

DEEP FUTURES 3

AN EXPO PAVILION FOR THE DEEP FUTURE / GEOMETRICAL STUDY

DIE ANGEWANDTE WIEN
STUDIO RASHID / SS 2012

MELANIE KOTZ
ROBERT VIERLINGER
ABRAHAM FUNG

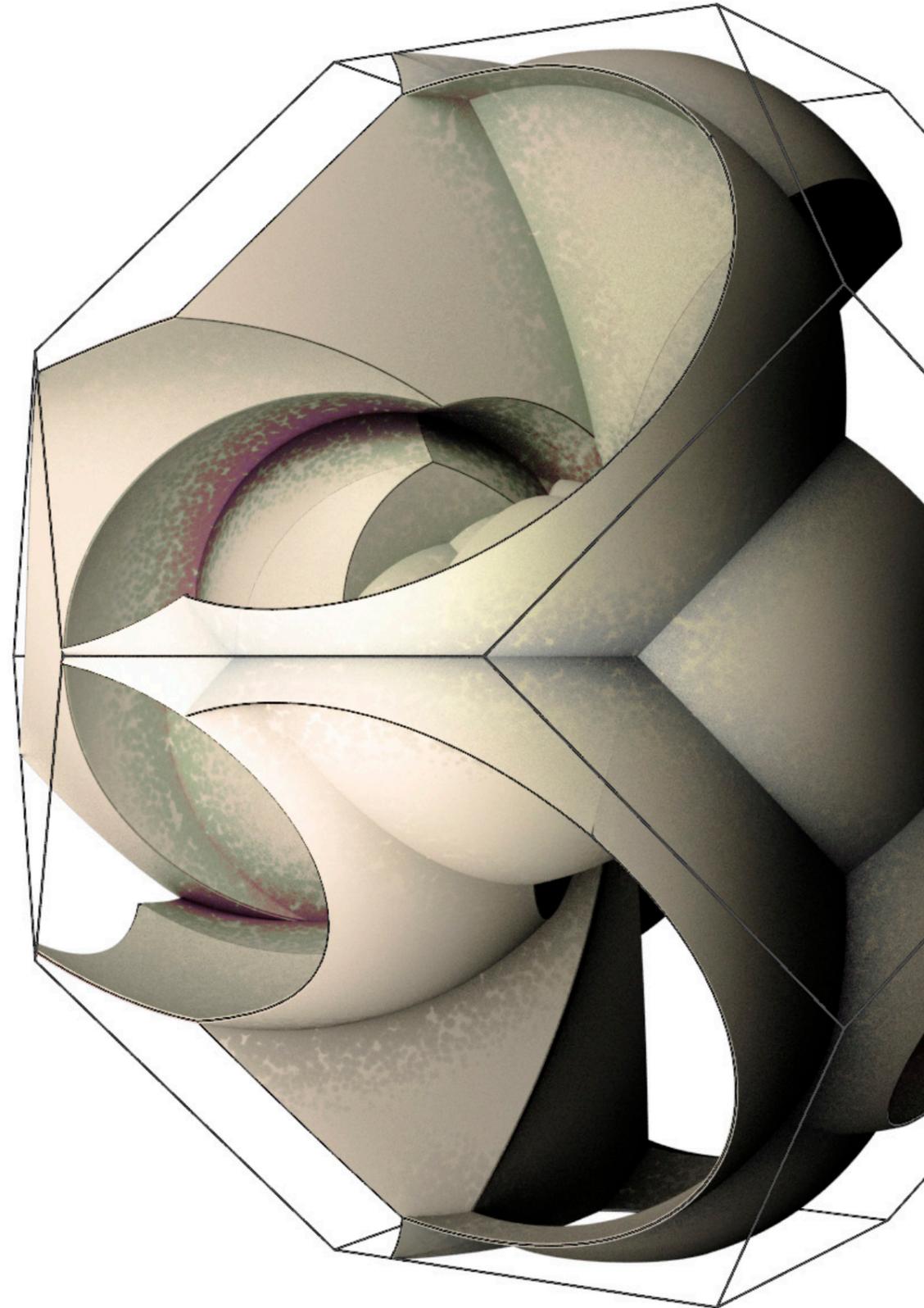
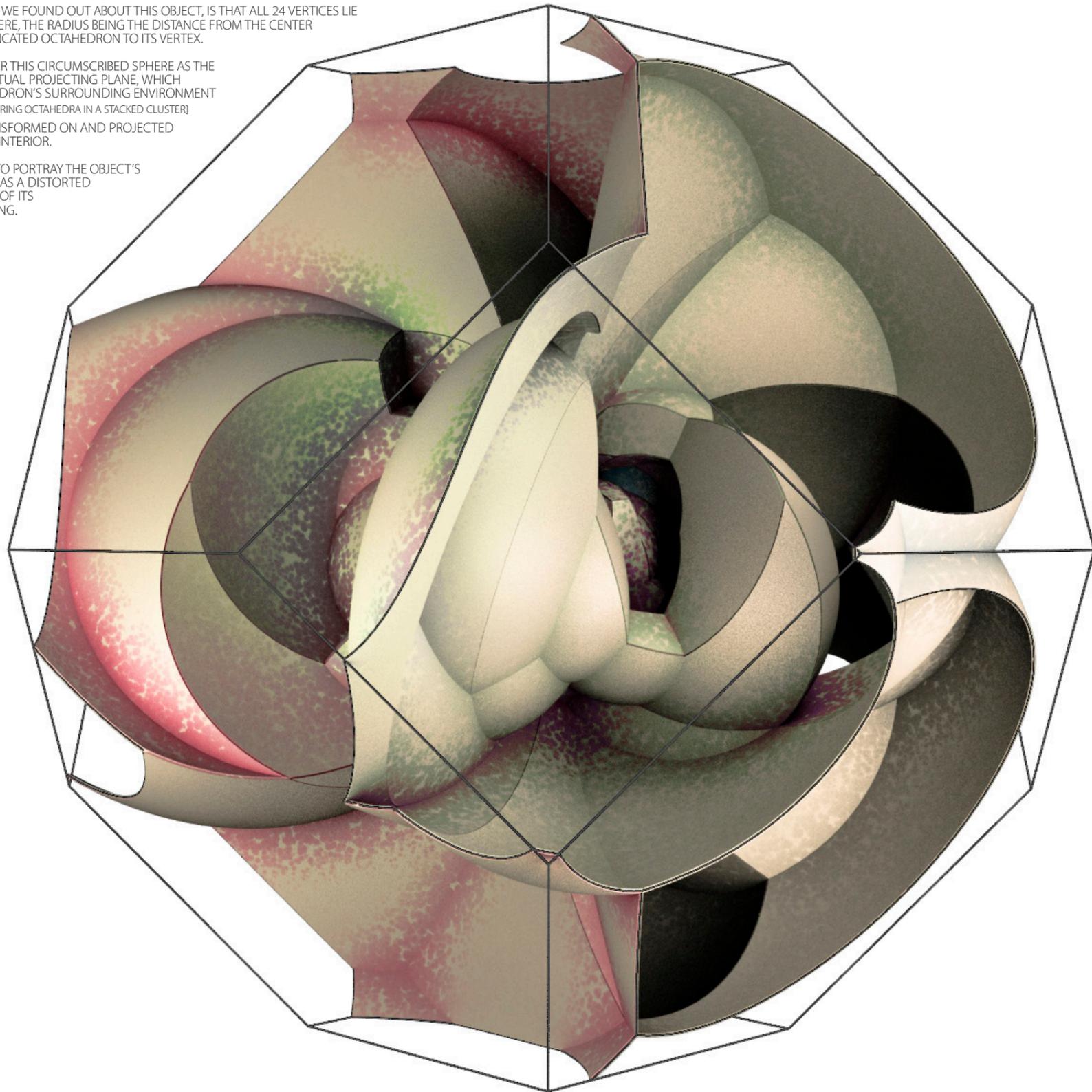
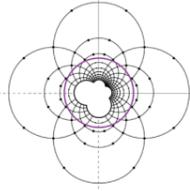
THE WARM UP FOR THIS SEMESTER'S STUDIO PROJECT IS THE GEOMETRICAL TASK OF DIVIDING AN ENCLOSED BODY INTO 4 PIECES - 3 OF WHICH SHOULD BE SEEN AS SPACES, AND ONE THAT SEPERATES ITSELF AS VOID.

THE CHOSEN OBJECT FOR THIS OPERATION IS A TRUNCATED OCTAHEDRON, A GEOMETRICAL BODY OF THE FAMILY OF THE PLATONIC SOLIDS, WHICH HAS THE PROPERTY OF BEING SPACE FILLING, MEANING AN INFINITE NUMBER OF THESE BODIES CAN BE STACKED UPON EACH OTHER WITHOUT LEAVING EMPTY SPACE IN BETWEEN.

FROM WHAT WE FOUND OUT ABOUT THIS OBJECT, IS THAT ALL 24 VERTICES LIE UPON A SPHERE, THE RADIUS BEING THE DISTANCE FROM THE CENTER OF THE TRUNCATED OCTAHEDRON TO ITS VERTEX.

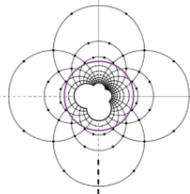
WE CONSIDER THIS CIRCUMSCRIBED SPHERE AS THE OBJECT'S VIRTUAL PROJECTING PLANE, WHICH THE OCTAHEDRON'S SURROUNDING ENVIRONMENT [THE NEIGHBOURING OCTAHEDRA IN A STACKED CLUSTER] CAN BE TRANSFORMED ON AND PROJECTED TO ITS OWN INTERIOR.

THE IDEA IS TO PORTRAY THE OBJECT'S INTERIORITY AS A DISTORTED IMPRESSION OF ITS SURROUNDING.



DEEP FUTURES 3

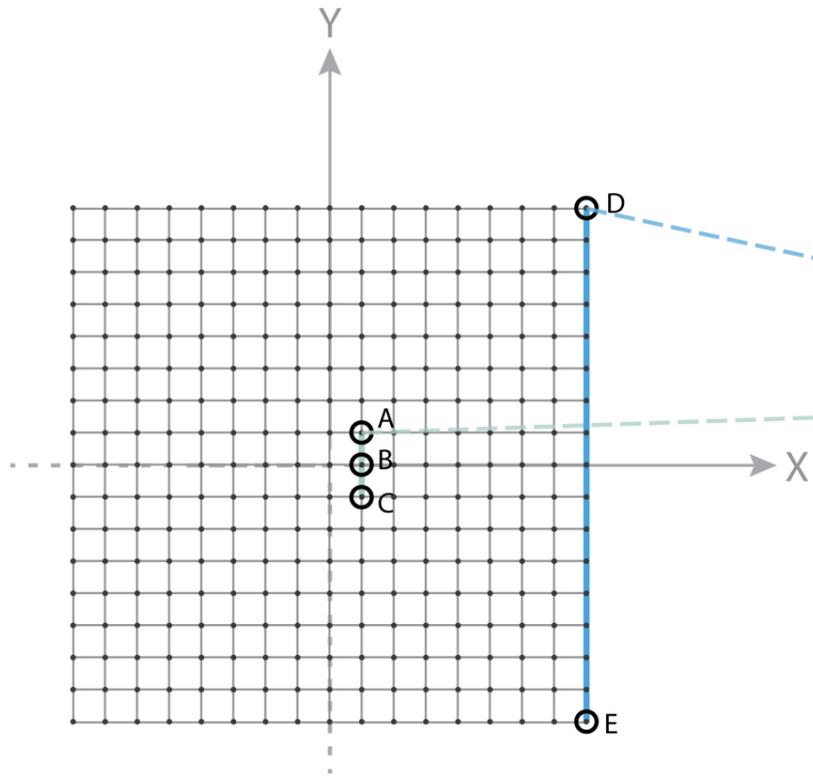
AN EXPO PAVILION FOR THE DEEP FUTURE / GEOMETRICAL STUDY



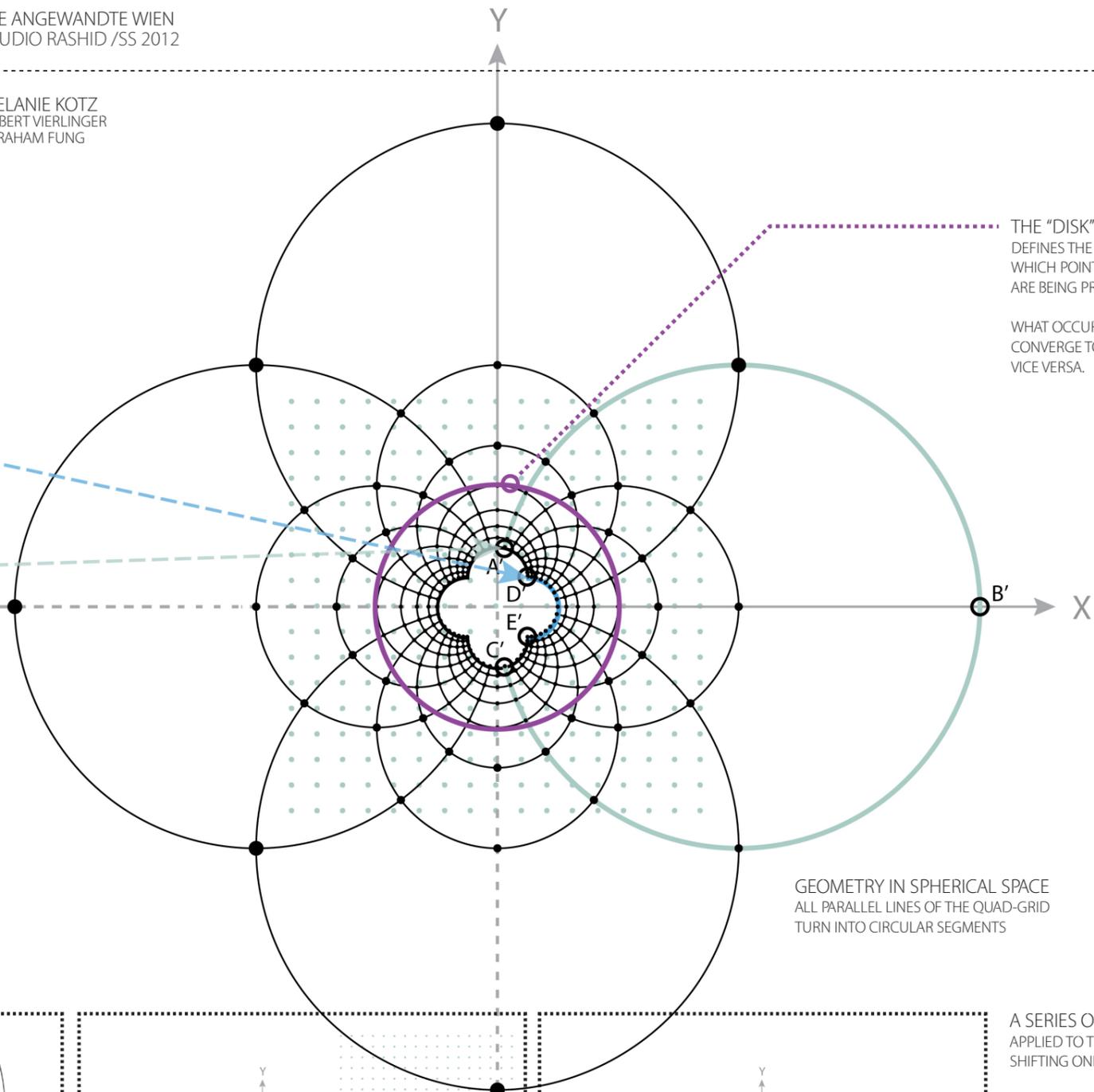
DIE ANGEWANDTE WIEN
STUDIO RASHID /SS 2012

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ROBERT VIERLINGER
ABRAHAM FUNG

FROM EUCLIDIAN TO SPHERICAL SPACE
A SPHERICAL INVERSION IN 2 DIMENSIONS



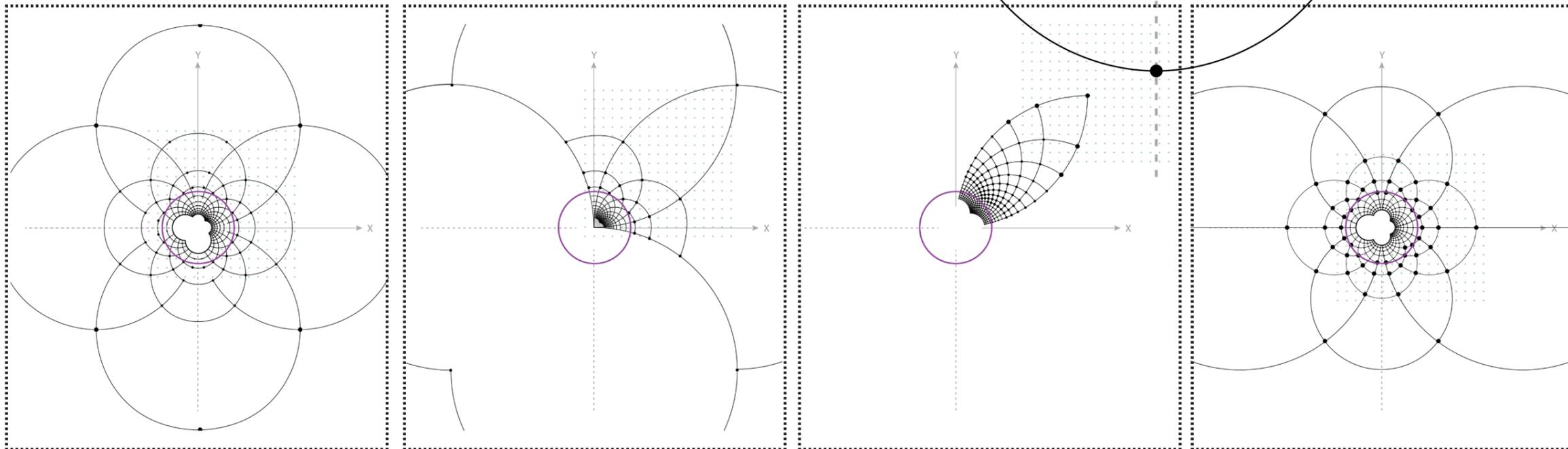
GEOMETRY IN EUCLIDEAN SPACE
A PLANAR QUAD-GRID



GEOMETRY IN SPHERICAL SPACE
ALL PARALLEL LINES OF THE QUAD-GRID
TURN INTO CIRCULAR SEGMENTS

THE "DISK"
DEFINES THE BOUNDARIES OF THE SPHERICAL SPACE,
WHICH POINTS AND LINES OF EUCLIDEAN SPACE
ARE BEING PROJECTED TO AND DISTORTED.

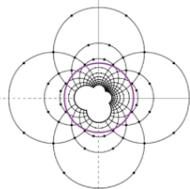
WHAT OCCURS IS THAT FAR AWAY POINTS IN EUCLIDIAN SPACE
CONVERGE TOWARDS THE CENTER IN SPHERICAL SPACE AND
VICE VERSA.



A SERIES OF TRANSLATIONS
APPLIED TO THE PLANAR QUAD-GRID,
SHIFTING ONLY IN THE XY-PLANE.

DEEP FUTURES 3

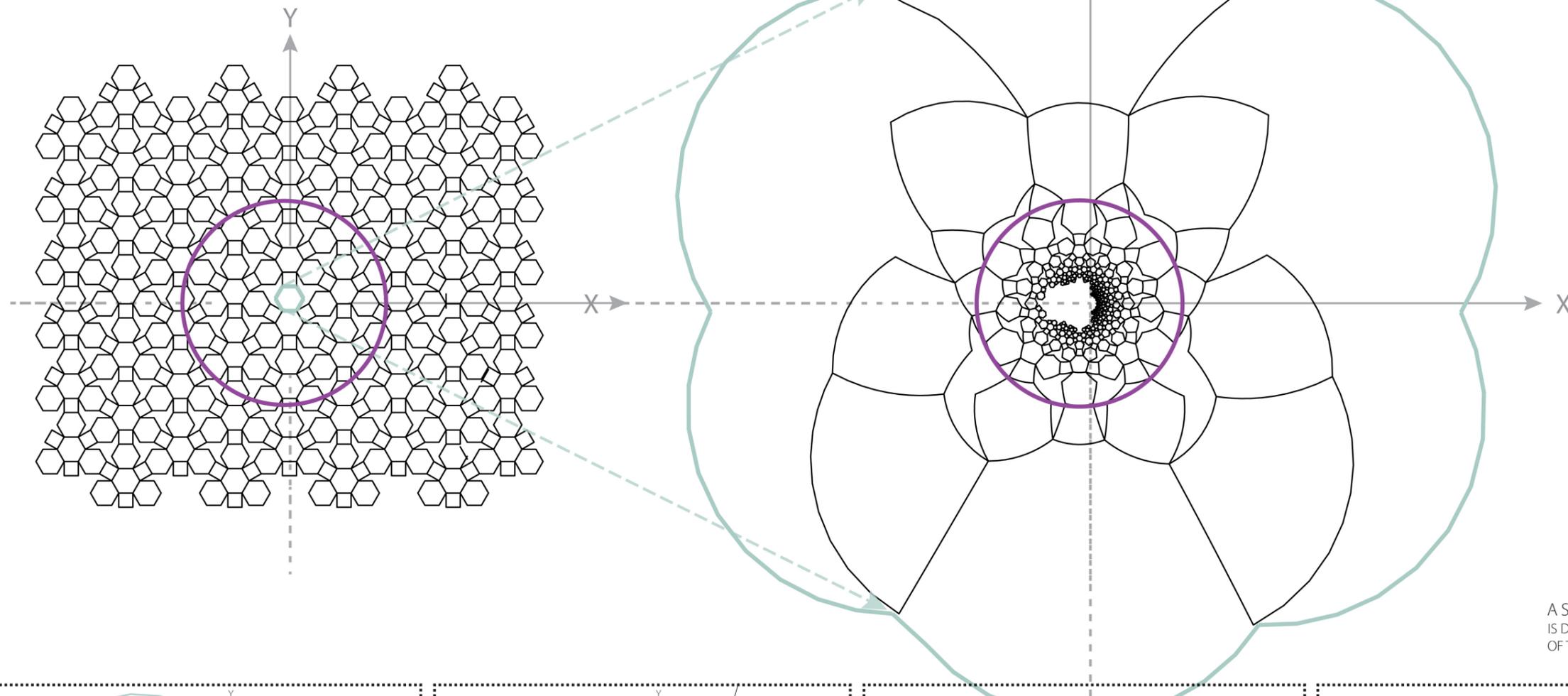
AN EXPO PAVILION FOR THE DEEP FUTURE / GEOMETRICAL STUDY



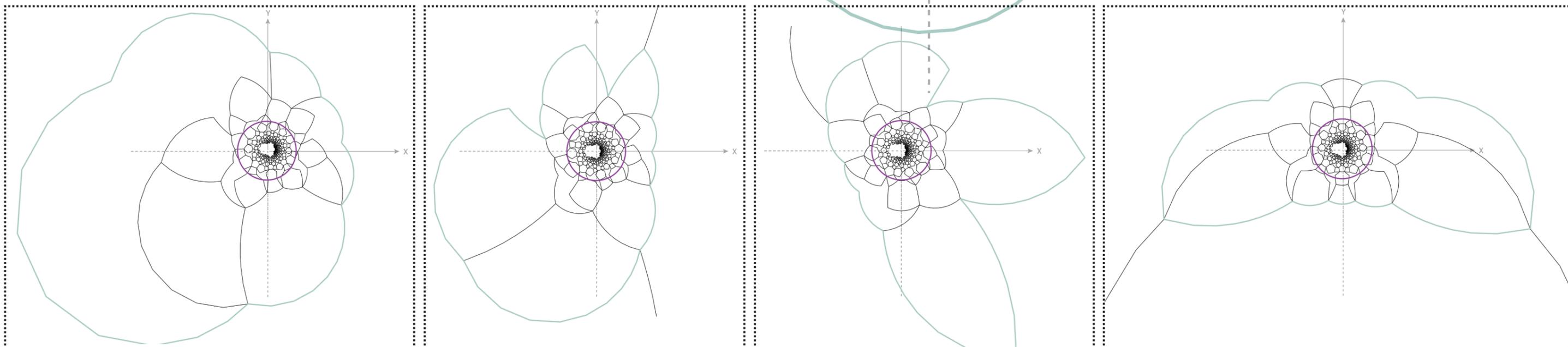
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FROM EUCLIDIAN TO SPHERICAL SPACE
A SPHERICAL INVERSION IN 2 DIMENSIONS

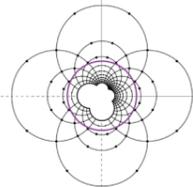


A SECOND PATTERN
IS DERIVED FROM THE UNFOLDED SURFACE
OF THE TRUNCATED OCTAHEDRON



DEEP FUTURES 3

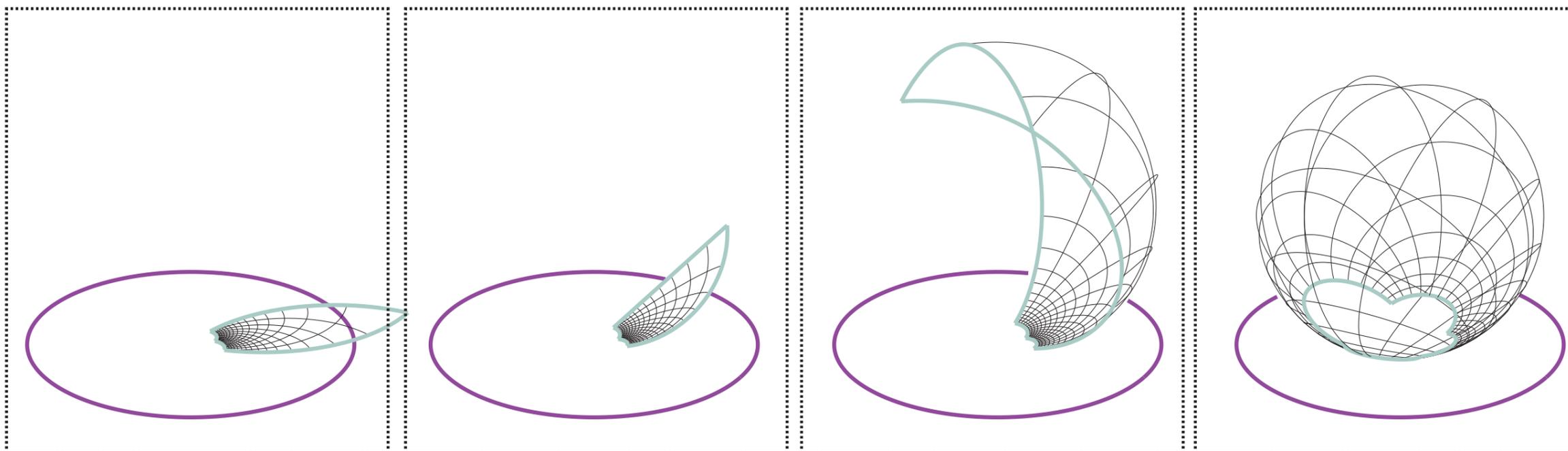
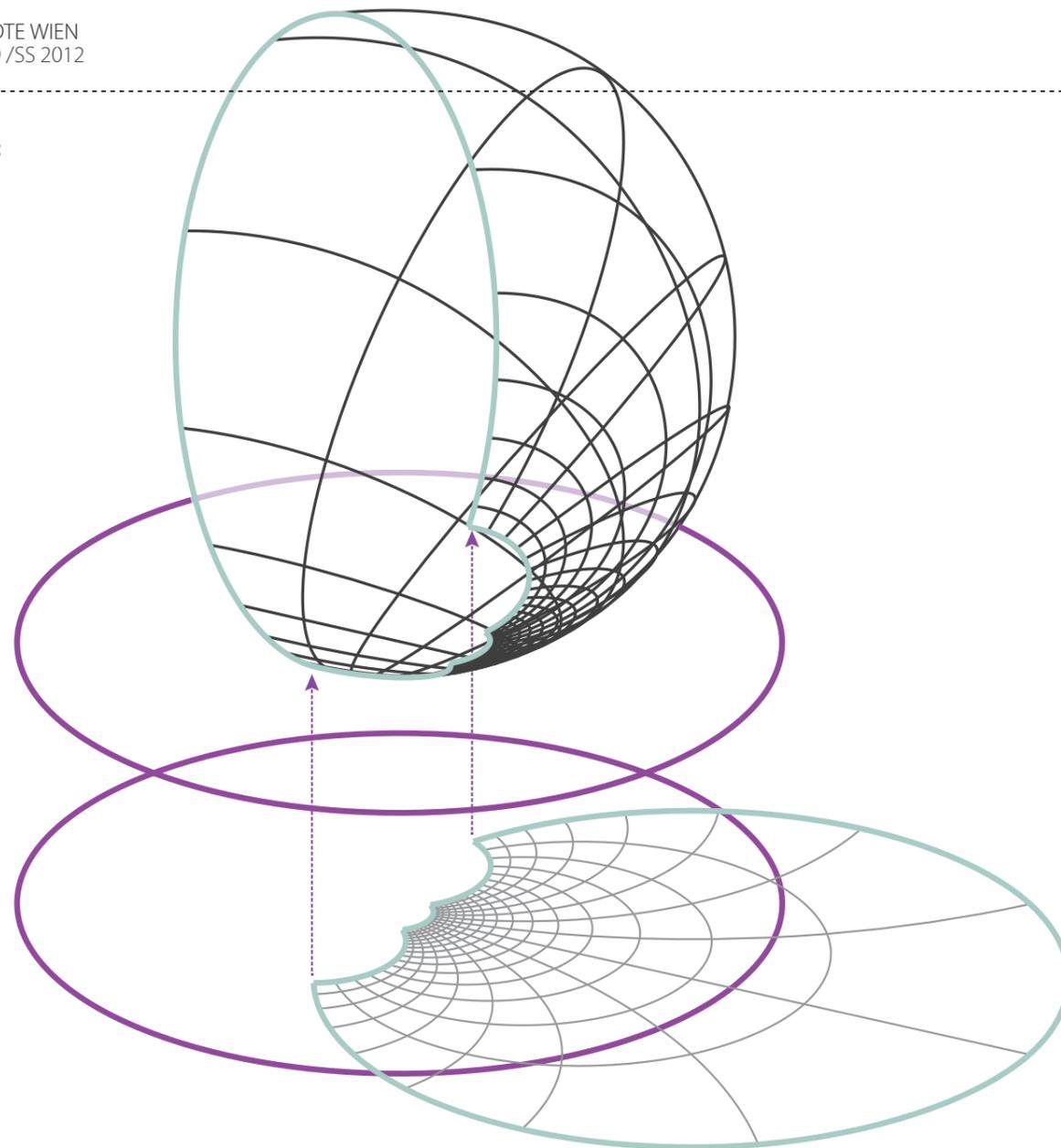
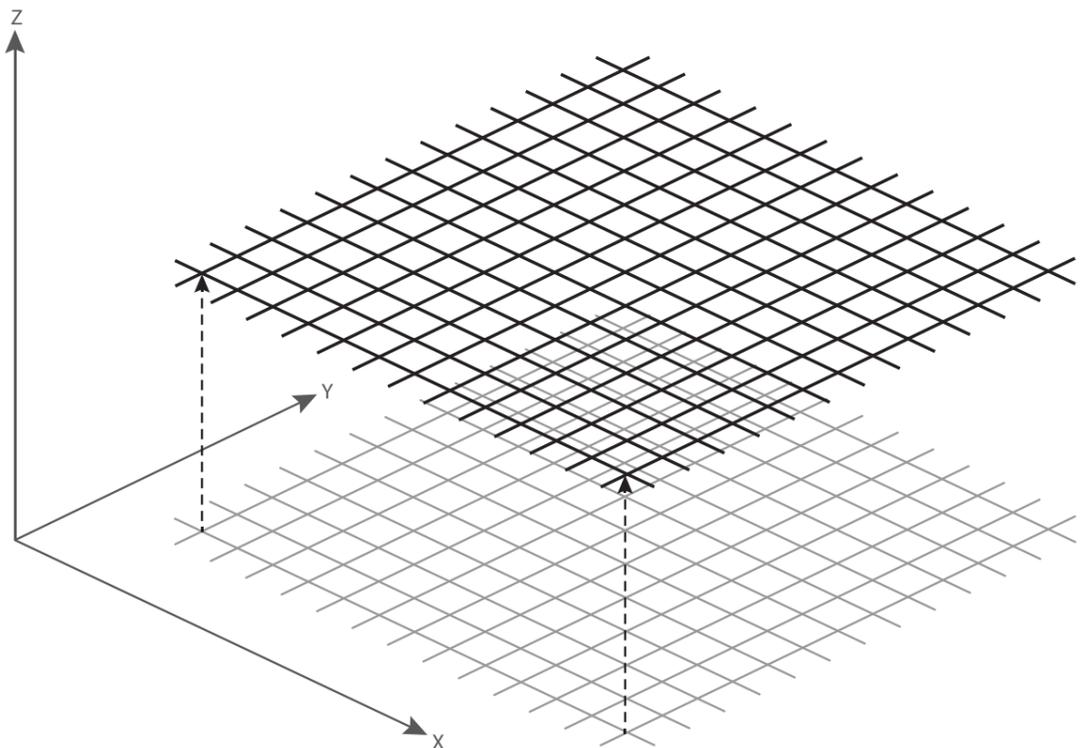
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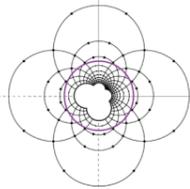
FROM EUCLIDIAN TO SPHERICAL SPACE
A SPHERICAL INVERSION OF 2D GEOMETRY
MOVED IN SPACE



FLAT GEOMETRY
IS NOW BEING MOVED THROUGHOUT SPACE.
THEREFORE, THE FORMER 2 DIMENSIONAL DISK
GETS REPLACED BY A SPHERICAL PROJECTION PLANE.

DEEP FUTURES 3

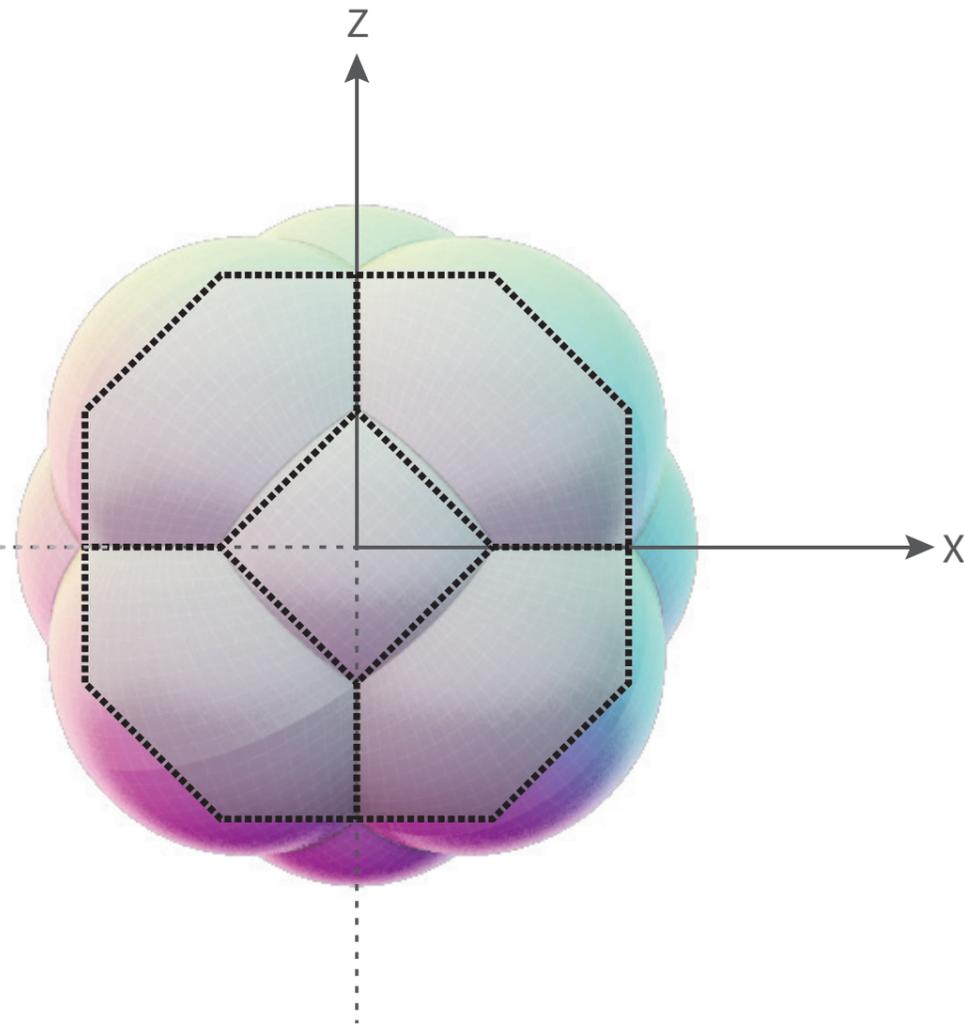
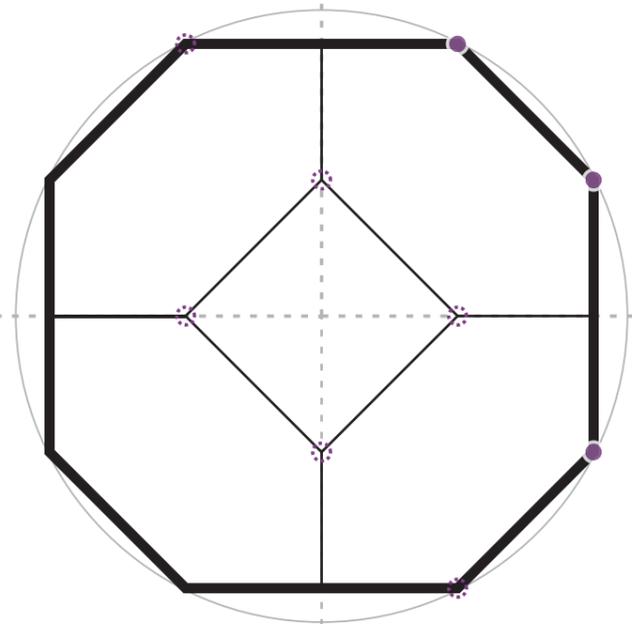
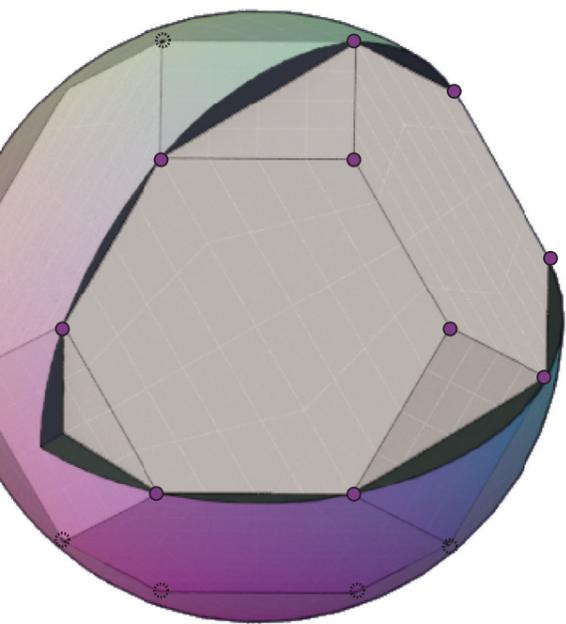
AN EXPO PAVILION FOR THE DEEP FUTURE / GEOMETRICAL STUDY



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FROM EUCLIDIAN TO SPHERICAL SPACE
SPHERICAL INVERSIONS OF 3D OBJECTS

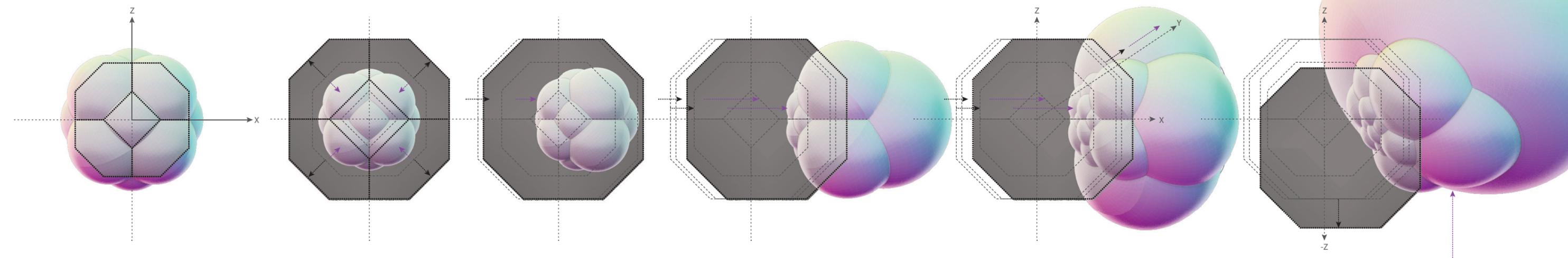


CIRCUMSCRIBED SPHERE
ALL 24 VERTICES LIE UPON A SPHERE,
THE RADIUS BEING THE DISTANCE FROM THE
OCTAHEDRON'S CENTER TO ITS VERTEX

WE CONSIDER THIS SPHERE AS VIRTUAL PROJECTING PLANE, UPON
WHICH ANY KIND OF 3D GEOMETRY CAN BE TRANSFORMED ON,
TURNING INTO "SPHERICAL GEOMETRY". WE START PROJECTING
ONE TRUNCATED OCTAHEDRON.

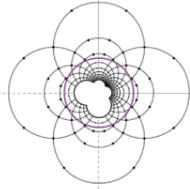
WE CAN SEE THAT A PLANAR SURFACE OF THE EUCLIDIAN SPACE
BULBS OUT TO A SPHERICAL SEGMENT IN SPHERICAL SPACE.

3D GEOMETRY
AS WITH THE 2 DIMENSIONAL STUDIES,
A SERIES OF TRANSLATIONS IS APPLIED TO SPATIAL OBJECTS



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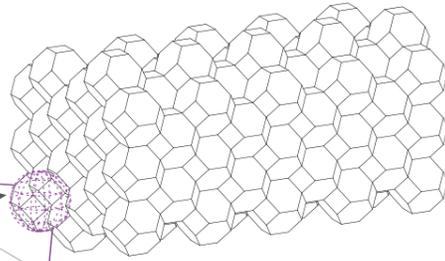


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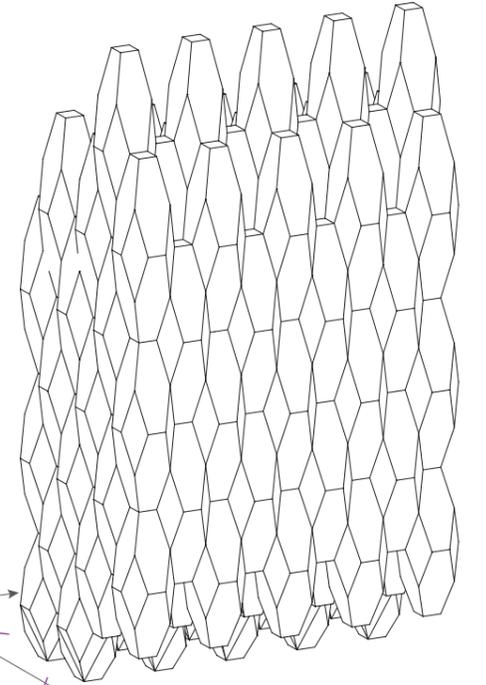
MELANIE KOTZ
ROBERT VIERLINGER
ABRAHAM FUNG

FROM EUCLIDIAN TO SPHERICAL SPACE
A - TRUNCATED OCTAHEDRA STACKED
B - TRUNCATED OCTAHEDRA STACKED & DISTORTED

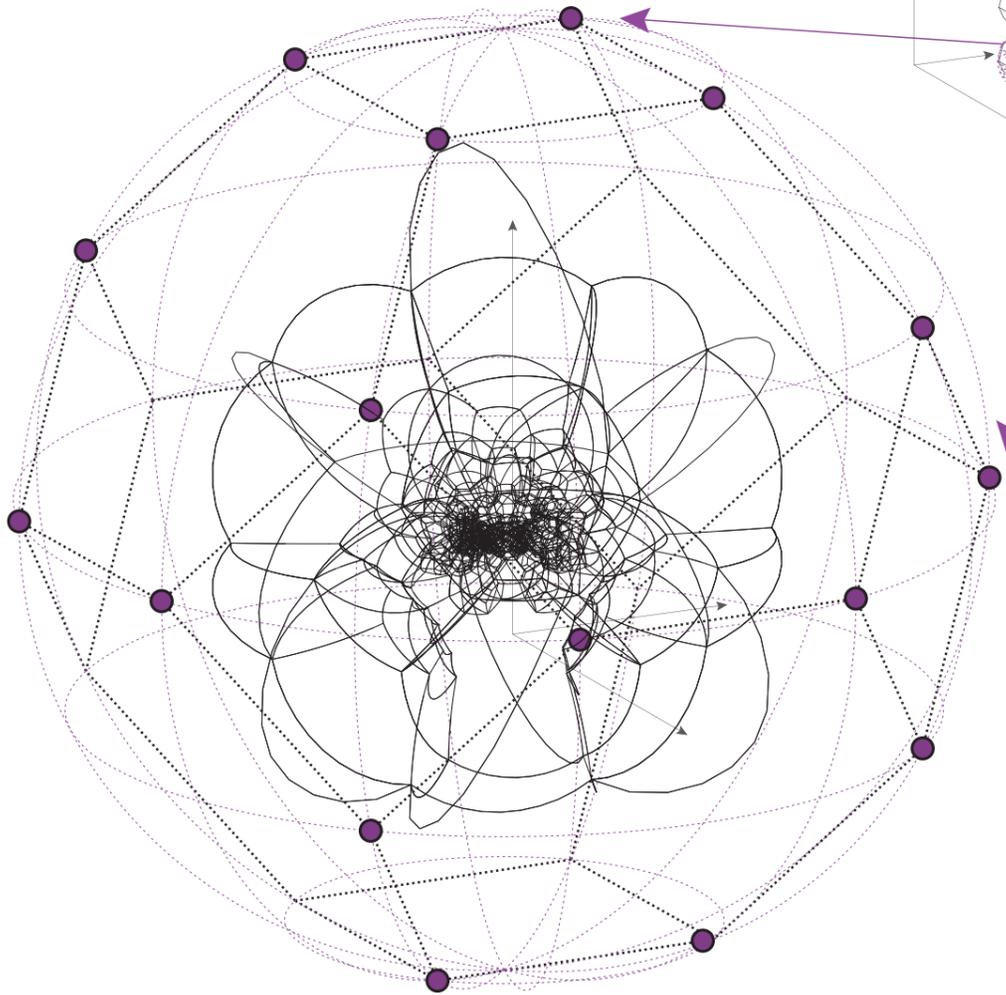
A THREE DIMENSIONAL GRID CONSTRUCTED OF
STACKED TRUNCATED OCTAHEDRA IN EUCLIDEAN SPACE
IS PROJECTED INTO THE SPHERICAL BOUNDS OF THE
TRUNCATED OCTAHEDRON.



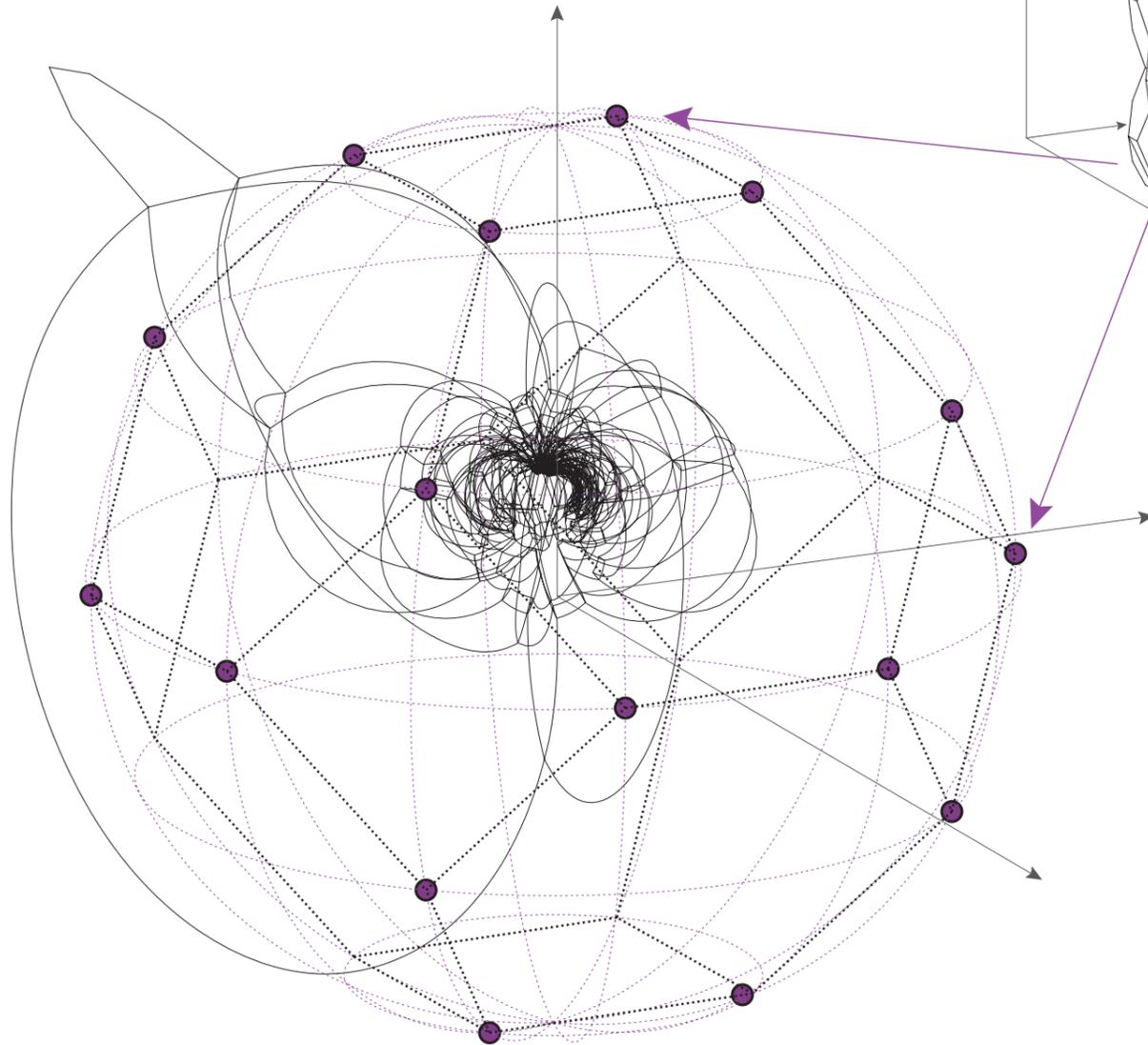
GEOMETRY IN EUCLIDEAN SPACE



GEOMETRY IN EUCLIDEAN SPACE



GEOMETRY IN SPHERICAL SPACE

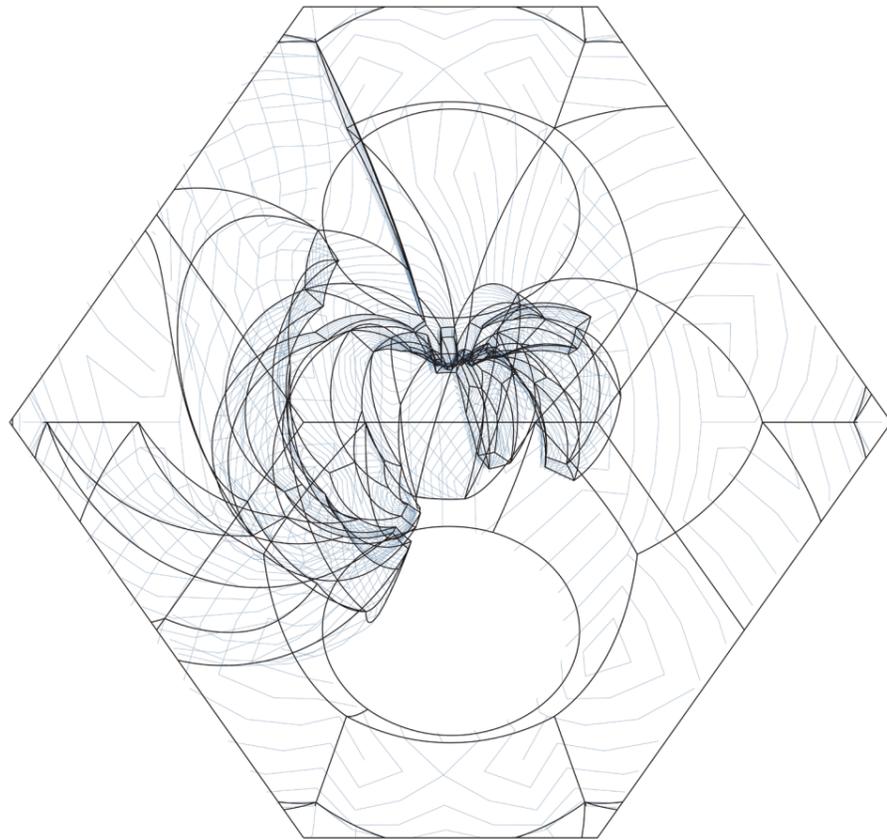
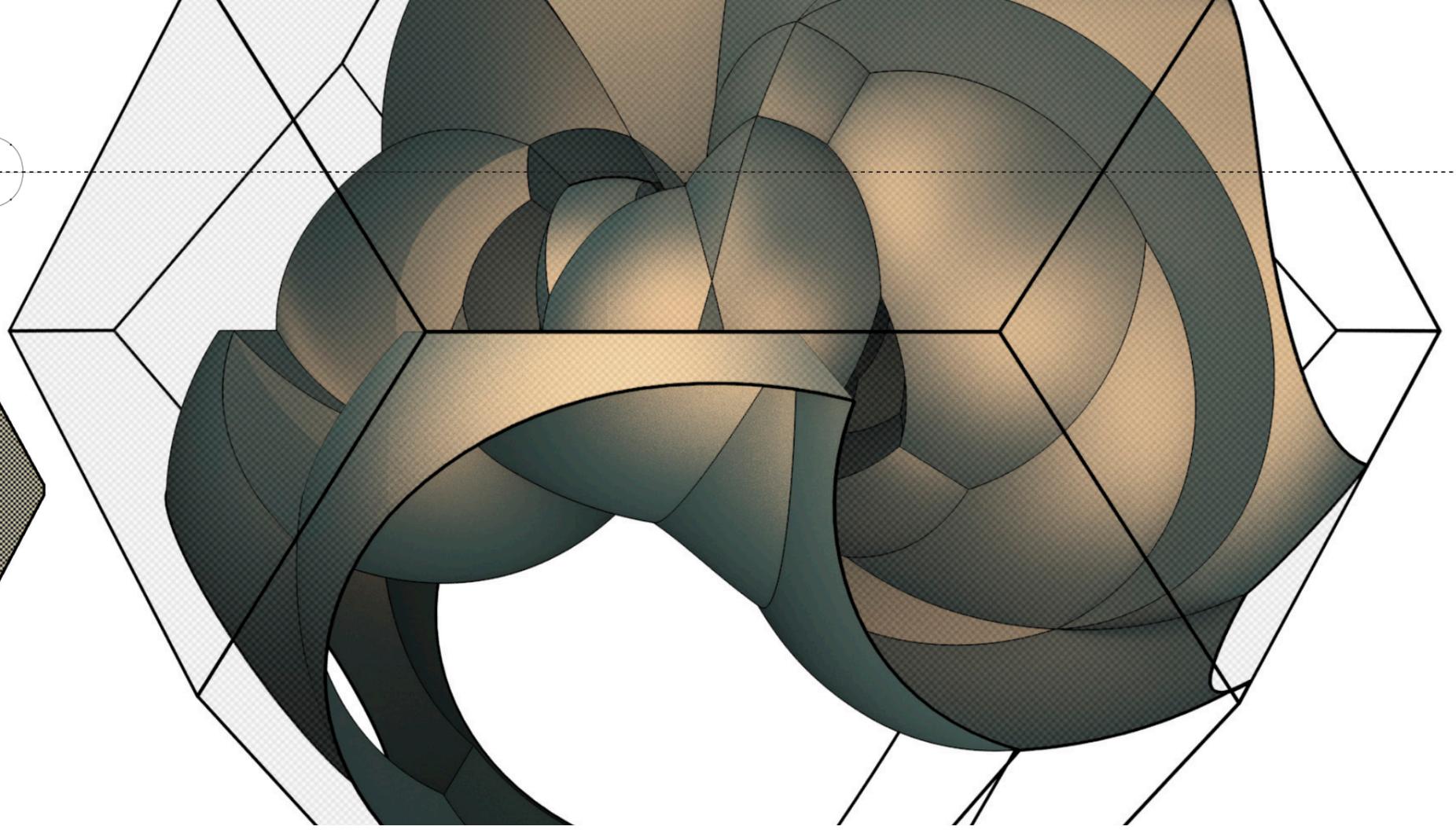
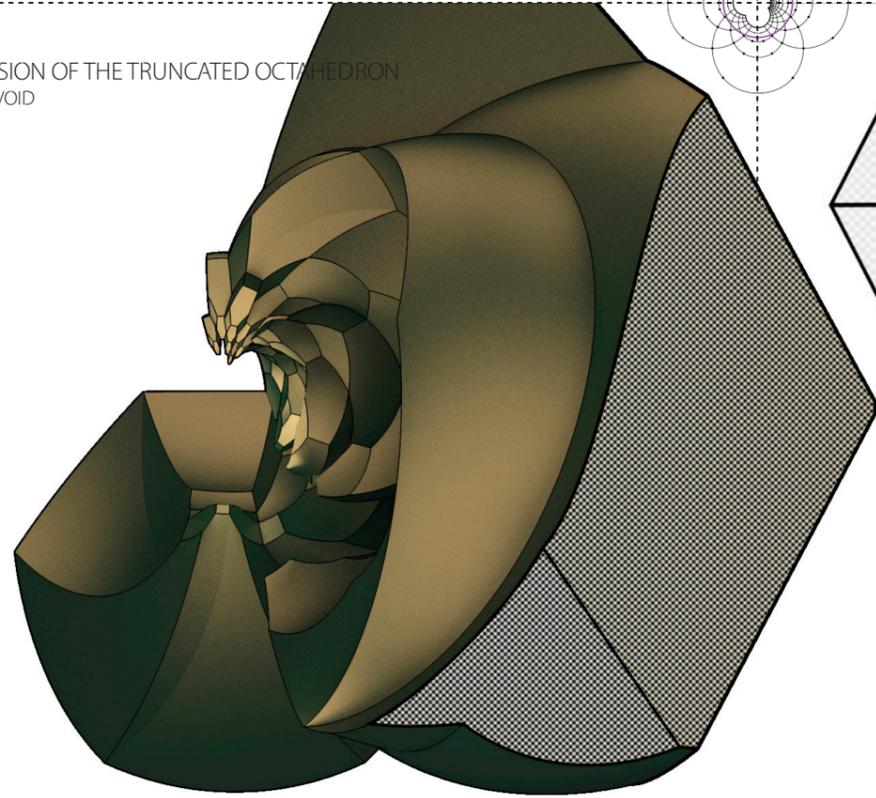
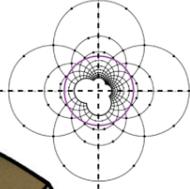


GEOMETRY IN SPHERICAL SPACE

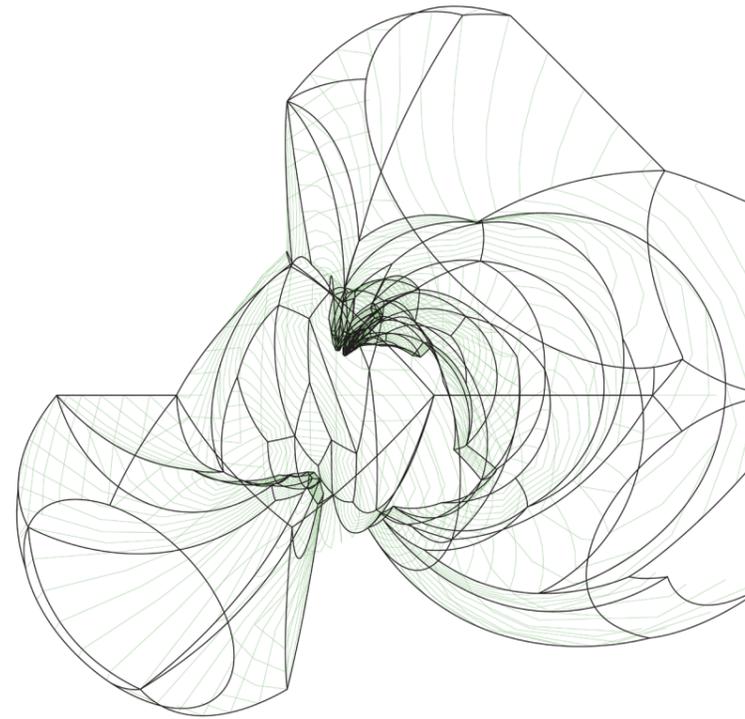
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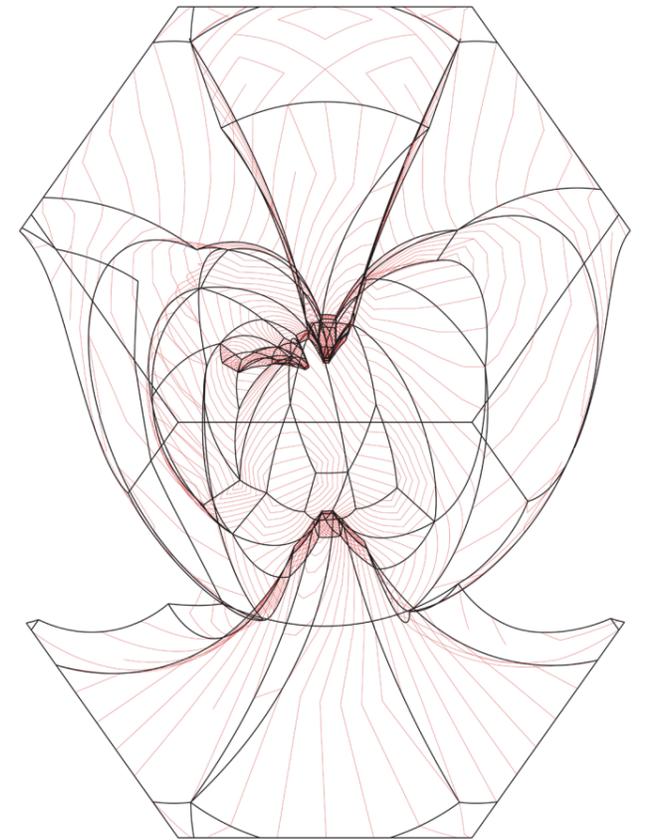
INTERIOR DIVISION OF THE TRUNCATED OCTAHEDRON
INTO 3 SPACES + VOID



BLUE SPACE



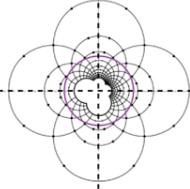
GREEN SPACE



RED SPACE

TECHNOCALYPS

AN EXPO PAVILION FOR THE DEEP FUTURE / FICTIONAL SITE



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BELGIAN VISUAL ARTIST AND FILMMAKER FRANK THEYS DESCRIBES THE PHENOMENON 'TECHNOCALYPS' AS THE CONVERGENCE OF THE FAMOUS APOCALYPTIC IMAGINATION AND THE RISE OF MODERN TECHNOLOGY. THE APOCALYPTIC VISION, WHICH HAS ITS ORIGINS IN RELIGIOUS BELIEVES, SAYS THAT ALL EXISTANCE ON EARTH IS GOING TO BE TRANSFORMED THROUGH THE INFLUENCE OF A DIVINE INTERVENTION, SOMETIME IN THE FUTURE. THEYS' IDEA POSTULATES THAT NOWADAYS' TECHNOLOGY IS ABLE TO TRANSLATE THESE DREAMS AND VISIONS INTO REALITY, NOT BY A DIVINE FIGURE, BUT BY HUMANITY ITSELF. HE THUS CONSTRUCTS A NOTION OF THE WORLD AND TIME THAT WE LIVE IN, IN WHICH RELIGIOUS BELIEVES AND SCIENTIFIC DEVELOPMENTS BECOME A CONVERGING CIRCUMSTANCE.

THIS PROJECT IS AN ARCHITECTURAL EXPERIMENT INSPIRED BY THEYS' IDEA OF THE 'TECHNOCALYPTIC AGE'.

AN EXPO PAVILION FOR THE CITY OF THE FUTURE - THE BRIEF DEMANDS THE DESIGN OF A PAVILION THAT HOLDS AN EXHIBITION DEDICATED TO A CERTAIN MOVEMENT FREE TO CHOOSE AMONG THE TECHNOLOGICAL AGE. THE WHOLE THING SHOULD NOT EXCEED THE GEOMETRICAL BOUNDARIES OF A TRUNCATED OCTAHEDRON, AN OBJECT WITHIN THE GROUP OF PLATONIC SOLIDS THAT HAS THE RARE PROPERTY OF BEING STACKABLE WITHOUT LEAVING ANY GAPS - A SPACE-FILLING POLYHEDRON.

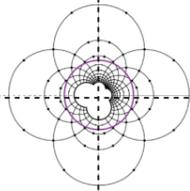
TECHNOCALYPS IS A PLACE THAT ACTS AS SPATIAL REPRESENTATION OF THE IDEA THAT THE WORLD WE LIVE IN IS MORE THAN ONLY A SINGLE REALITY. THERE EXIST PERHAPS MANY OTHER REALITIES THAT WE BEGIN TO REALIZE NOW THROUGH THIS AGE OF ADVANCED TECHNOLOGY. WHAT WE SEE, FEEL AND SENSE OF THIS WORLD, CAN SOMETIMES HAVE ANOTHER FACE. TECHNOCALYPS ATTEMPTS TO SHOW THE EXHIBITION VISITORS THIS COEXISTENCE OF SEVERAL FORMS OF REALITY IN A SPATIAL SCENARIO.



TECHNOCALYPS

AN EXPO PAVILION FOR THE DEEP FUTURE / FICTIONAL SITE

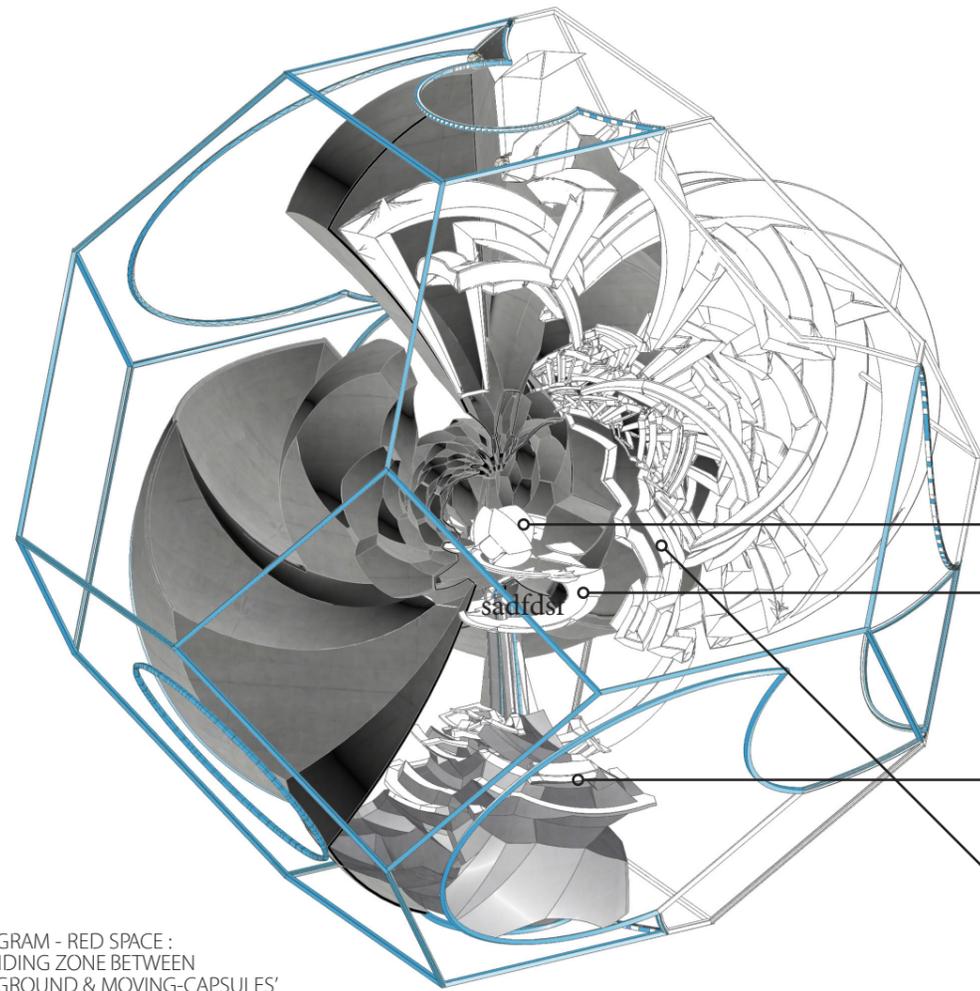
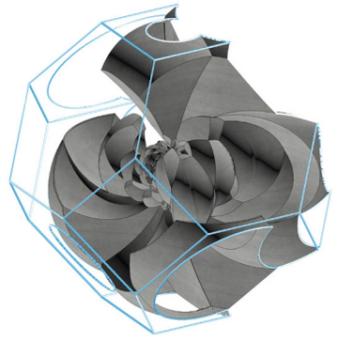
ORGANIZATION OF PROGRAM IN SPACES



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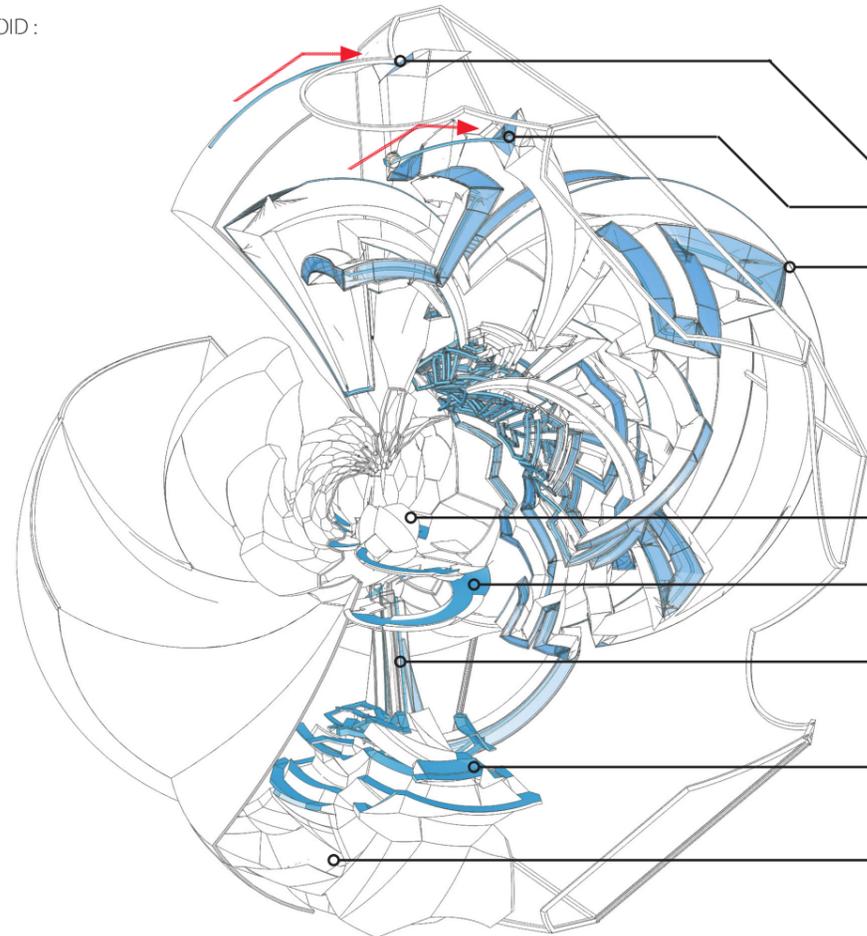
AXONOMETRIC CUT
ORGANIZATION OF PROGRAM IN SPACES



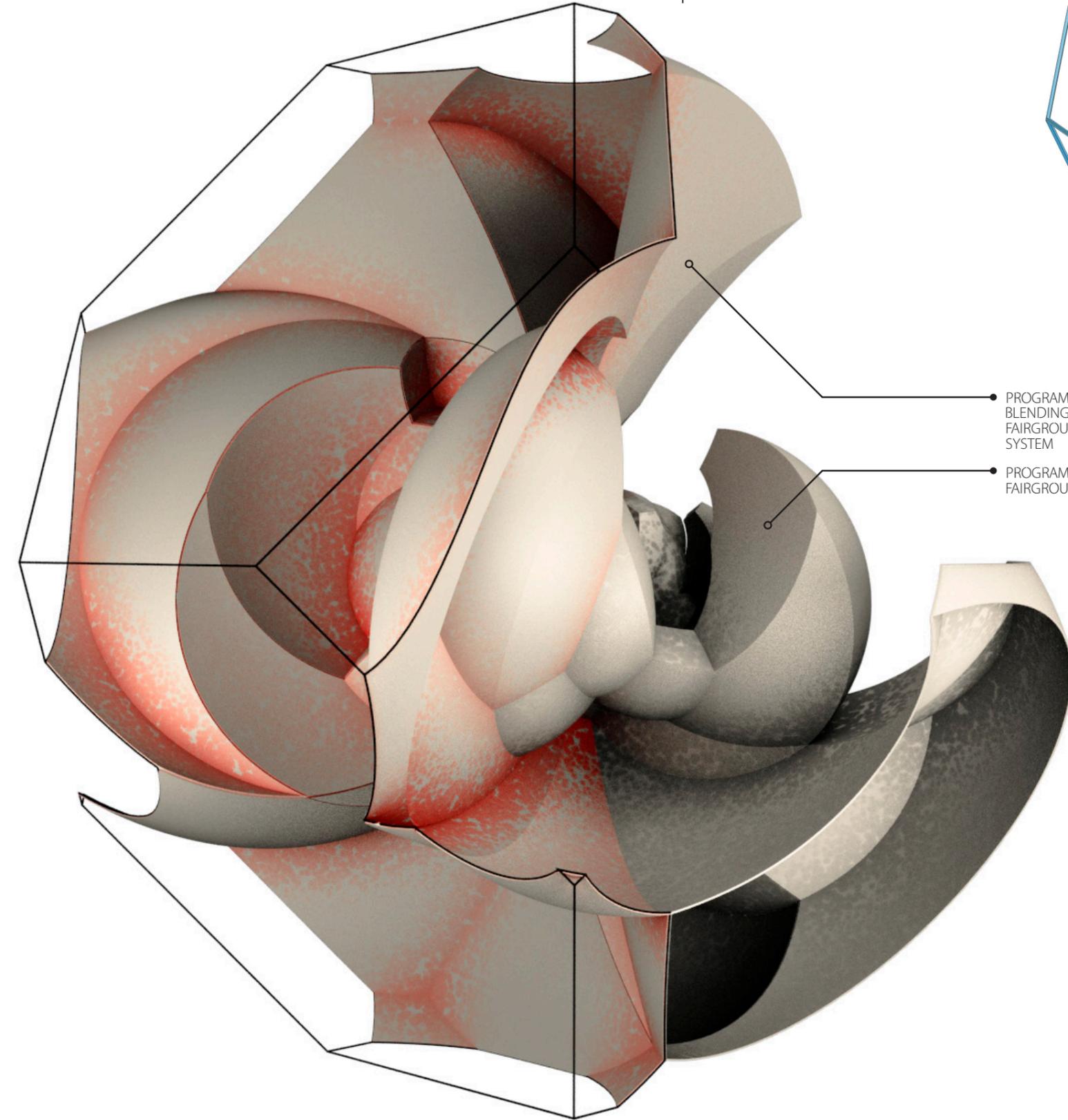
- ④ PLANETARIUM
- ③ HOUSE OF MIRRORS + LABYRINTH
- ② LABYRINTH + ROLLERCOASTER
- ① ROLLERCOASTER + MOVING-CAPSULES-SYSTEM -BLENDING ZONE

- PROGRAM - RED SPACE : BLENDING ZONE BETWEEN FAIRGROUND & MOVING-CAPSULES' SYSTEM
- PROGRAM - VOID : FAIRGROUND

AXONOMETRIC CUT
CIRCULATION

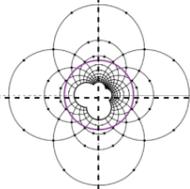


- ENTRANCES 1 & 2
- LABYRINTHIC CONTINUOUS ROLLERCOASTER RAILS - 1 & 2
- PLANETARIUM
- HOUSE OF MIRRORS
- ELEVATORS
- LABYRINTH MOUNTAIN
- CONCERT HALL



TECHNOCALYPS

AN EXPO PAVILION FOR THE DEEP FUTURE / FICTIONAL SITE



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STUDIO RASHID /SS 2012

MELANIE KOTZ

THEORY - HOUSE OF MIRRORS

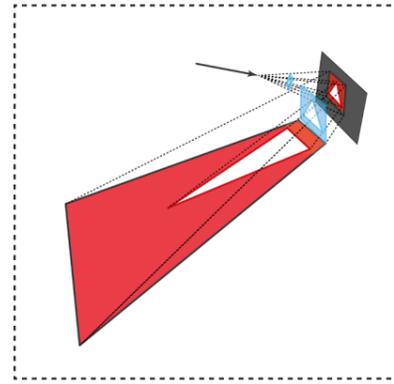


ANALOGIES IN RELIGION TO MODERN TECHNOLOGY - TRANSHUMAN IDEA
TECHNOLOGY TRANSLATES DREAMS & VISIONS MANIFESTED IN RELIGIOUS MOVEMENTS
--> ASSUMPTION OF WELL ACCEPTANCE OF HINDU PEOPLE / OTHER RELIGIONS TOWARDS THE PROSPECT OF A TECHNOLOGICAL TRANSHUMAN FUTURE

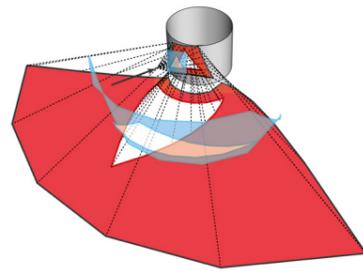
RELIGION & SCIENCE - MAGIC & TECHNOLOGY
IF THE PHYSICAL WORLD BECOMES AS EASY TO TRANSFORM AS THE VIRTUAL ONE,
WHERE DO WE DRAW THE LINE BETWEEN SCIENCE AND RELIGIOUS BELIEF

TEMPEL OF SCIENCE
SHOWSPACE DISPLAYING THE CONVERGENCE OF SCIENCE & RELIGION BY MEANS OF ARCHITECTURAL ELEMENTS - A SPATIAL DISPLAY OF THE NOTION OF THE REAL AND THE SURREAL OVERLAPPING IN PARALLEL WORLDS DEPENDING ON THE SPECTATOR'S POINT OF VIEW

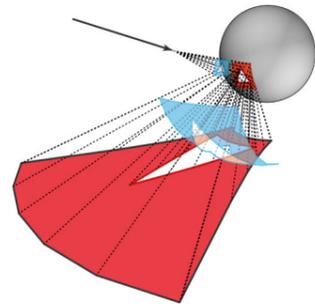
TECHNOLOGY - SPHERICAL MIRRORS & ANAMORPHISMS
DISTORTED IMAGE ON GROUND REFLECTS UNDISTORTED IN THE VERTICALLY PLACED MIRROR WHEN VIEWED FROM A CERTAIN POSITION IN SPACE



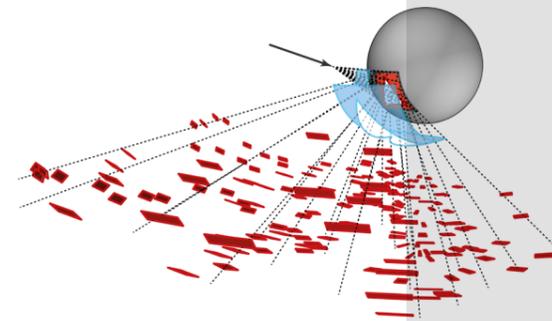
CLASSICAL FLAT MIRROR REFLECTION



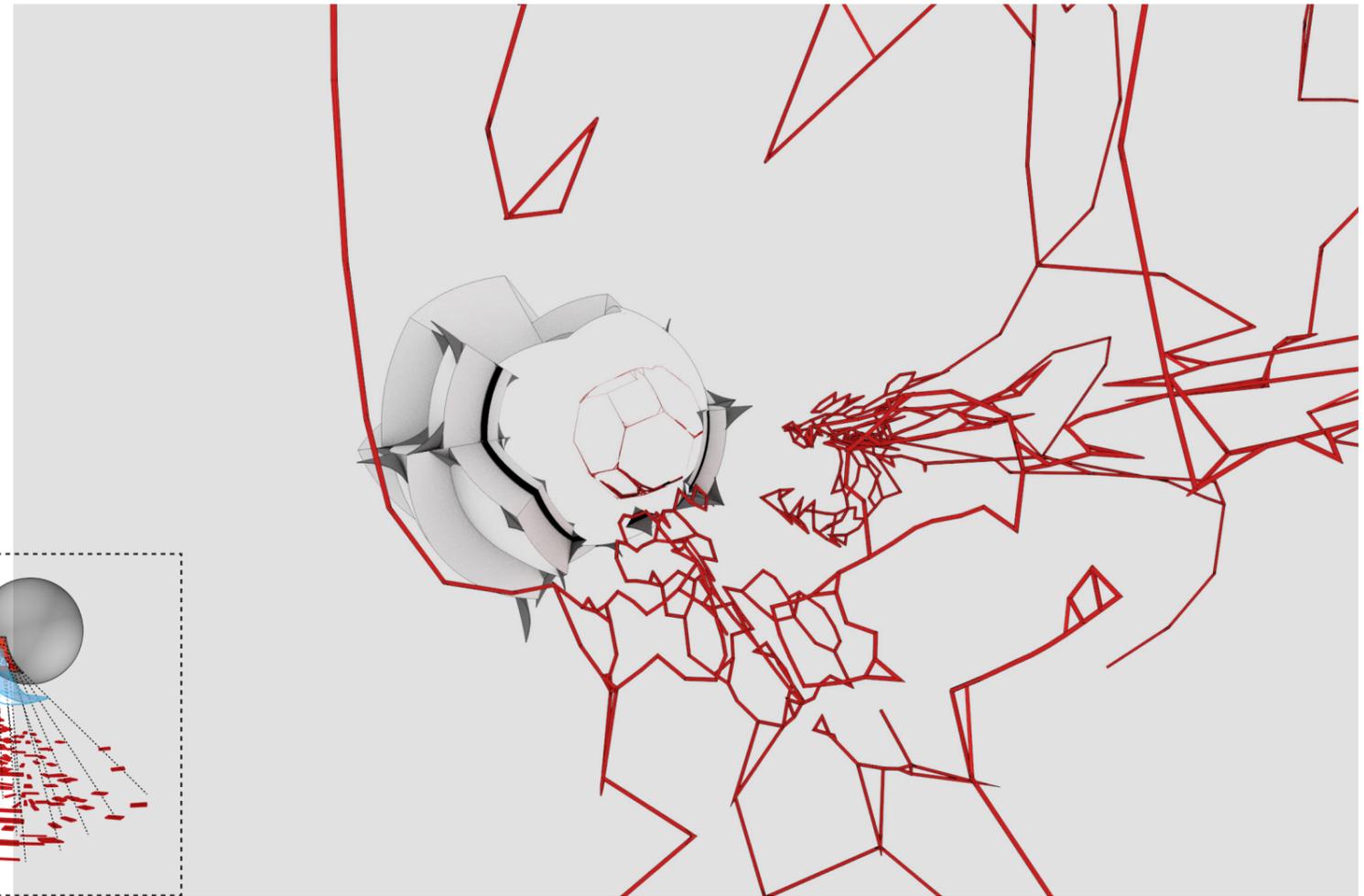
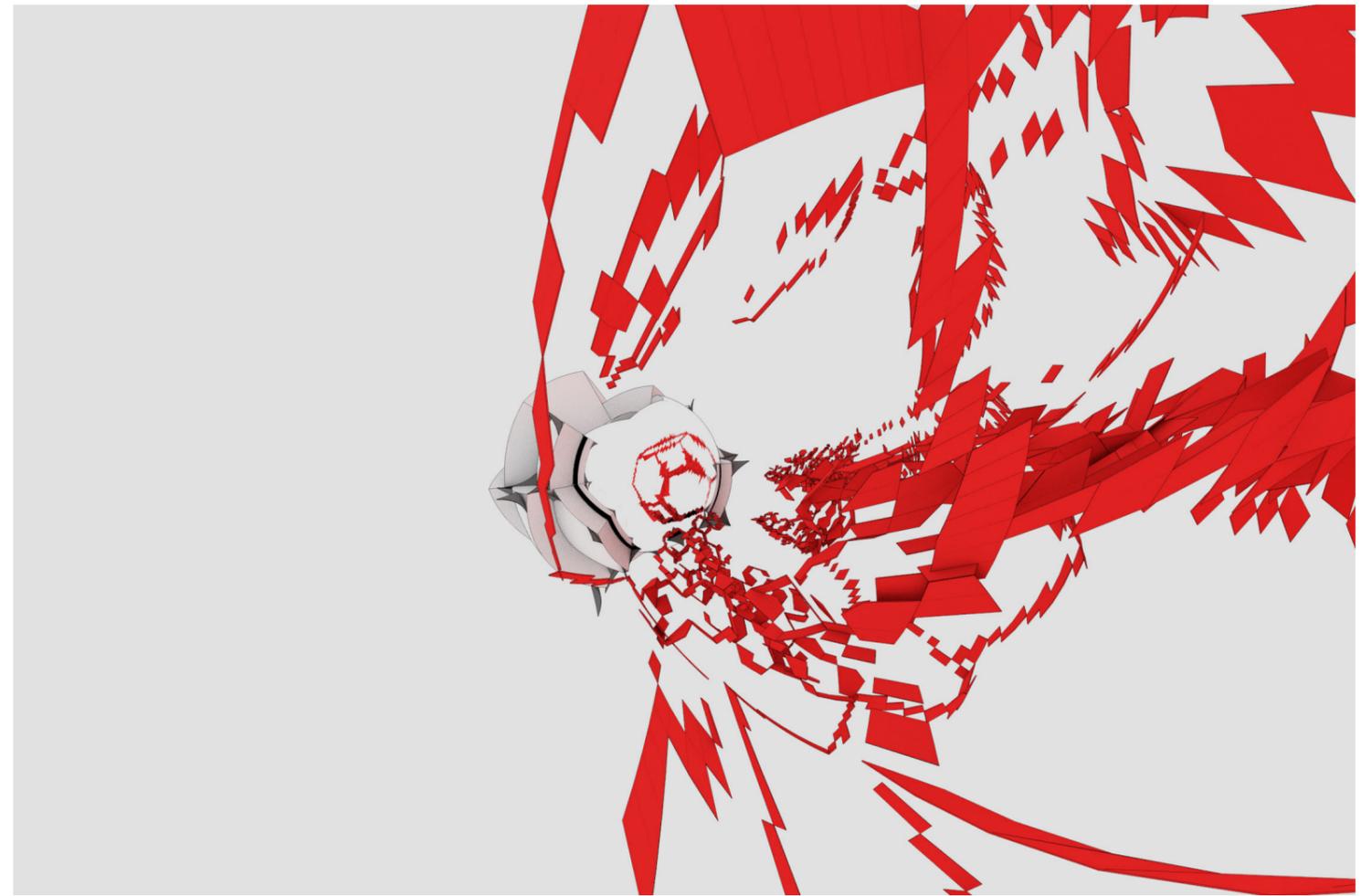
CURVED MIRROR REFLECTION
DISTORTED ON A CYLINDER



CURVED MIRROR REFLECTION
DISTORTED ON A SPHERE



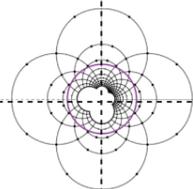
CURVED MIRROR REFLECTION
DISTORTED IMAGE IS SCATTERED IN SPACE ALONG PROJECTION RAYS



THE MOMENT WHEN YOU QUESTION THE RELIABILITY OF YOUR PERCEPTION OF REALITY

TECHNOCALYPS

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IMPRESSION - HOUSE OF MIRRORS

A VIEW ON THE OUTER SHELL OF THE AUDITORIUM, WHICH REFLECTS
BACK THE UNDISTORTED IMAGE OF THE SPATIALLY DISTORTED SCULPTURE
SCATTERED IN SPACE, TO BE SEEN FROM THIS PERSPECTIVE

