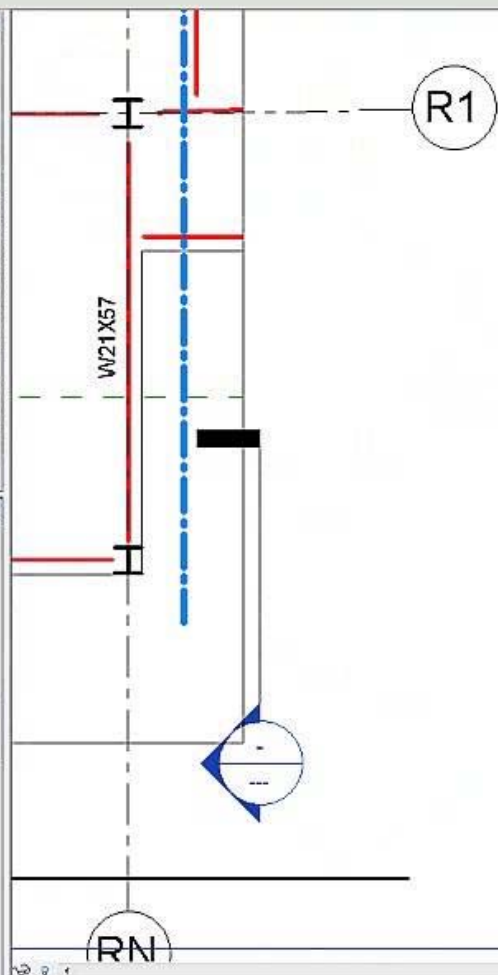
Schedules/Quantities

Sheets (all)

- S-104 - 4TH FLOOR FRAMING PLAN
 - Structural Plan: LEVEL 4 OVERALL FRAMING PLAN
 - S-104A - 4TH FLOOR FRAMING PLAN WING A
 - Structural Plan: LEVEL 4 FRAMING PLAN - WING A
 - S-104C - 4TH FLOOR FRAMING PLAN WING C
 - S-104D - 4TH FLOOR FRAMING PLAN WING D
 - S-104E - 4TH FLOOR FRAMING PLAN WING E
 - Structural Plan: LEVEL 4 FRAMING PLAN - WING E
 - S-104F - 4TH FLOOR FRAMING PLAN SPINE A&B
 - Structural Plan: LEVEL 4 FRAMING PLAN - SPINE A
 - Structural Plan: LEVEL 4 FRAMING PLAN - SPINE B
 - S-104H - 4TH FLOOR FRAMING PLAN WING B
- S-301 - CONCRETE TAKEOFFS
- S-302 - STEEL TAKEOFFS
- S-501 - COLUMN SCHEDULE

Families

- Annotation Symbols
 - Automatic Up/Down Direction
 - Callout Head
 - Callout Head2
 - Centerline



AUTODESK

GREEN ACRES HOSPITAL

4TH FLOOR FRAMING PLAN

SPINE A&B

Project number 11-111

Date Issue Date

Drawn by Author

Checked by Checker

S-104F

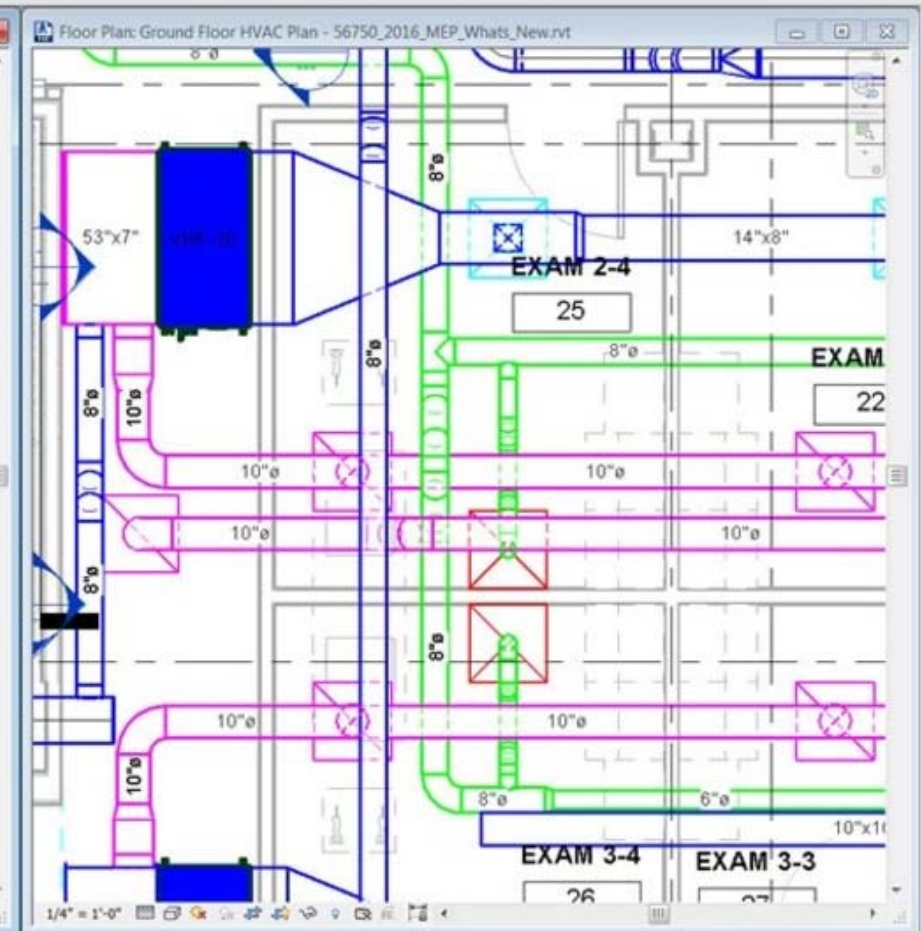
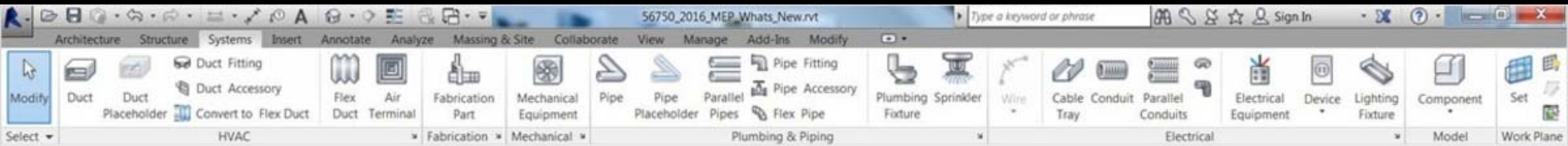
Scale 1/8" = 1'-0"

9/18/2012 7:59:27 AM

Familiarity is preserved as a coping mechanism that allows us to veil our unfamiliarity with the technical systems that are now under our management.

In order words, tools tend to break the world they make.

In a technical sense we haven't used (instrument of direction) a drawing to build a building in decades.



**Everything is now built from
simulated orthography.**

**Images of drawings produced in
computers are not drawings.**

Home Insert Annotate Modify Massing & Site Collaborate View Manage

Wall

Door

Window

Component

Column

Roof

Curtain System

Model Text

Railing

Level

Grid

Beam

Brace

Foundation

Room

Area

Legend

Tag

Set

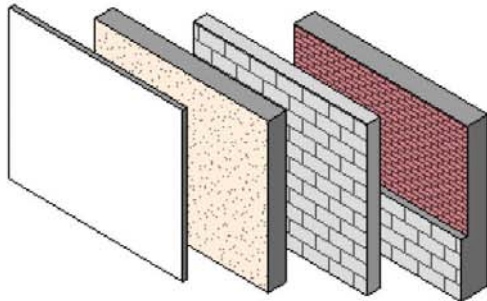
Show

Ref Plane

Wall (WA)

Creates a partition wall in the building model.

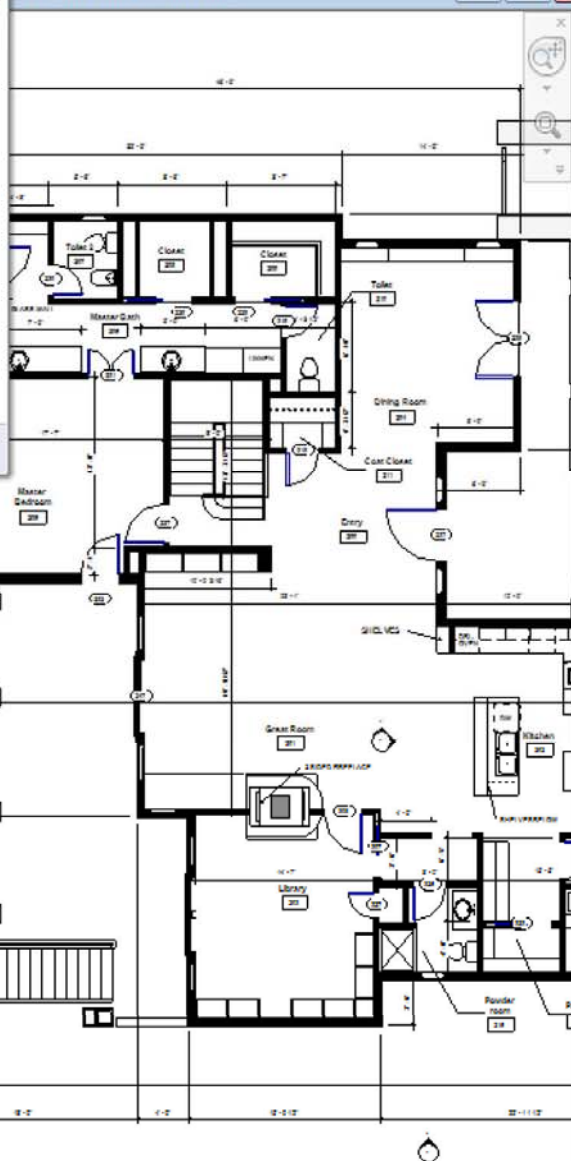
Use the Type Selector to specify the type of wall to create, or use the default type to create a generic wall and specify a different wall type later.



Press F1 for more help

- Ceiling Plans
- 3D Views
- Elevations (Elevation 1)
 - E-EAST
 - E-NORTH
 - E-SOUTH
 - E-WEST
 - I-KITCHEN
 - I-KITCHEN NORTH
- Sections (DETAIL SECTION)
- Drafting Views (CALLOUT TYP.)
- Legends
- Schedules/Quantities
- Sheets (all)
- Families
- Groups
- Revit Links

Floor Plan: First Floor Plan



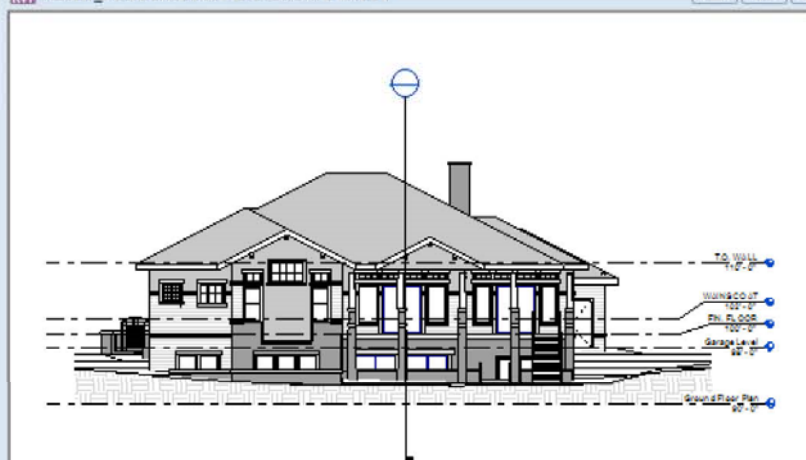
1/4" = 1'-0"

R2010_Residence.rvt - 3D View: {3D}



1/2" = 1'-0"

R2010_Residence.rvt - Elevation: E-WEST



1/8" = 1'-0"

Architecture Structure Systems Insert Annotate Analyze Massing & Site Collaborate View Manage Add-Ins Site Designer CASE DM Electrical Modify

Modify Select Build Circulation Model Room & Area Opening Datum Work Plane

Project Browser - rme_advanced_sample_project.rvt

- Views (Advanced)
 - Design
 - ALL
 - Ceiling Plans
 - 3D Views
 - 1st Level Slice
 - Elevations (Building Elevation)
 - 1st Level Slice
 - Sections (Building Section)
 - Section 1
 - Transverse Corridor Section
 - FP
 - HVAC - Design
 - Floor Plans
 - 3D Views
 - WSHP 2-3 System View**
 - Elevations (Building Elevation)
 - Sections (Building Section)
 - Drafting Views (Detail)
 - HVAC - Zones
 - HVAC Modeling
 - Lighting
 - Piping
 - Plumbing
 - Power
 - Documentation

1 : 100

Properties

3D View

3D View: WSHP 2-3 System Vi Edit Type

Graphics

View Scale	1 : 100
Scale Value 1:	100
Detail Level	Medium
Parts Visibility	Show Original
Visibility/Graphics ...	Edit...
Graphic Display Opt...	Edit...
Discipline	Mechanical
Show Hidden Lines	By Discipline
Default Analysis Dis...	None
Sub-Discipline	HVAC - Design
View Classification	Design
Sun Path	<input type="checkbox"/>

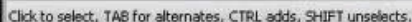
Extents

Crop View	<input checked="" type="checkbox"/>
Crop Region Visible	<input type="checkbox"/>
Annotation Crop	<input type="checkbox"/>
Far Clip Active	<input type="checkbox"/>
Far Clip Offset	304800.0

Properties help Apply

Click to select, TAB for alternates, CTRL adds, SHIFT unselects.

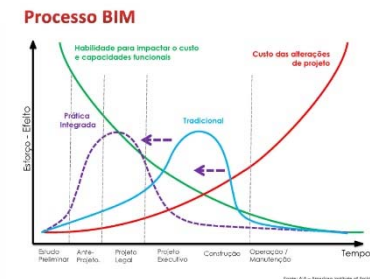
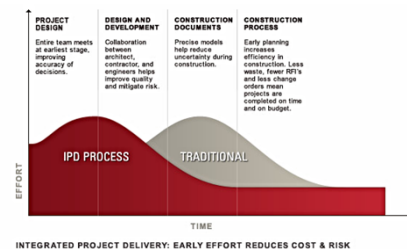
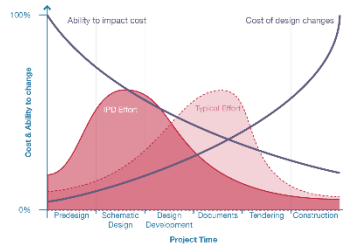
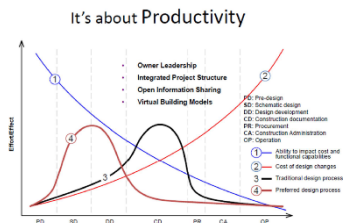
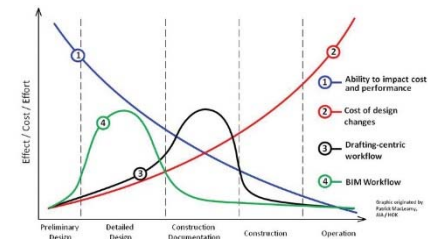
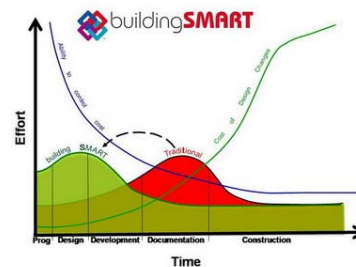
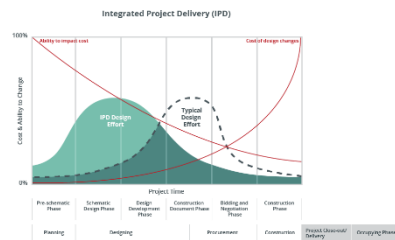
Main Model



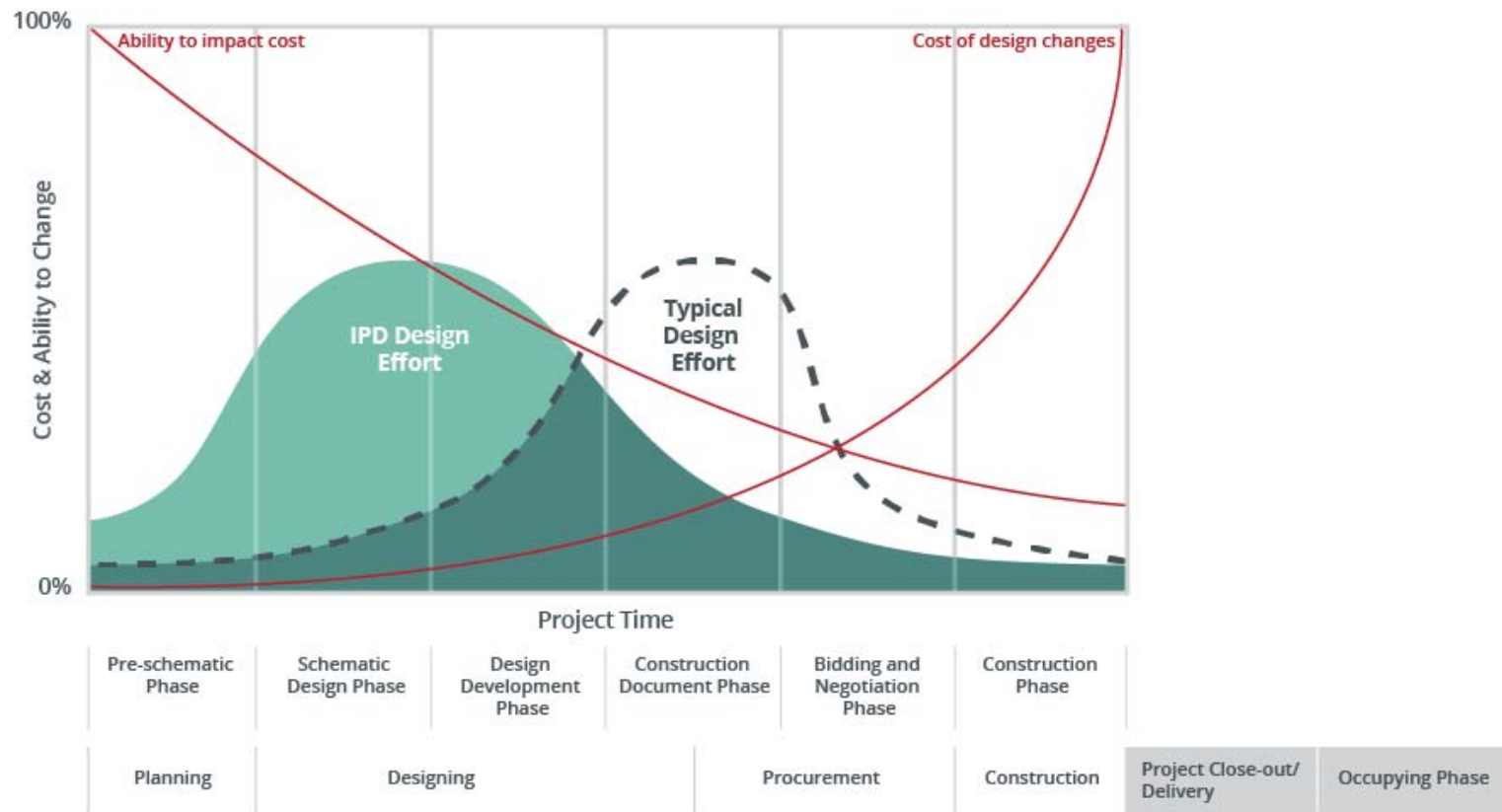
BIM Project Delivery

**Integrated Project Delivery (IPD)
has become synonymous with
BIM. Therefore it is implicated in
the technical system of post-
orthographic production.**

IPD is about being efficient and productive. I've collected a sampling of the same "sales" graph (MacLeamy Curve) in several languages.



Integrated Project Delivery (IPD)



INTEGRATED PROJECT DELIVERY

An Action Guide for Leaders

