

The First Goetheanum

Part 3: The Geometry of the Building.

Anthroposophy is the awareness of the divine wisdom incorporated in the complete human being

Rudolf Steiner's First Goetheanum

This unique building was in existence for less than ten years just over a hundred years ago. It was designed by Rudolf Steiner as an earthly home for the spirit of anthroposophy: **Anthroposophia**.

In this presentation I will give some background on:

- ❖ Part 1: Rudolf Steiner and his artistic architectural impulse.
- ❖ Part 2: The evolution of architectural monuments/temples through the ages.
- ❖ **Part 3: The Geometry of the Building.**
- ❖ Part 4: Building construction.
- ❖ Part 5: The Art within.

The First Goetheanum

Designed by Rudolf Steiner

Foundation Stone laid 20 September 1913

Carved by many volunteers from 14 nations during WW1

Destroyed by arson on New Year's Eve, 31 December 1922

“We enter with reverence into the spirit in order that we may become one with the spirit that is poured out in the forms around us, because the Spirits of Form [Exusiai] are around us, and these forms move because the Spirits of Movement [Dynamis] stand behind the Spirits of Form.”

So speaks the idea of the new architecture. (RS Dornach 28-6-1914)

Synthesis of the Arts

- *Rudolf Steiner's main purpose in designing the Goetheanum was to create a synthesis of the visual arts, within an architectural setting, which revealed spiritual realities usually hidden from everyday consciousness.*
- *He incorporated the arts of painting, sculpture and coloured glass engraving. {The building created a space for the performing arts of **speech, drama, music and eurythmy.**}*
- *Rudolf Steiner was also interested in exploring how the medium of the visual arts can convey the results of spiritual-scientific research in a manner not possible through the use of words.*
 - Adapted from Christian Thal-Jantzen's Introduction to
"Architecture as a Synthesis of the Arts"

PERFORMING
VISUAL

SEVEN ARTS

- Social
- Eurythmy
- Speech, Drama
- Music
- Painting
- Sculpture
- Architecture

CONSTITUTION

- Spirit Human
- Life Spirit
- Spirit Self
- Ego
- Astral Body
- Etheric Body
- Physical Body
- Outer World

Freedom through Form

- The double-domed form of the First Goetheanum combines both the Centric and Axial principles of form.
- The Auditorium had cylindrical walls with a hemispherical dome held up by a concentric circle of columns. These forms are centric which encourage the enclosed worldly audience to be comfortably static within it.
- The axial element is introduced by the smaller, intersecting dome of the stage where a cosmic spiritual world may be portrayed; and by the direction of the seats and the sloping floor moving the focus of the audience towards the stage.
- Individuals in the audience are left **free** by the form – between the centric inward static pose and outward dynamic movement towards what is active on the stage.



Déposé. D. Rietmann
N° 50. 16. Juni 1914

Grounding of a movement...

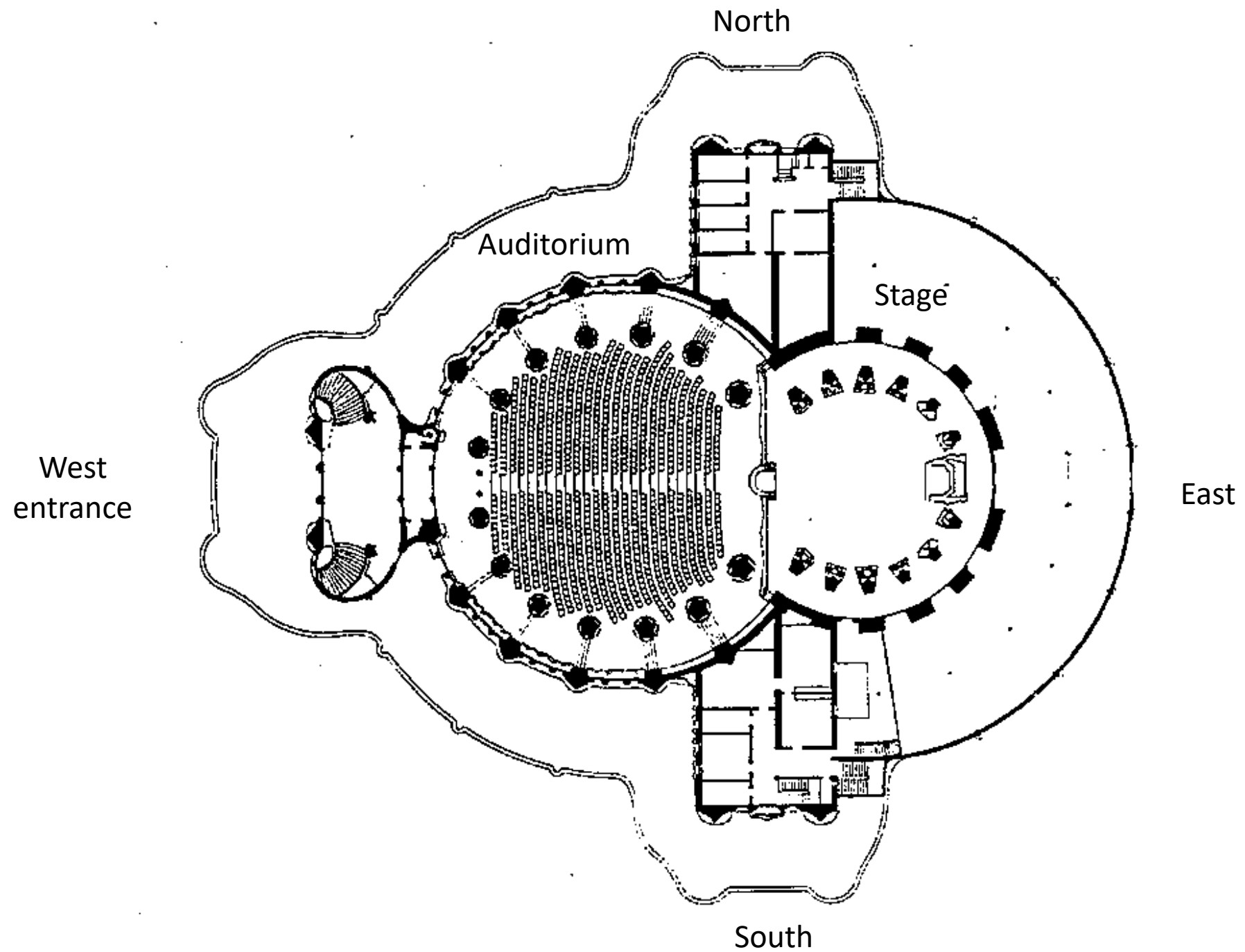
- *In the early beginnings a small group of interested people was involved within the Anthroposophical Movement*

The world only began to really take notice of Anthroposophy when the intention to build the Goetheanum began to be put into effect.

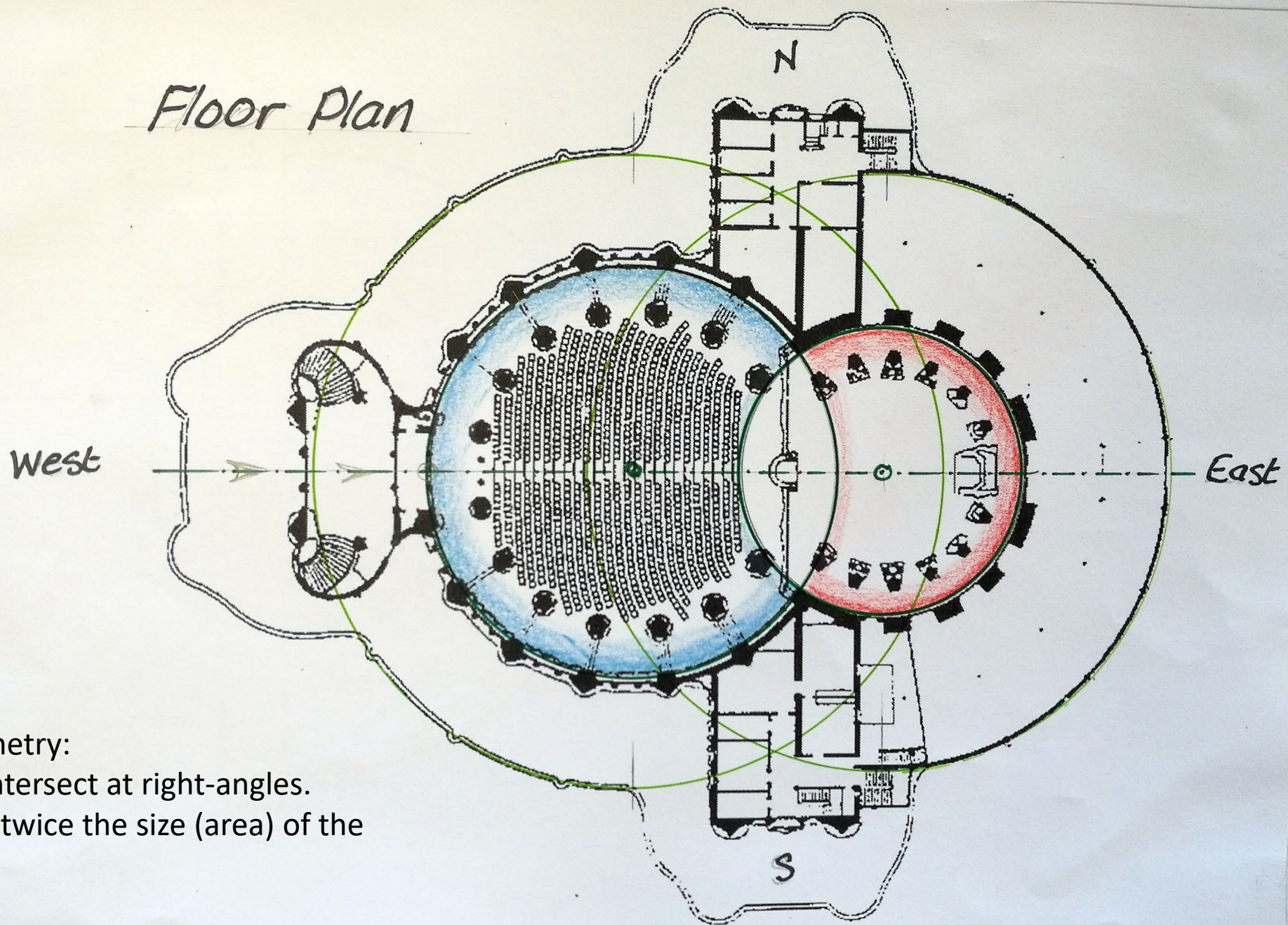
- Adapted from Rudolf Steiner's
 - “*The Constitution of the School of Spiritual Science.*”



First Goetheanum. Foundation stone laid 20 September 1913. Destroyed by arson on New Year's Eve, 31 December 1922



Floor Plan



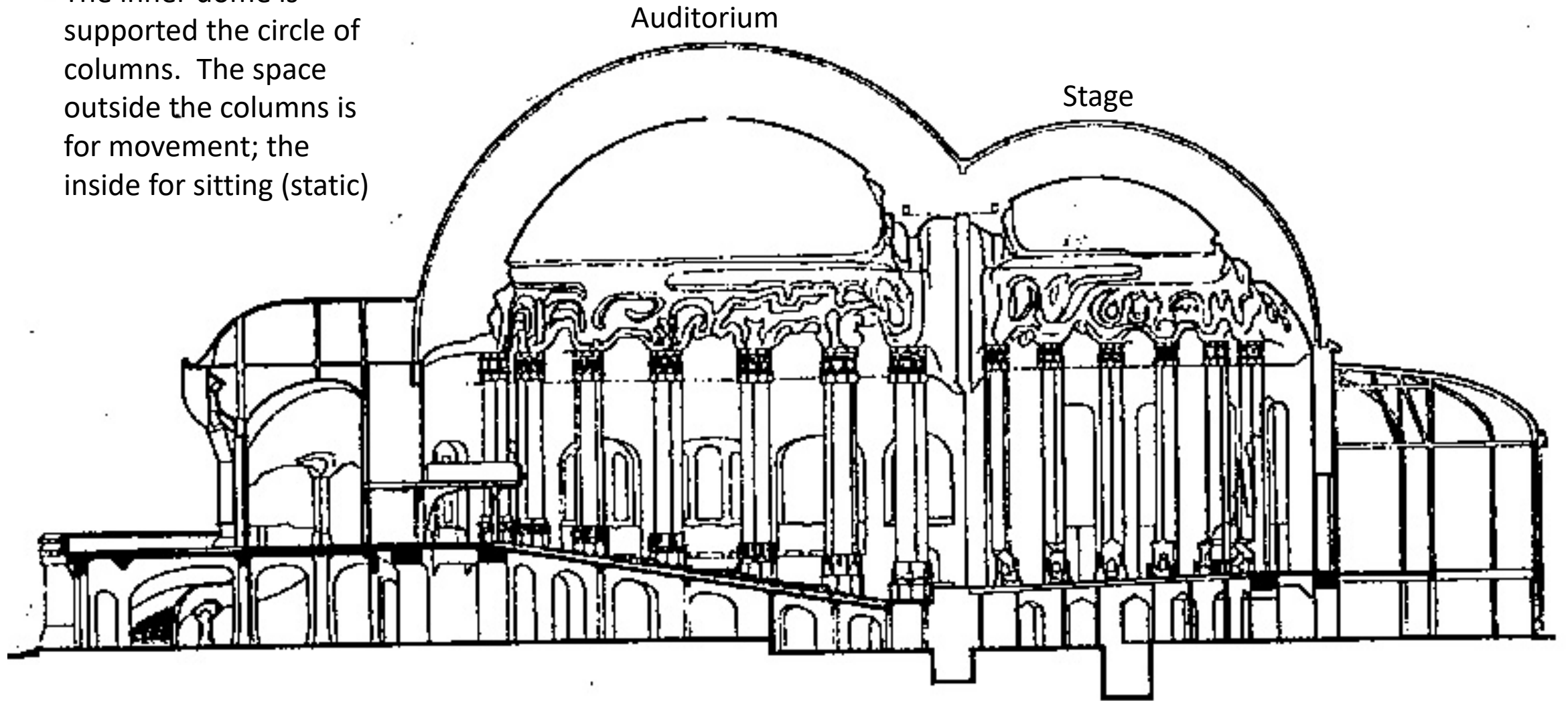
Note the Geometry:

1. The circles intersect at right-angles.
2. One circle is twice the size (area) of the other.

Entrance → Auditorium

Stage

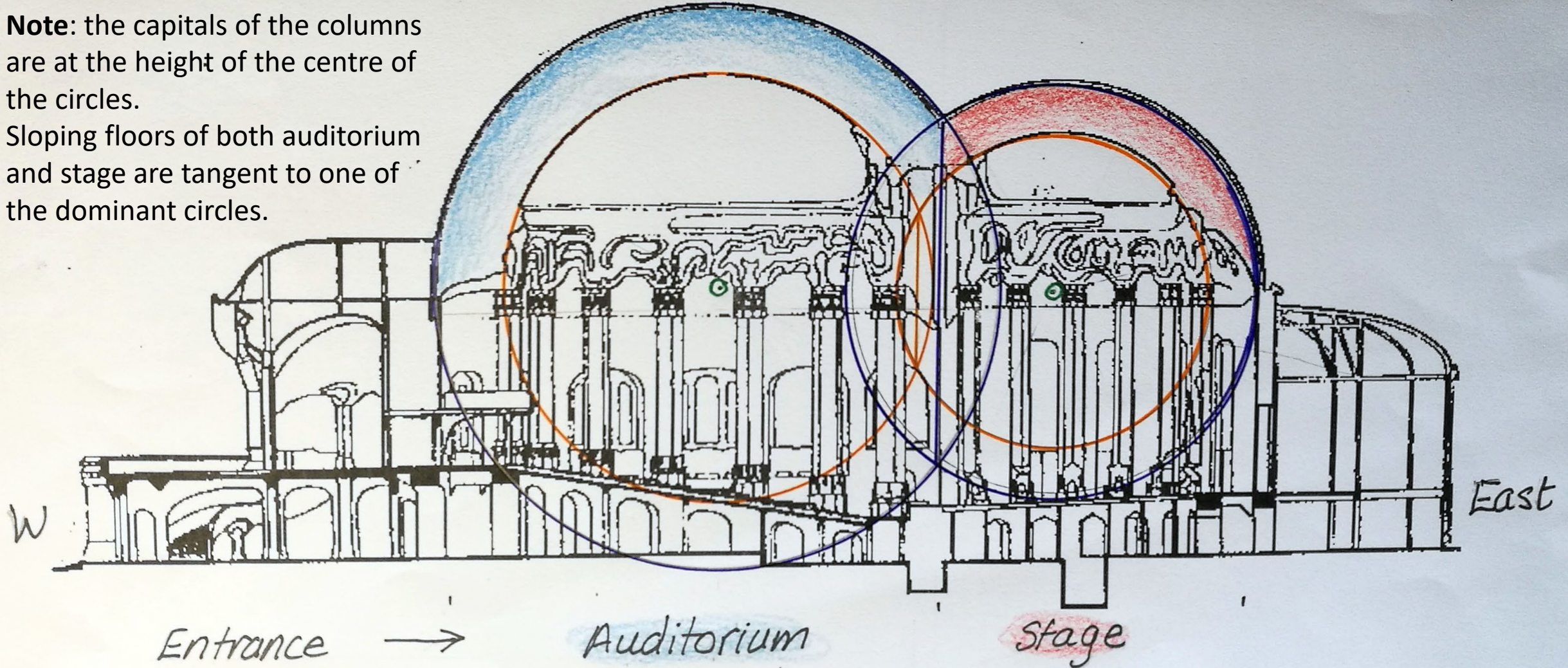
- The inner dome is supported the circle of columns. The space outside the columns is for movement; the inside for sitting (static)



FIRST GOETHEANUM ~ W-E Centreline Section Elevation

Note: the capitals of the columns are at the height of the centre of the circles.

Sloping floors of both auditorium and stage are tangent to one of the dominant circles.



GEOMETRY & PROPORTIONS of the FIRST GOETHEANUM FLOOR PLAN

AUDITORIUM

STAGE

- ① Area of Auditorium
= $2 \times$ Area of Stage
- ② Circles intersect at
right angles [90°]
- ③ The ratio of the distances
of any point on the stage
circle (P, Q, ...) to the points
where the Auditorium
circle intersects the
centreline is π .

$$r = CE = GE = HE$$

$$R = BG = CH = \sqrt{2} \times GE$$

$$BE = \sqrt{3} \times CE$$

$$\frac{AC}{CD} = \frac{AP}{PD} = \frac{AQ}{QD} = \frac{AR}{RD} = \frac{AS}{SD} = \frac{AT}{TD} = \frac{AF}{FD} = \pi \quad (3.14159\dots)$$

Robin Baachus 13 Dec 2022.