

# A Promise

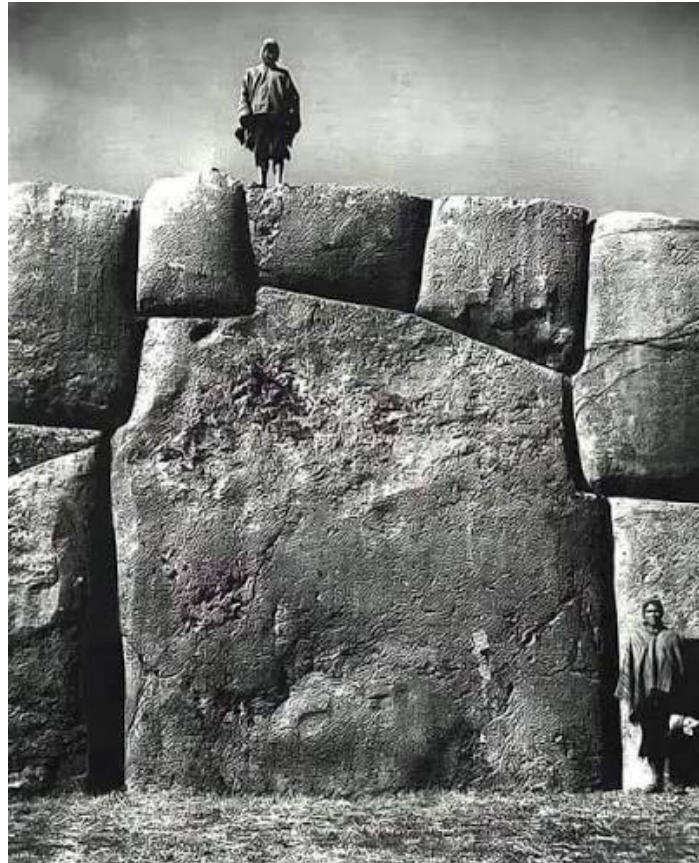
in understanding and imagining, model as a tool for exploration

## In Stone

A Research in Stone, with the Model as a Pathfinder

Studio Ruben Castro and Yannis Igodt

2026-2027  
KU Leuven Faculty of Architecture  
Master Studios Campus Sint-Lucas Gent  
Fall Semester 1



Sacsayhuamán

teachers: Ruben Castro · Yannis Igodt

field of interest: Art and Architecture · Construction · Craft · Materiality · Spatial Poetics

attitude: Speculative · Experimental · Poetic

method of inquiry: Observation · Fieldwork · Research by Design

design media: Model-based · Material-based · Prototyping

learning environment: Individual trajectory · Collective learning · Iterative

study trip: Optional

# A Promise



Atelier Peter Zumthor - Bruder Klaus Field Chapel

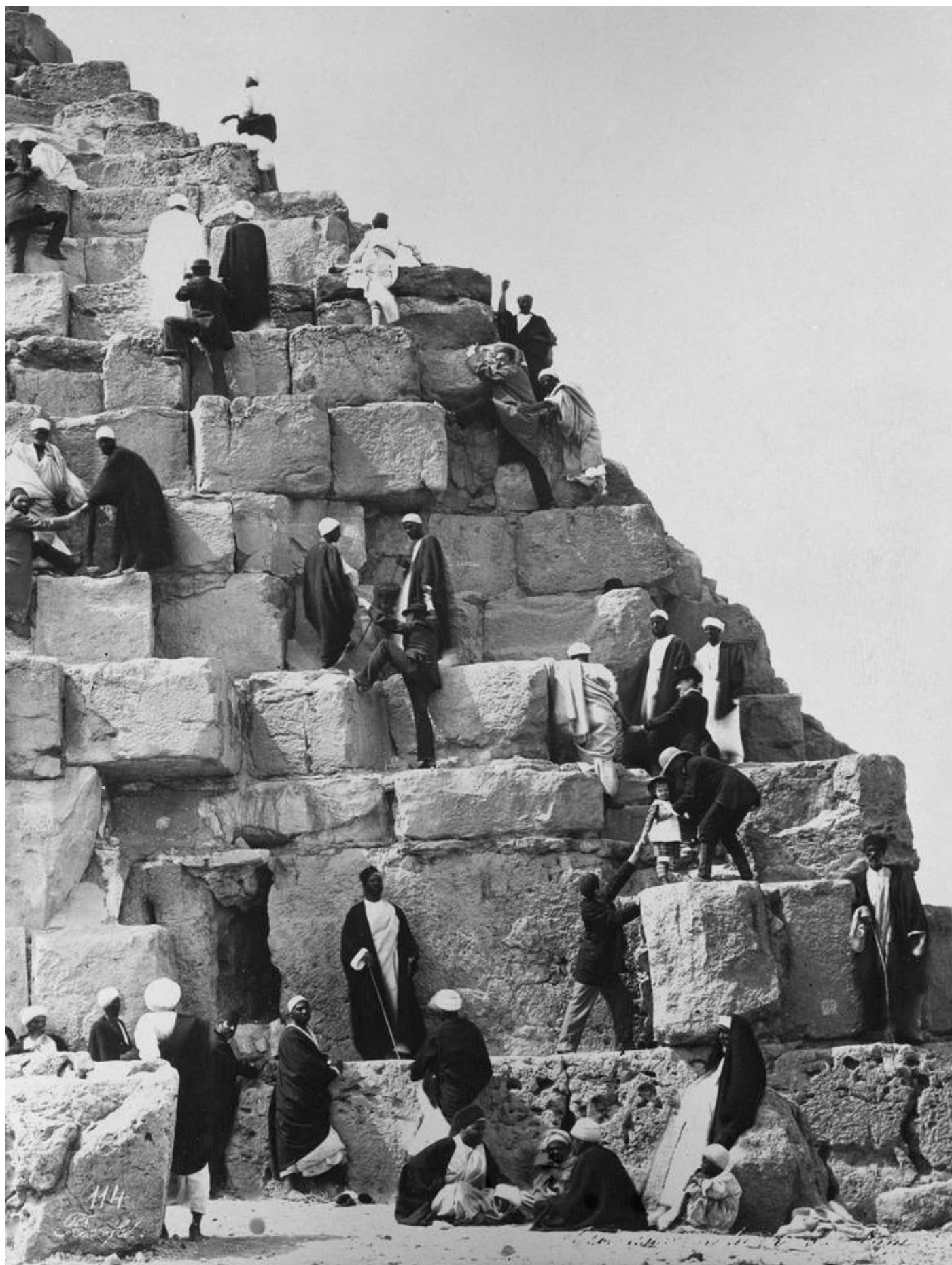
### **Position statement**

During this studio one will learn how to make a sensitive representation of ones ideas to execute and visualise your design visions. Knowledge on materials, colours and observation will be gained in order to explore ones imagination. Models and drawings are the most important and unfiltered tool of an Architect, and the making process is fluid, constantly evolving and sophisticated. The architectural model as pathfinder for architectural questions and dreams.

# Stone



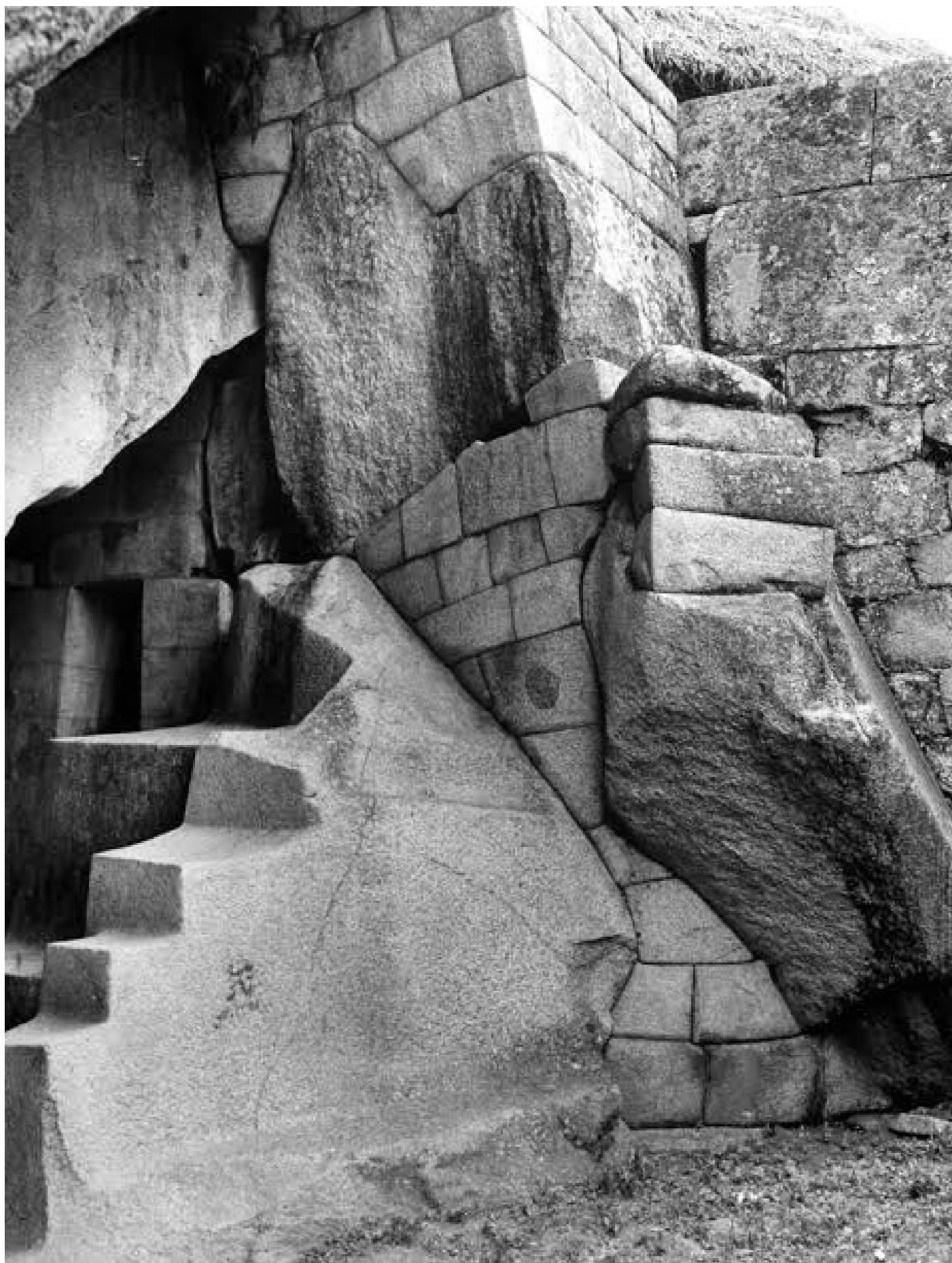
Stonehenge (3100 BCE) - Wiltshir, UK



Akhet Khufu (2600 BCE) - Giza, EG



Sacsayhuamán (1438 CE) - Cusco, PE



Huayna Picchu (1450 CE) - Giza, PE

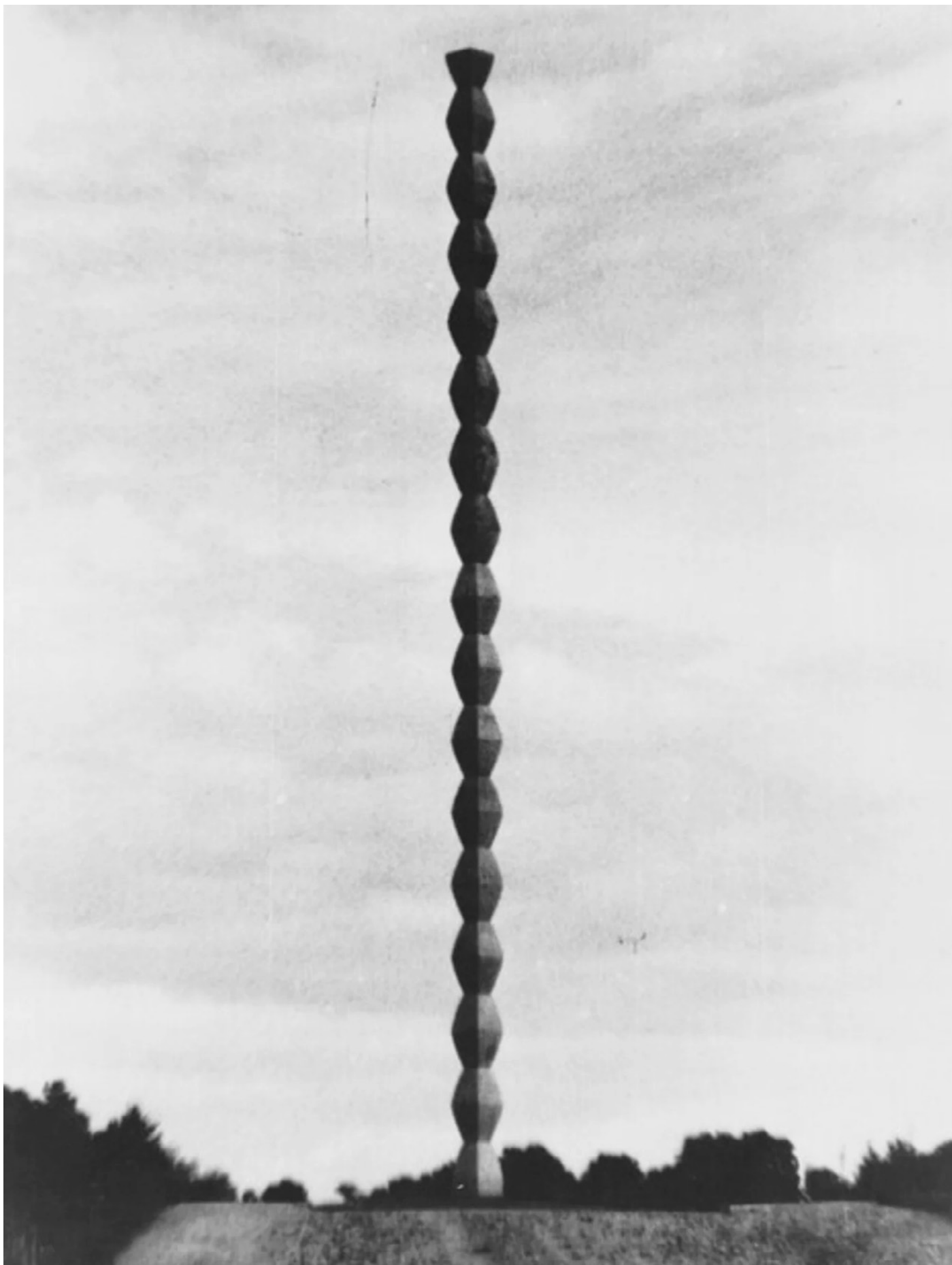


Abbaye du Thoronet (1176 CE) - Le Thoronet, FR



Le Vieux-Port (1951 CE) - Fernand Pouillon - Marseille, FR

# Cairning



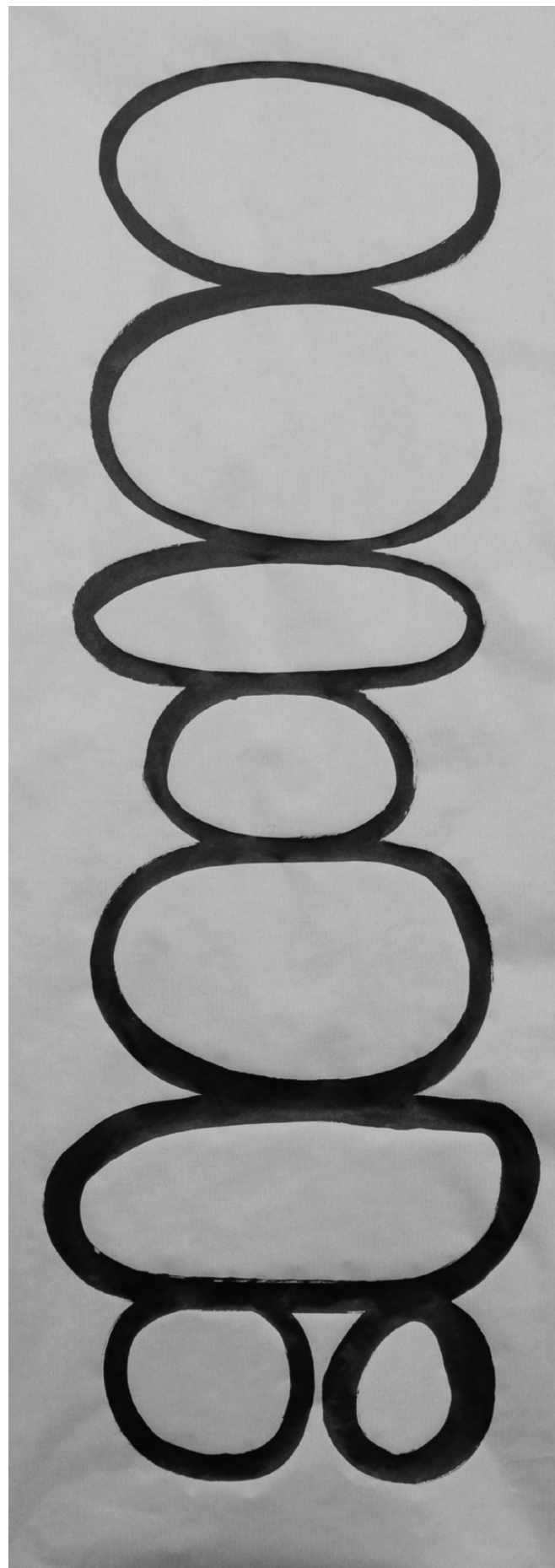
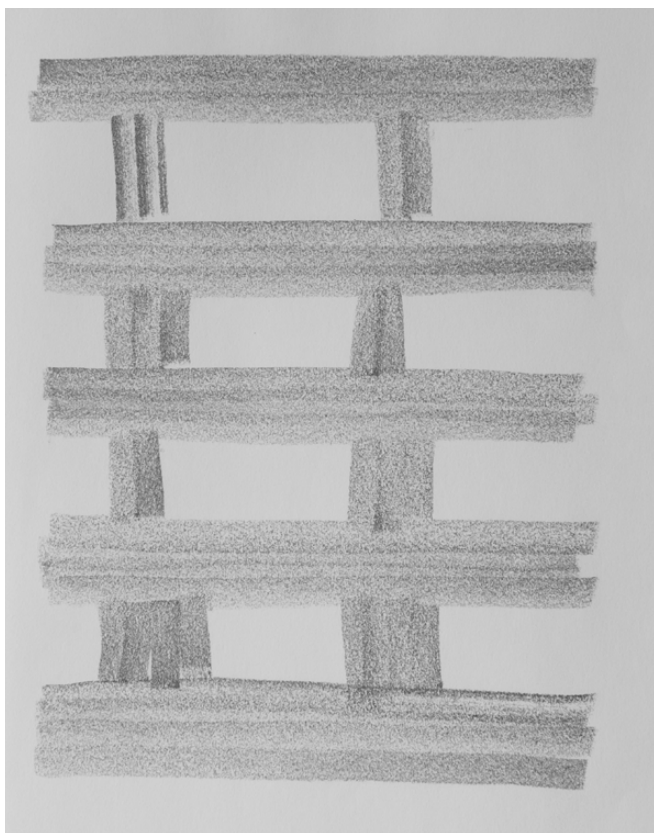
The Endless Column at Tirgu-Jiu (C.1937-8) by Constantin Brancusi



Stack (1975) - Tony Cragg

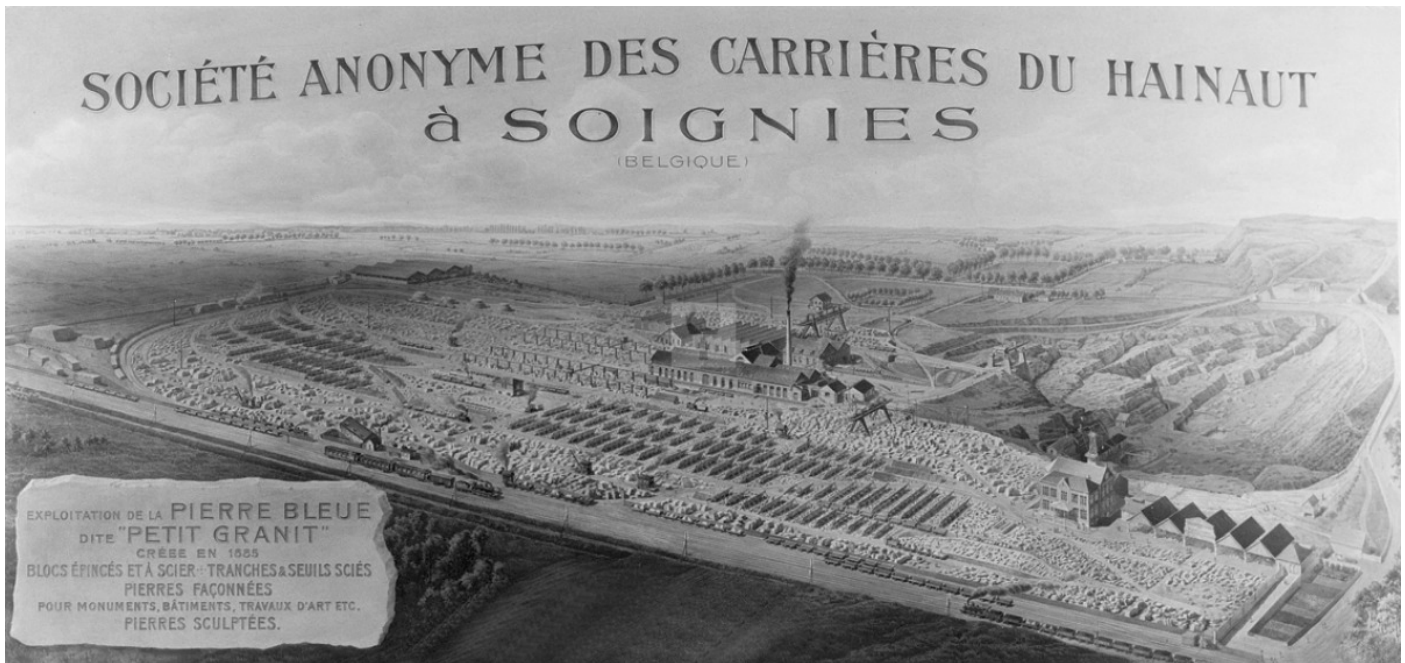


Paul Gees: Tension, Balance, Risk, Stability



Works on Paper - untitled Ruben Castro

# Site



Carrières du Hainaut is located in Soignies, in the Hainaut region of Belgium, at the heart of the geological formation from which Belgian Blue Stone is extracted. The stone is a compact, fossiliferous limestone formed approximately 350 million years ago, when this part of Europe was covered by a tropical sea. The accumulation and fossilisation of marine organisms, particularly crinoids, produced the dense blue grey limestone known as Pierre Bleue Belge, or Petit Granit. The industrial history of the quarry begins in 1888, when the Société Anonyme des Carrières du Hainaut was established in Soignies. The original extraction area was around 50 hectares, with an initial production of approximately 5,000 m<sup>3</sup> per year. By the beginning of the twentieth century, Belgian Blue Stone had become an important architectural material, particularly in Brussels. Architects including Victor Horta, Paul Hankar and Jules Brunfaut used it extensively in façades and details. In 1902, the quarry even established a school for stonecutters, linking extraction directly to the transmission of craft knowledge.

Today, the quarry has developed into one of Europe's largest ornamental limestone quarries, with the extraction area having expanded considerably from its original size. Extraction and processing remain concentrated at the Soignies site, creating an unusually direct relationship between geology, extraction, production and architecture.

# Material

### **100% 'petit granit'**

Blue Limestone of Hainaut, from the Belgian subsoil, is a natural, authentic material whose origins dates back 350 million years, when our regions were submerged by a tropical sea. Trough sedimentation, the fossilised aquatic fauna -crinoids- and flora have become a homogeneous and very compact limestone rock.

A gift of nature, each stone is uniquely shaped. The strength of the rock and its glittering splinters are reminiscent of granite, which is why it is known as 'petit granite'.

The "Petit granit – Pierre bleue du Hainaut" stone to be used is a fossiliferous crinoid limestone according to the nomenclature of PTV 844 - level 5 precision, registered at the IBN on 23 September 2005 - (NBN EN 12670). This compact limestone of grey-blue colour and of upper Tournaisian stratigraphic age also corresponds to the descriptions written in the NIT 220 "La pierre bleue de Belgique dite Petit Granit d'âge géologique tournaisien" and NIT 228 " Pierres naturelles" of the BBRI.

The stone also meets the following descriptions:

#### **Macroscopic description:**

The stone "Petit granit - Pierre bleue du Hainaut" to be used is a compact blue-grey limestone of sedimentary origin, resulting from the accumulation of innumerable fossilised crinoid articles and fragments cemented in a mass of microcrystalline calcite. The stone also contains other fossils such as shells (including brachiopods), corals and bryozoans. On exposure to the weather, the stone takes on a light grey patina.

#### **Petrographic description:**

The "Petit granit - Pierre bleue du Hainaut" stone to be used is a bioclastic, crinoid dominant limestone. It is a packstone, sometimes grainstone (DUNHAM classification) or a biomicrite (FOLK classification).

The average composition is 96 to 99% carbonates, 0 to 1% quartz, 0.2 to 0.5% iron salts (mainly sulphides) and 0.2 to 0.4% organic carbon.

# Studio

## **Description**

The studio is a research into Pierre Bleue Belge, or Belgian Blue Stone, as a geological, material and architectural resource.

Through a series of case studies, students will investigate how Belgian Blue Stone has been quarried, worked and used in architecture, from traditional construction to contemporary applications. This research will be followed by a site visit to the quarry, where students will observe the material in its geological context and document the existing stone through drawings, measurements and an inventory of its different types, dimensions, textures and traces of production.

Throughout the studio, the model will be our primary means of communication and research. Ideas will be developed, tested and discussed through physical models, allowing material, proportion, weight, assembly and space to be understood through making.

The collected knowledge will first become the basis for individual trajectories, with each student developing a personal position towards the stone through models and material investigations. These individual paths will then come together in a collective design and competition process, where ideas are shared, combined and challenged. From this process, two proposals will ultimately be selected for further development and constructed 1:1 in the quarry as full-scale prototypes, transforming the quarry itself into a laboratory for architectural experimentation. The prototypes will then be disassembled. The stones will return to the quarry and become part of its inventory once again. Architecture is therefore not an end point, but another moment in the life of the stone.

The aim is to learn through making: to understand the physical, structural and spatial possibilities of building with stone, while exploring how a contemporary pavilion can emerge from the qualities, constraints and history of Belgian Blue Stone.

## **Learning outcomes**

Through the studio, students learn to develop an architectural design through direct material research and experimentation with Pierre Bleue Belge. They investigate the qualities, limitations and possibilities of stone and translate these findings into an architectural proposal.

Students develop and test ideas through physical models, using the model both as a design tool and as a means of visual and spatial representation. Through iterative modelling, they learn to explore and communicate materiality, proportion, tectonics and spatial composition.

Students learn to translate a conceptual idea into a relevant architectural proposal, gradually developing an individual position before contributing to a collective design process. They learn to work both individually and collaboratively, exchanging ideas and responding to the work of others.

The studio culminates in the development of a proposal towards 1:1 scale, introducing students to the relationship between architectural design and physical making.

Students learn to communicate their project through a clear, precise and convincing visual presentation, in which the architectural idea, material, proportion and tectonic expression reinforce one another.

## **Expected deliverables**

Model · Material experiments · Architectural drawings · Publication · Process documentation · Prototypes

## **Study trip**

to be communicated on a later date

## Method: The Collective Practice

Architecture begins with an idea, but it does not end there. An architectural work is rarely the expression of a single person. It is the result of many forms of knowledge, discussion, negotiation, drawing, making and building. It is a collective act.

The studio therefore begins with **individual positions**. Each student develops a first proposal in which a personal observation of the stone is translated into a model. These proposals are not final designs, but precise starting points: fragments of thought that can be tested, questioned and transformed.

From these individual beginnings, the studio gradually becomes collective. Ideas are presented to one another, discussed, combined and developed through making. The aim is not to preserve the authorship of an individual proposal, but to discover what can happen when several ideas are brought together and given to a group.

The process moves through a series of scales and collective formations:

24 individual proposals · 1:20

12 group proposals · 1:10

6 collective proposals · 1:5

2 proposals · 1:1

At each stage, the number of proposals becomes smaller while the level of commitment becomes greater. The work moves gradually from an individual intuition towards a collective architectural proposition and finally towards something that can be built.

For this reason, the studio will operate as a small architectural office. Students will not only be designers, but will take responsibility for the different forms of work required to make architecture. Photography, documentation, writing, drawing, model making, material research, editing and publication become shared responsibilities. Roles can shift according to the needs of the project, but everyone contributes to the work of the whole.

The office is therefore not a structure imposed upon the students, but a way of learning how architecture is made. Ideas have to be communicated to others. Drawings have to be understood by someone else. A model has to withstand discussion. A material decision has consequences for construction. A text has to give language to something that may first exist only as a physical object.

The model is the common ground of this process. It is where individual ideas meet. It allows us to work without fixing the project too early in drawings or words. A model can be cut, joined, broken, turned around, measured, rebuilt and given to somebody else. Through this process, the project can move between hands and gradually become collective.

The final two proposals will be developed towards 1:1 construction in the quarry. At this point, the distinction between designing and making becomes very small. The group must decide together how the stone is handled, joined, supported and experienced. The architecture becomes the result of many individual actions brought into a common work.

The studio is therefore both a place to develop one's own architectural voice and a place to learn how to give that voice to a collective project. We begin with twenty four ideas. We end with two buildings. Between them lies the work of the office.



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Fall Semester 1