

FROM TECHNIQUE TO DESIGN PERSPECTIVE

CFC 4 convention, Colchester 2024

Ynon Toledano



WHO AM I?

- Live in Jerusalem, Israel
- Started to fold at age 7, and to design at age 15
- Member of the OrigamIsrael board
- Currently an industrial design student in Bezalel Academy of Arts and Design



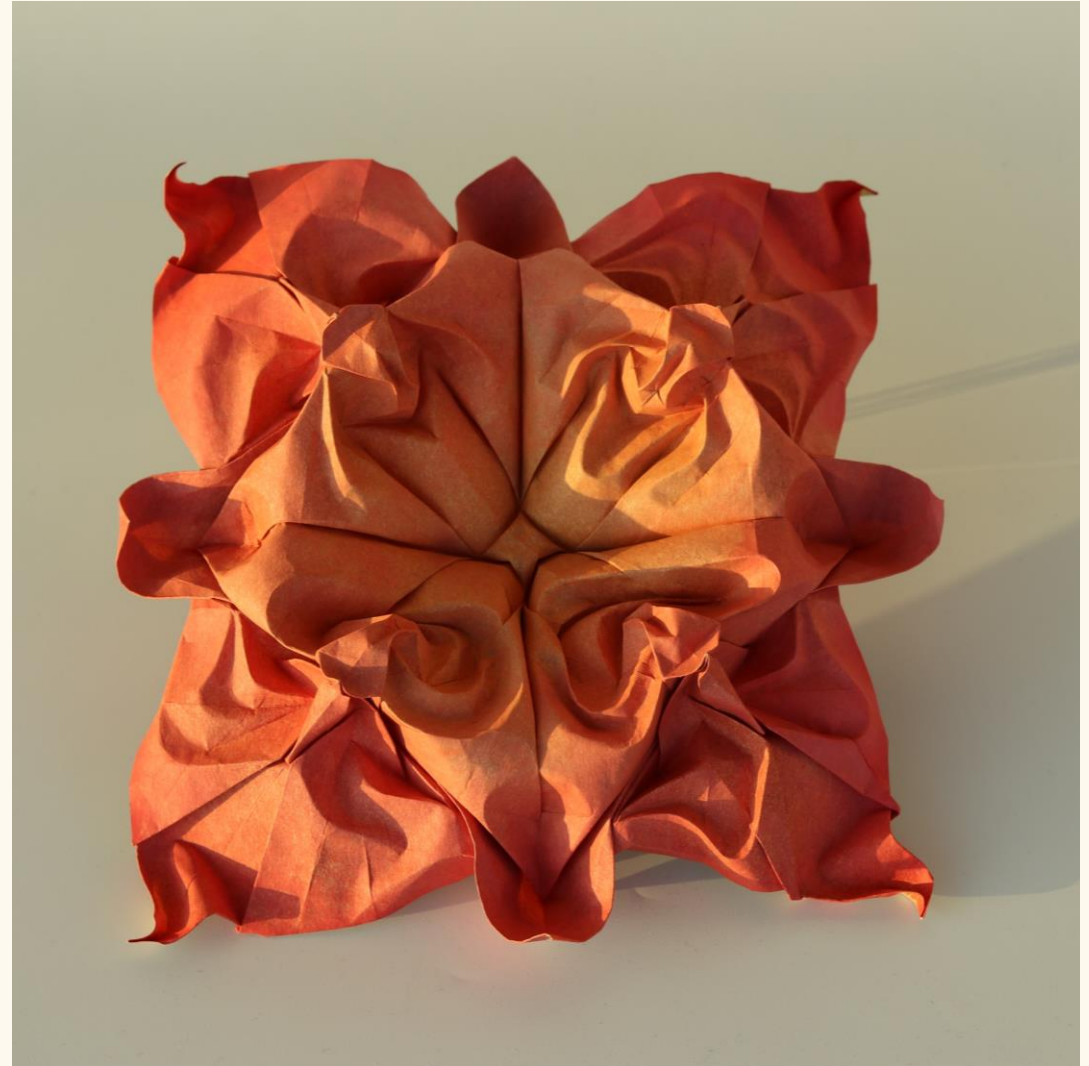
ORIGAMI MASKS



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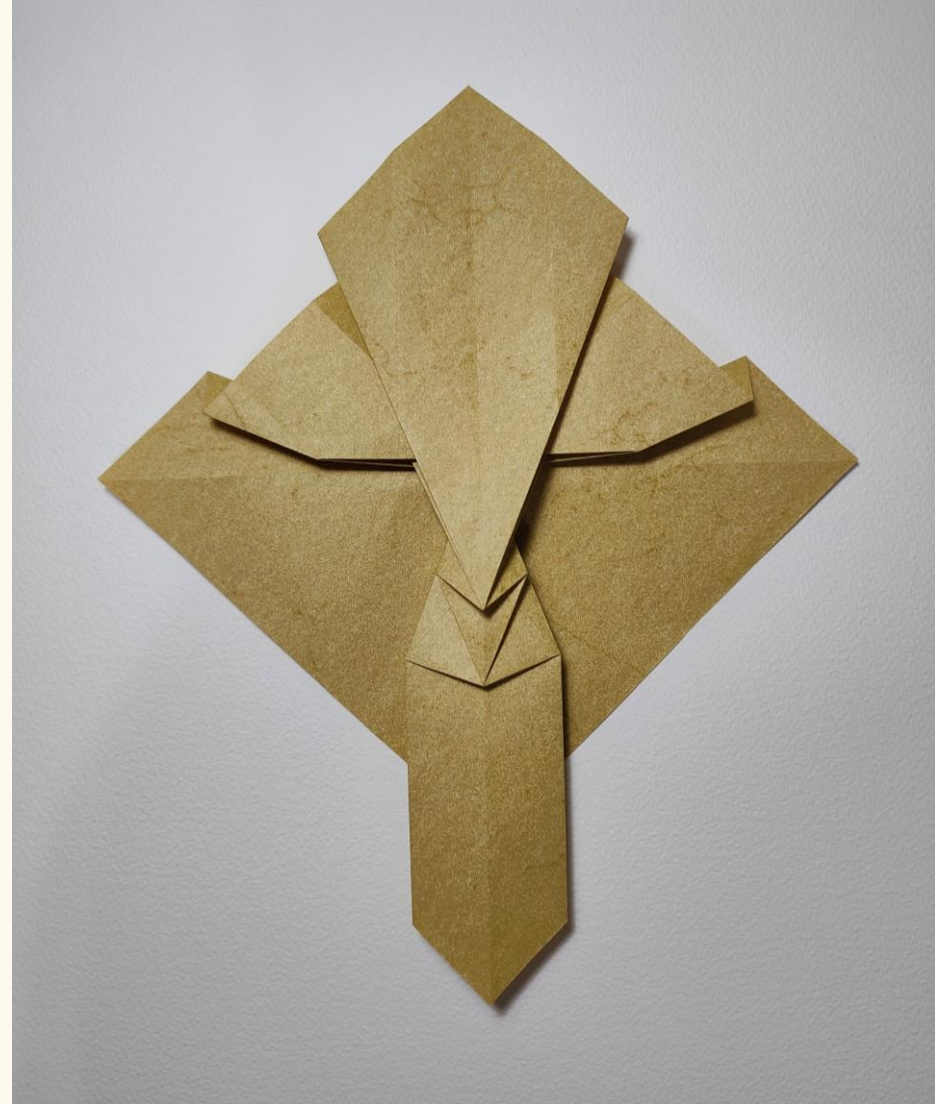


ORIGAMI MASKS



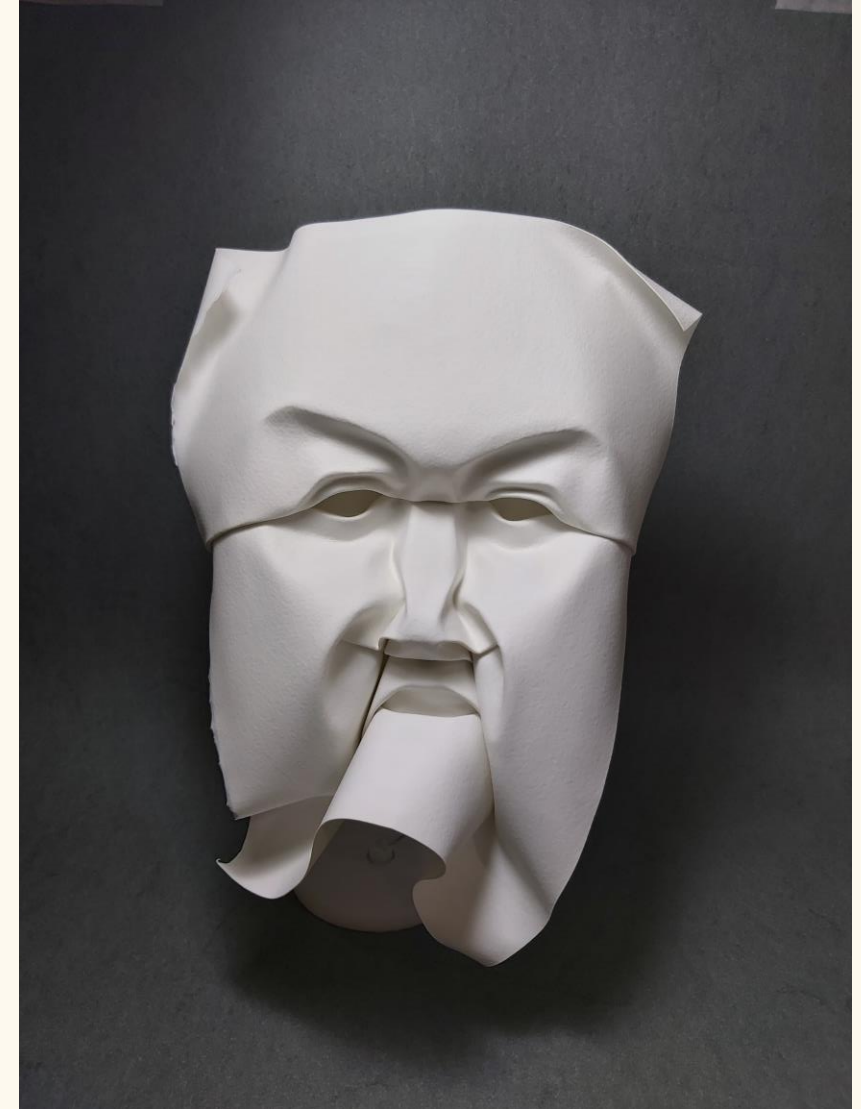
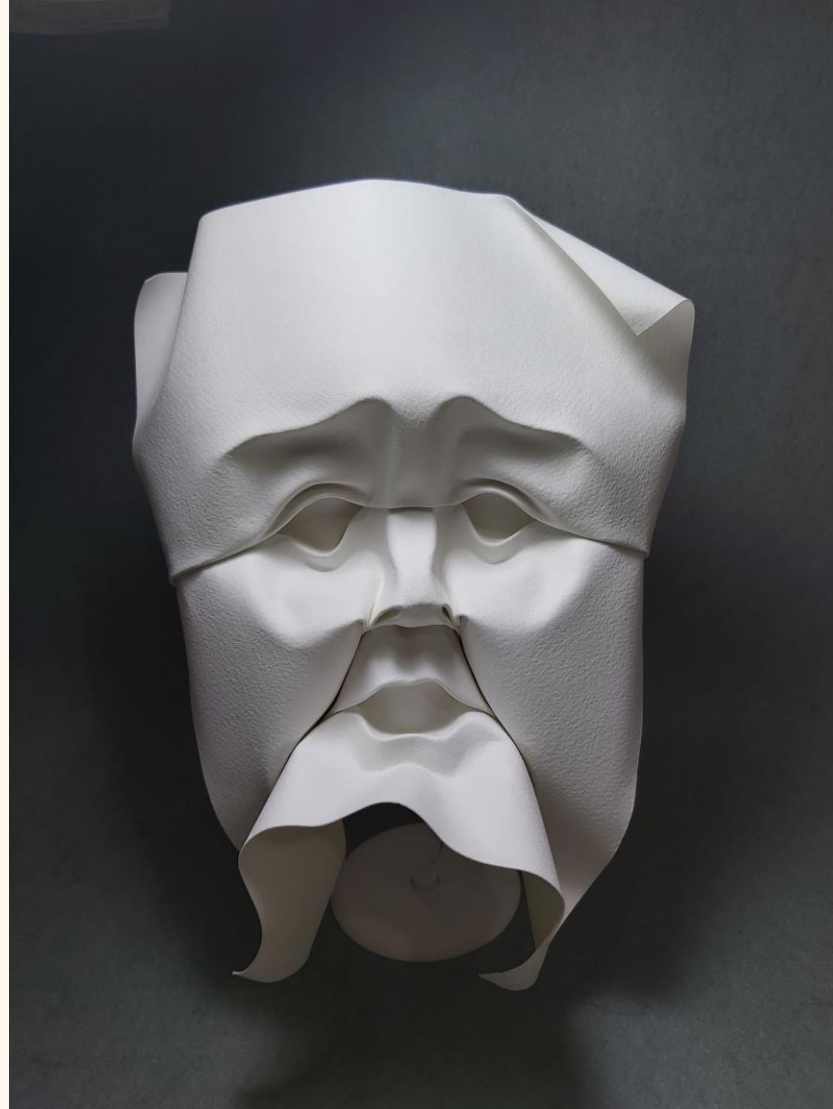
MASKS – DESIGN PROCESS

- Exploration of the human face
- **Guiding principles:**
 - Aesthetics
 - Layer manipulation - reduction and reorganization of layers
 - Changing volumes

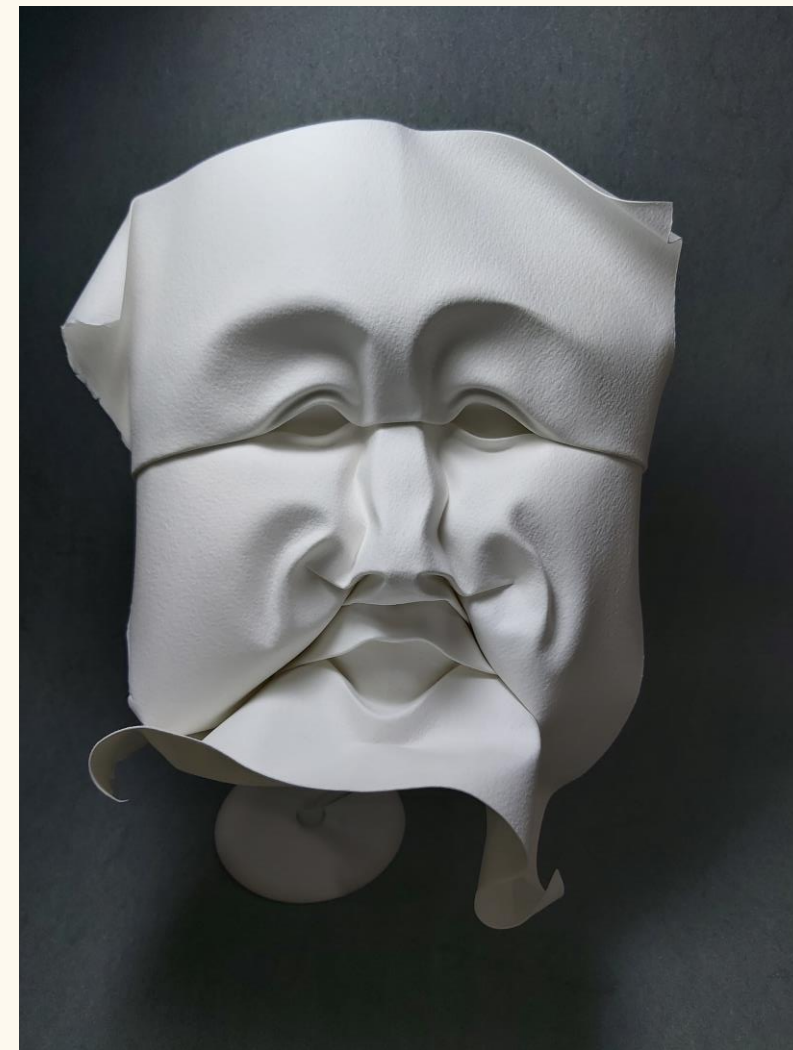


FACIAL EXPRESSIONS

- Analysis of facial expression changes in each facial feature.
- From this understanding, design the manipulation of the layers.



FACIAL EXPRESSIONS



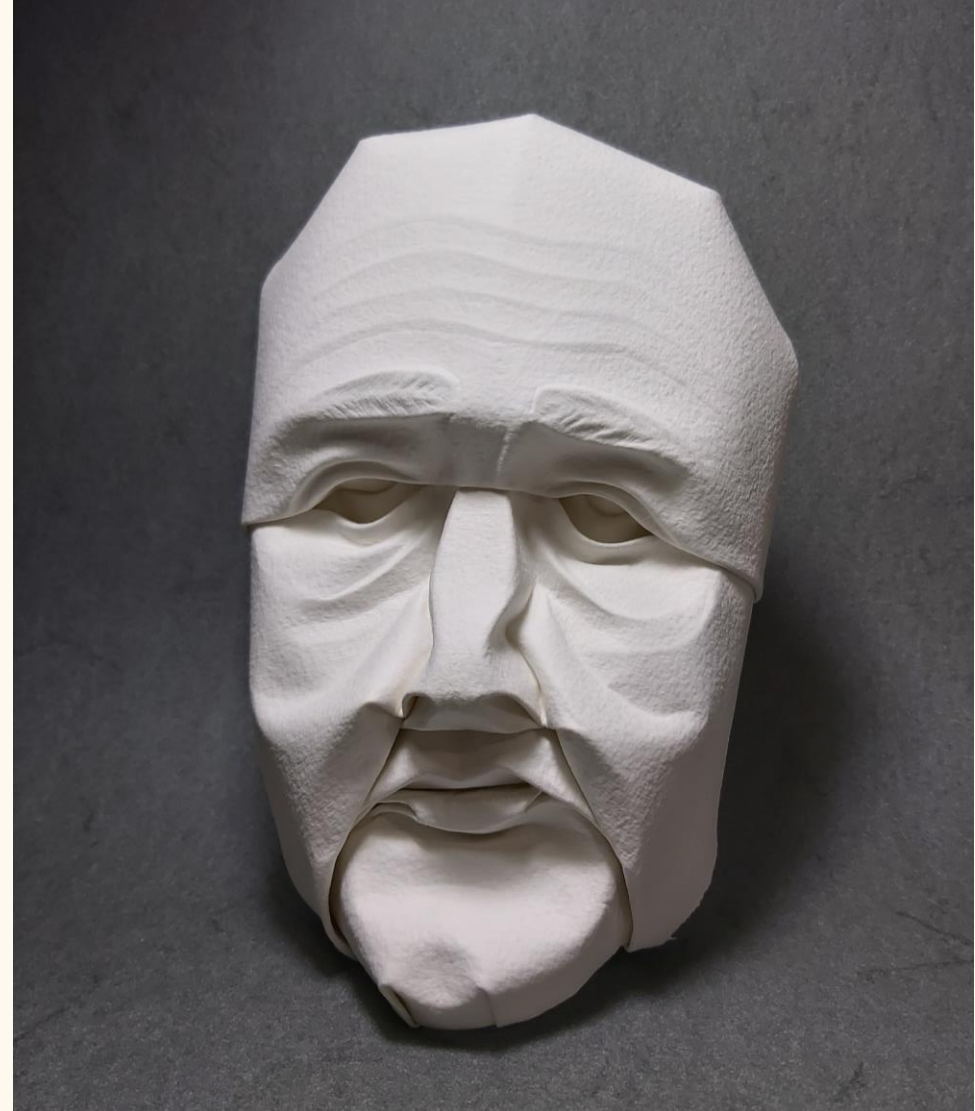
MASKS – FROM REALISM TO EXPRESSISM

- Imitation or interpretation of reality
- The tension between existing techniques and artistic aspirations
- Desire to produce a unique visual technique



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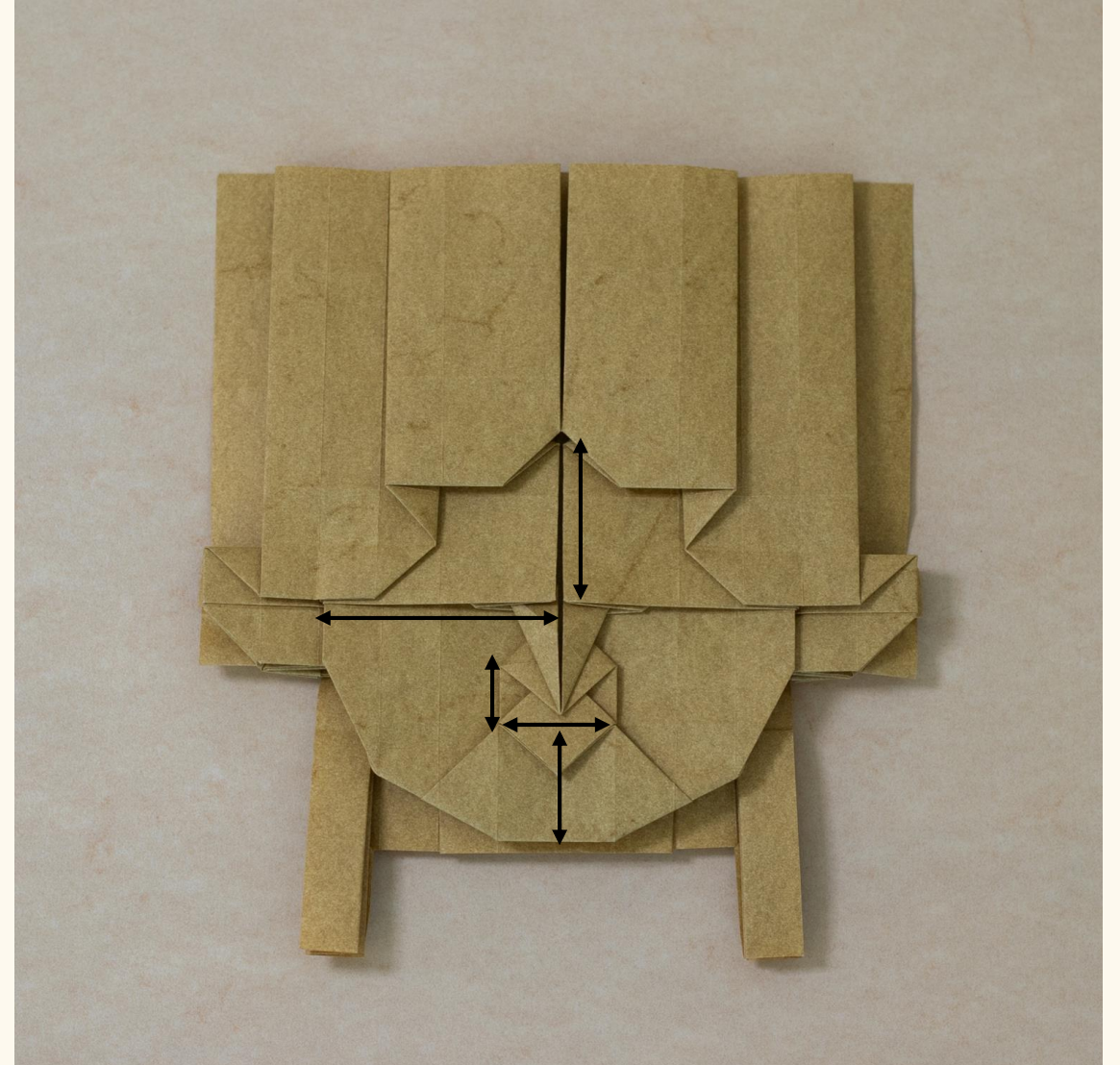
SKETCHING MASKS – DYNAMIC SYSTEM

- Converting the 22.5 degree folds to Box pleating structure – for better measuring and controlling of the proportions
- Free control of proportions of each feature

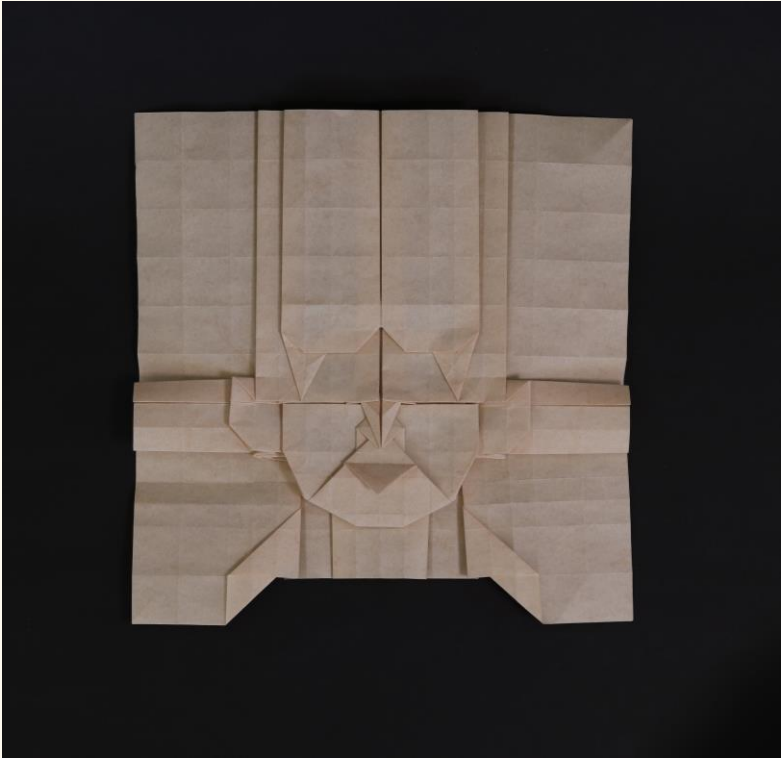


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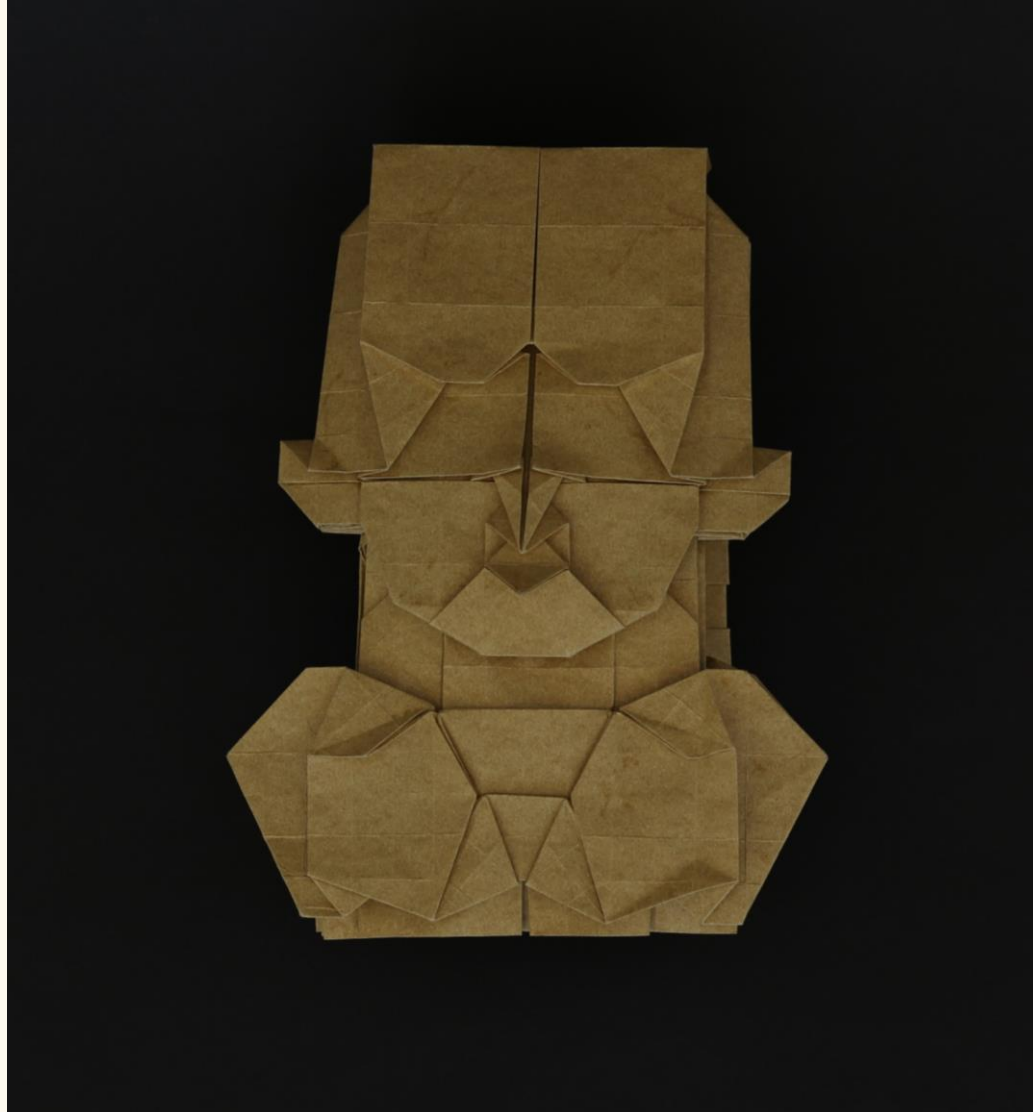
DYNAMIC SYSTEM ASSEMBLY



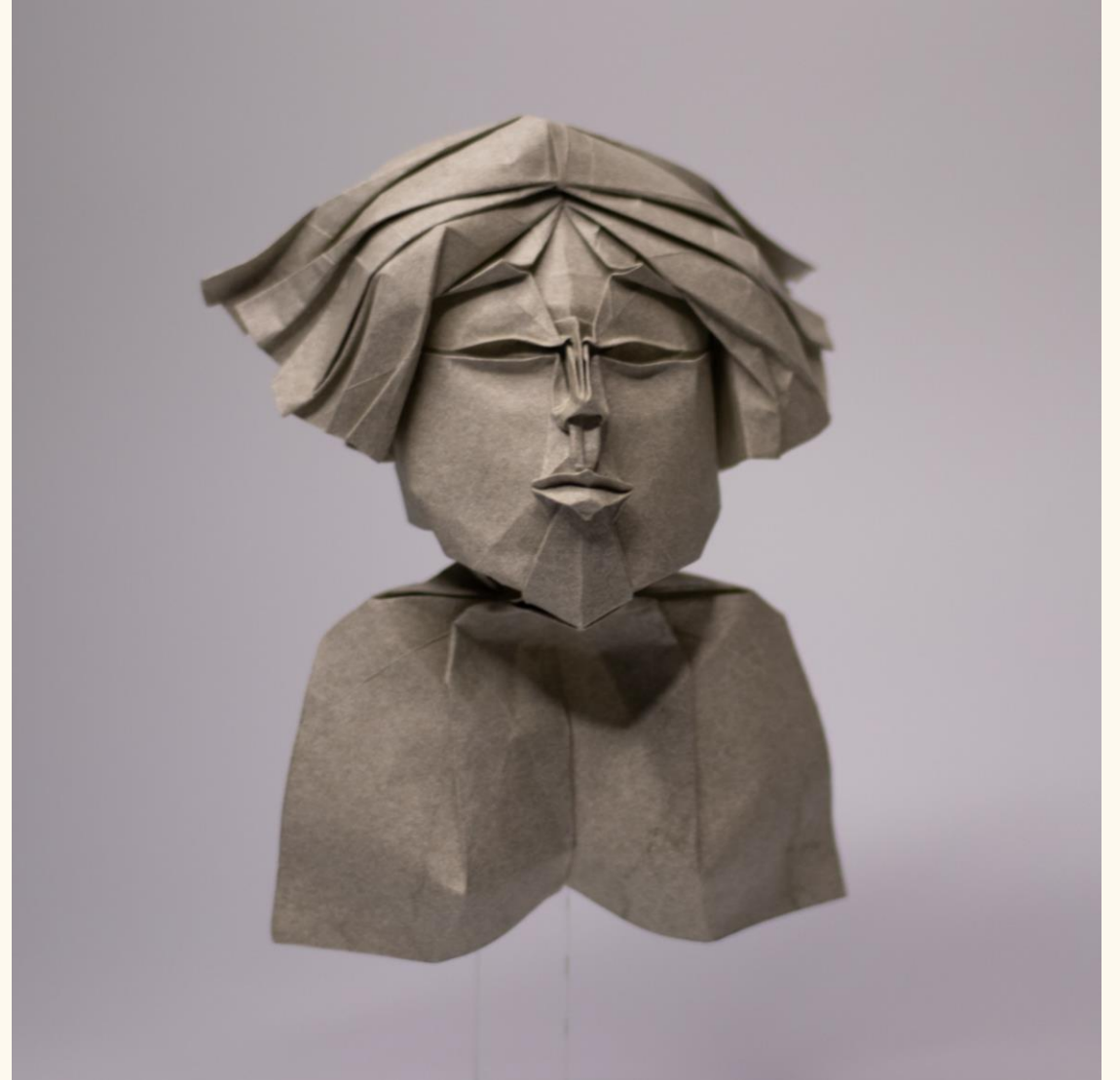
DYNAMIC SYSTEM ASSEMBLY



DYNAMIC SYSTEM ASSEMBLY



FINAL WORKS



FINAL WORKS



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INSPIRATION

- Where does it come from? It Can it be controlled?
- Everything we create is **influenced by our environment**



ORIGAMI ARCHITECTURE

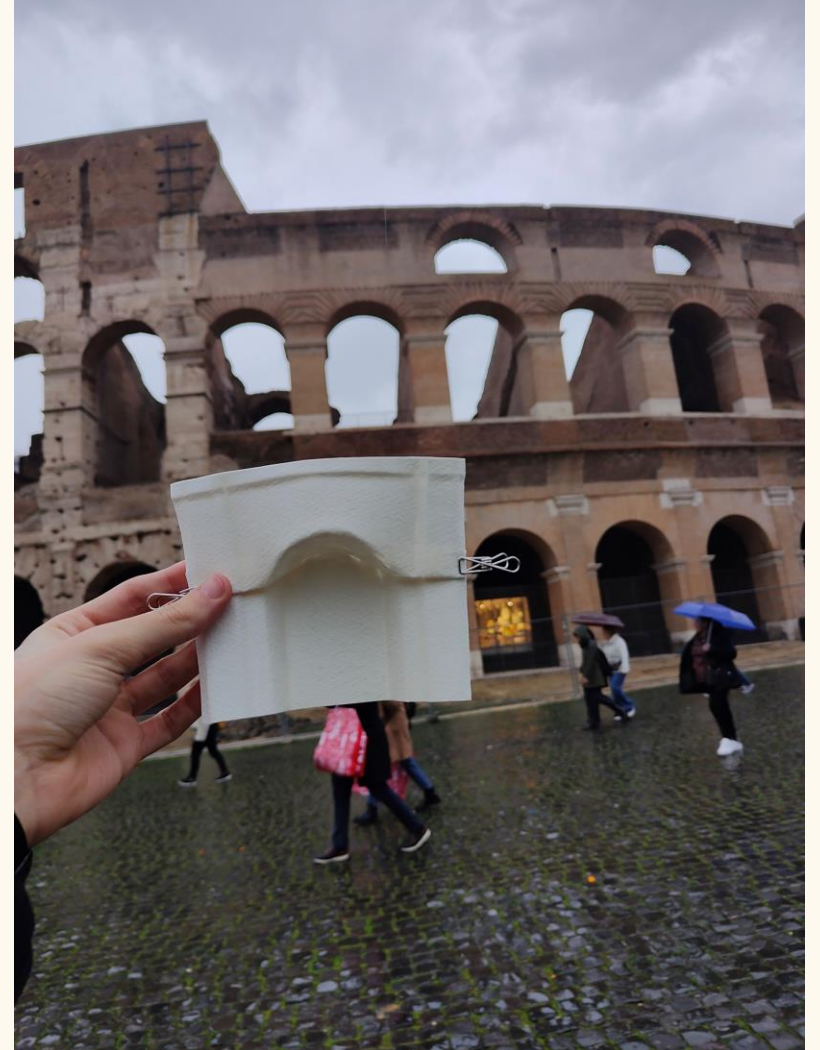


SKETCHING IN PUBLIC

- Stimulate our senses – creating in the public space
- **Icebreaker** - origami as a communication trigger



Rome, Italy



SKETCHING IN PUBLIC



Toledo, Spain



Huesca, Spain

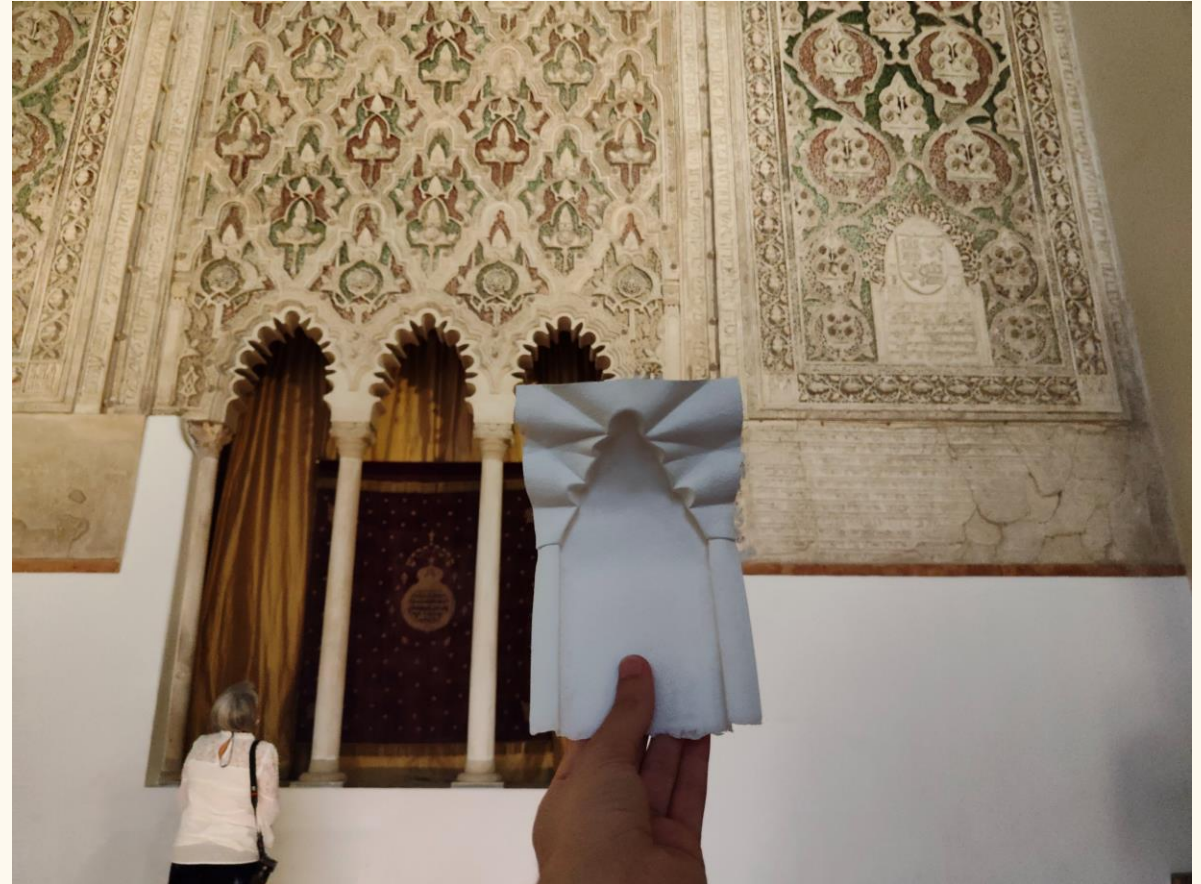


Barcelona, Spain

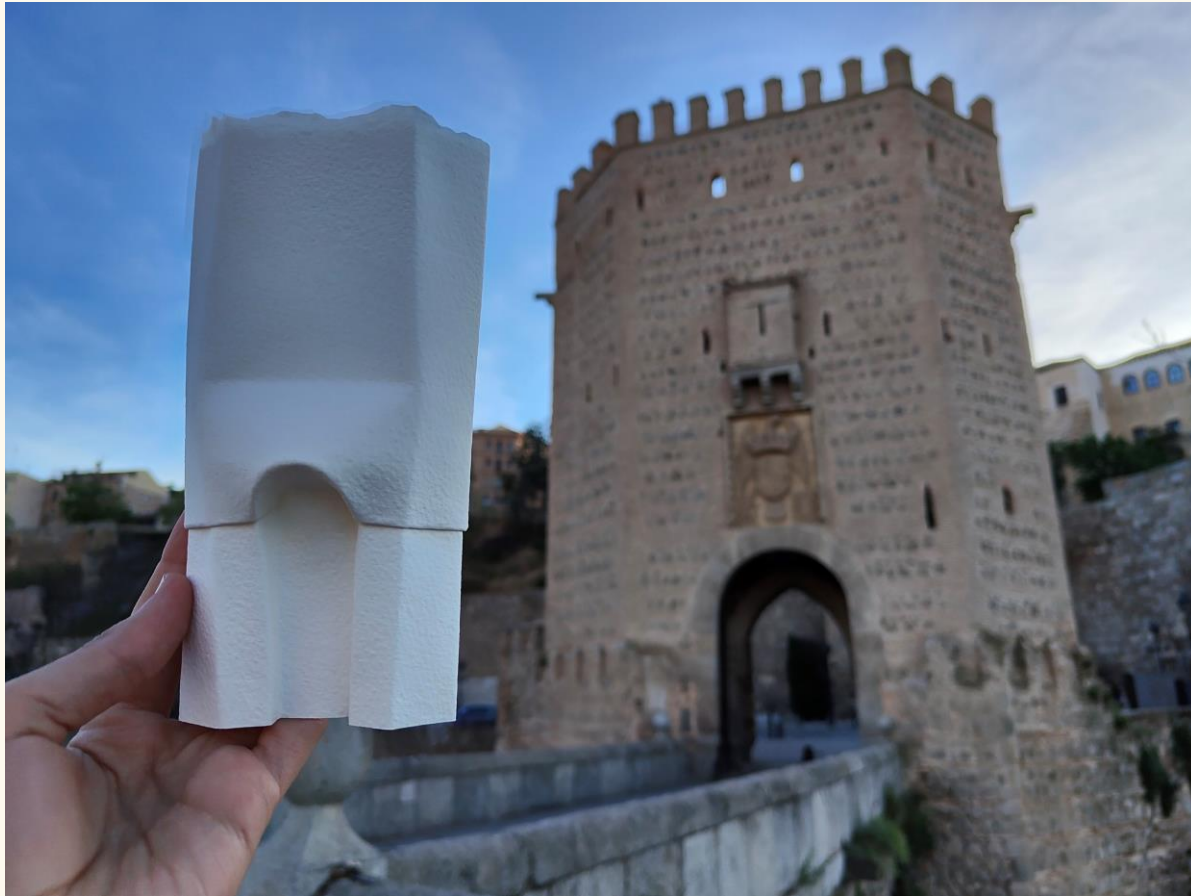
IMITATION OR INTERPRETATION OF REALITY



Toledo, Spain



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Toledo, Spain

SKETCHING IN PUBLIC



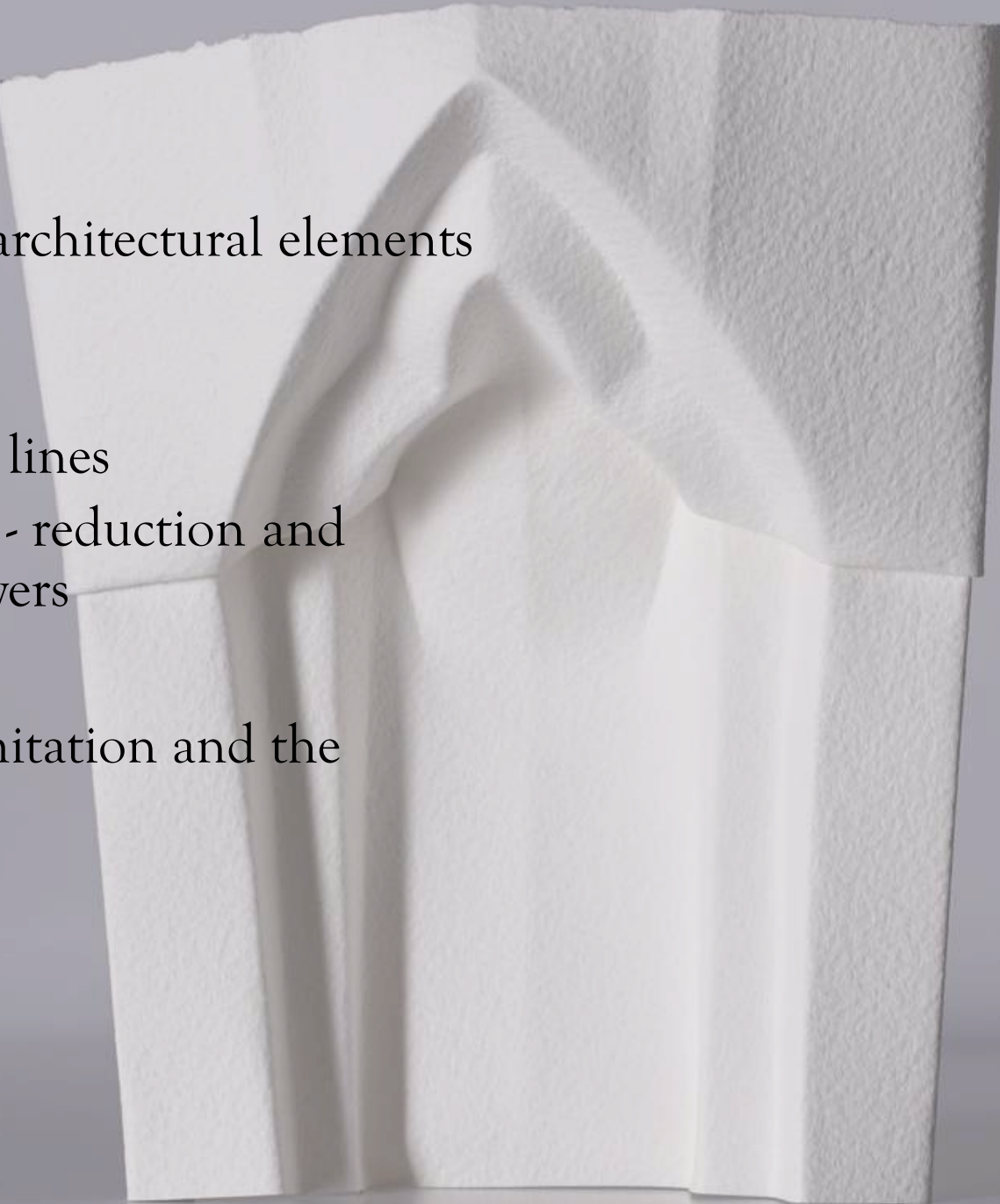
Jerusalem, Israel



Jaffa Gate, Jerusalem

DESIGN PROCESS

- **Formal exploration** of architectural elements and styles
- **Guiding principles:**
 - Straight and curved lines
 - Layer manipulation - reduction and reorganization of layers
 - Changing volumes
- The tension between imitation and the interpretation of reality



SINGLE ELEMENT



ARCHES



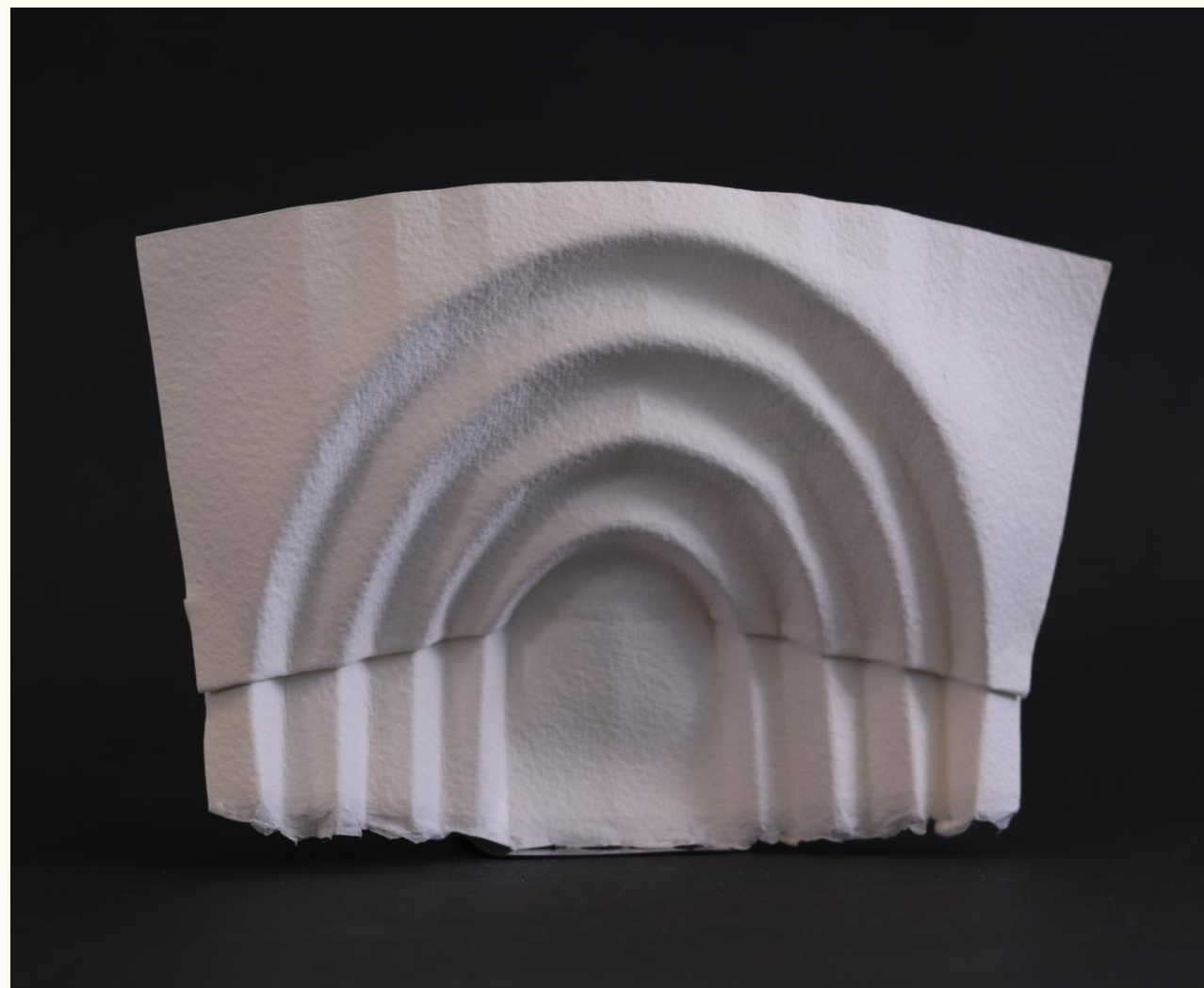
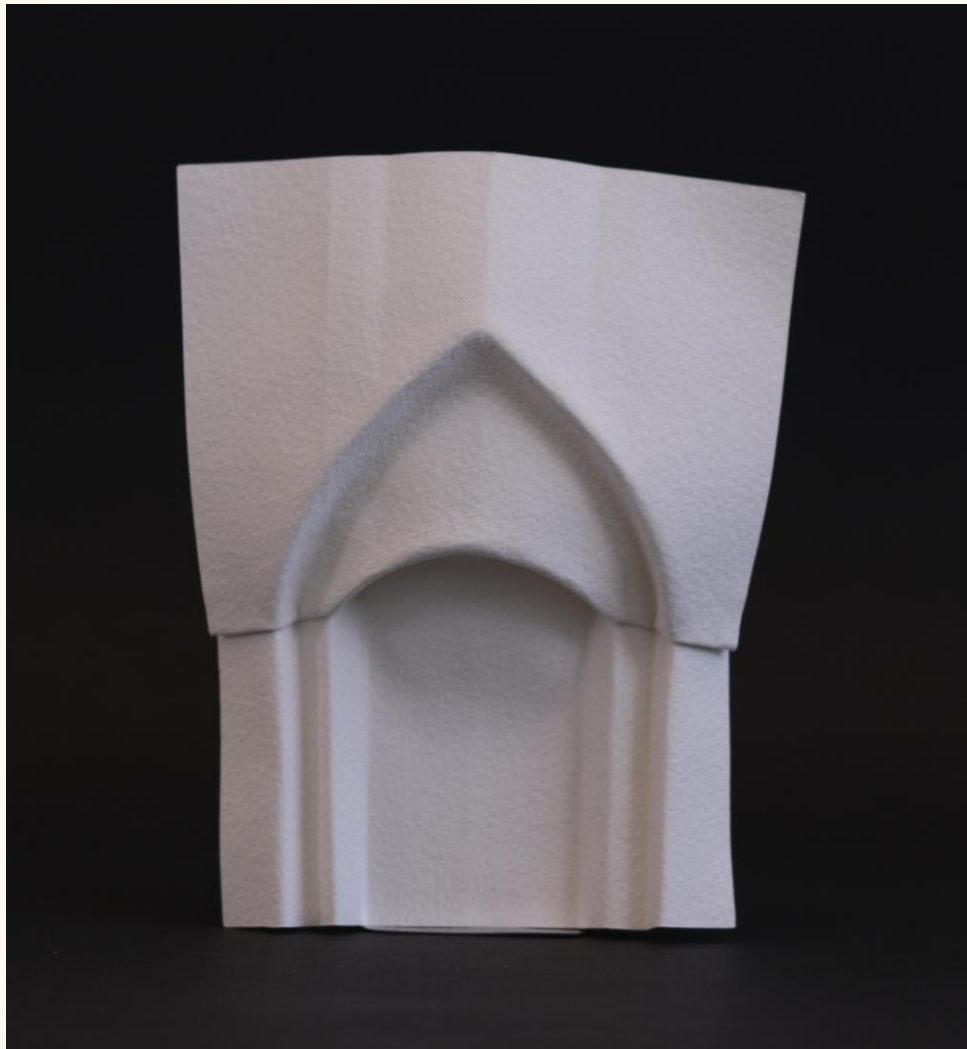
ARCHES



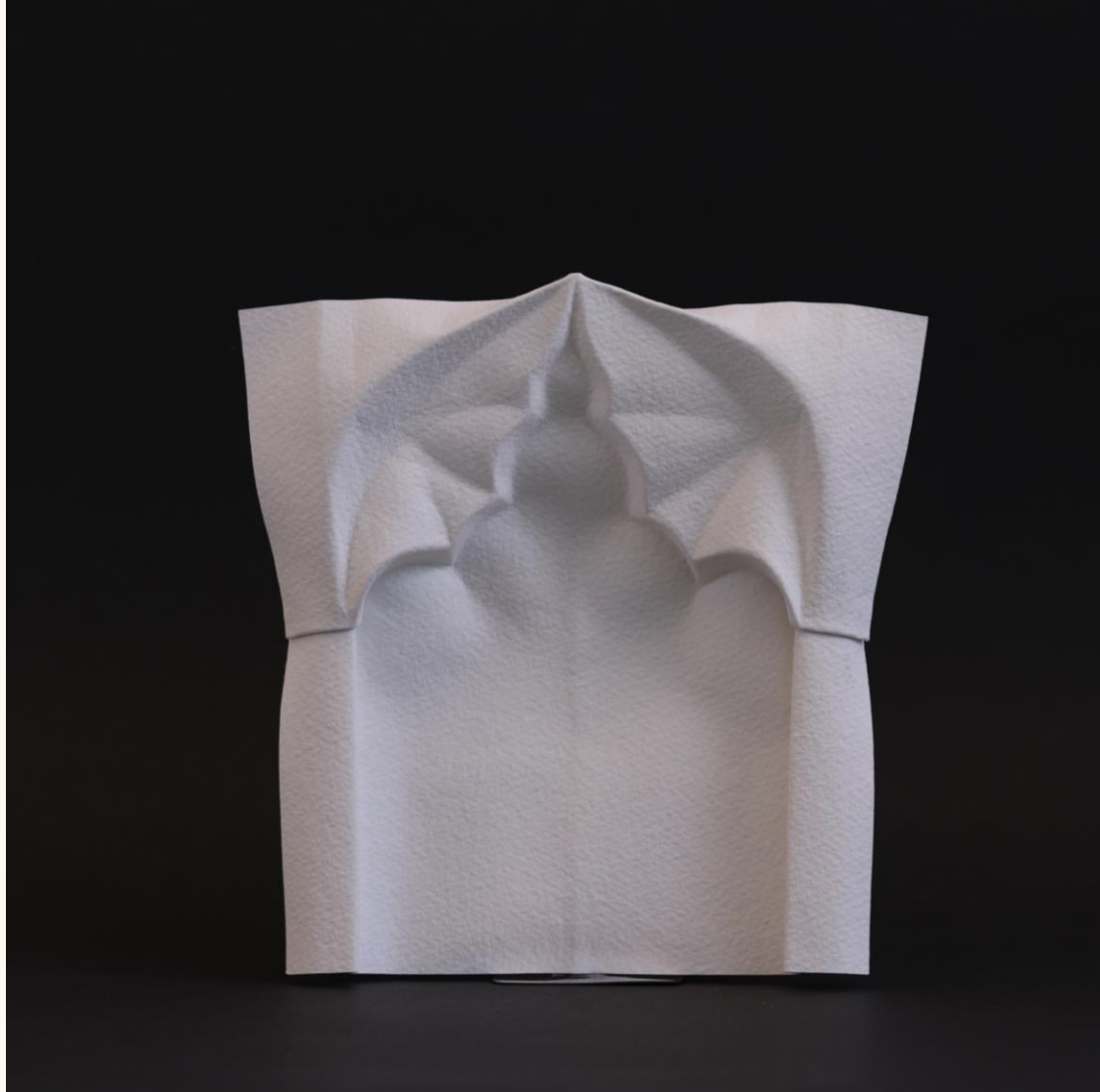
ARCHES CONVERGE INWARDS



ARCHES CONVERGE INWARDS



ADVANCED ARCHES



ADVANCED ARCHES



WINDOWS



ADVANCED WINDOWS



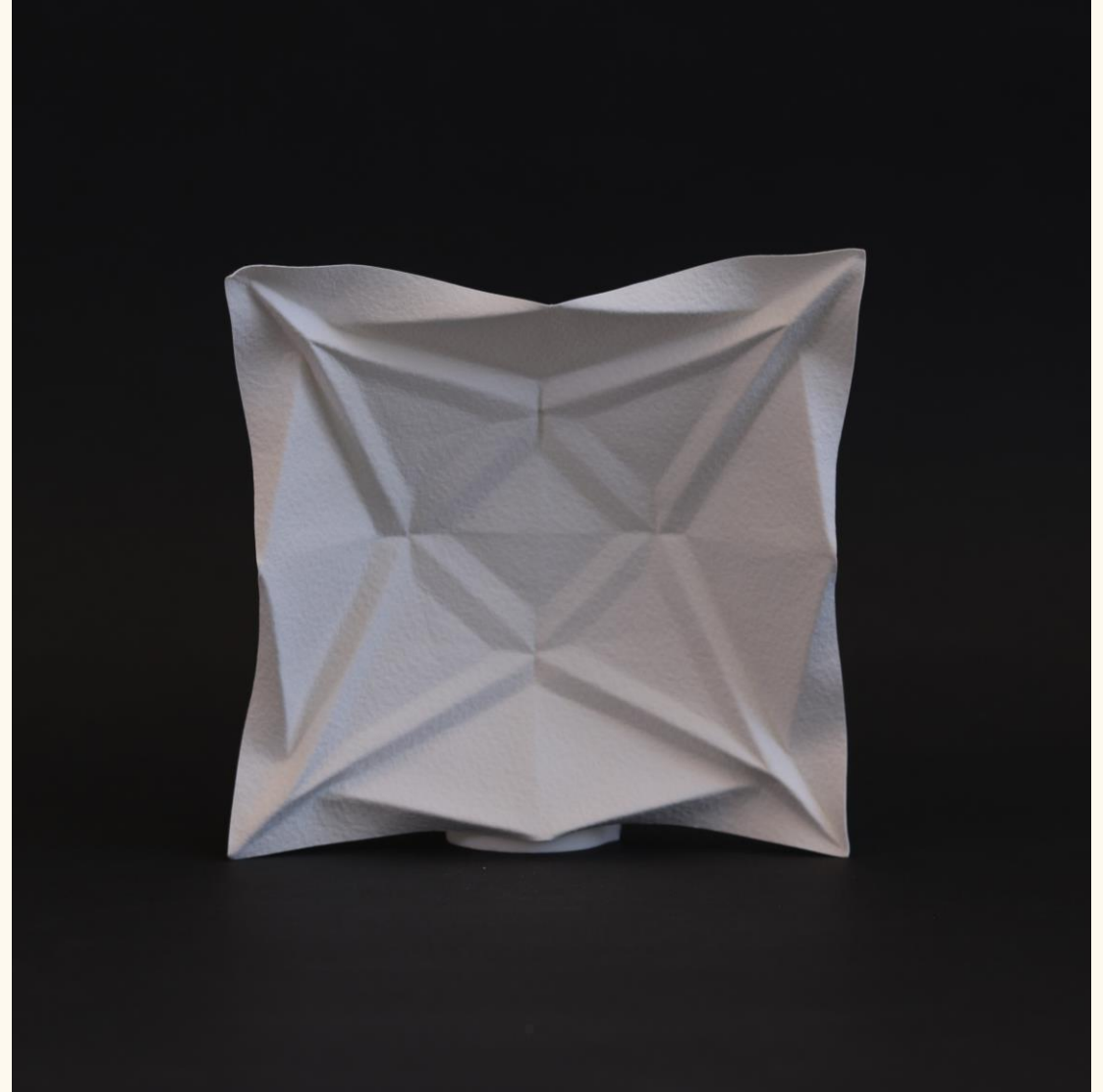
COLUMNS



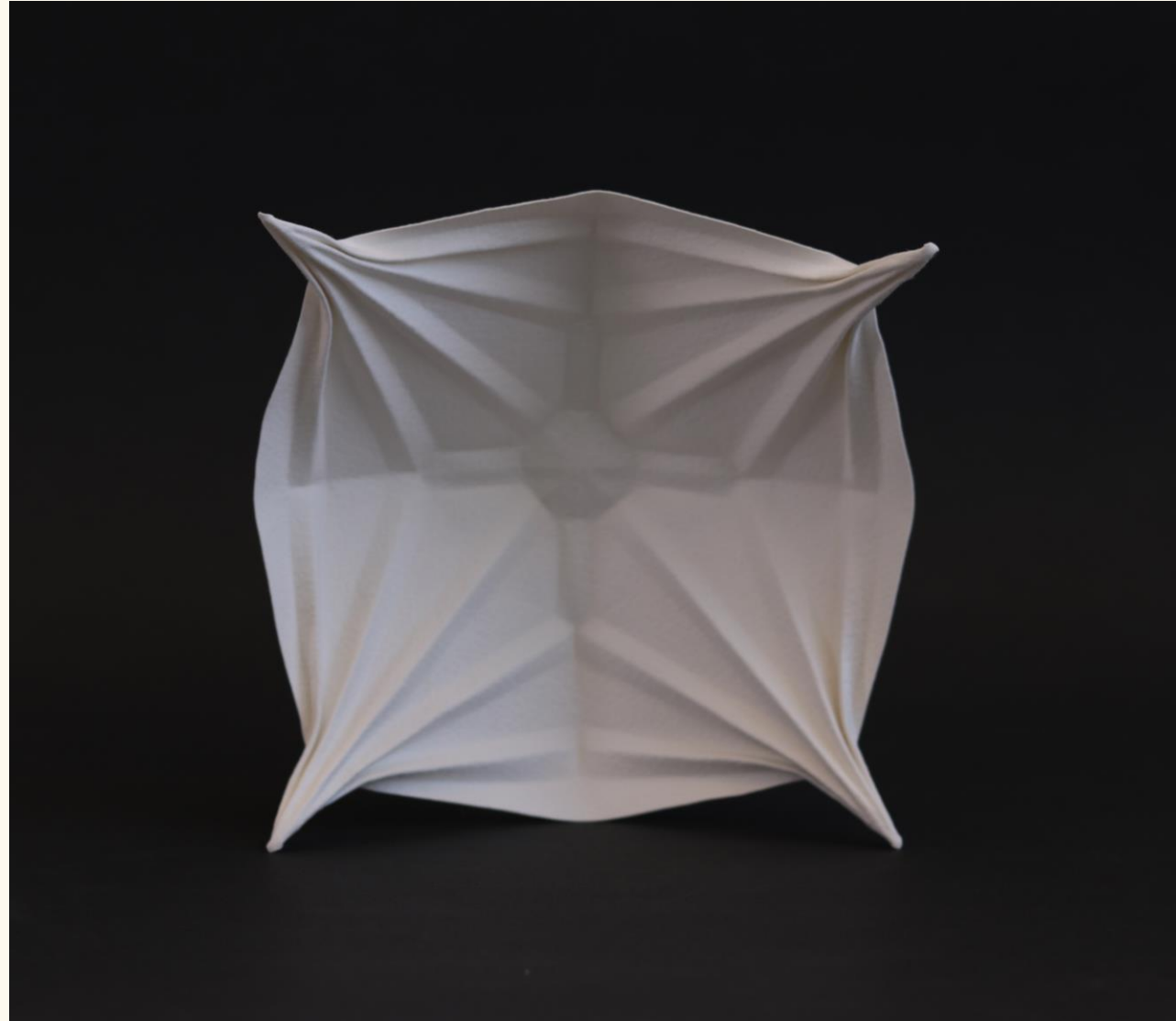
COLUMNS



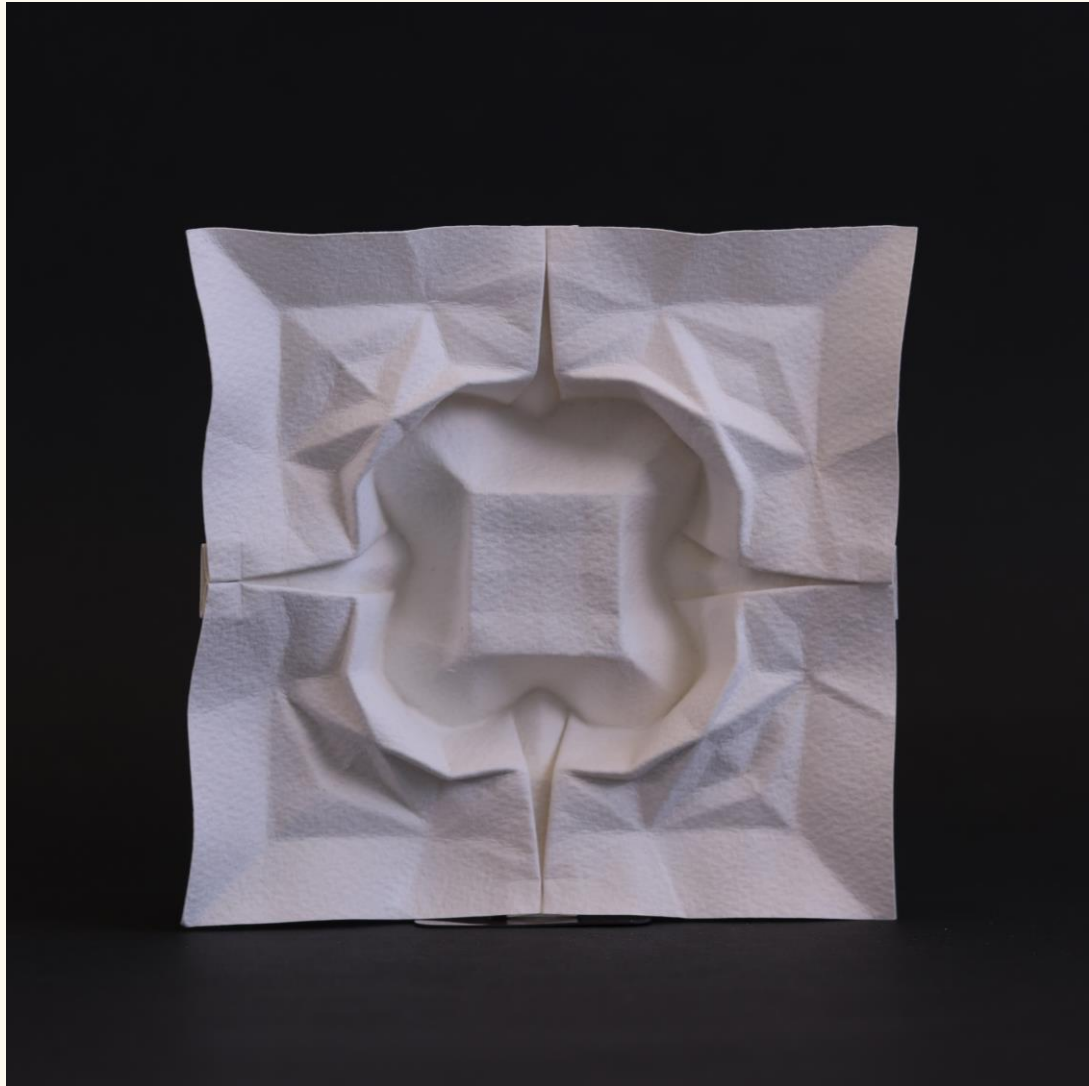
CEILINGS



CEILINGS



ROSETTA ELEMENT



DOMES

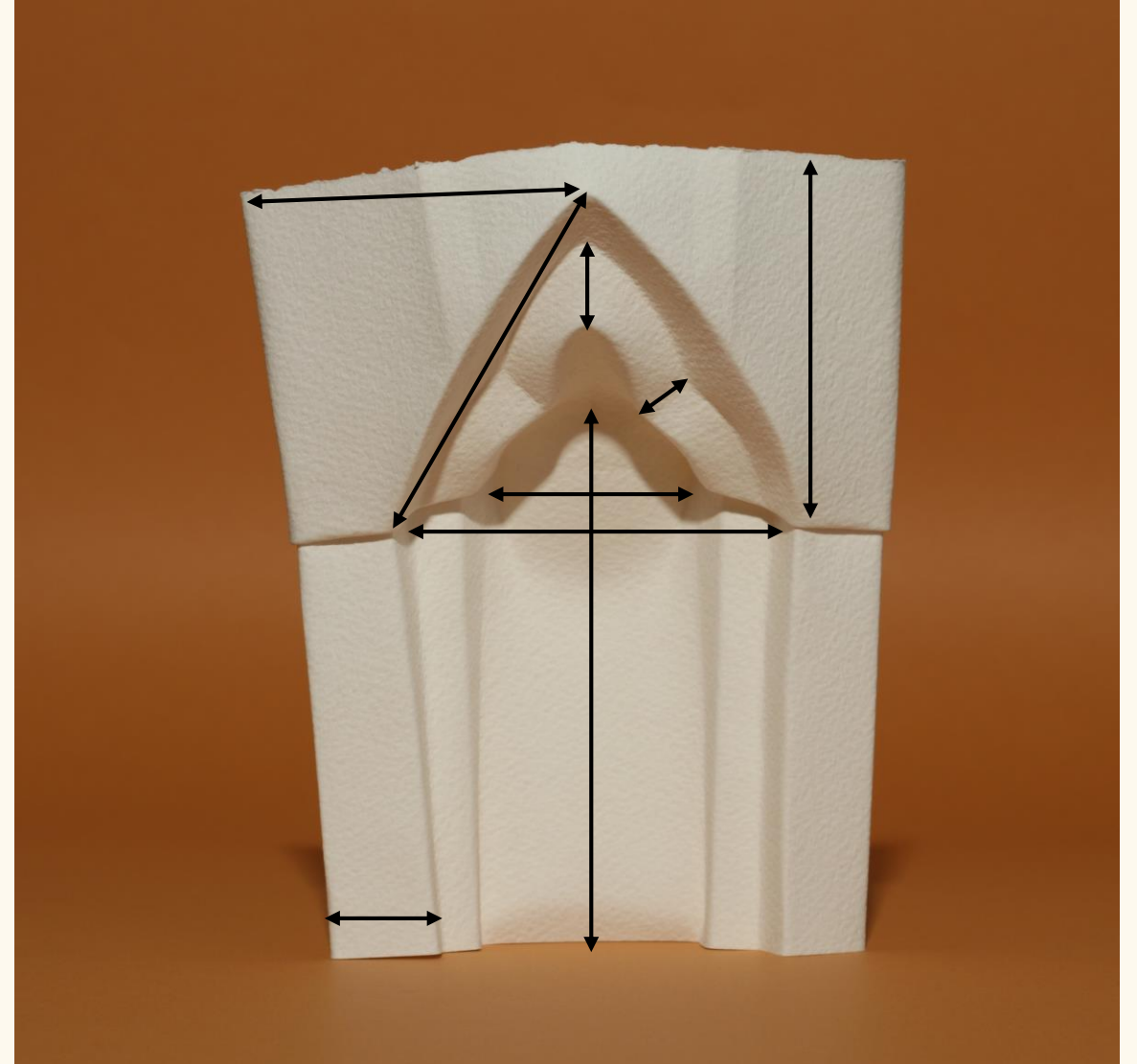


DOMES

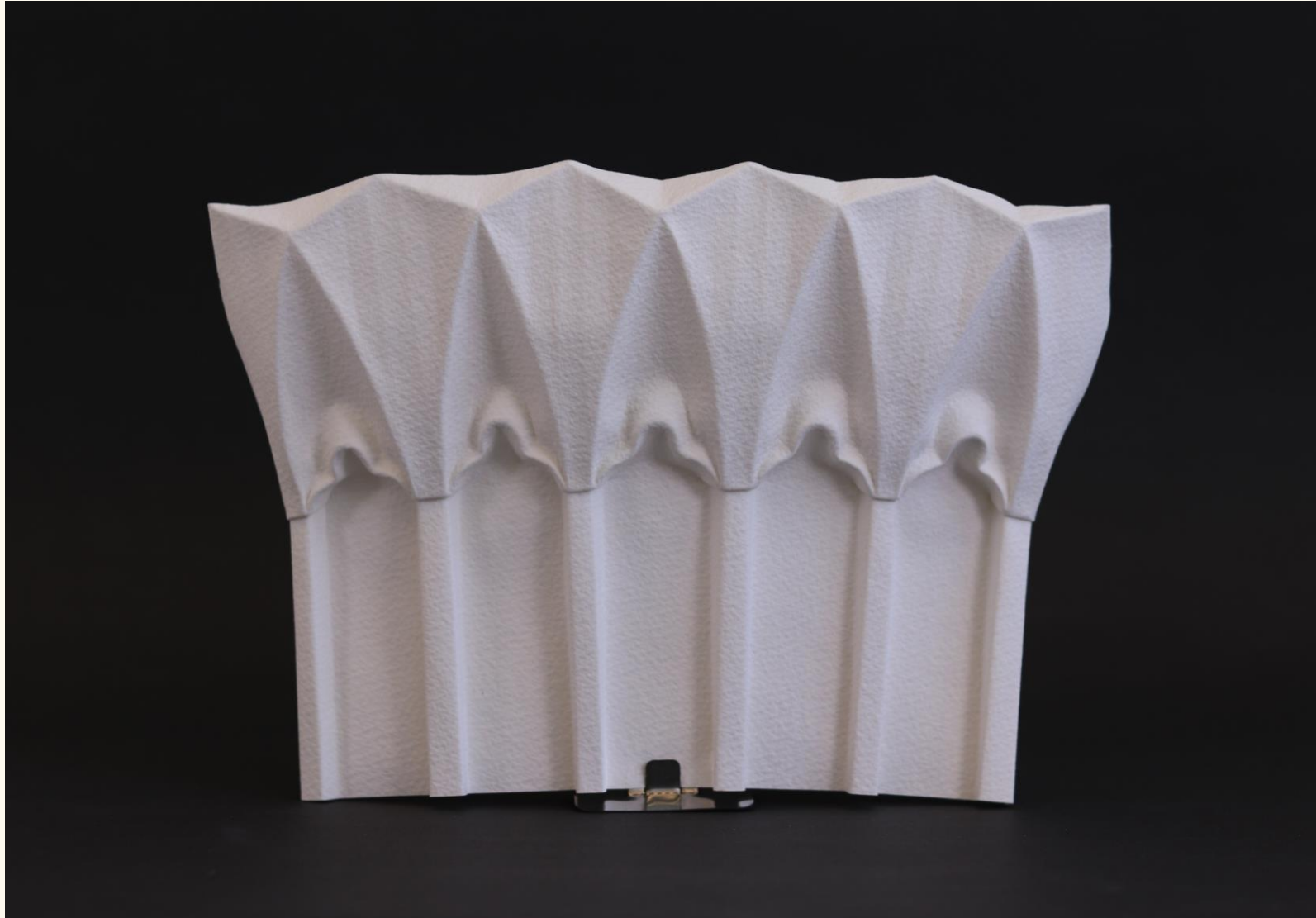


SKETCHING ARCHITECTURE – DYNAMIC PRINCIPLES

- Simplicity produces complexity
- Straight and curved lines
- Free control of proportions of each element



COMBINED ELEMENTS



FACADE



ADVANCED ARCHES



CONSTRUCTION OF TWO DIFFERENT ELEMENTS



GOTHIC ARCHES WITH ROSETTA



ADVANCED GOTHIC ELEMENTS



DECORATION ON ARCHES



MASKS AND ARCHITECTURE – THE MEETING POINT

- Objects with 3D complexity
- Dynamic design principles - Simplicity produces complexity
- From the specific to the general
- Imitation or interpretation of reality
- The tension between existing techniques and artistic aspirations
- Desire to produce a unique visual technique

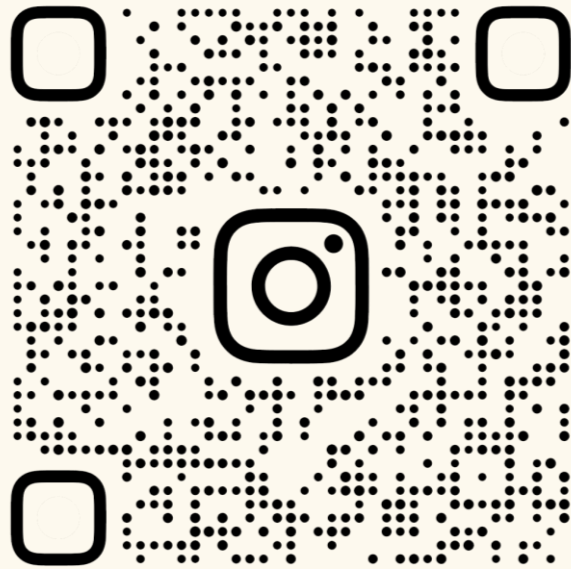
IN THE FUTURE

- Continue developing the technique – combination of several elements and structures
- Explore the meeting point of design tools and folds:
 - Practical applications
 - Parametric design
 - Manufacturing tools
 - Foldability in other materials

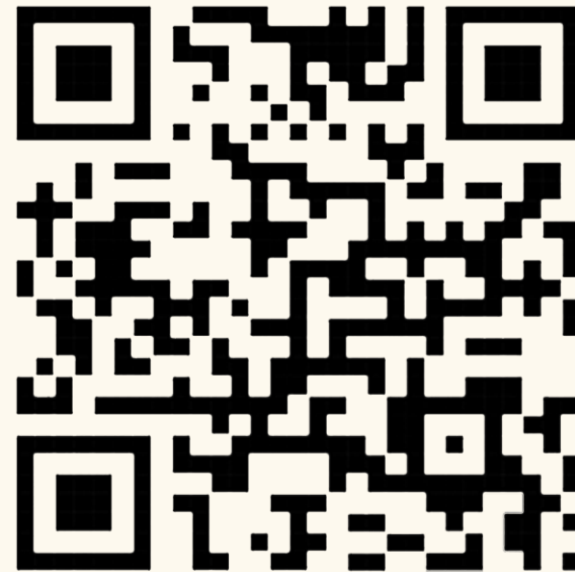
OPEN DISCUSSION

QUESTIONS?

THANK YOU!



YNON_TOLEDANO_ORIGAMI



ynontol@gmail.com