

Visual Pyramids

FOLLOWING ALBERTI,
DEE USED THE IDEA OF
“VISUAL PYRAMIDS”
TO DESCRIBE
HOW VISION WORKS

Perspective

**Without understanding Perspective,
“Astronomical Appearances”
cannot be easily comprehended.**

**It deals with Light,
“...the First of God’s Creatures.”**

**It deals with the Eye,
“the light of our body, and his Sense most mighty,
and his organ most Artificial and Geometrical”**

Zography

means

“painting from life”

*Dee's definition of Zography
in his Preface to Euclid*

Zographie, is an Arte Mathematicall, which teacheth and demonstrateth, how, the Interfection of all visuall Pyramides, made by any playne assigned, (the Centre, distance, and lightes, beyng determined) may be, by lynes, and due propre colours, represented. A notable Arte is this: and would require a whole Volume to declare the proper.

“a certain odd Art” called “Althalmasat”

*To these two Artes, (with other,) is a certaine od Arte, called *Althalmasat*, much beholdyng: more, then the common *Sculptor, Entayler, Keruer, Cutter, Grauer, Foun-der, or Paynter (&c)* know their Arte, to be commodious.*

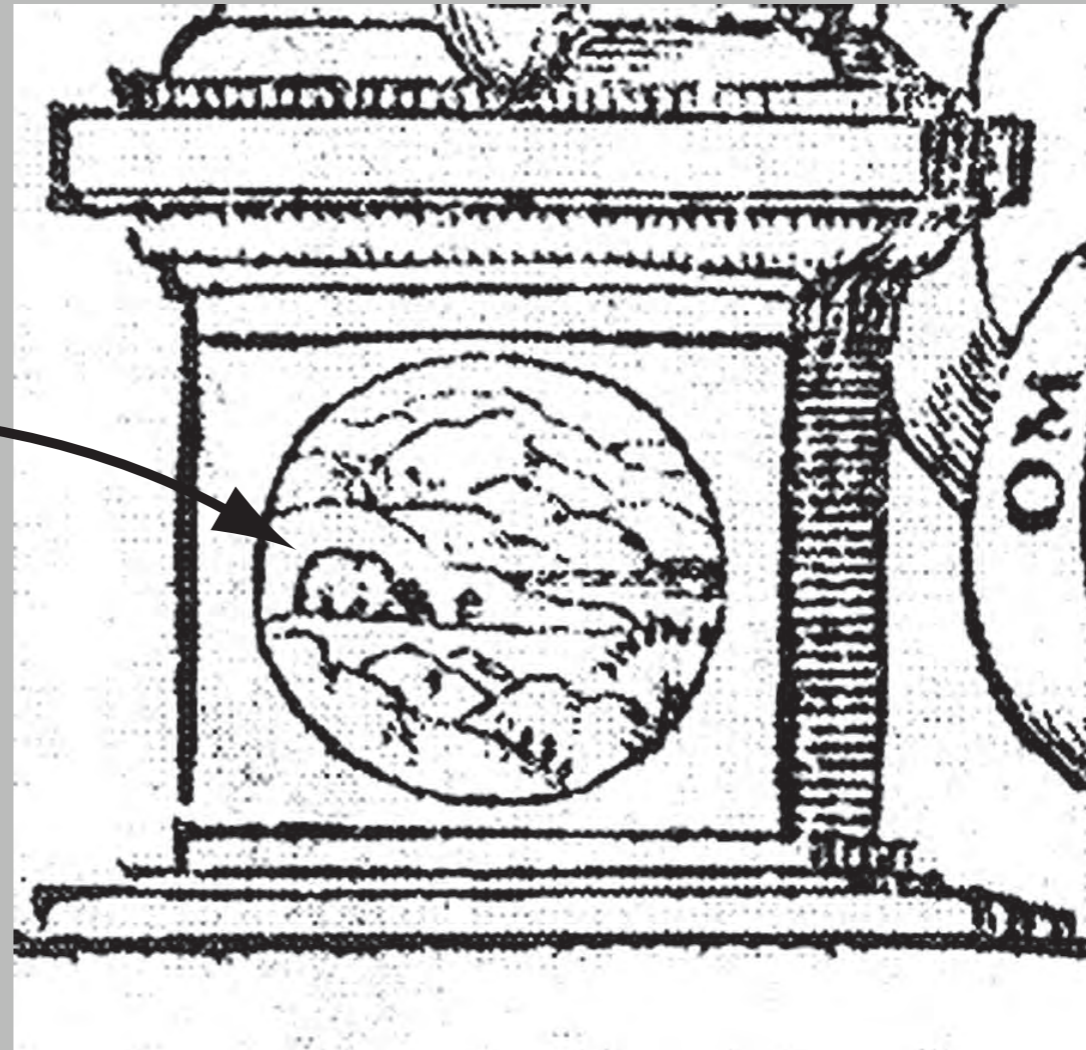
Al + thalamus + at

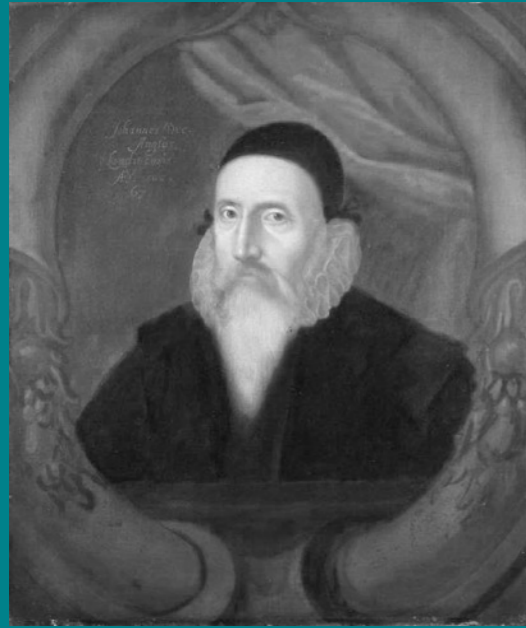






an illustration
of a **tholos**
on the
Title page





Dee's (1570) definition of Zography

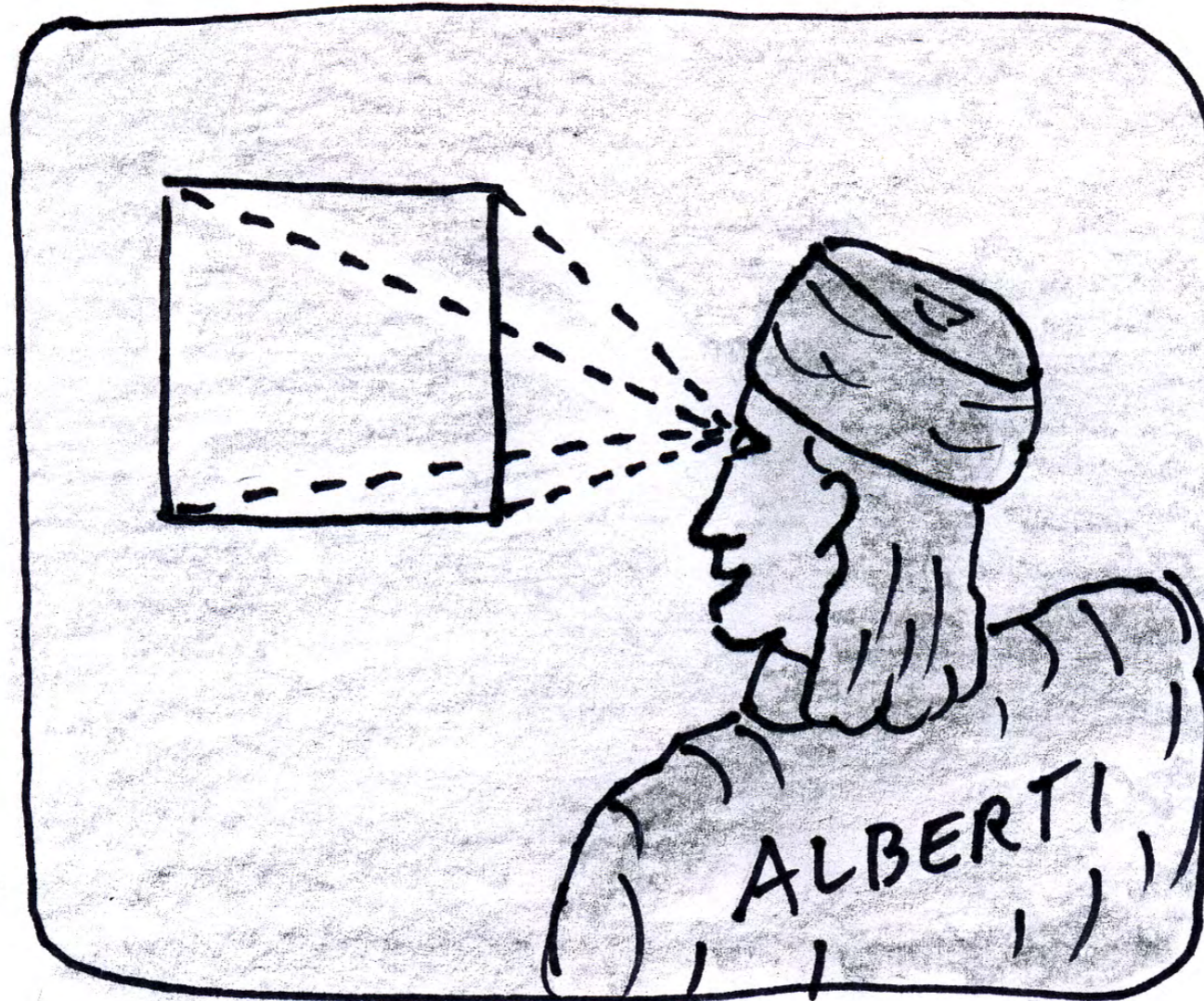
“Zographie, is an Arte Mathematicall,
which teaches and demonstrates, how
the Intersection of all visual Pyramids,
made by any plane assigned,
(the Centre, distance, and light,
being determined)
may be represented by lines,
and due proper colours.”



Leon Battista Alberti

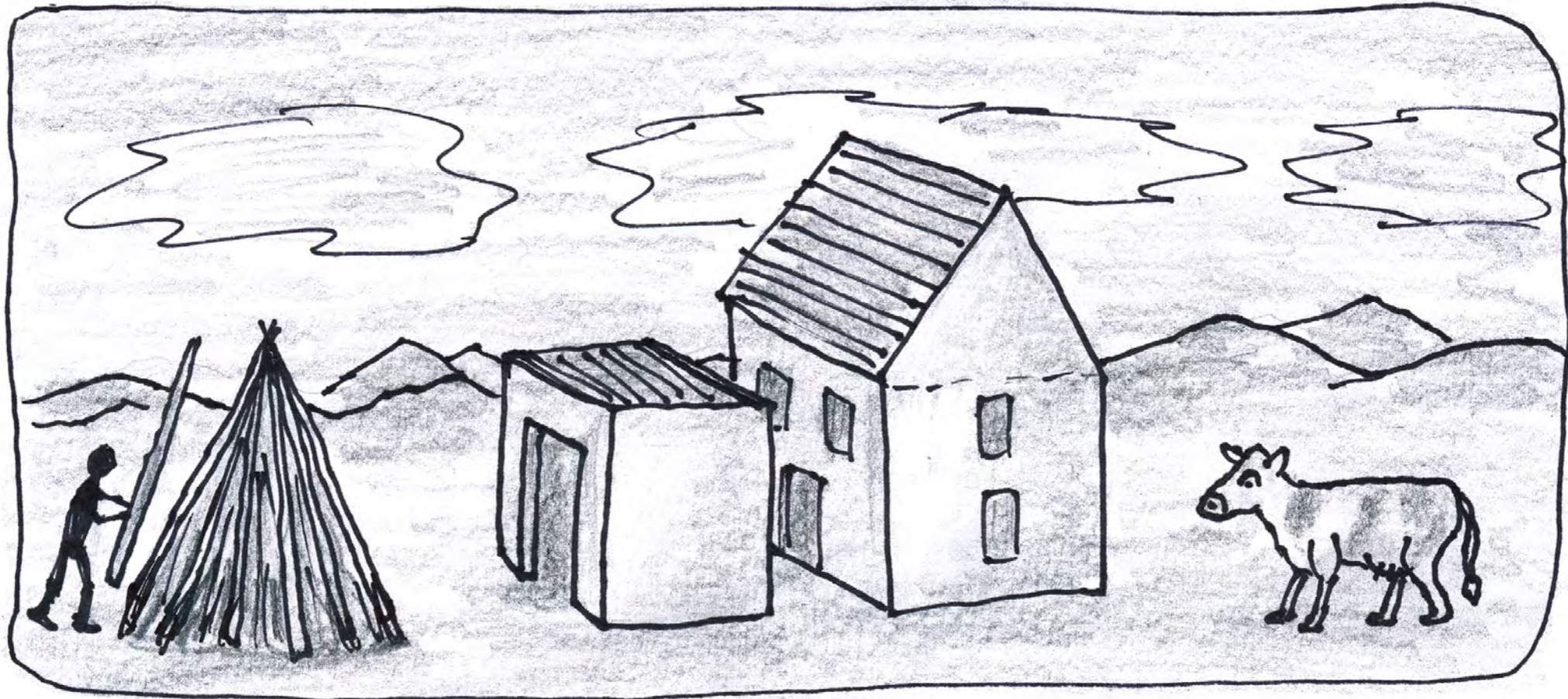
Alberti's (1435) definition of a painting

“A painting is the intersection
of a visual pyramid at a given distance,
with a fixed centre and
a defined position of light,
represented by art
with lines and colours
on a given surface.”



The "visual pyramid"
from a square-shaped object
is a sideways "Pyramid of Giza" shape

The scene at the Farm
that Alberti visits
while on holiday in Tuscany

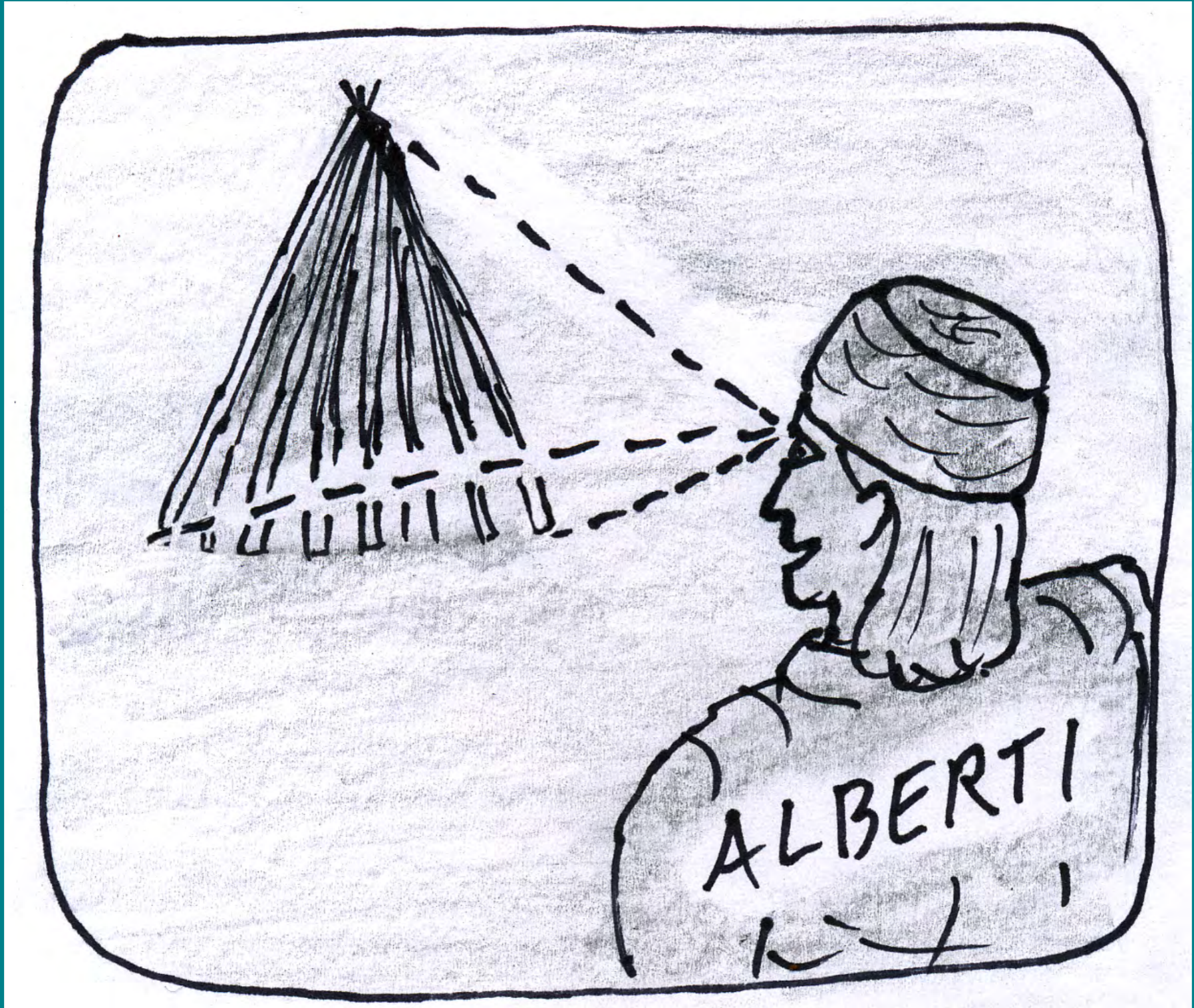


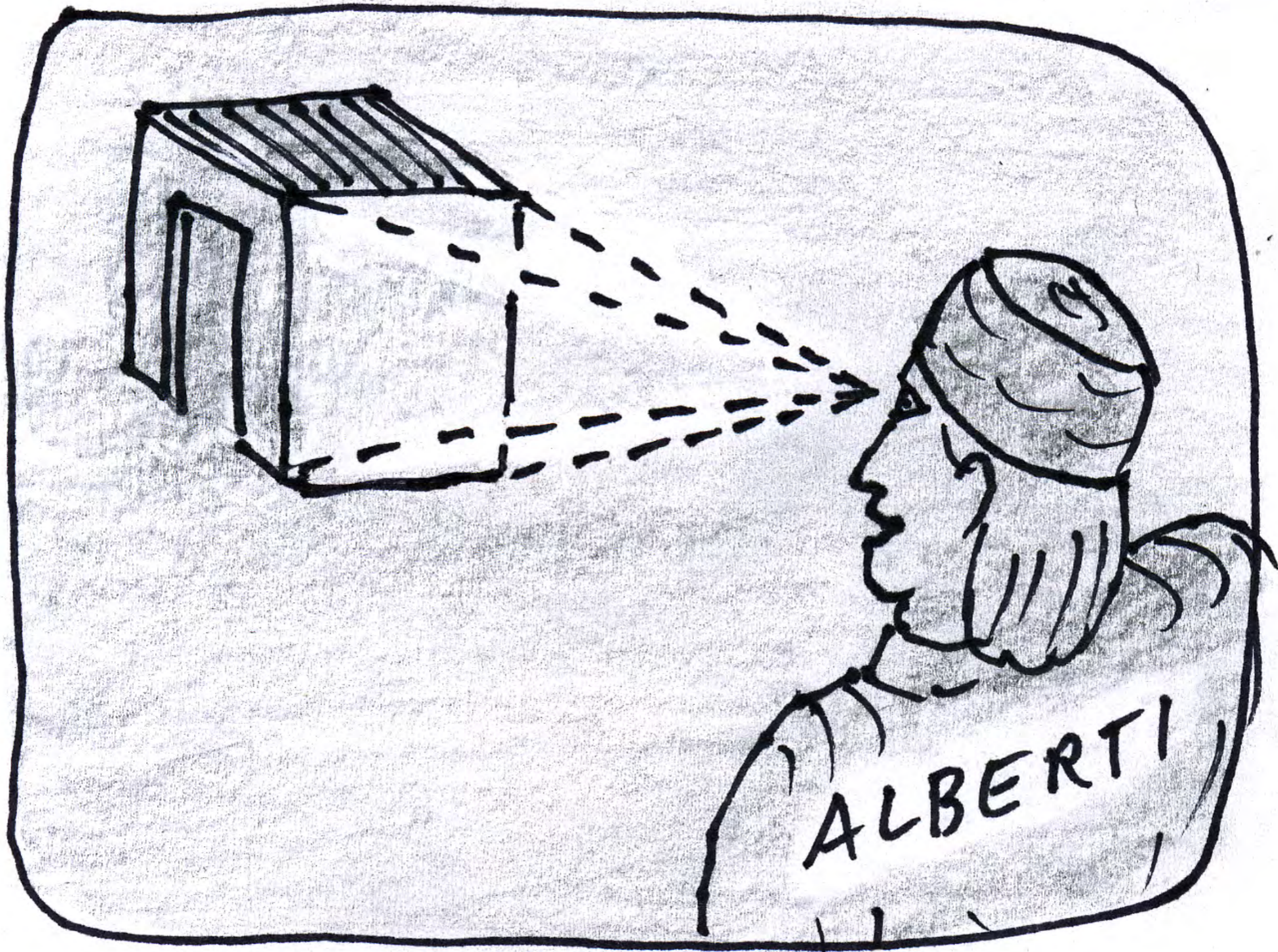
Farmer
building a
"tee-pee"
fire

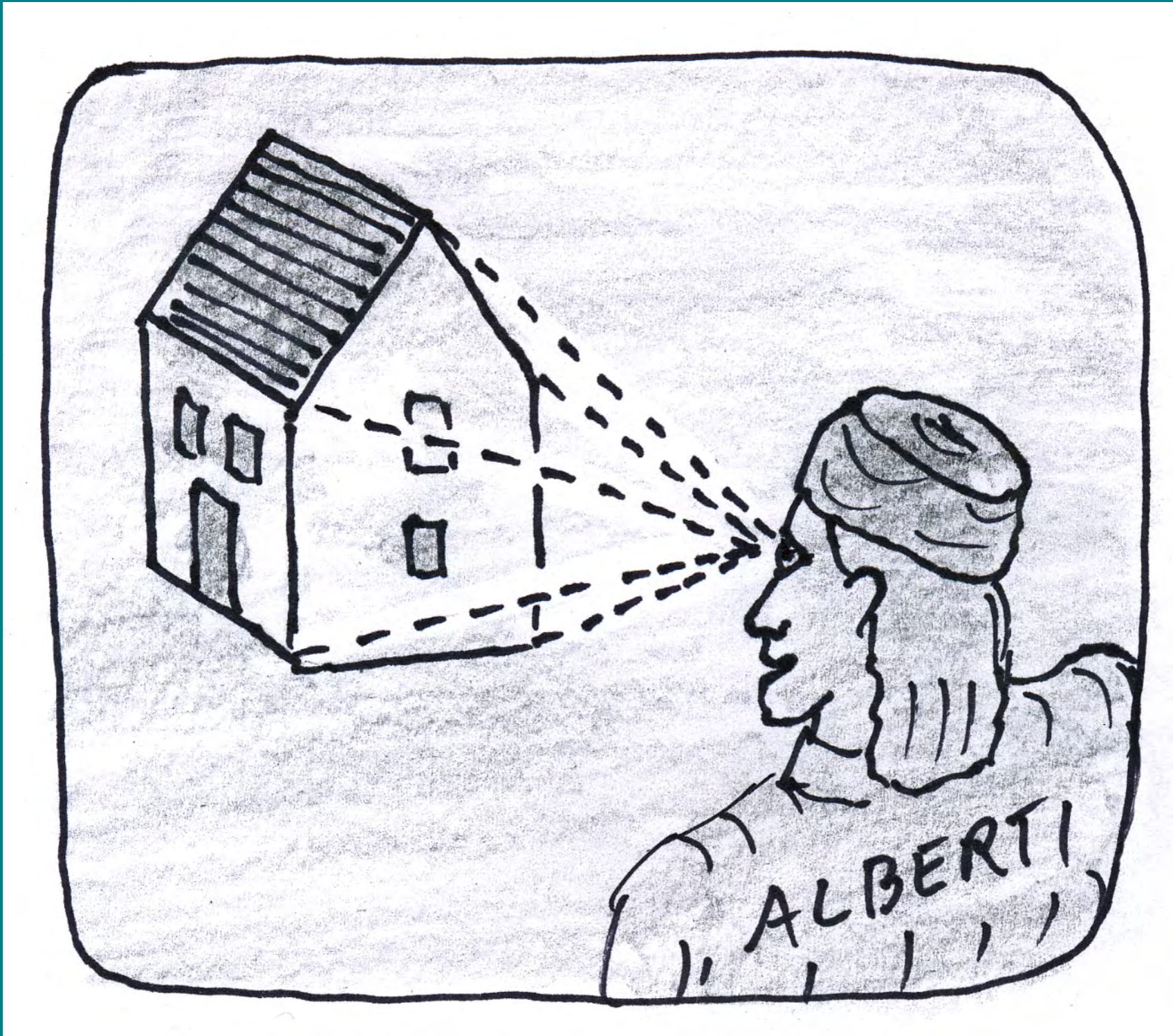
Barn
(with
flat roof)

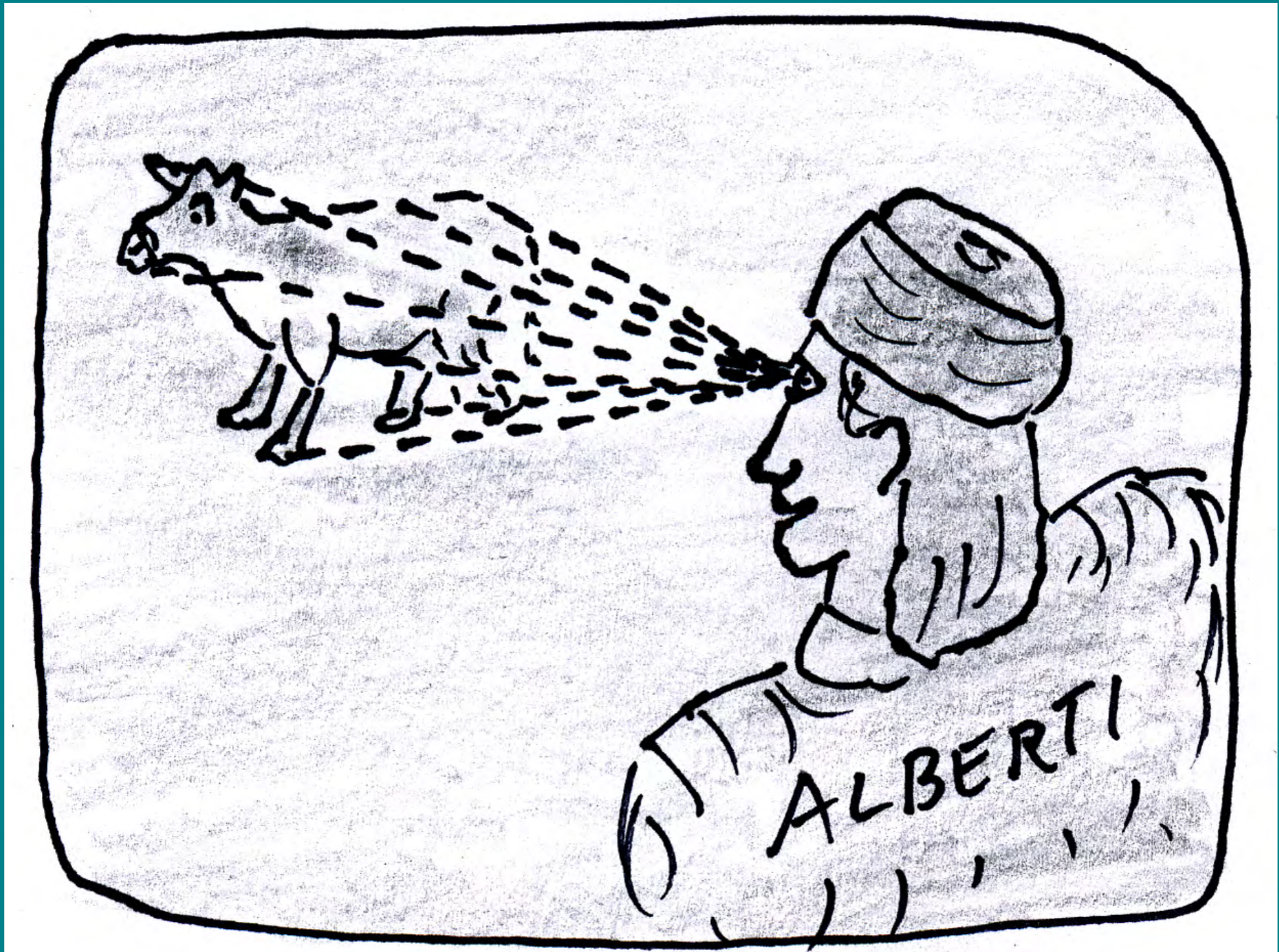
Farmhouse
(with
pitched roof)

Cow

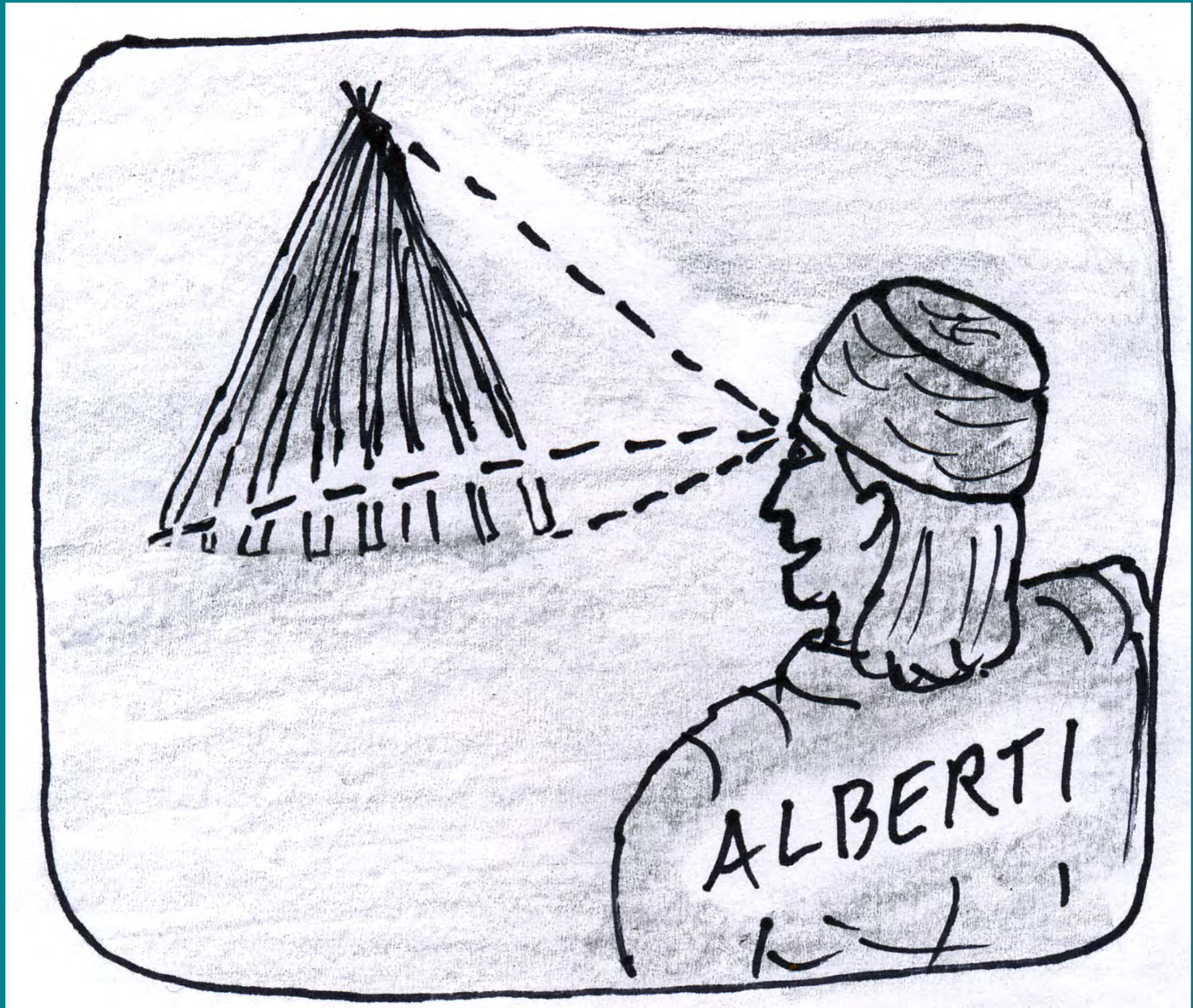


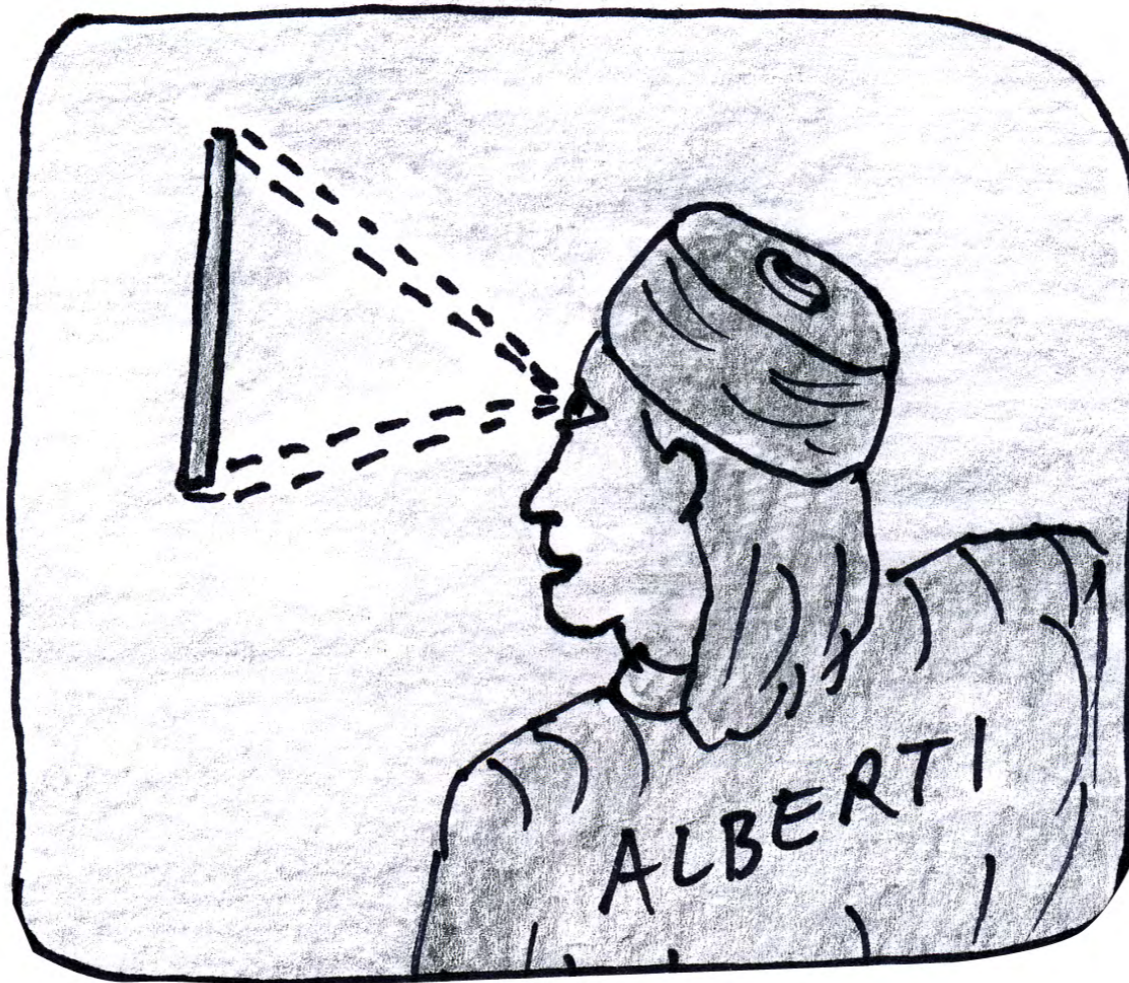




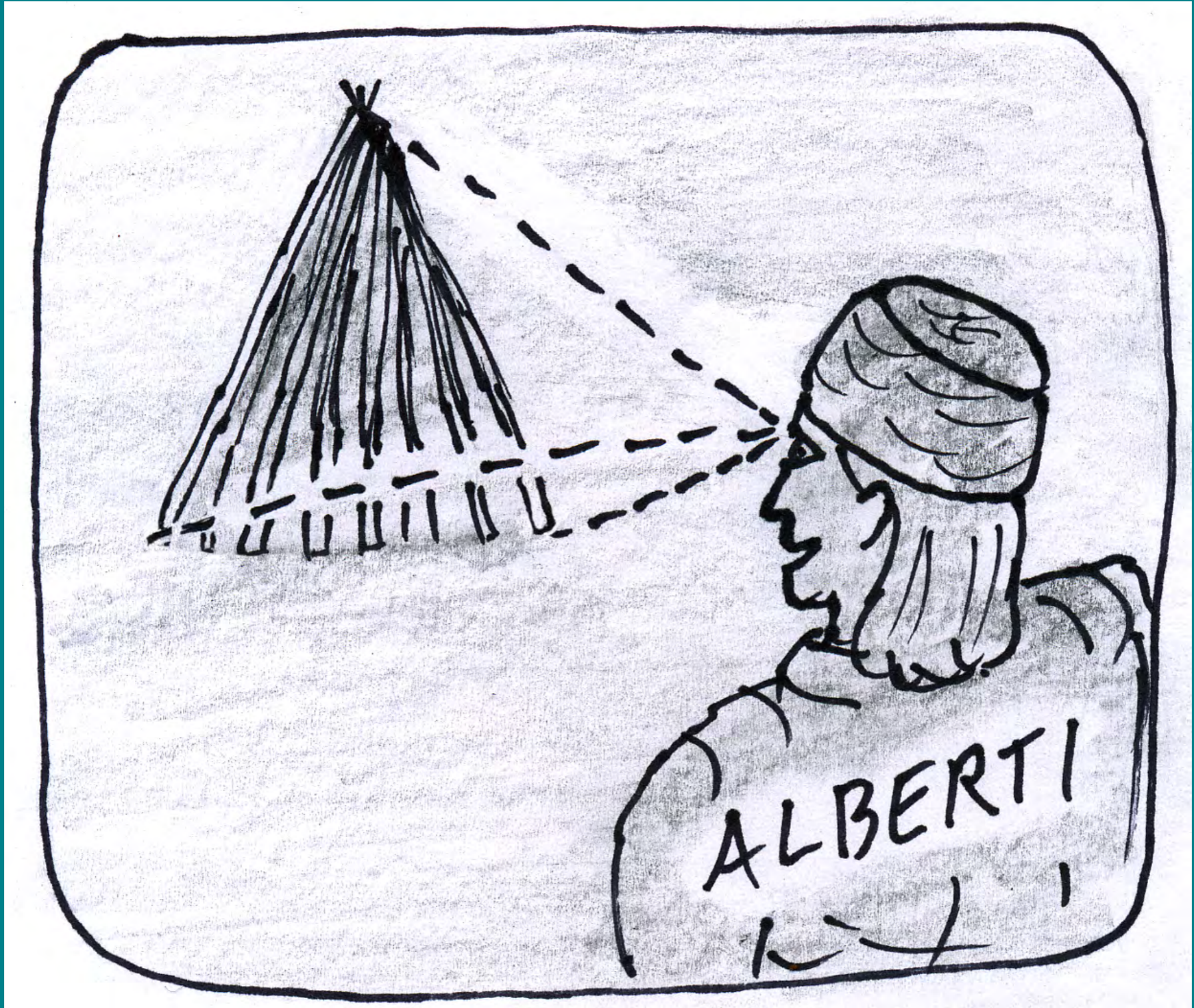


ALBERTI

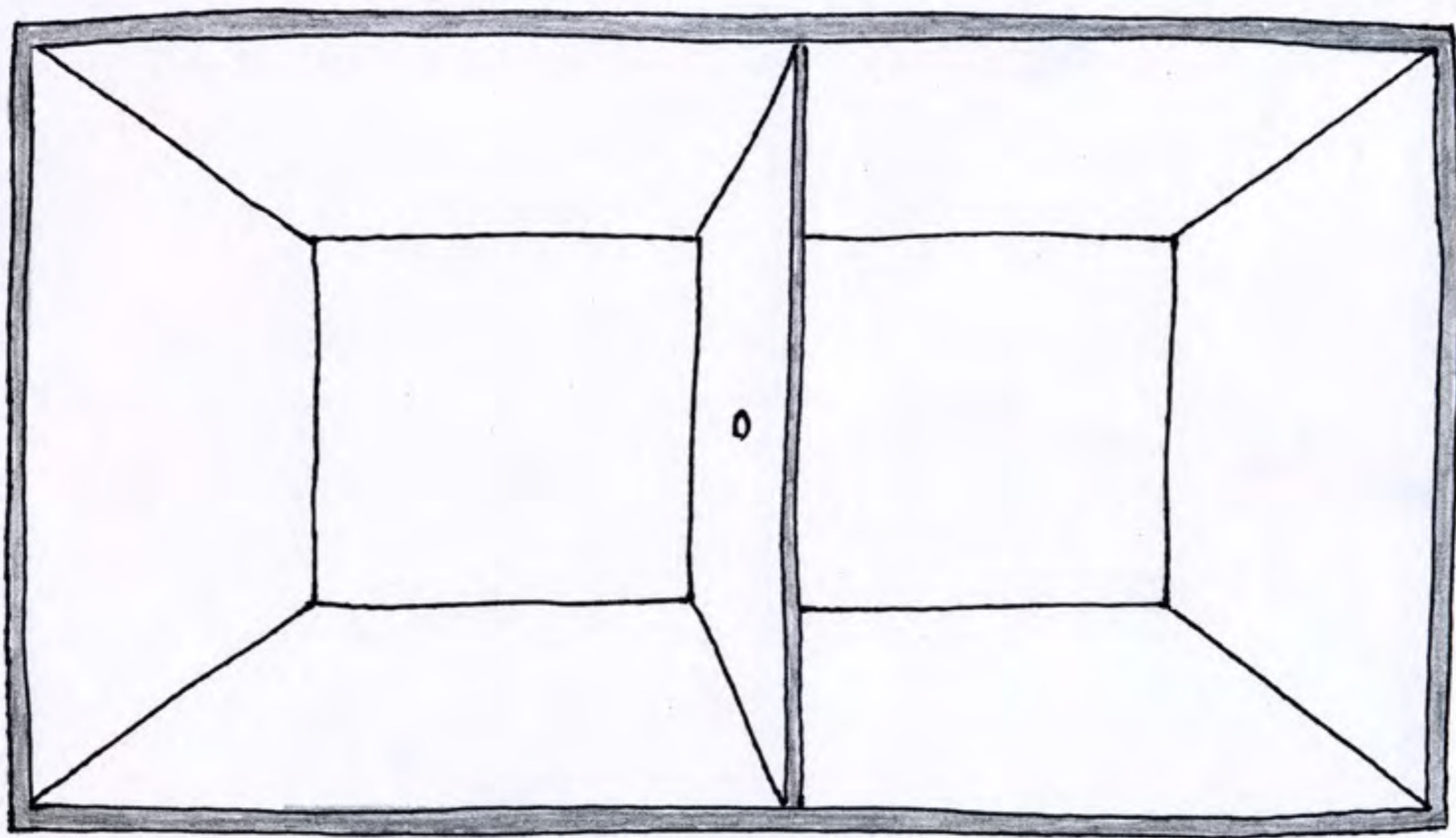


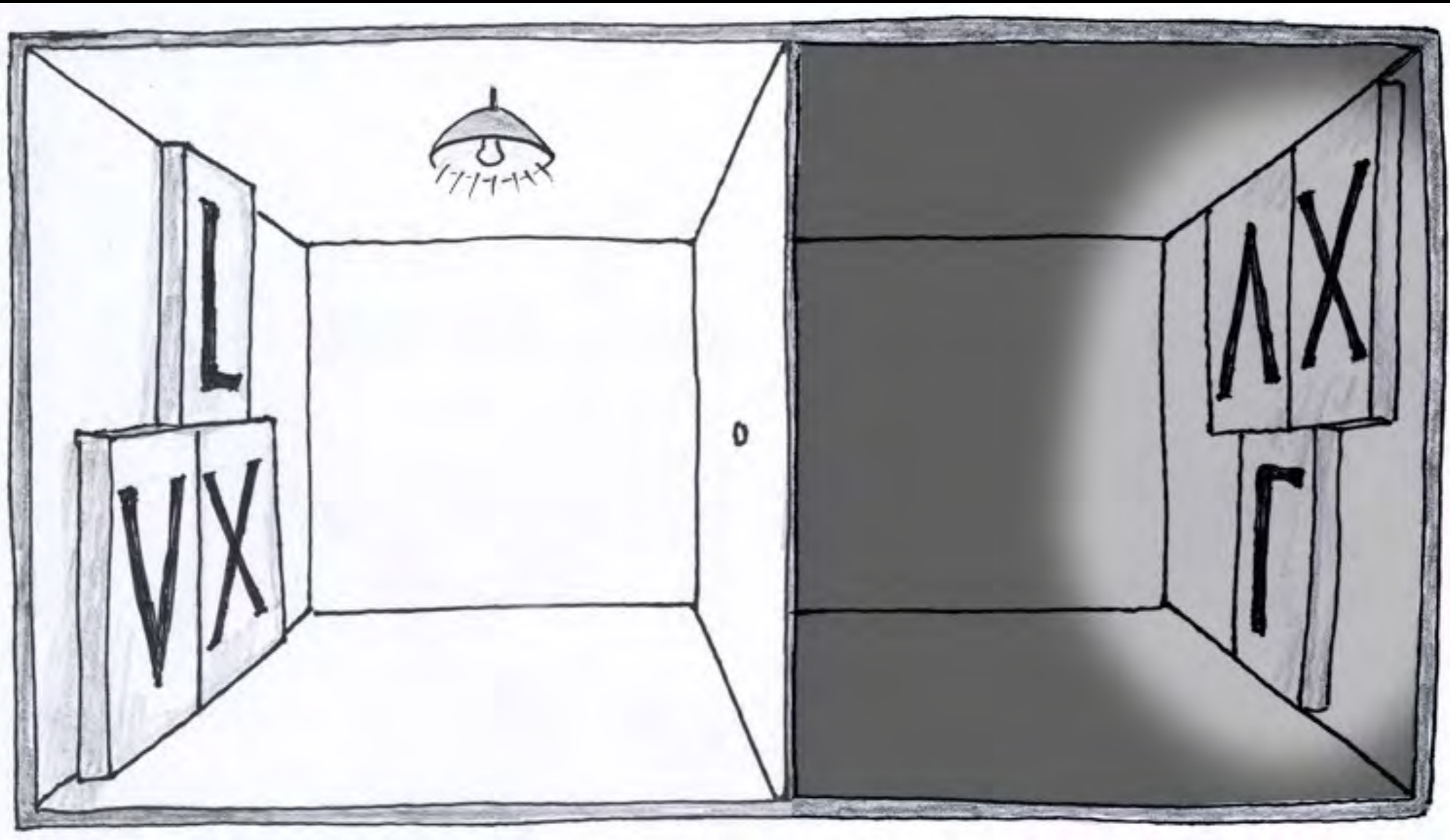


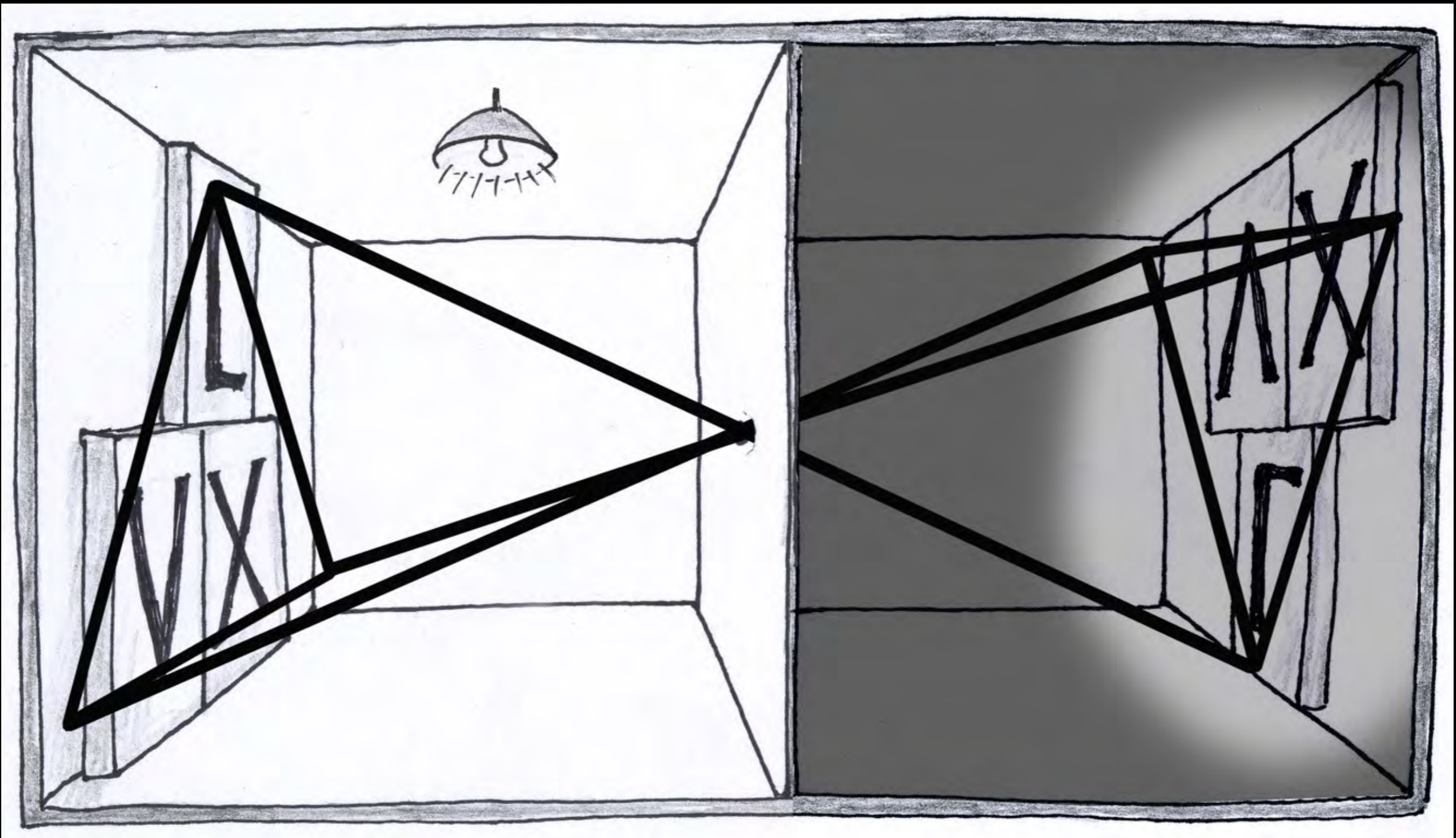
The “visual pyramid” from a pole or stick is actually a tall, thin four-sided pyramid (plus a base).

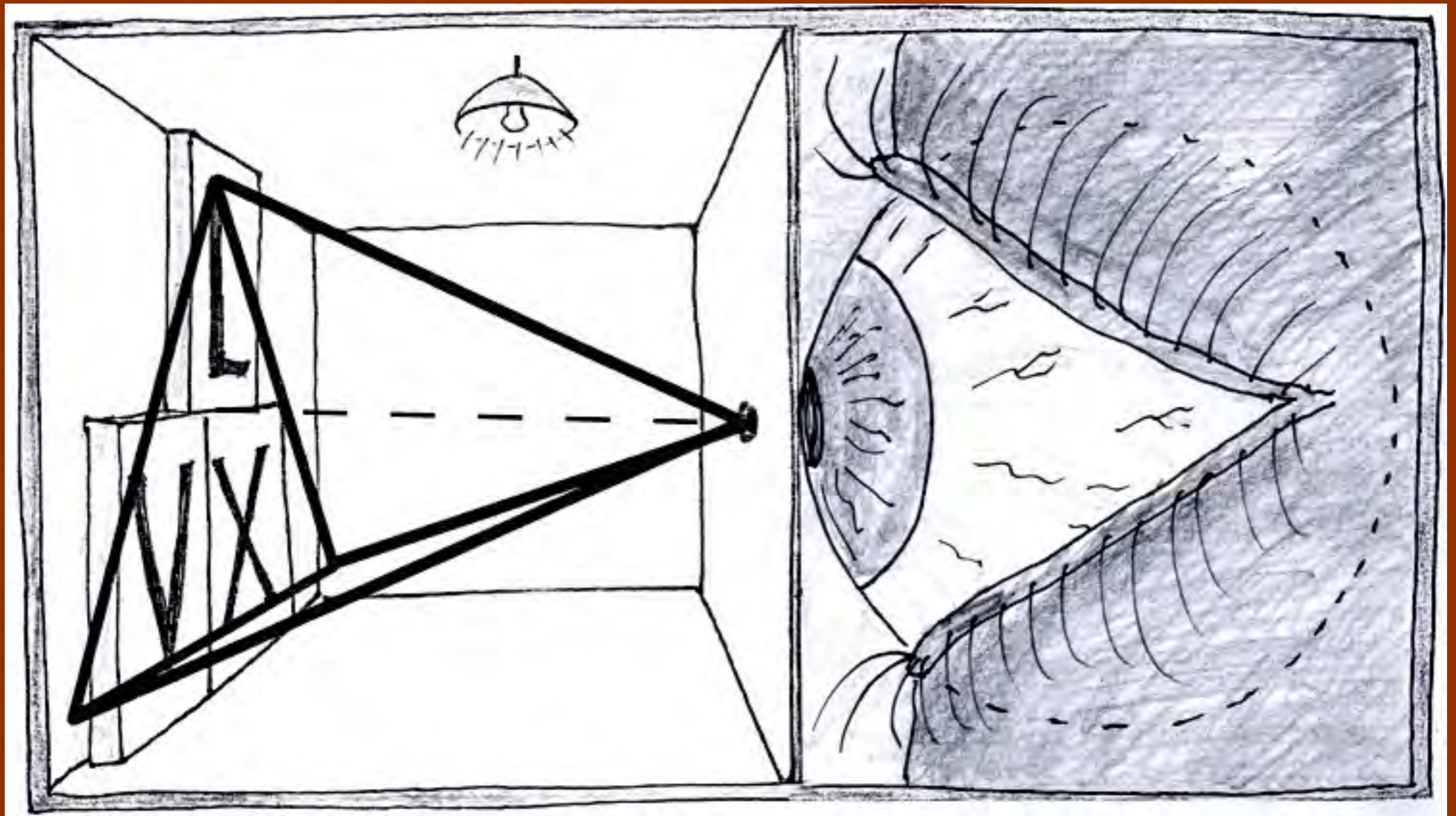


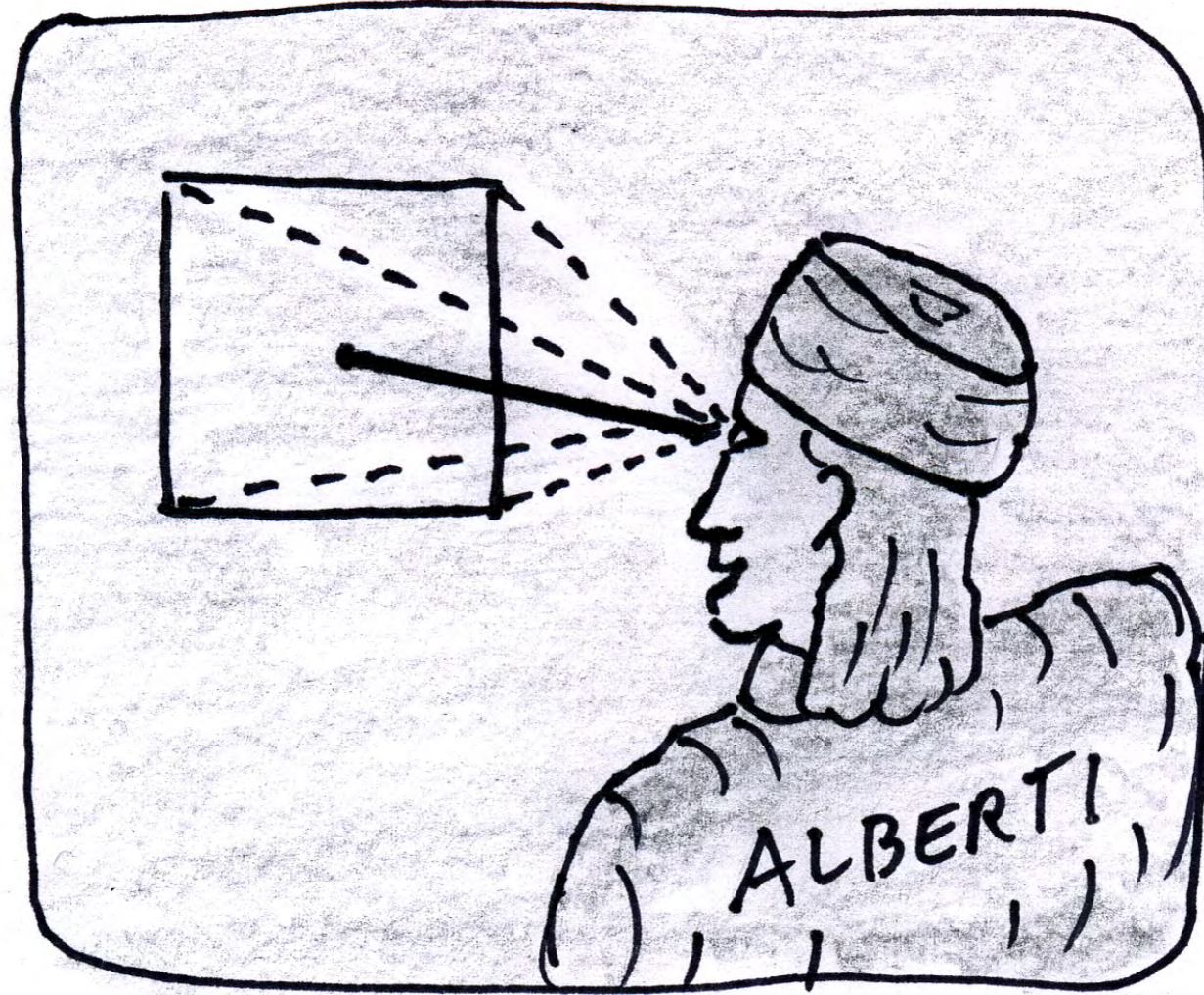
ALBERTI











The one "intrinsic" ray emanating from the exact geometric center of the face of the object observed is called the "centric ray"

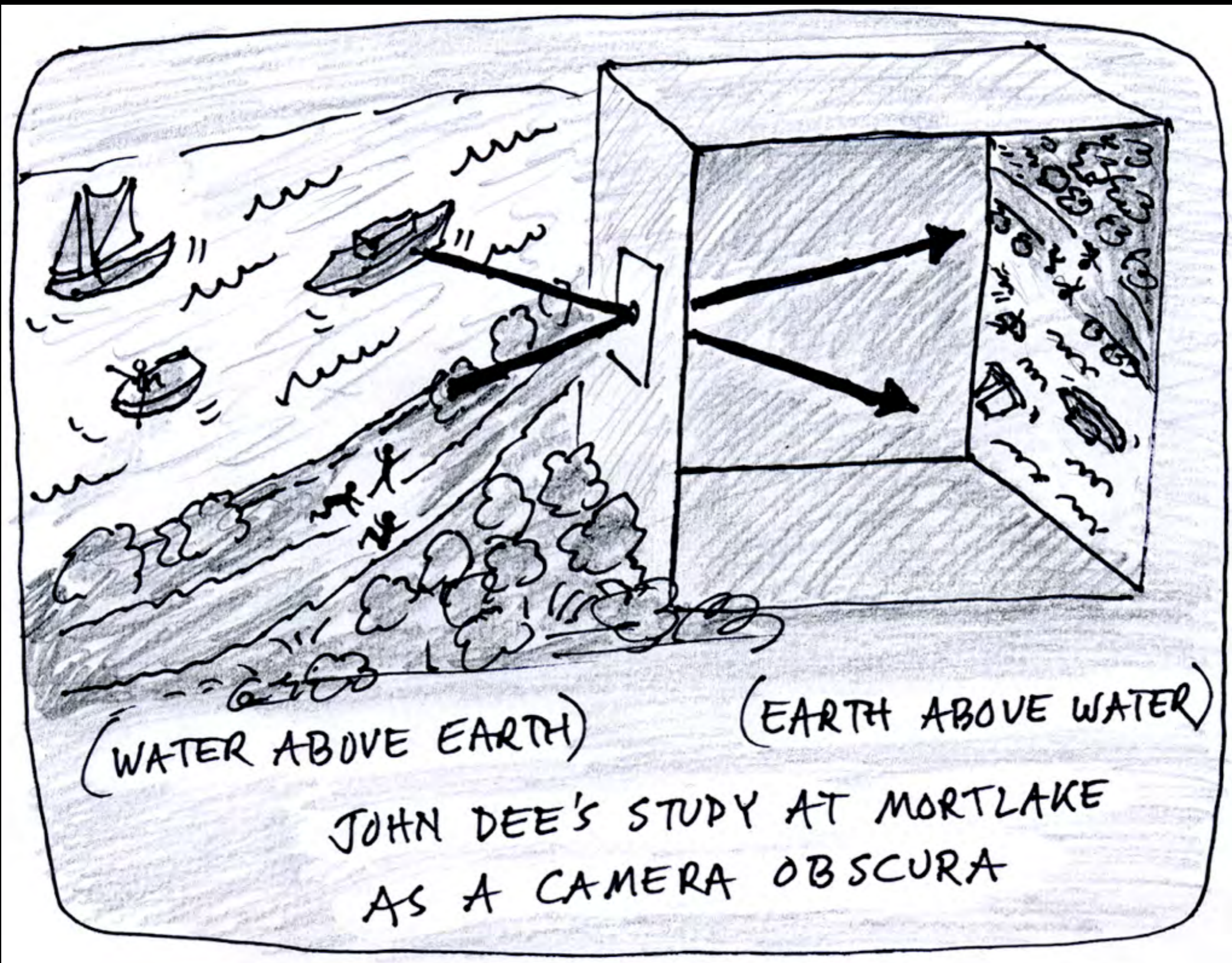
DEE'S
CRYPTIC REFERENCES
TO THE
CAMERA OBSCURA
IN THE
MONAS HIEROGLYPHICA

Dee's Advice to Astronomers:

**And won't the ASTRONOMER regret all his sleepless vigils
and cold labors he has suffered under the Open Sky,
when here, without any Discomfort from the Air,
Under his own roof, with windows and Doors Shut on all sides,
at any given Time, he is able to observe the movements of the heavenly bodies?
And, indeed, without any Mechanical Instruments made from Wood or Brass?**

Dee's advice to the Experts on Weights

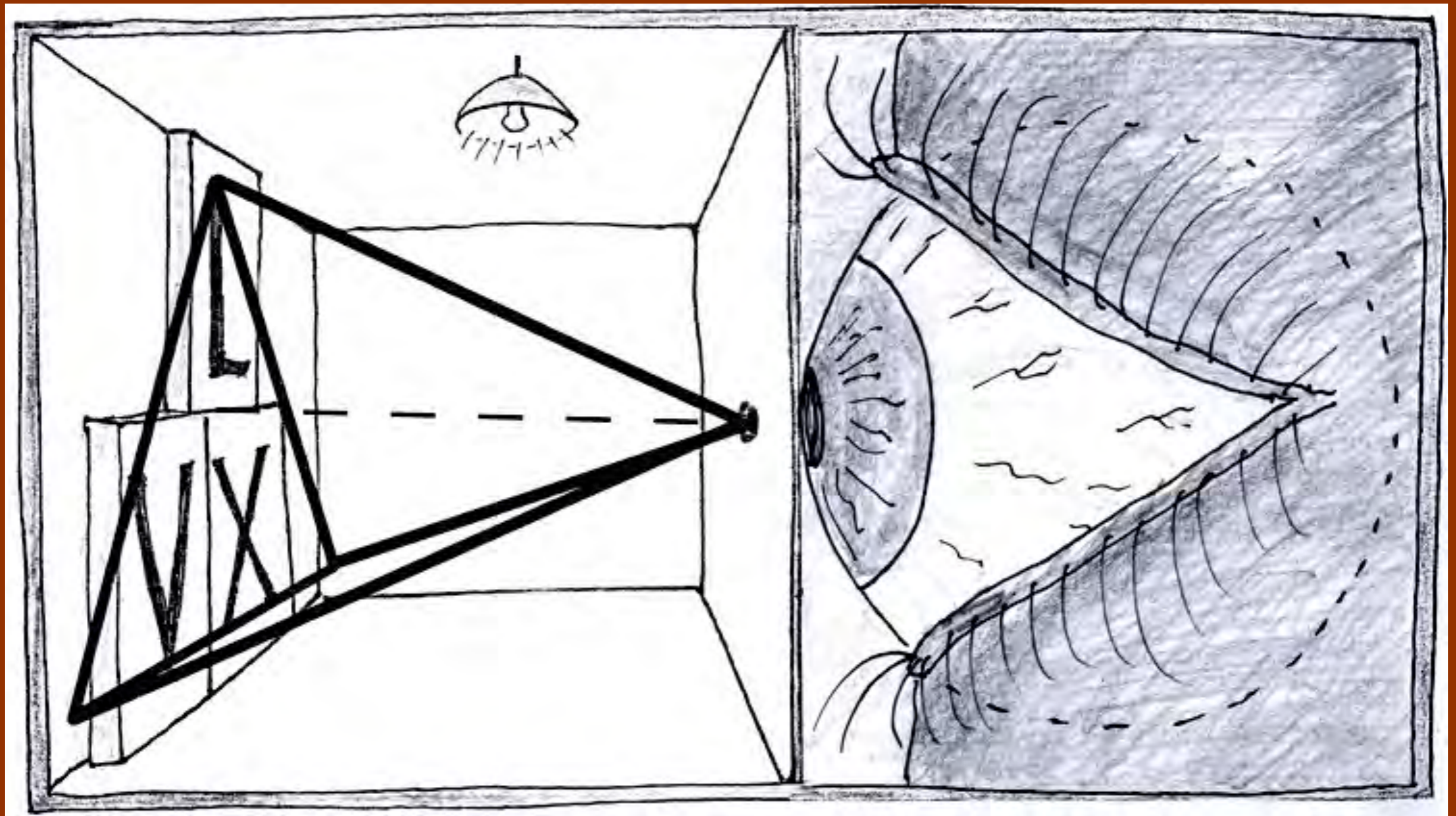
**And will not he, who has devoted all the Time of his life
to making exacting measurements with WEIGHTS,
judge just how well his Labors and costs have been invested,
when here, the Magistry of our MONAD will teach him,
most assuredly by actual Experience,
that the Element of Earth can float above that of Water?**



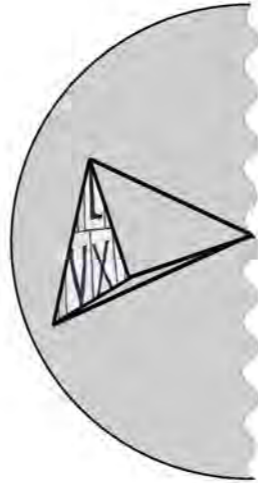
Dee's Original Latin Phrasing

*“...Cum, hic ex Tetrahedri Sectione Trigonica,
Linea exhibeatur;
ex cuius Forma Circulata,
fieri potest Speculum...”*

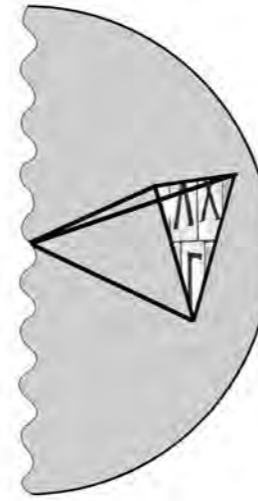
**...Yet here a Line is presented,
resulting from a Three-Cornered Section of the Tetrahedron,
from which, when Made Full-Circle,
a Mirror may be found...**

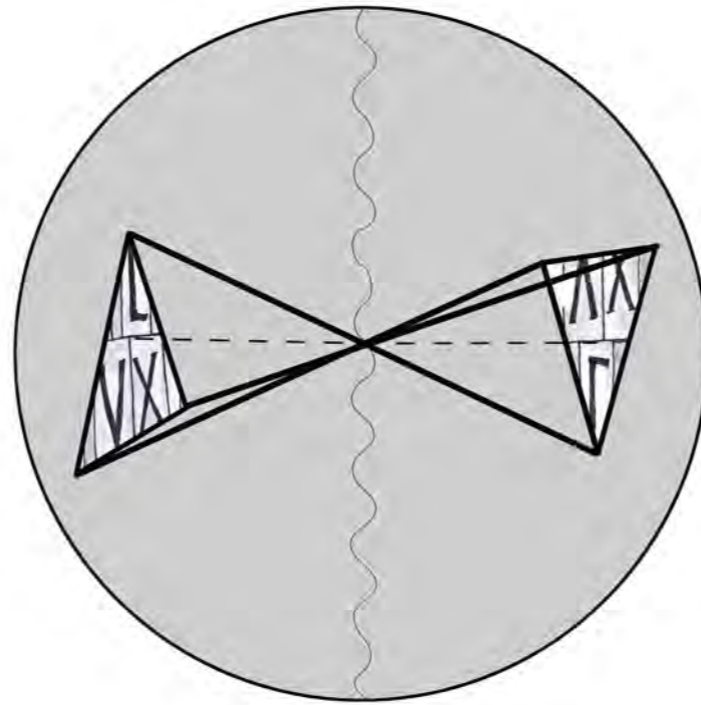


One tetrahedron
(like a visual pyramid
looking "outside"
a camera obscura) ...



implies another
tetrahedron
(like the visual
pyramid inside a
camera obscura)



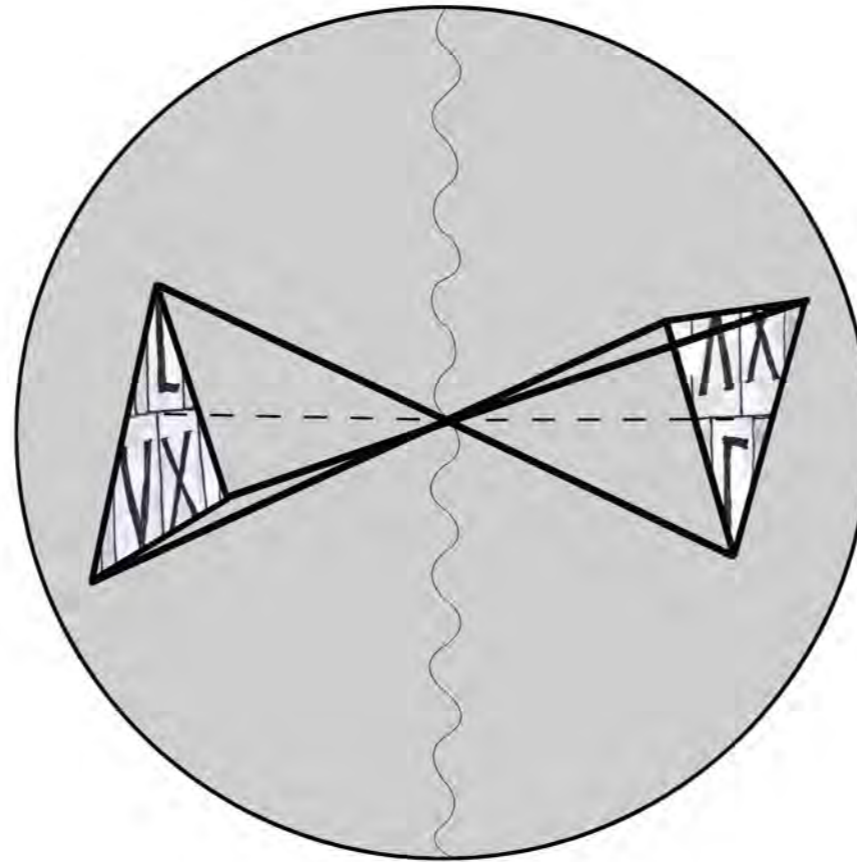


...when it is in
"Forma Circulata"
(complete, whole,
or in "Circular Form")

...a Line
presents itself...

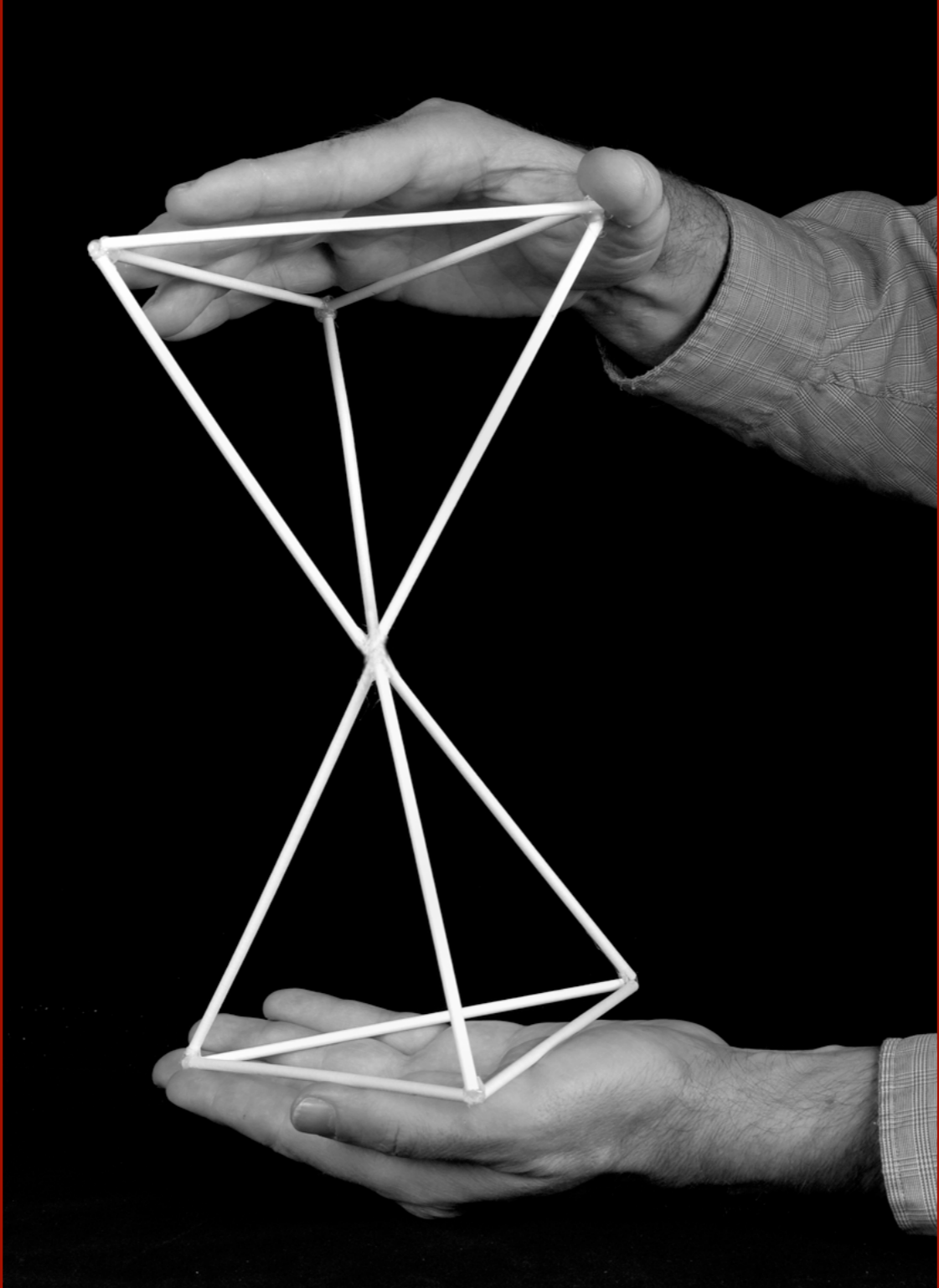
...When this is
Made Full-Circle, ...

From the
3-Cornered
Cross Section
of a
Tetrahedron...



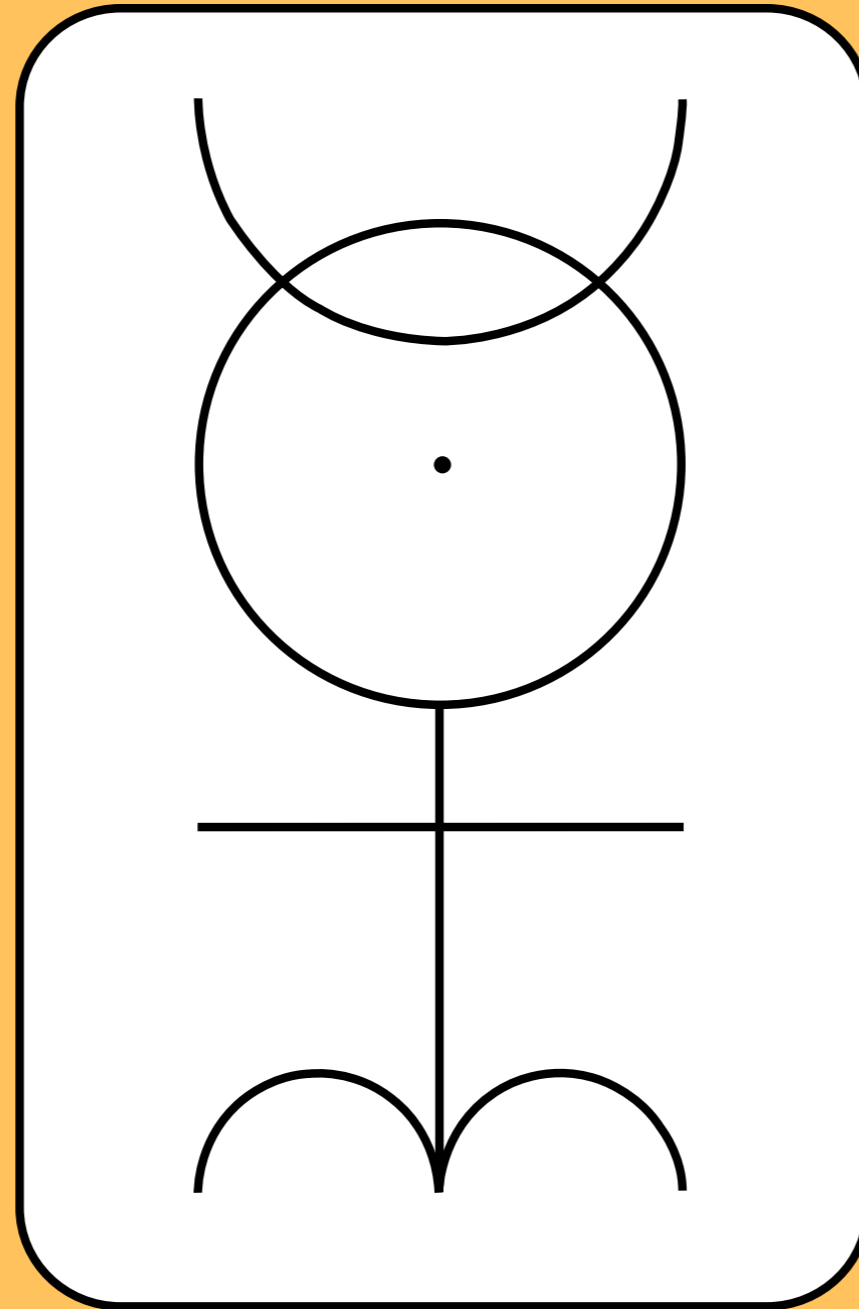
...a Mirror
can be
found..

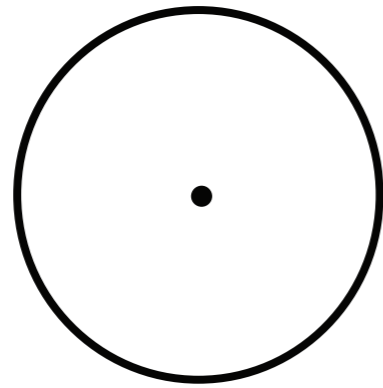
Dee's cryptic description
of a camera obscura,
written as part of
his advice to Opticians,
in his *Letter to Maximillian*



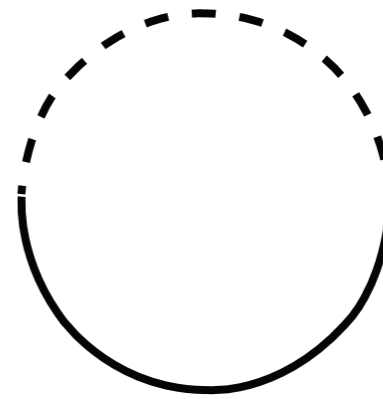
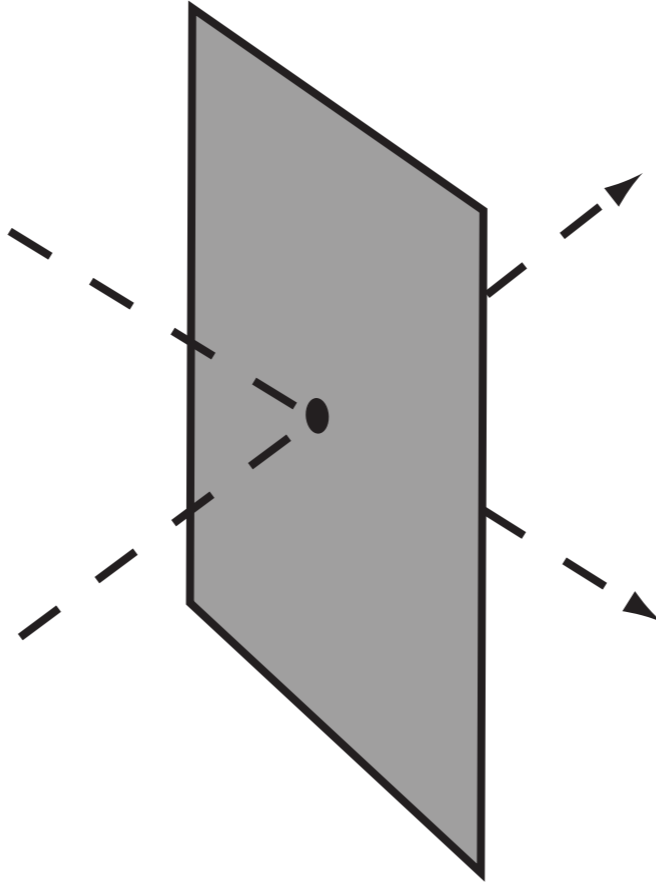
**(even when the Sun is being blocked by Clouds)
can reduce any kind of Stones or Metal into Impalpable Powders
by the force of (truly the very strongest) Heat.**

*The Monas symbol
as a camera obscura*

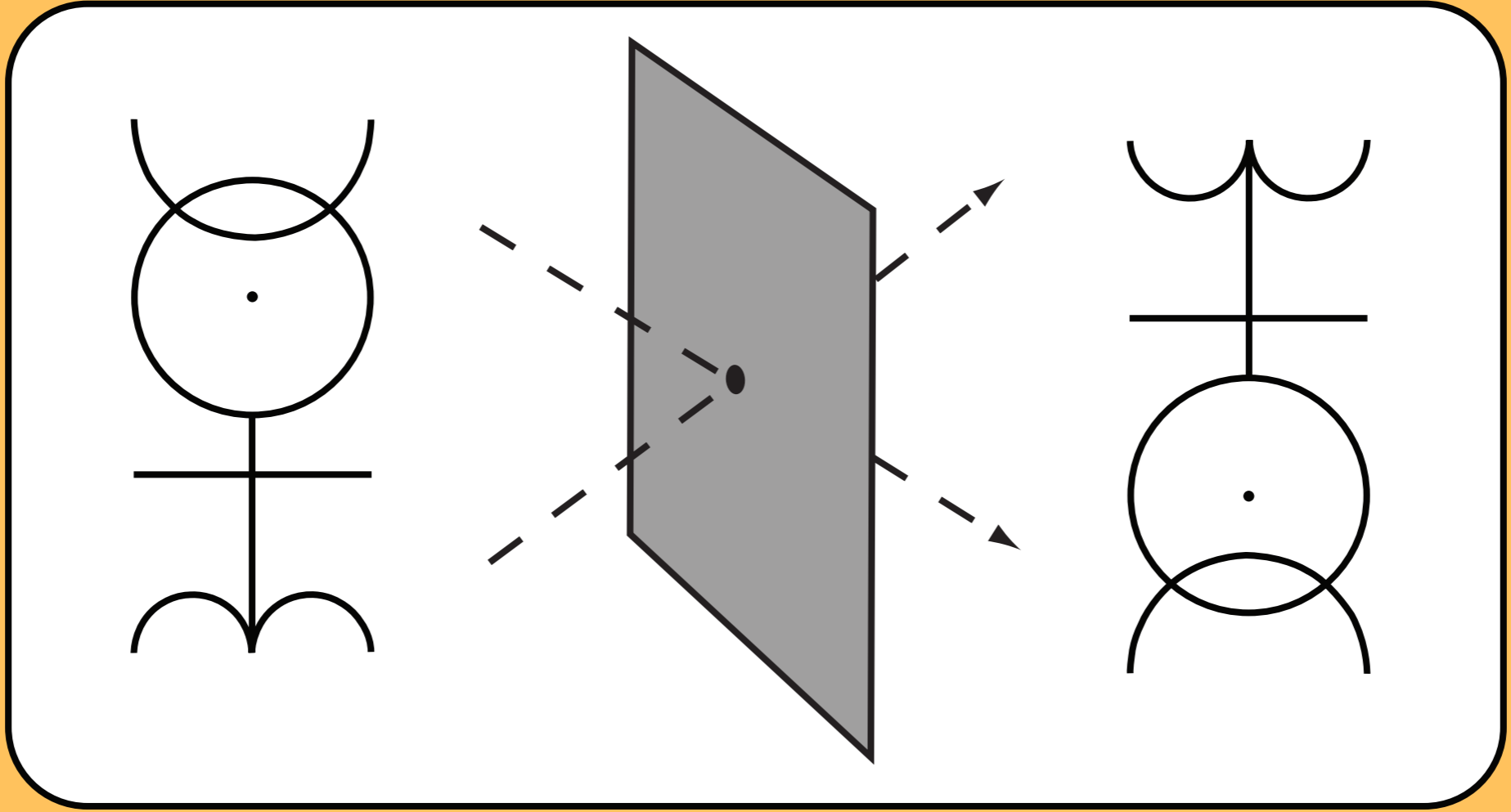


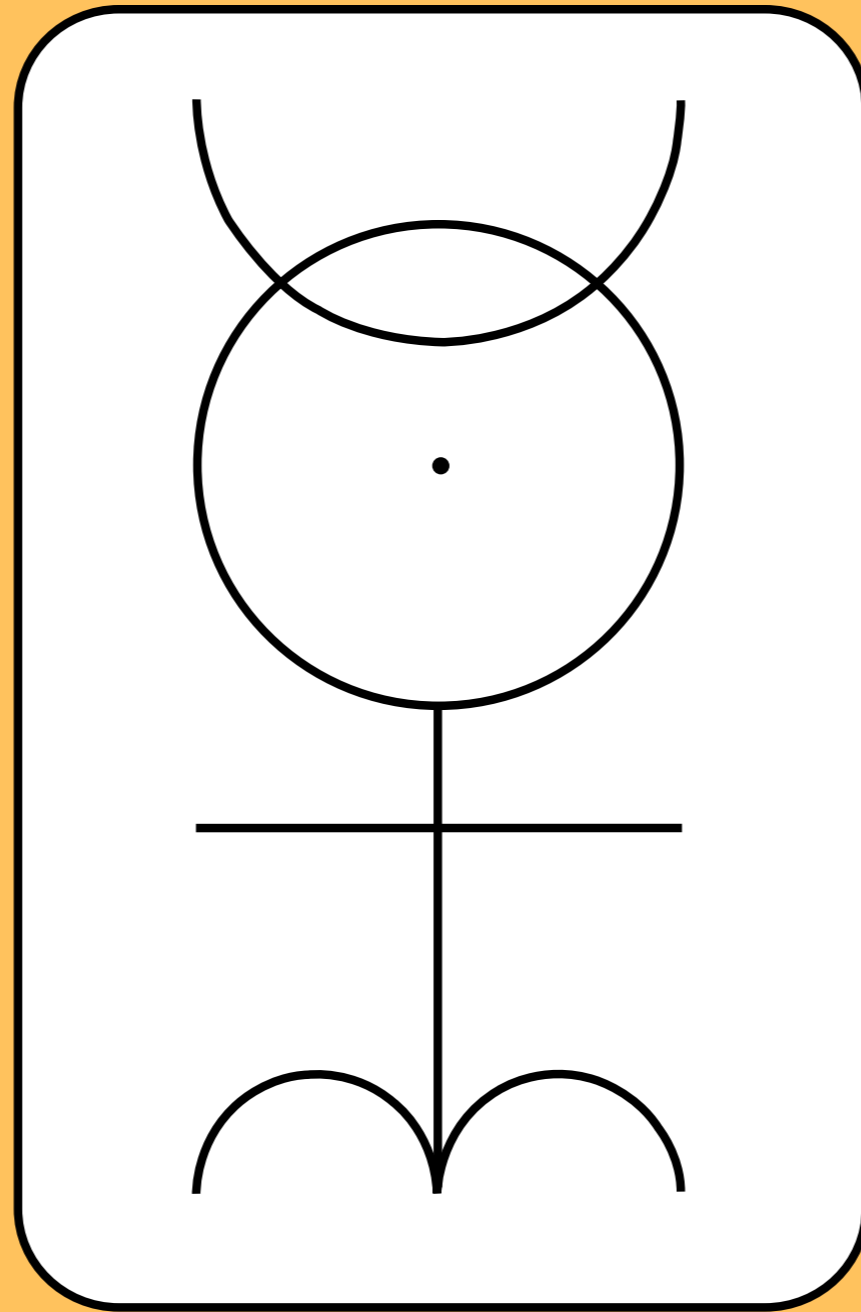


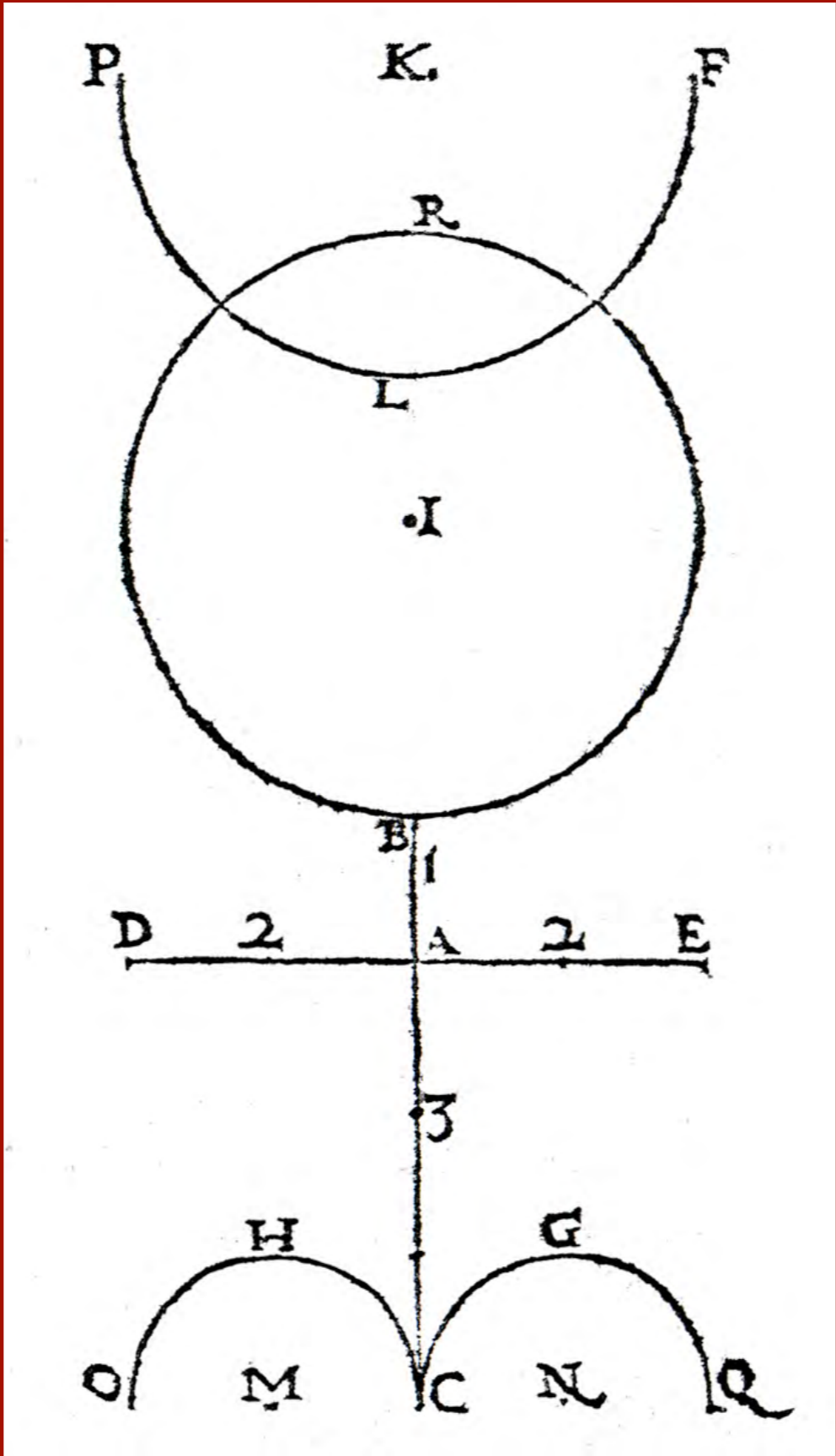
Sun

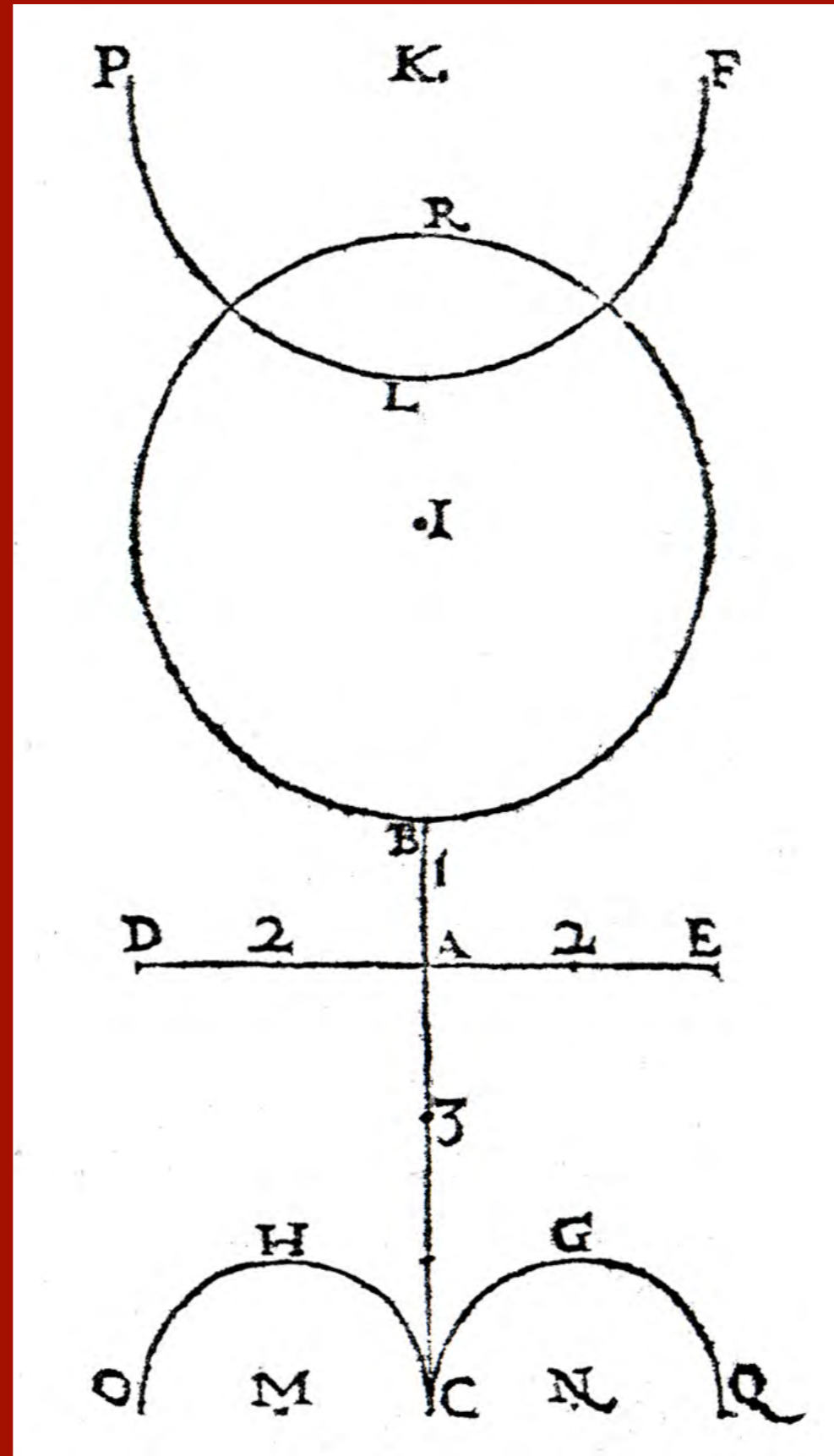


Moon

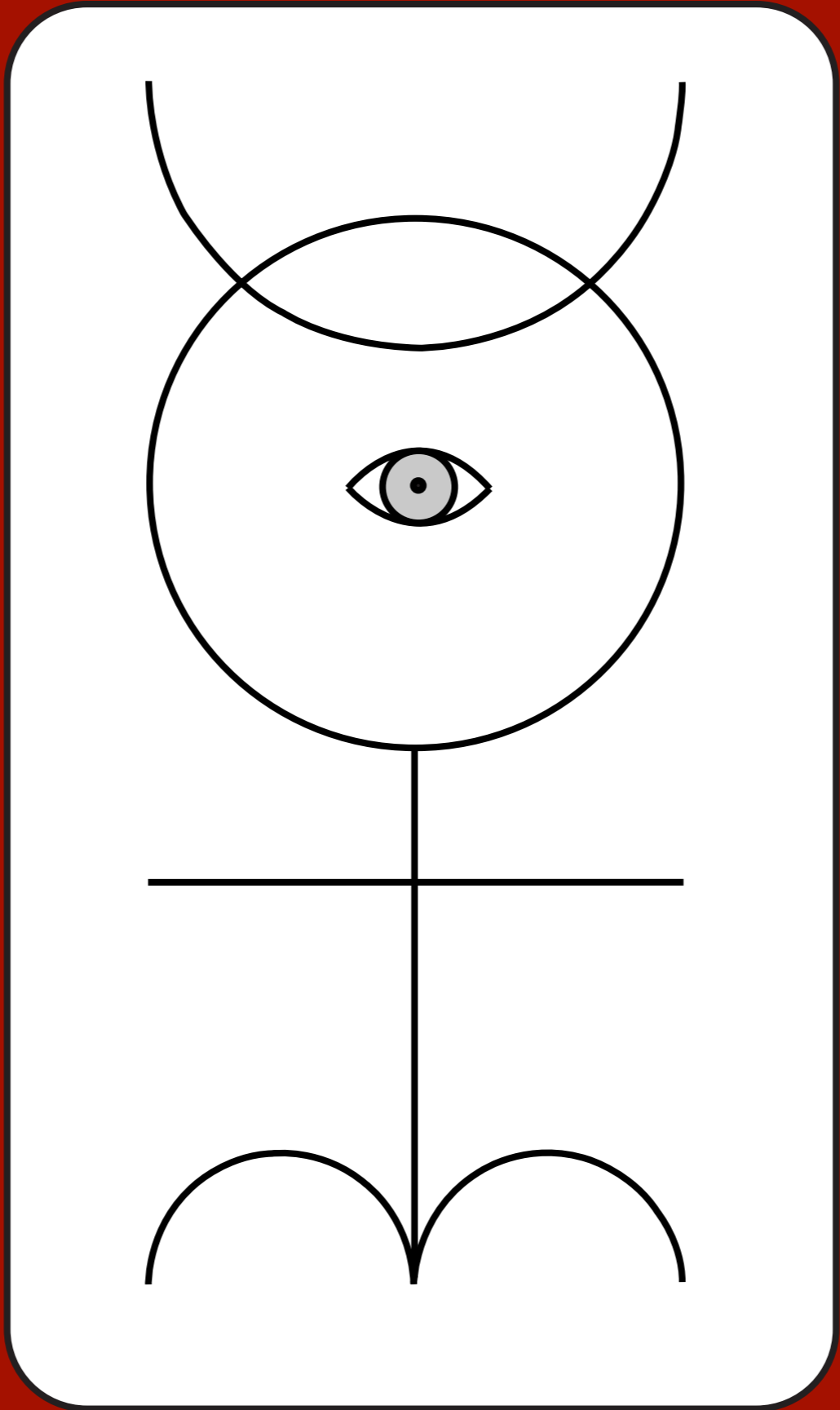








I = eye



I = eye

OPTICAL FREAK OF NATURE



ENTER!



WARNING!

IMAGE BEER
WILL BEER
UPSIDE
DOWN!

WHY?



GIANT CAMERA

AQUAS
POWERED

OBSCURA



WALK INSIDE THE AMAZING CAMERA OBSCURA

OPTICAL FREAK OF NATURE



LOOK

INSIDE

SEE THE WORLD ANEW



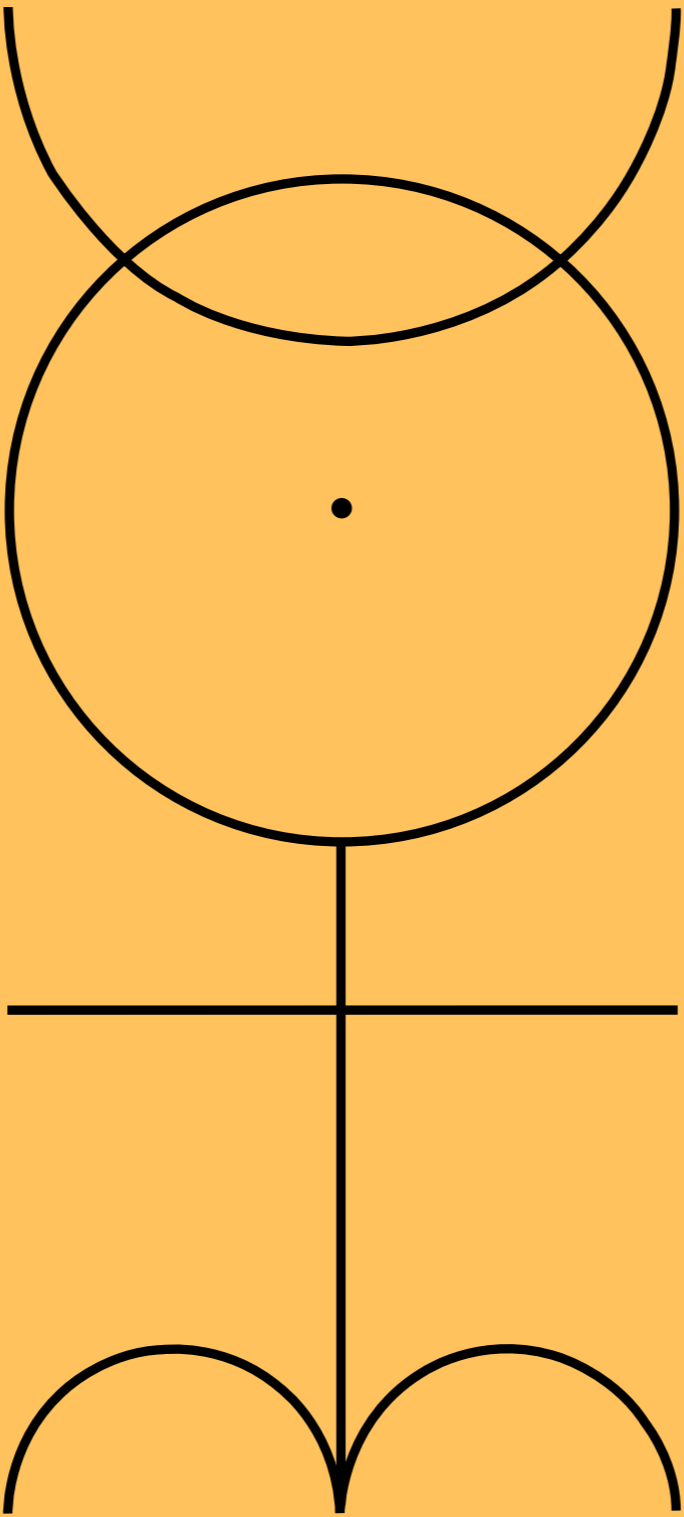
WALK INSIDE THE AMAZING CAMERA OBSCURA

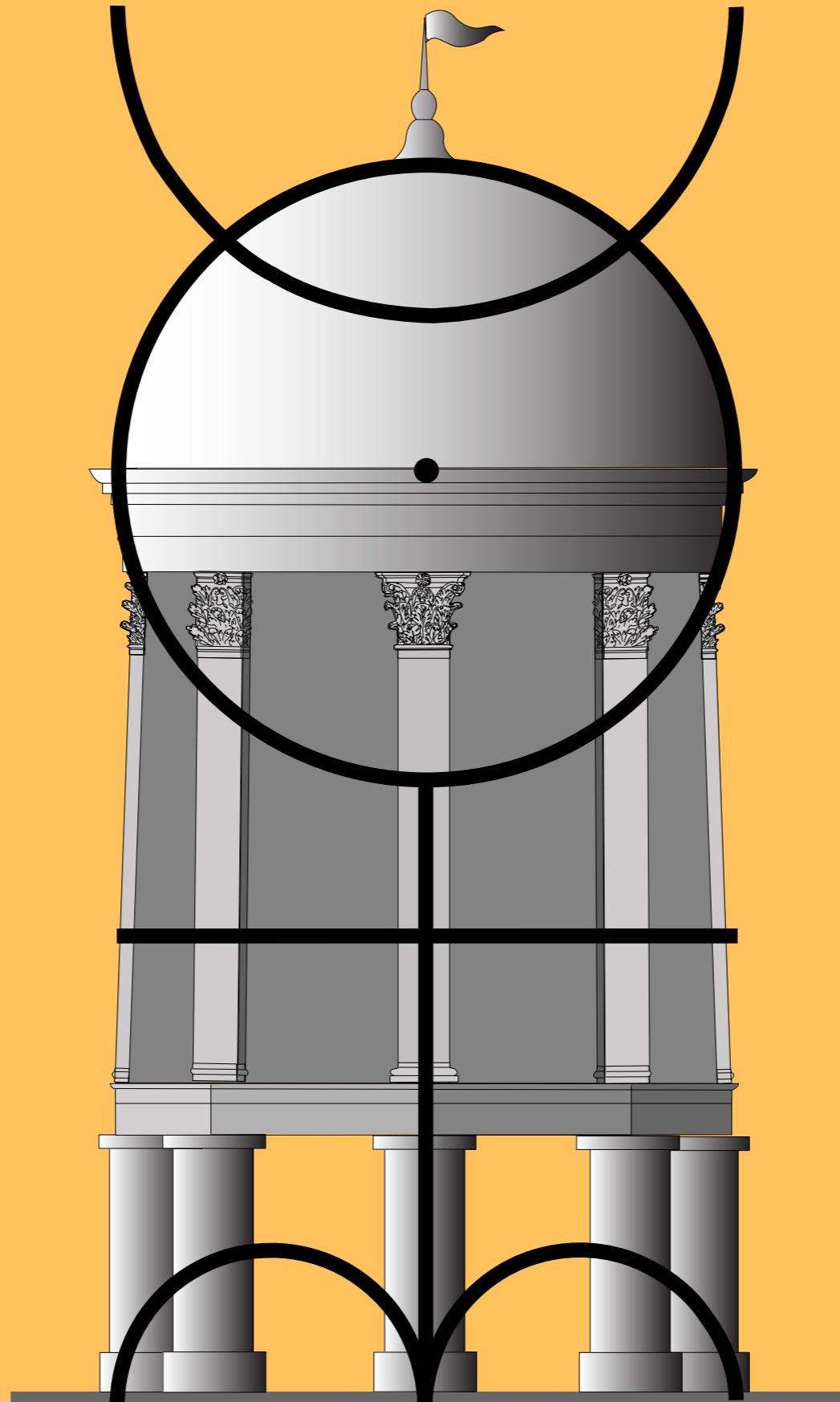
Mike's Maze





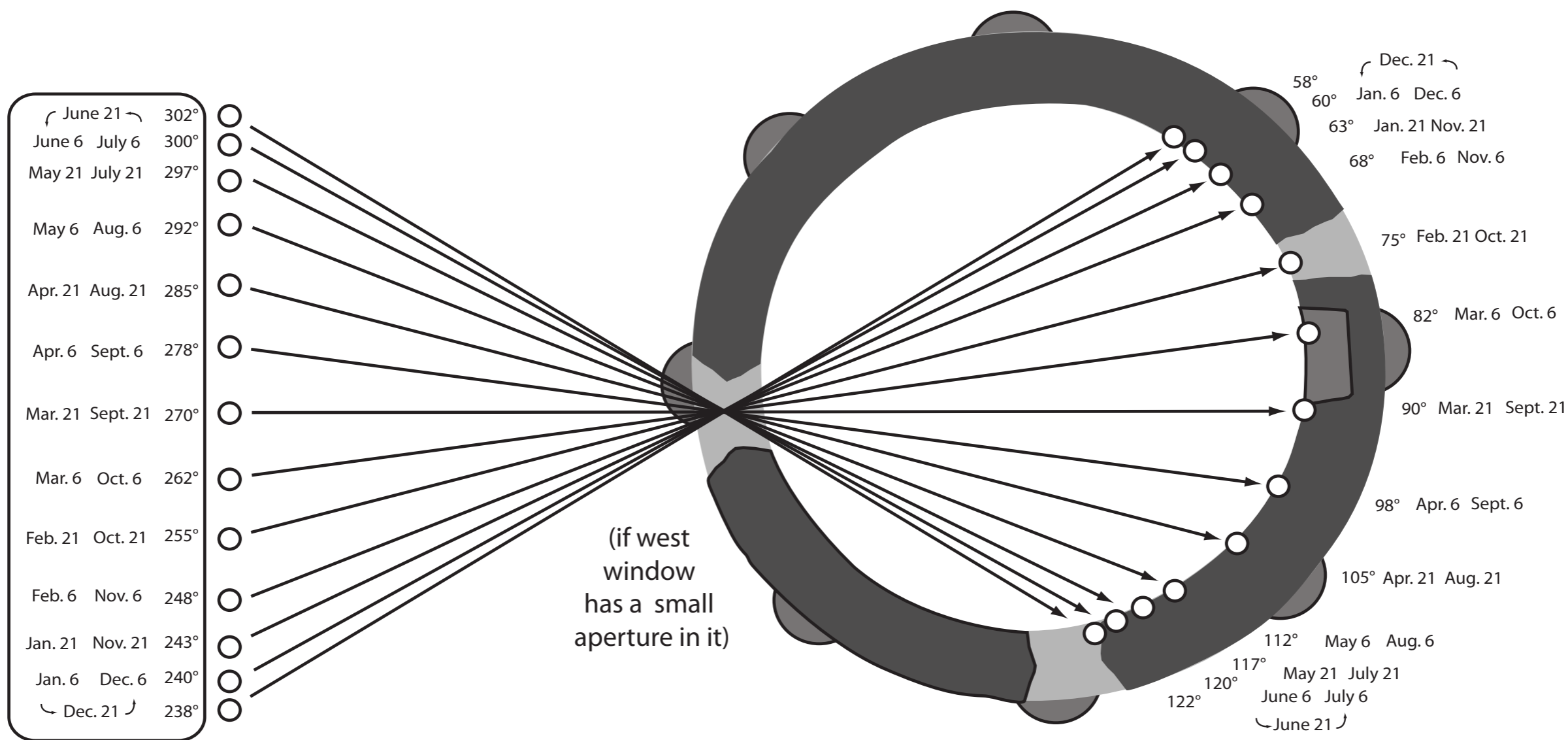


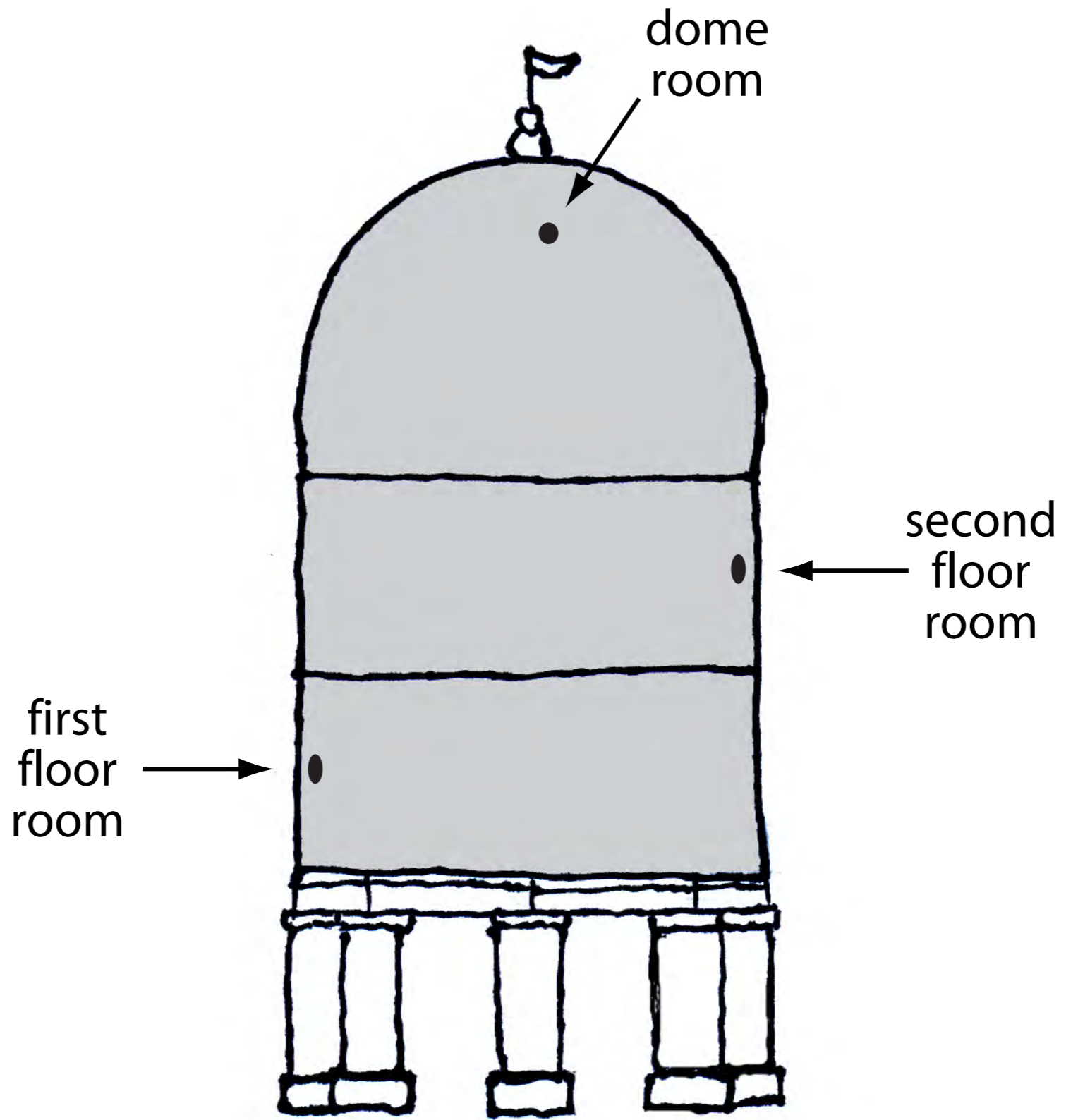






Bird's-eye View of Camera Obscura Calendar in the First floor room of the Tower



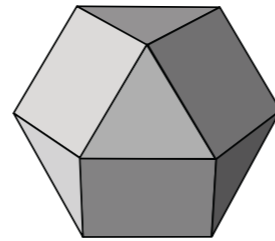
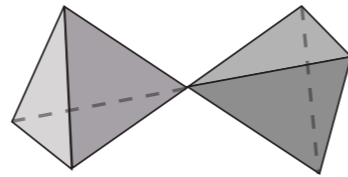


3 camera obscura rooms

*The Union
of Opposites*

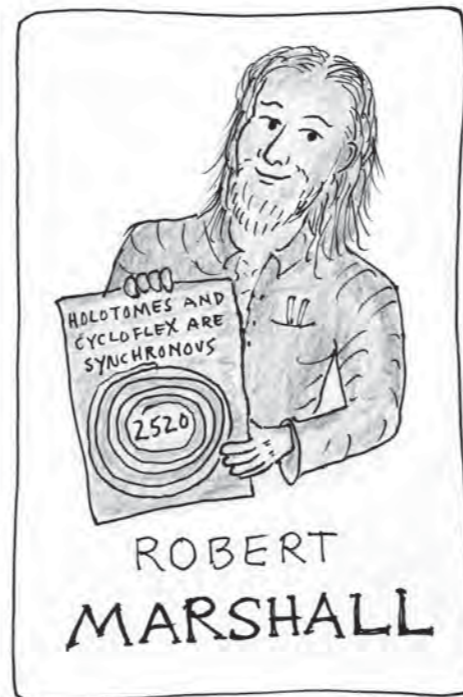
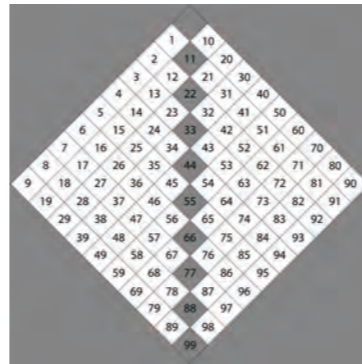
Bucky Fuller

Union of Opposites in Geometry



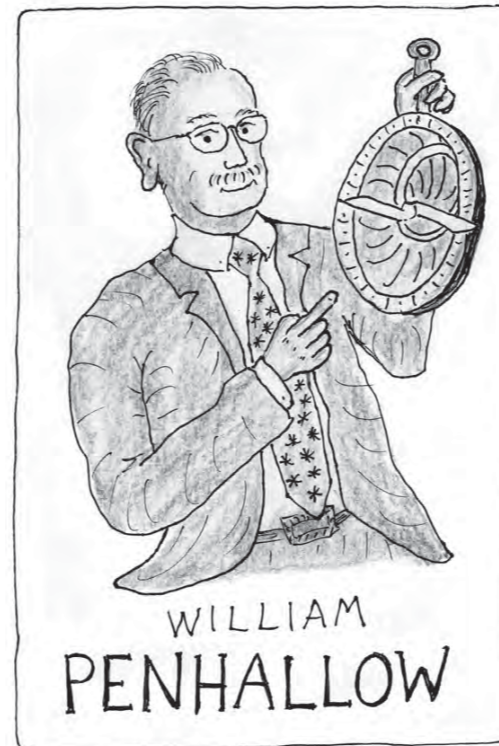
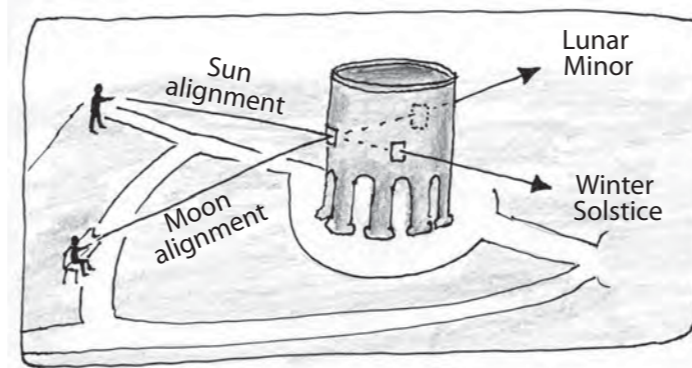
Bob Marshall

Union of Opposites in Number



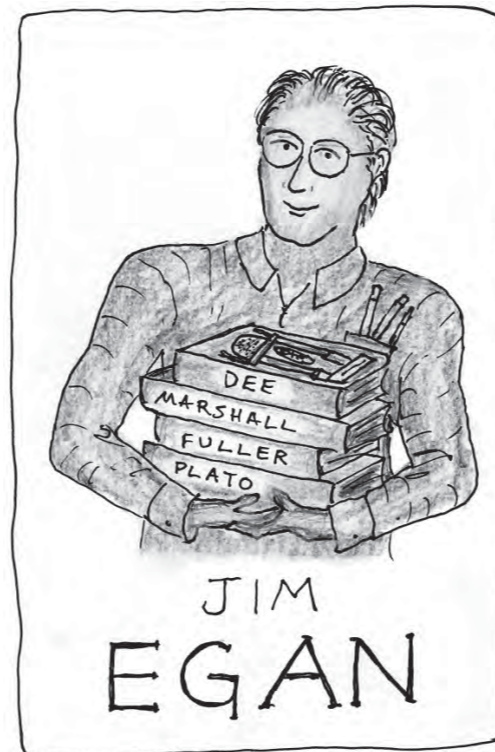
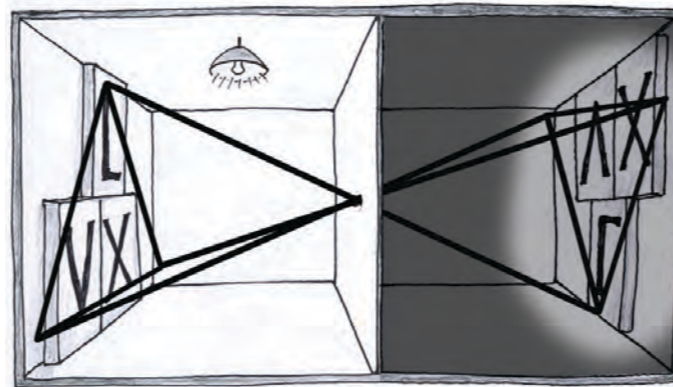
Bill Penhallow

The Tower's Lunar and Solar Alignments



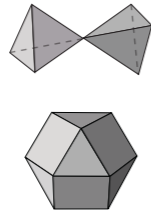
Jim Egan

Union of Opposites
in a Camera Obscura



Bucky Fuller

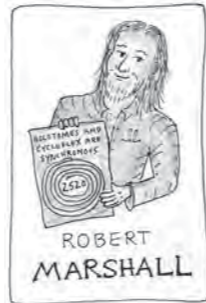
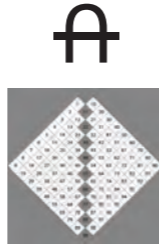
Union of Opposites
in Geometry



BUCKMINSTER
FULLER

Bob Marshall

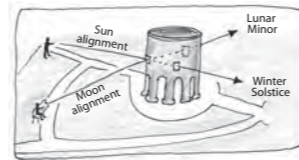
Union of Opposites
in Number



ROBERT
MARSHALL

Bill Penhallow

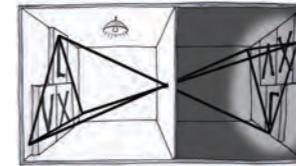
The Tower's
Lunar and Solar
Alignments



WILLIAM
PENHALLOW

Jim Egan

Union of Opposites
in a Camera Obscura



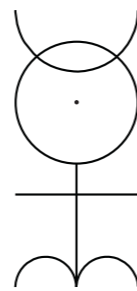
JIM
EGAN

John Dee

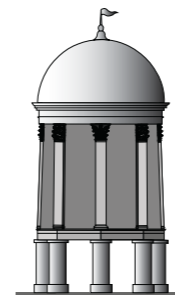
Union of Opposites in
Geometry, Number, and in the Camera Obscura



=



=



JOHN
DEE

John Dee

Union of Opposites in Geometry, Number, and in the Camera Obscura

