

**ELECTROLIQUID
AGGREGATION +
LAZINESS +
RECYCLING +
SCULPTURAL
MATHEMATICS**

RUSSELL LOWE

**ELECTROLIQUID
AGGREGATION +
LAZINESS +
RECYCLING +
SCULPTURAL
MATHEMATICS**

JEREMY HARKINS



"Why still speak of the real and the virtual, the material and immaterial? Here these categories are not in opposition, or in some metaphysical disagreement, but more in an electroliquid aggregation, enforcing each other, as in a two part adhesive."

Lars Spuybroek, [1998] Motor Geometry, Architectural Design, Vol 68 No 5/6, p5

LARS SPUYBROEK

CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING

SELLEYS®

Araldite®



5 minute
everyday
EPOXY ADHESIVE

- EVERYDAY USE
- EASY MIX
- RIGID BOND

FOR USE ON:
• CHINA
• METAL
• GLASS
• LEATHER
• RUBBER
• MOST PLASTICS

Araldite®
STRENGTH

24mL

READ INSTRUCTIONS
CONTAINS TOXIC SUBSTANCES
KEEP OUT OF REACH OF CHILDREN
DO NOT INGEST. SEE BACK FOR
FULL SAFETY INFORMATION.

ARALDITE® GLOBAL TECHNOLOGY AND INNOVATION

Neutelings and Riedijk *ON laziness recycling sculptural mathematics & ingenuity.*
El croquis 94.

"Laziness, one of the seven cardinal sins, is one of (a designers) most useful characteristics. The combination of diligence and ambition is highly dangerous; the combination of laziness and ambition ensures a pleasing balance, which often leads to happy results because compensating for laziness requires the application of ingenuity."

Recycling Typologies and Concepts.

Sculptural Mathematics: "The most exhausting sort of design process is one in which each version requires a conscious decision. We therefore make it our practice to start off with a simple basic mathematical concept within which the program is to be organized."

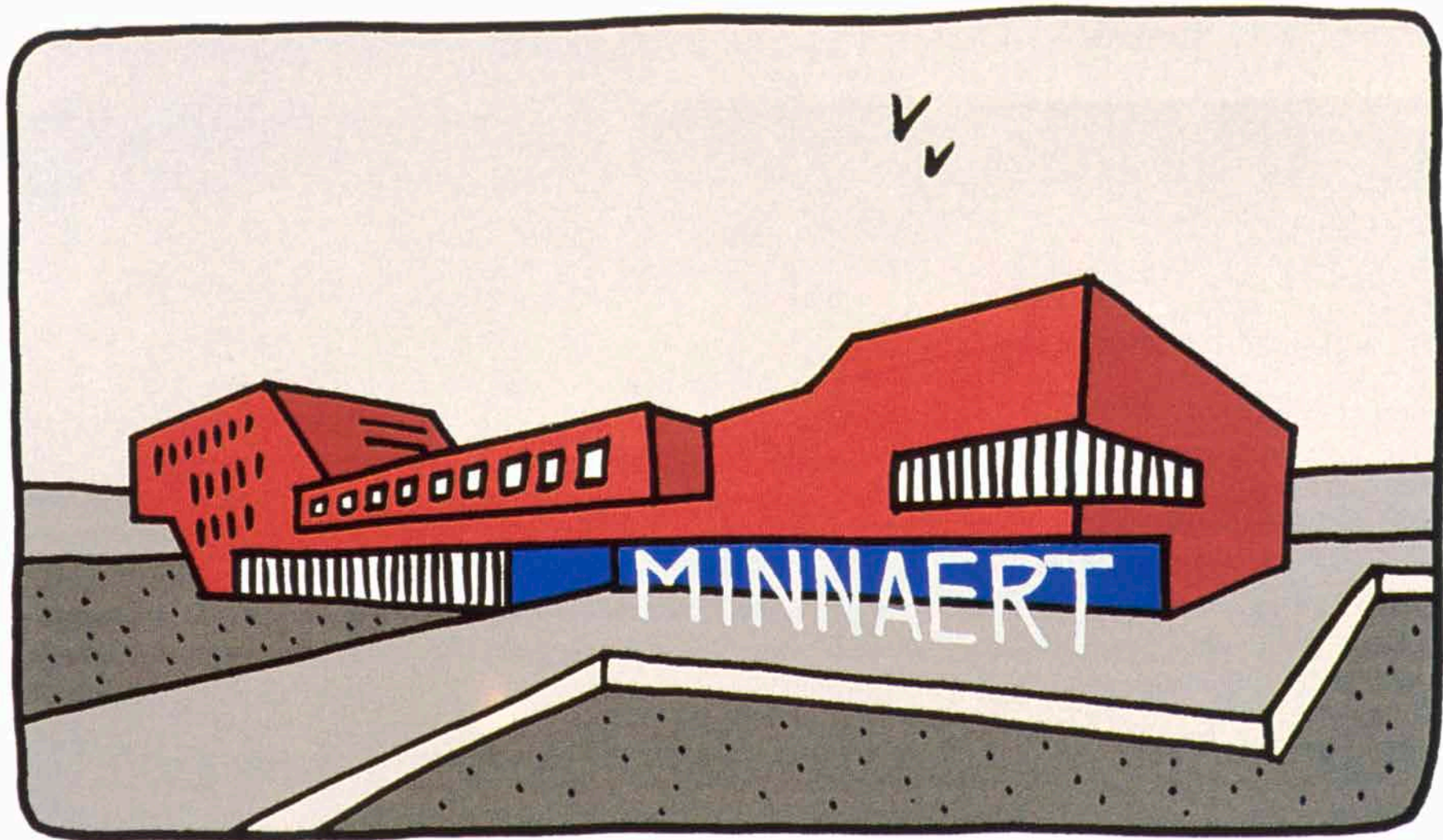
Conclusion: "... no matter how successful it might be as a method, (laziness) still has a great disadvantage: it requires a lot of effort."

NEUTELINGS + RIEDIJK

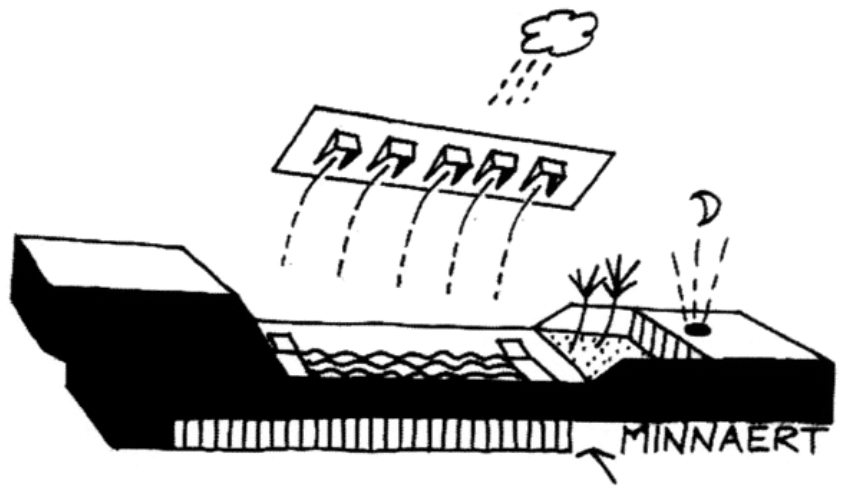
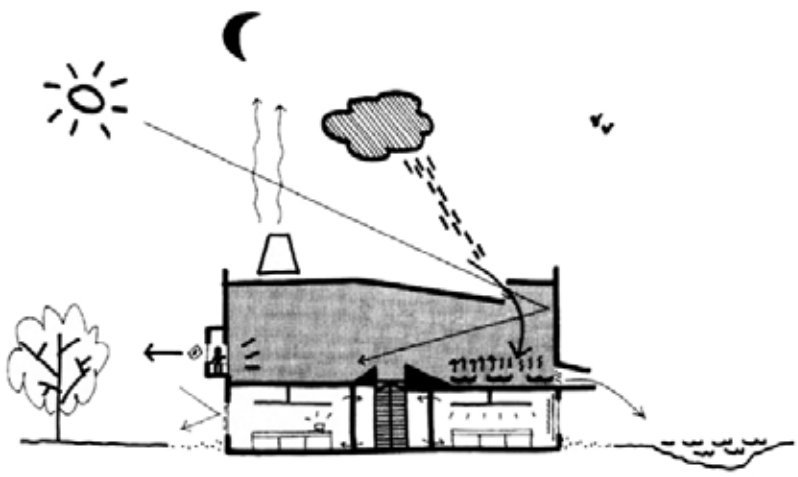
MINNAERT BUILDING. UTRECHT.

Neutelings and Riedijk. El croquis 94.

NEUTELINGS + RIEDIJK

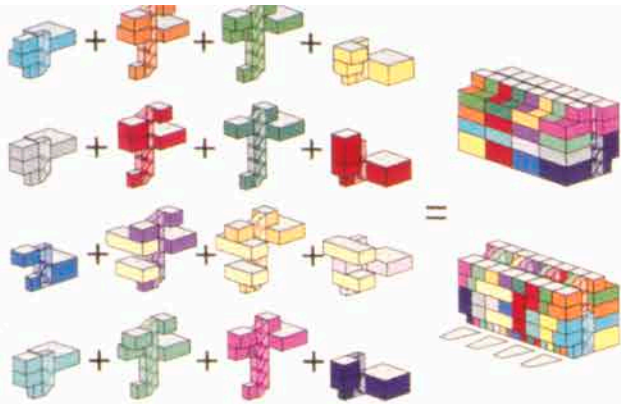




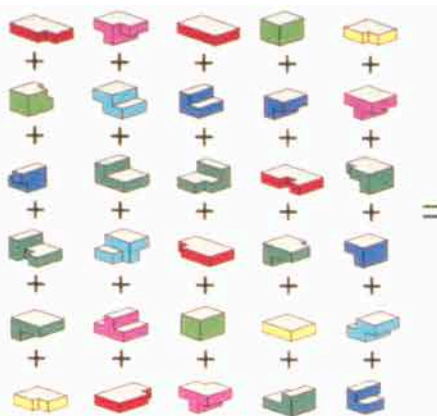




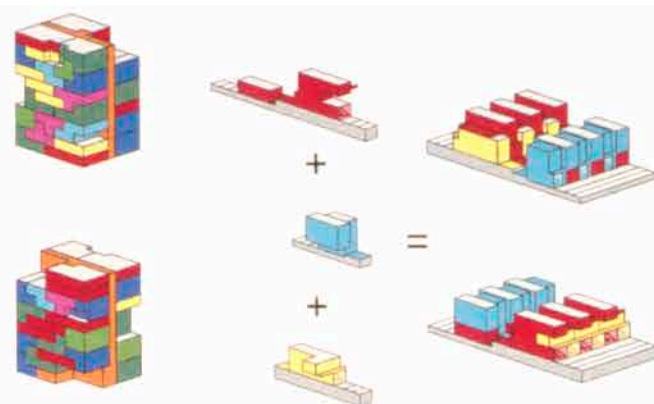




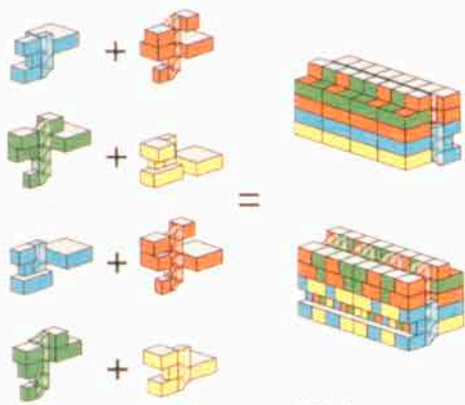
GWL AMSTERDAM



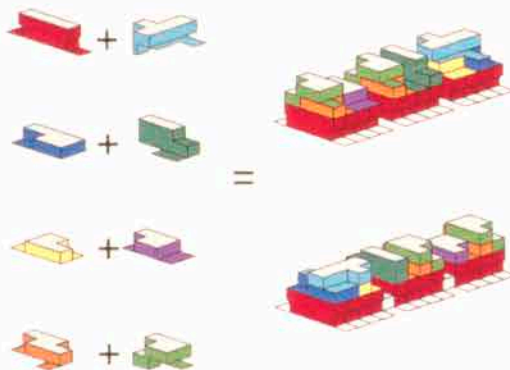
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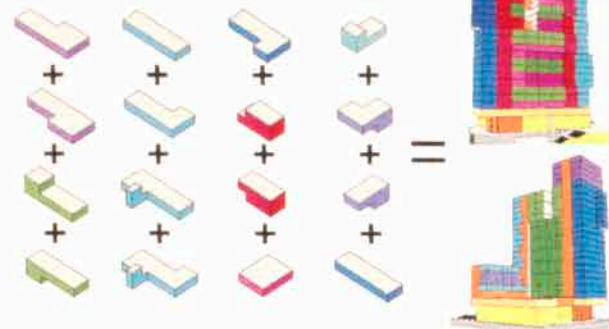
BORNEO SPRENBURG



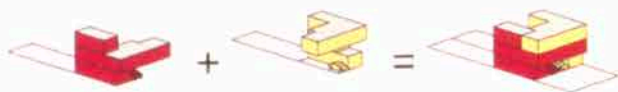
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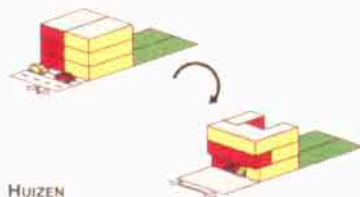
HOLLAINHOF GENT



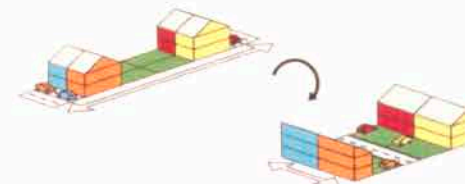
WIJNHAVEN ROTTERDAM



Diferentes estudios volumétricos/tipológicos para viviendas
Different volumetric/typological studies for dwellings

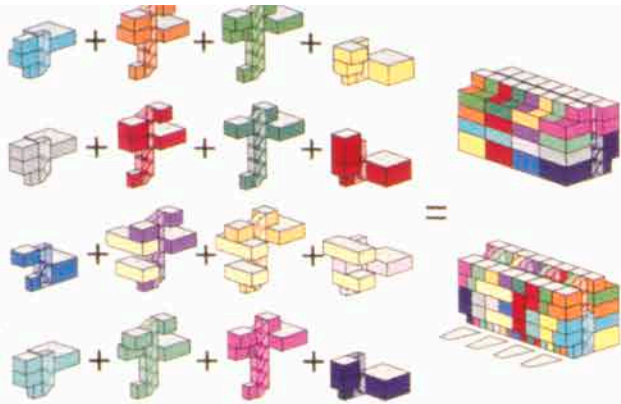


HUIZEN

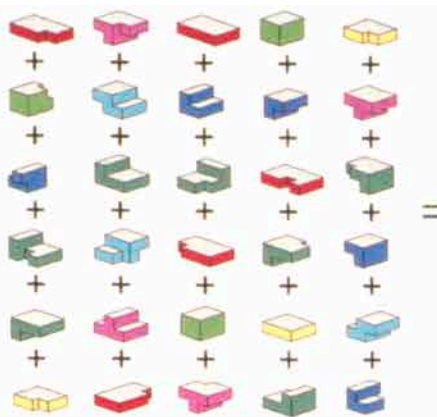


IJSSELSTEIN

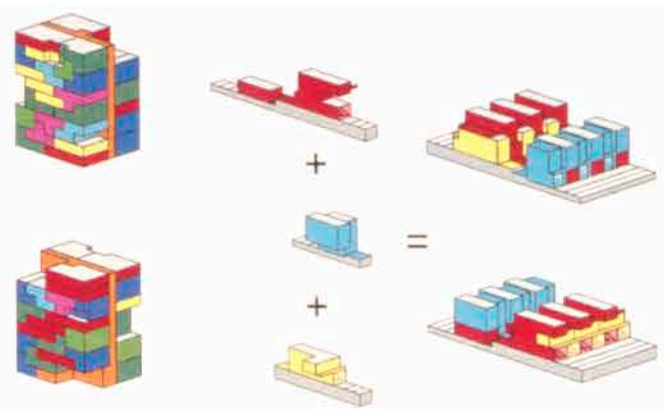
SCULPTURAL MATHEMATICS



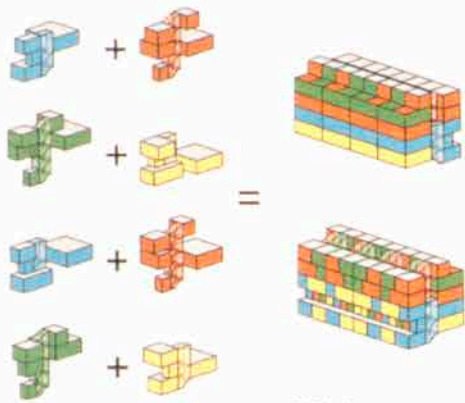
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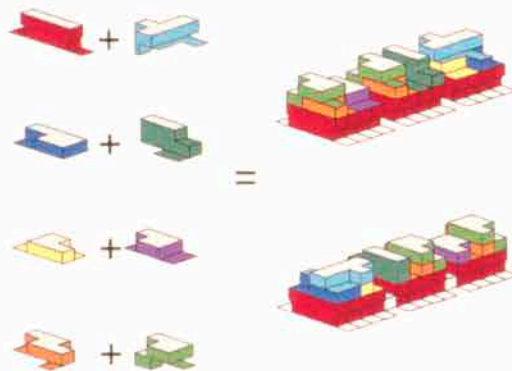
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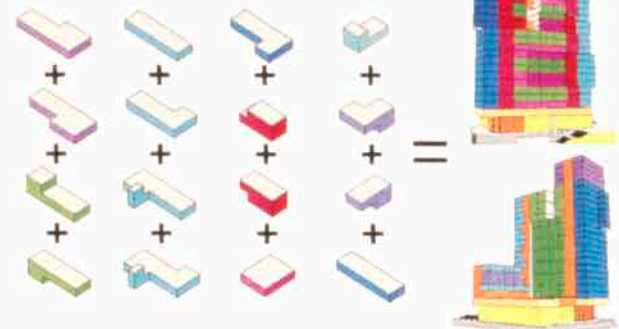
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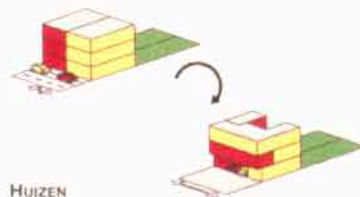
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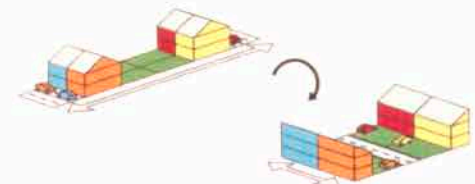
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WIJNHAVEN ROTTERDAM

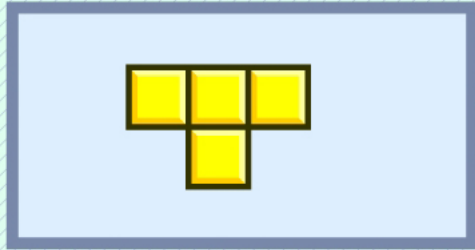
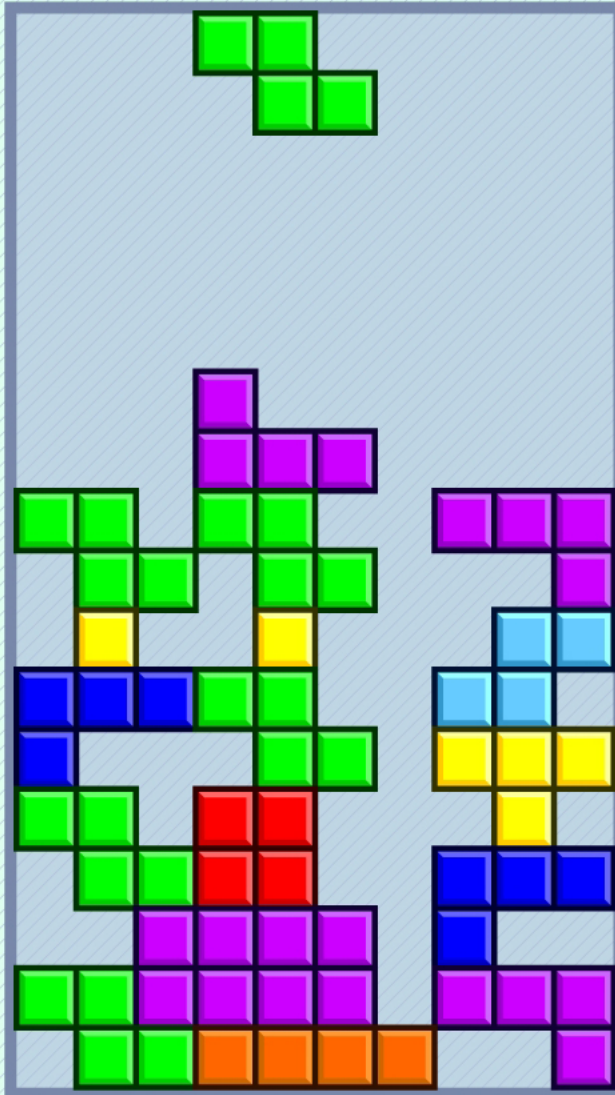


HUIZEN



IJSSELSTEIN

Diferentes estudios volumétricos/tipológicos para viviendas
 Different volumetric/typological studies for dwellings



level 8

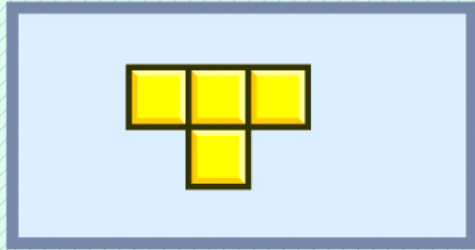
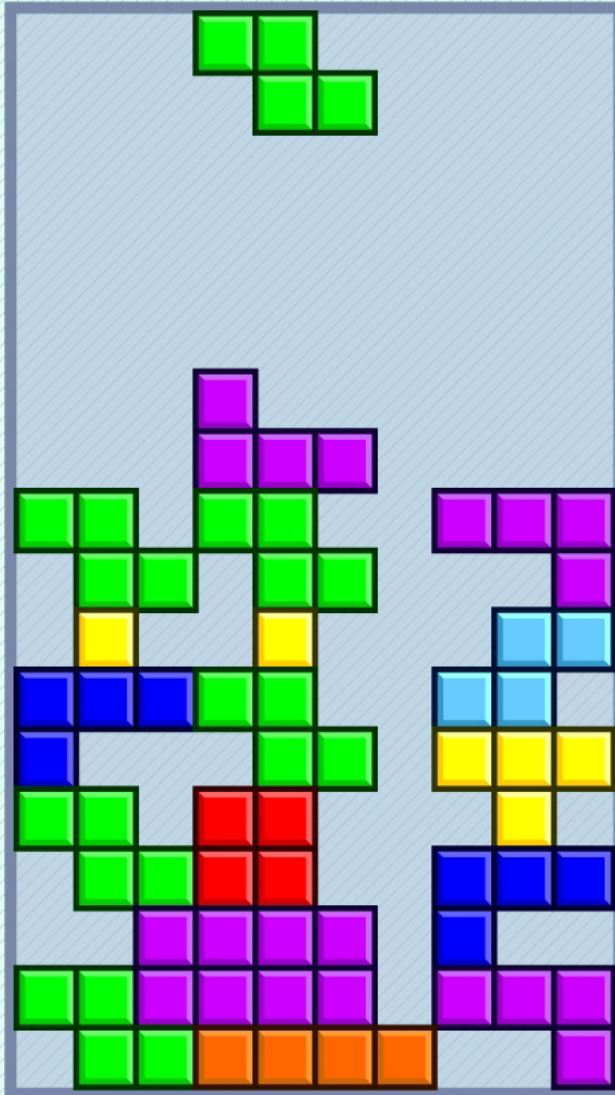
lines 1

SCORE 560

■ quit

■ pause

tetris



level 8

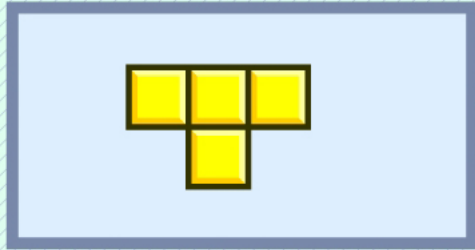
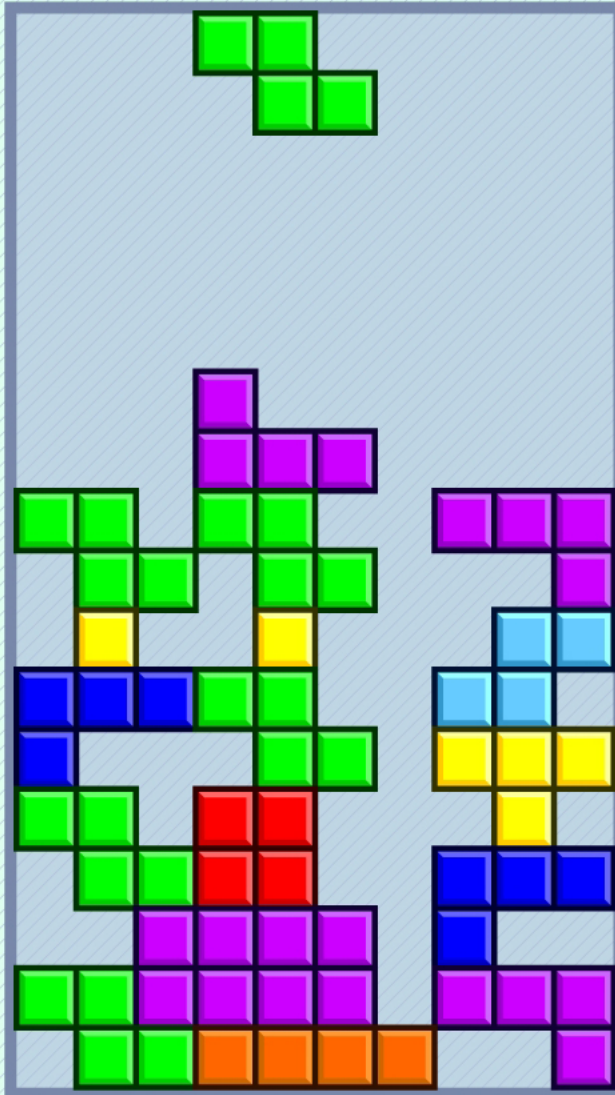
lines 1

SCORE 560

■ quit

■ pause

tetris



level 8

lines 1

SCORE 560

■ quit

■ pause

tetris

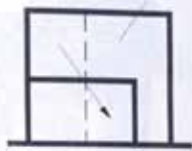
Discussions



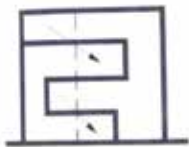
161094
2 Storeys 14 deep



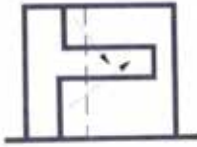
231194
4 Storeys 7 metres deep
No wide views to park



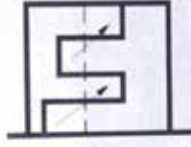
141294
House in a bose
No roof access house 1
Small garden access house 2



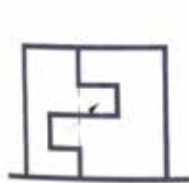
231295
Alternating floors 1
No roof access house 1



040194
Alternating floors 2
Too little garden access for house 1



120195
Alternating floors 3
Too little garden access for house 1



200295
Alternating floors 4
No wide garden access - roof access



090395
Outdoor space
Roof terrace house 1
Garage + roof terrace house 2



130495
Final result
Bedrooms in 1 + 2
Playable house 2
pass fire regulations



MVRDV

Discussions



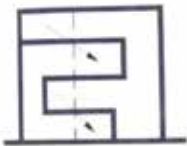
161094
2 Storeys 14 deep



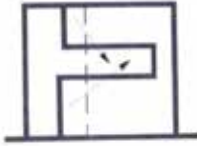
231194
4 Storeys 7 metres deep
No wide views to park



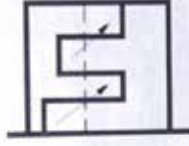
141294
House in a bose
No roof access house 1
Small garden access house 2



231295
Alternating floors 1
No roof access house 1



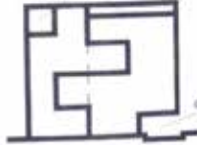
040194
Alternating floors 2
Too little garden access for house 1



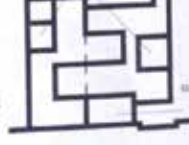
120195
Alternating floors 3
Too little garden access for house 1



200295
Alternating floors 4
Includes garden access + roof access



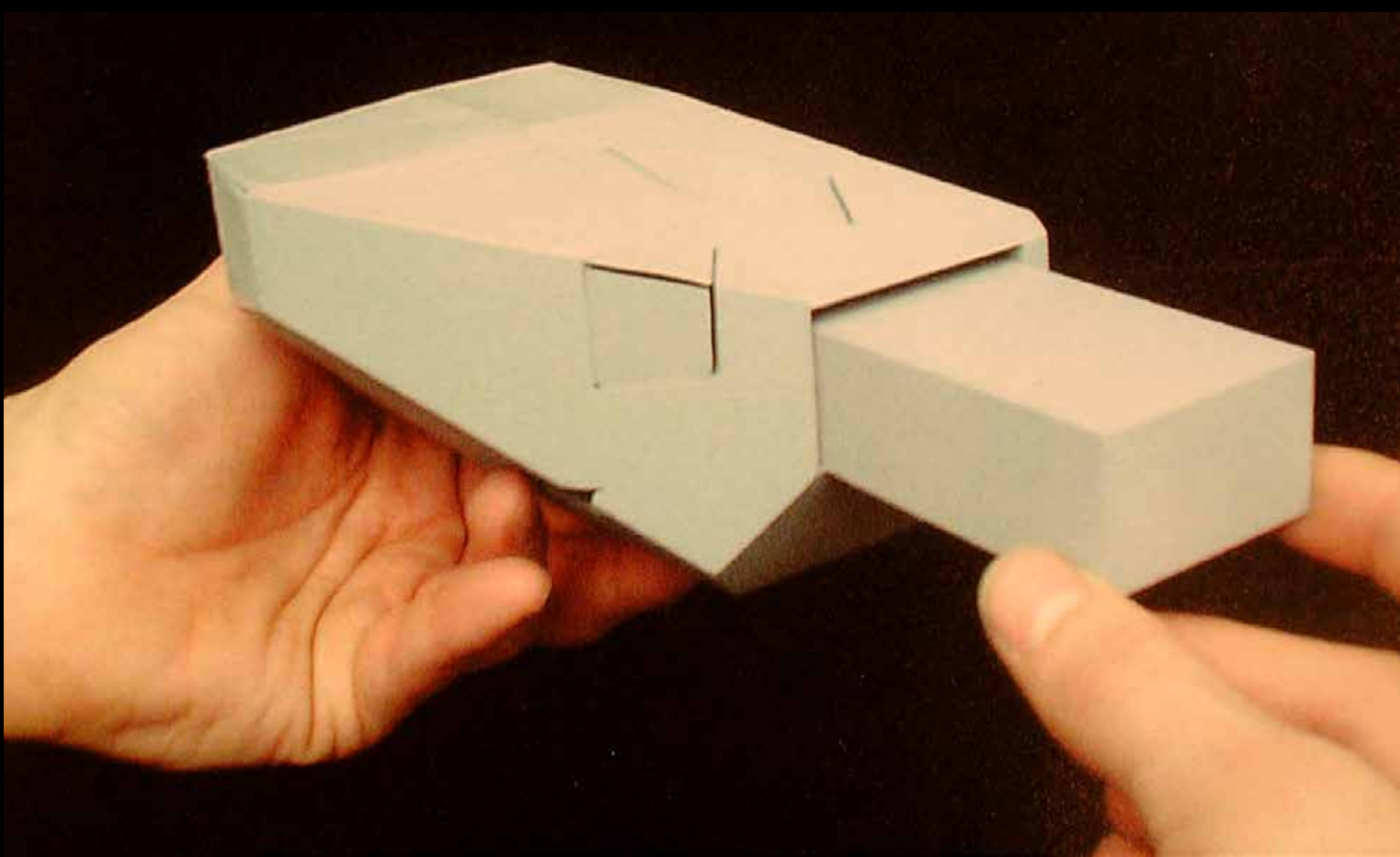
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Outdoor space
Roof terrace house 1
Garage + roof terrace house 2



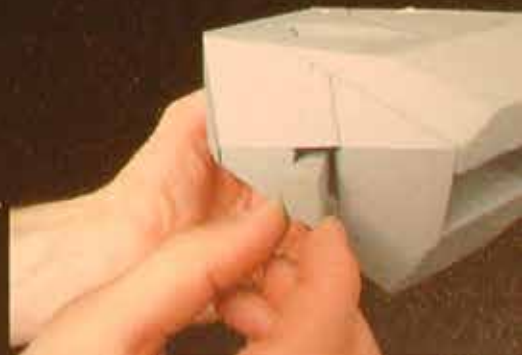
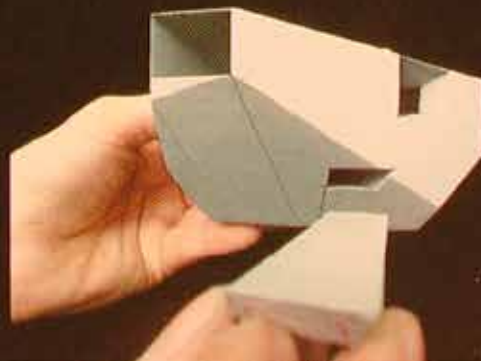
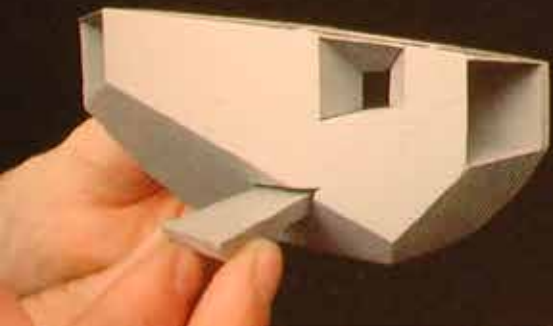
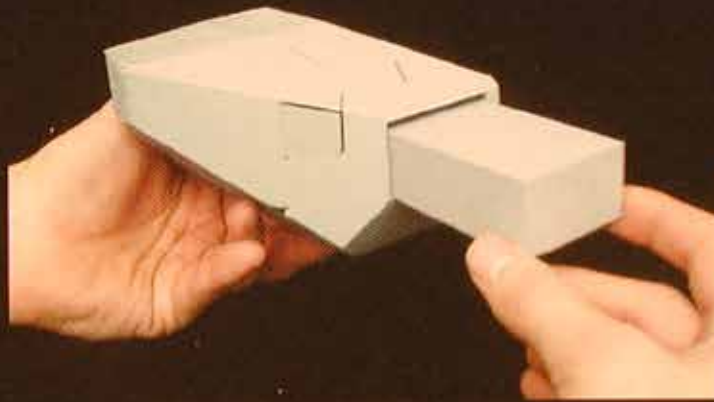
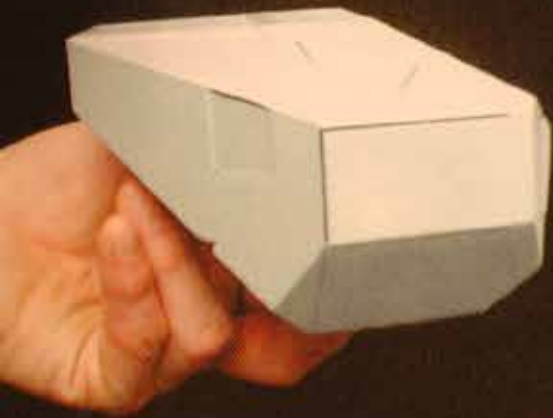
130495
Final result
Bedrooms in 1 + 2
Playable house 2
part. fire regulations

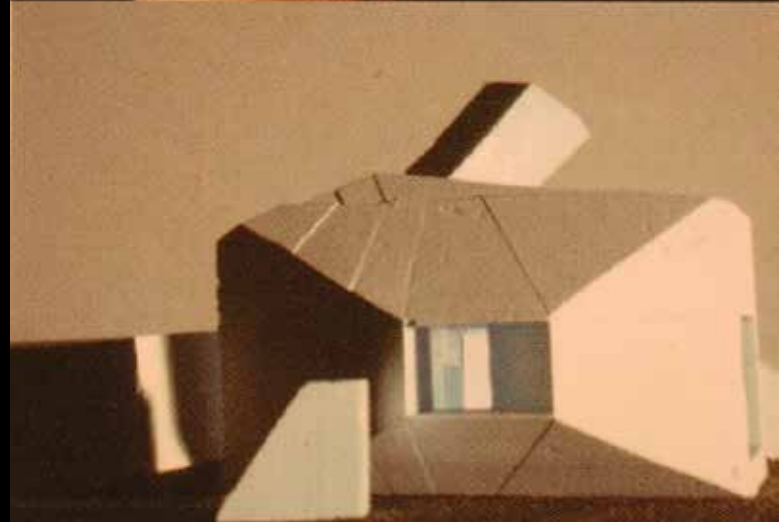
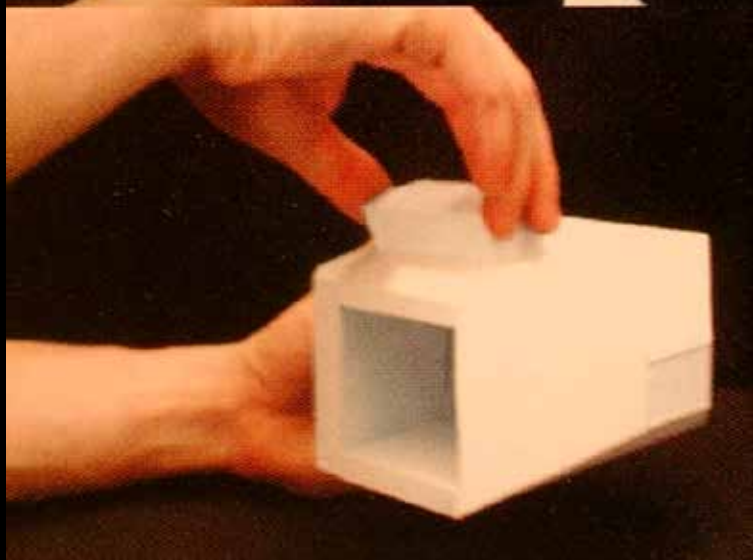
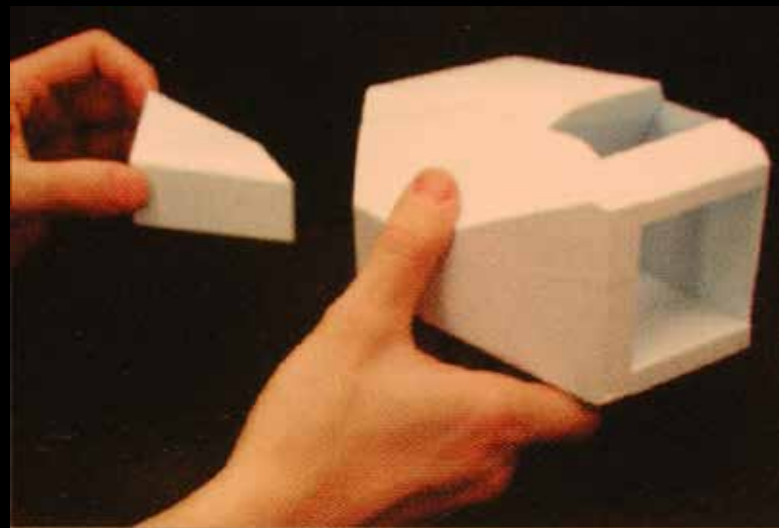
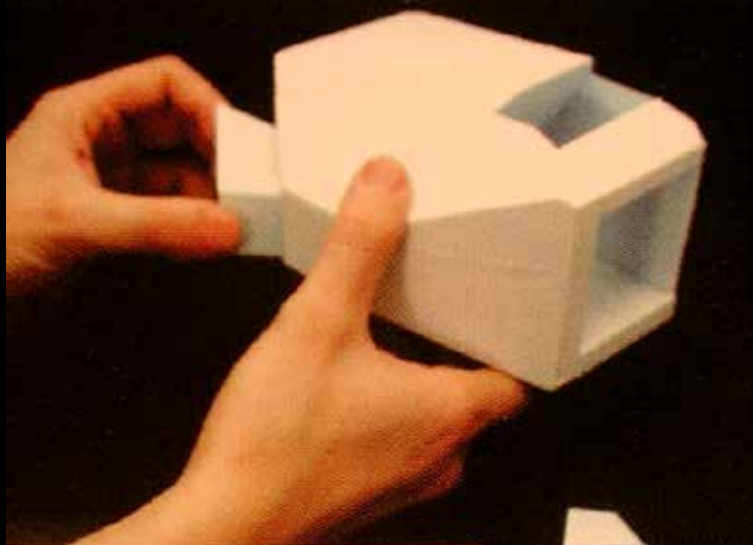


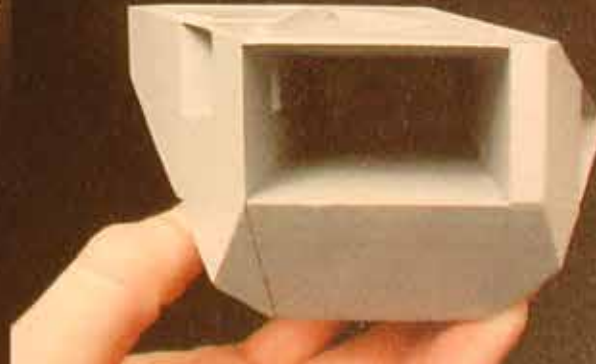
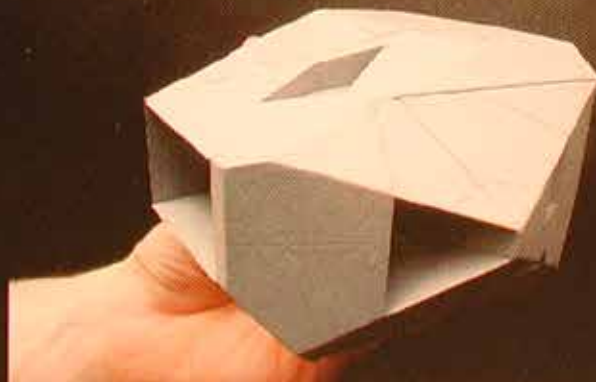
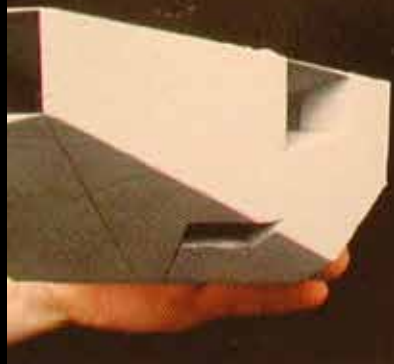
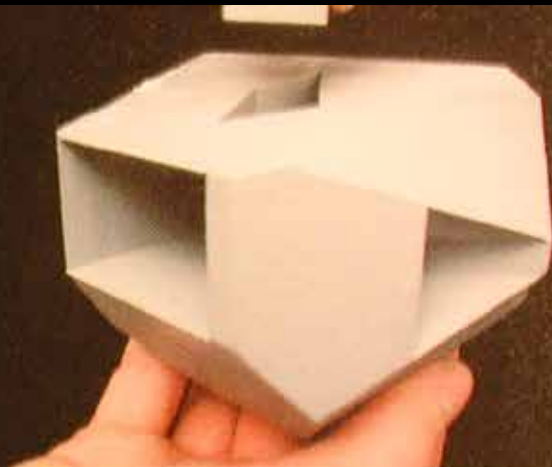
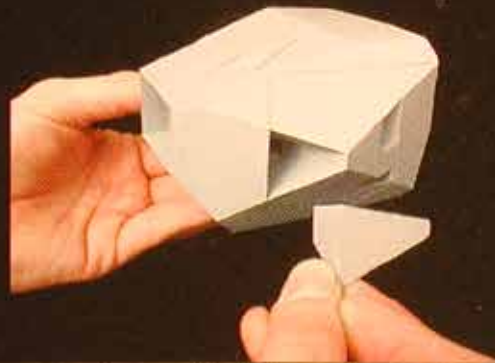
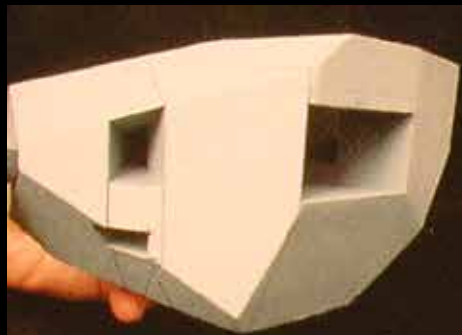
**RECYCLING
TYPOLOGIES
+ CONCEPTS**



REM KOOLHAAS





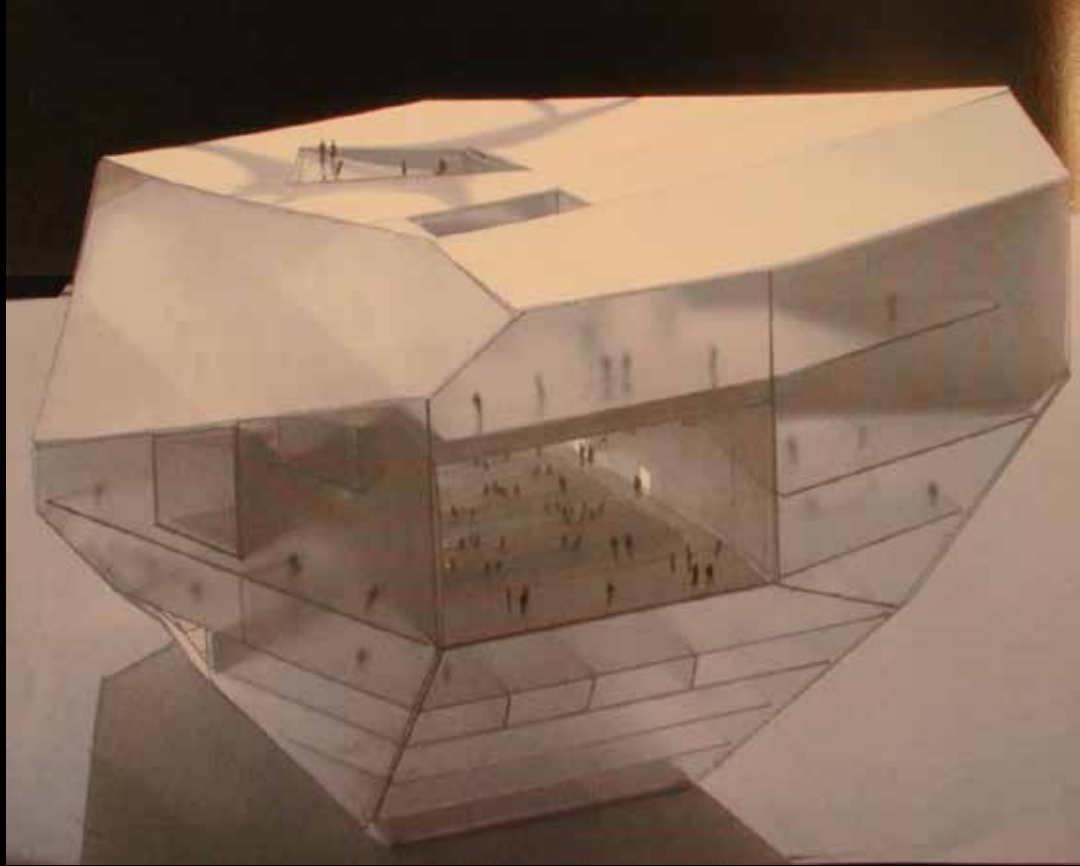




Y2K HOUSE



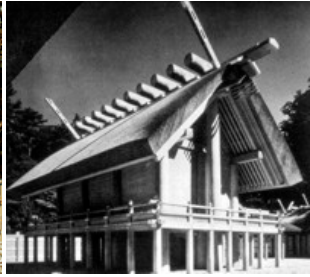
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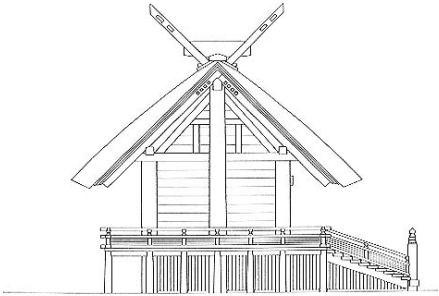
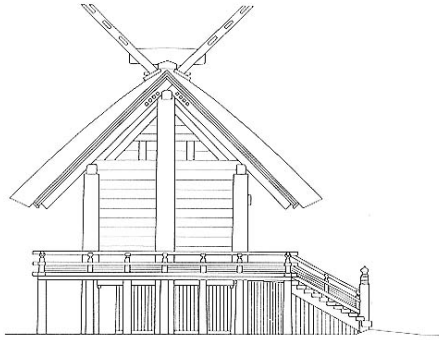
CASA MUSICA

WWW.OMA.EU

RECYCLING



Ise no Jingu



ISE SHRINE



© Alex Vertkoff / The Gamble House



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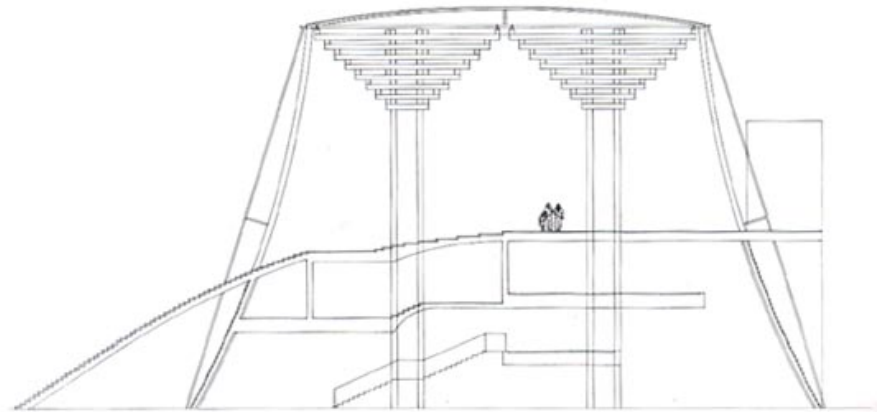
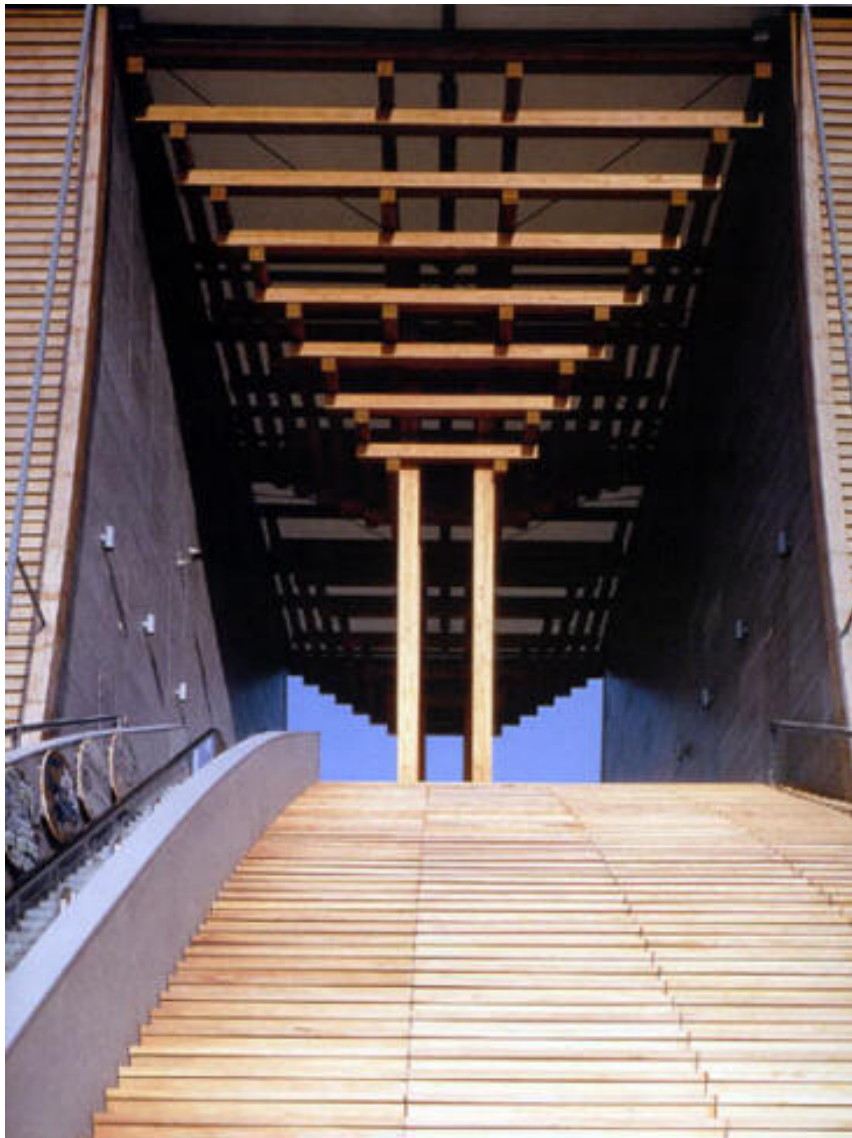


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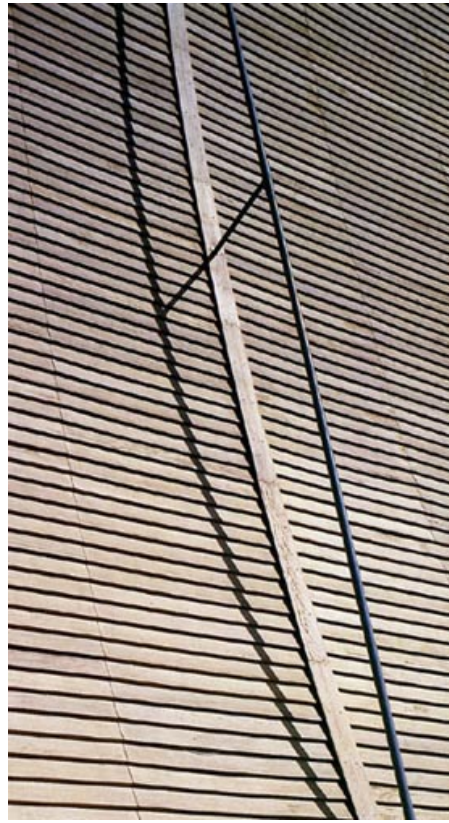
GREEN & GREEN



PIER LUIGI NERVI



TADAO ANDO



TADAO ANDO

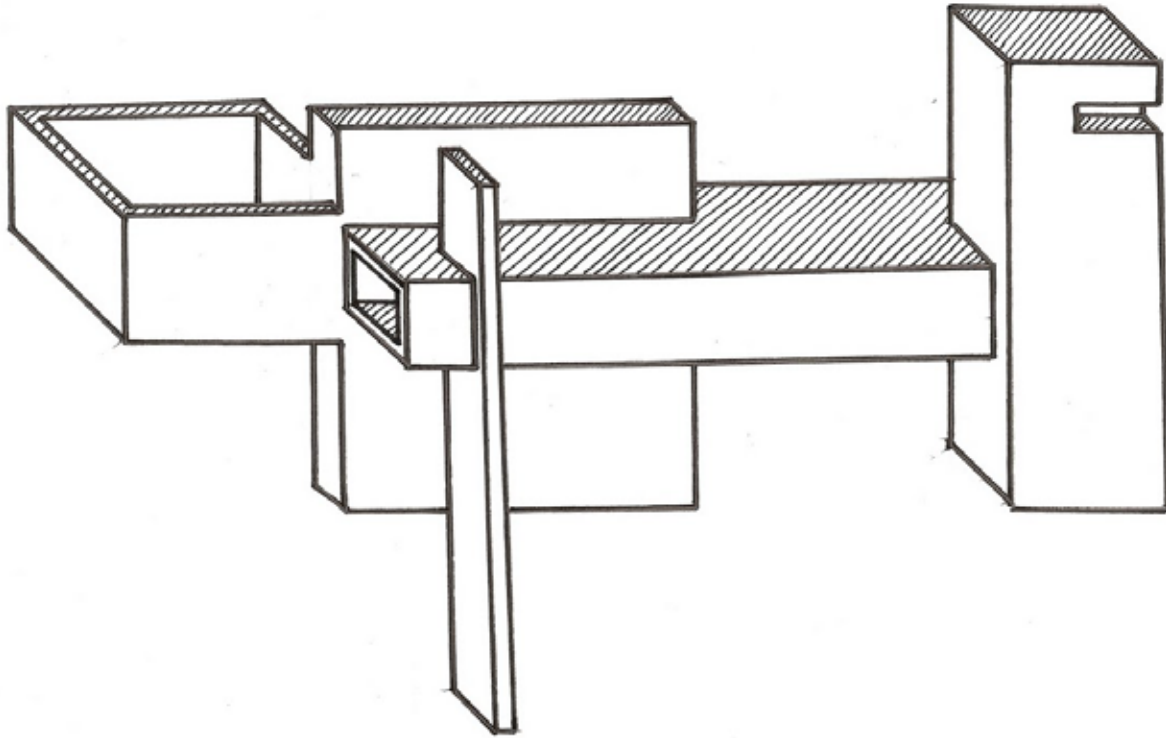
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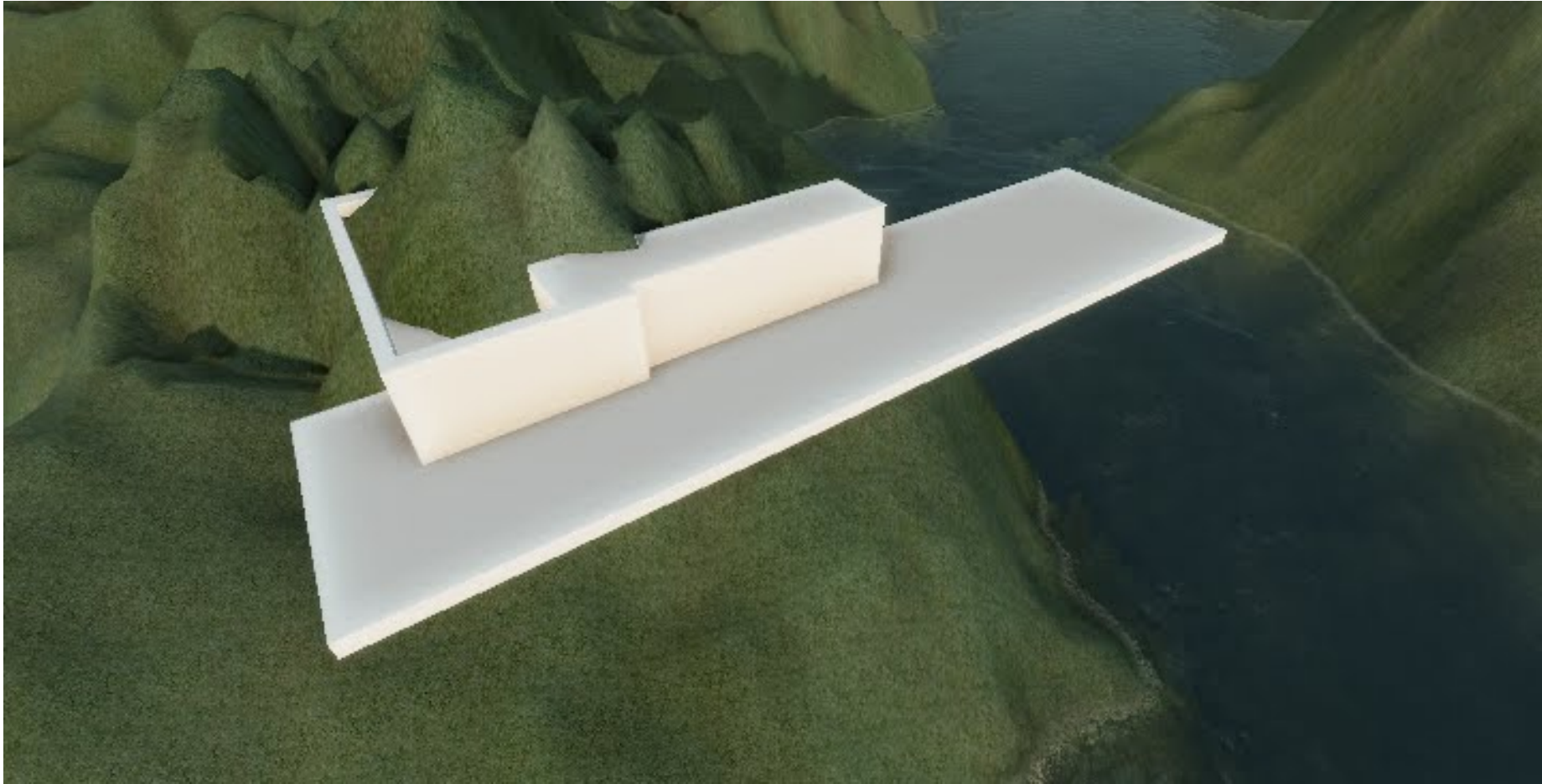
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STUDENT WORK



JAMES GITO



JAMES GITO



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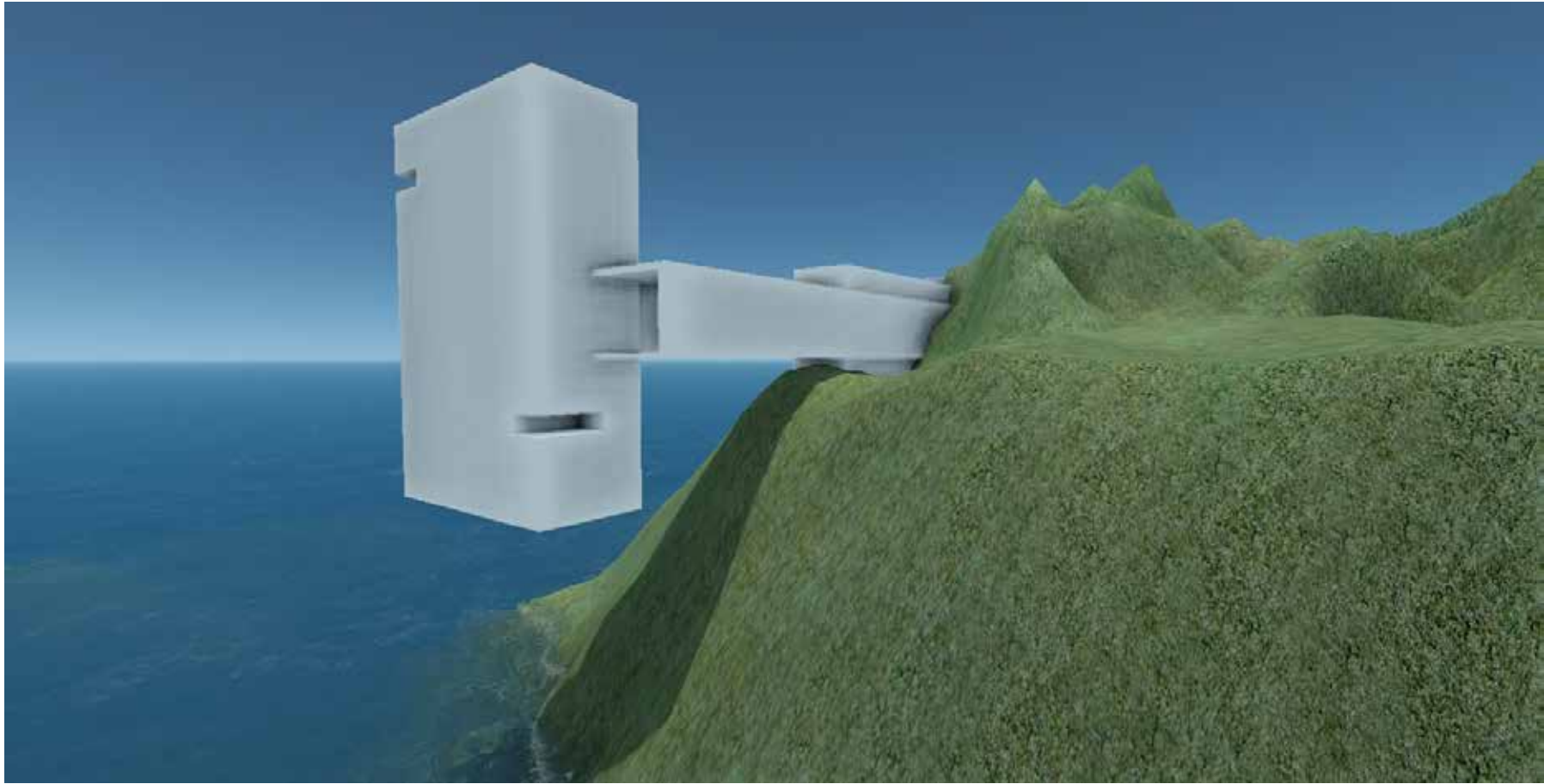
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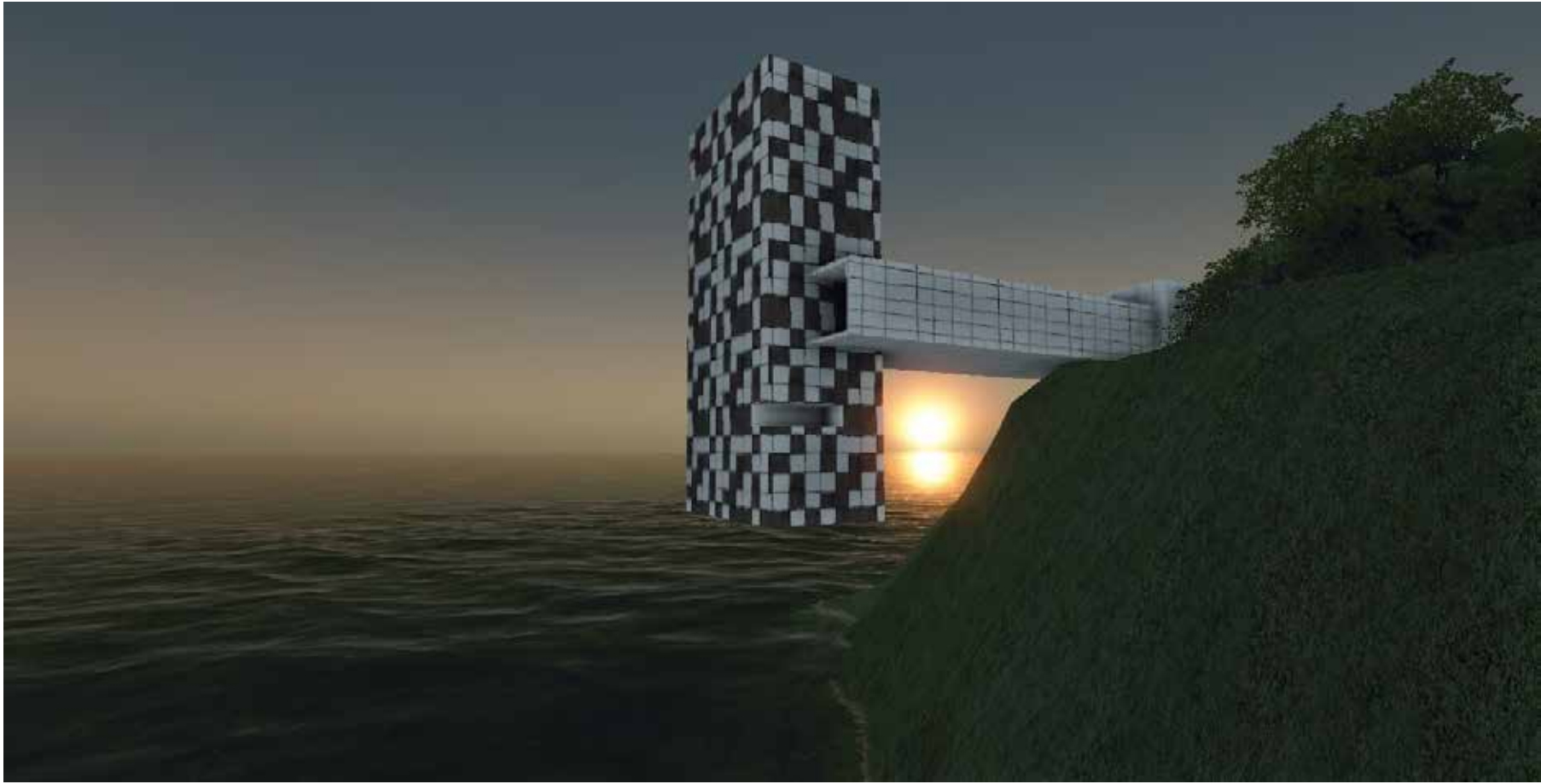
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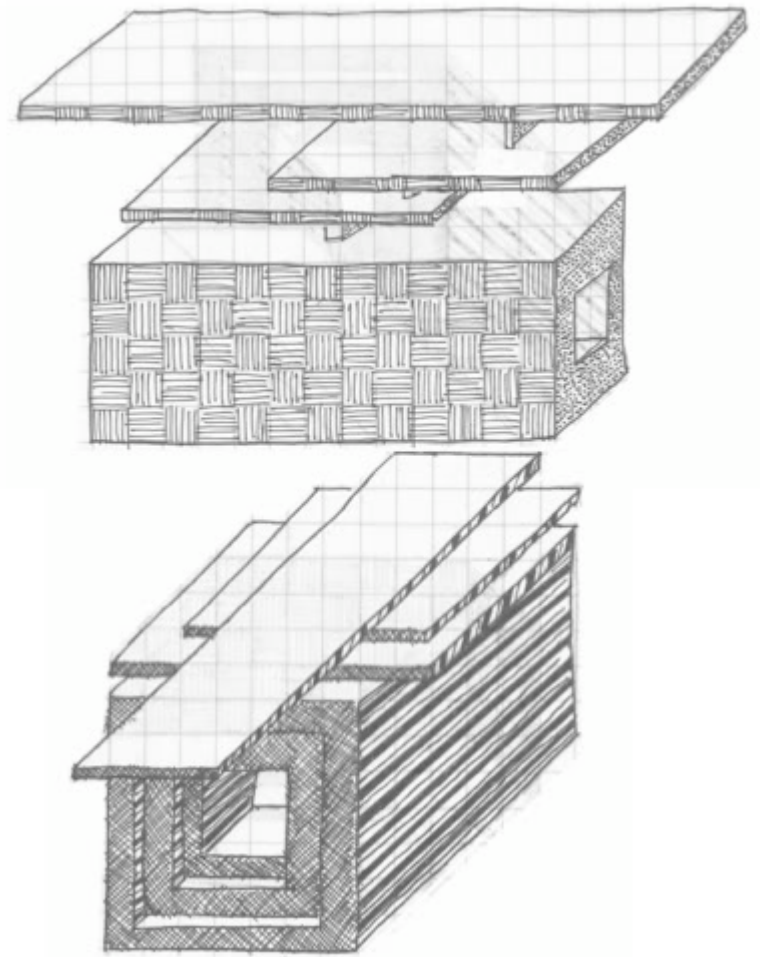
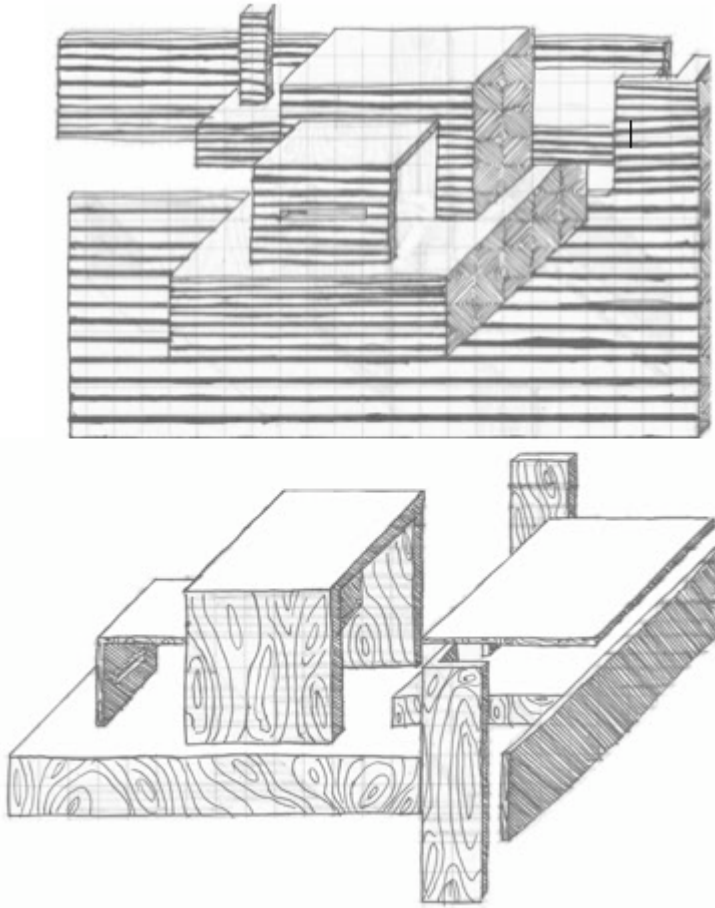
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JAMES GITO



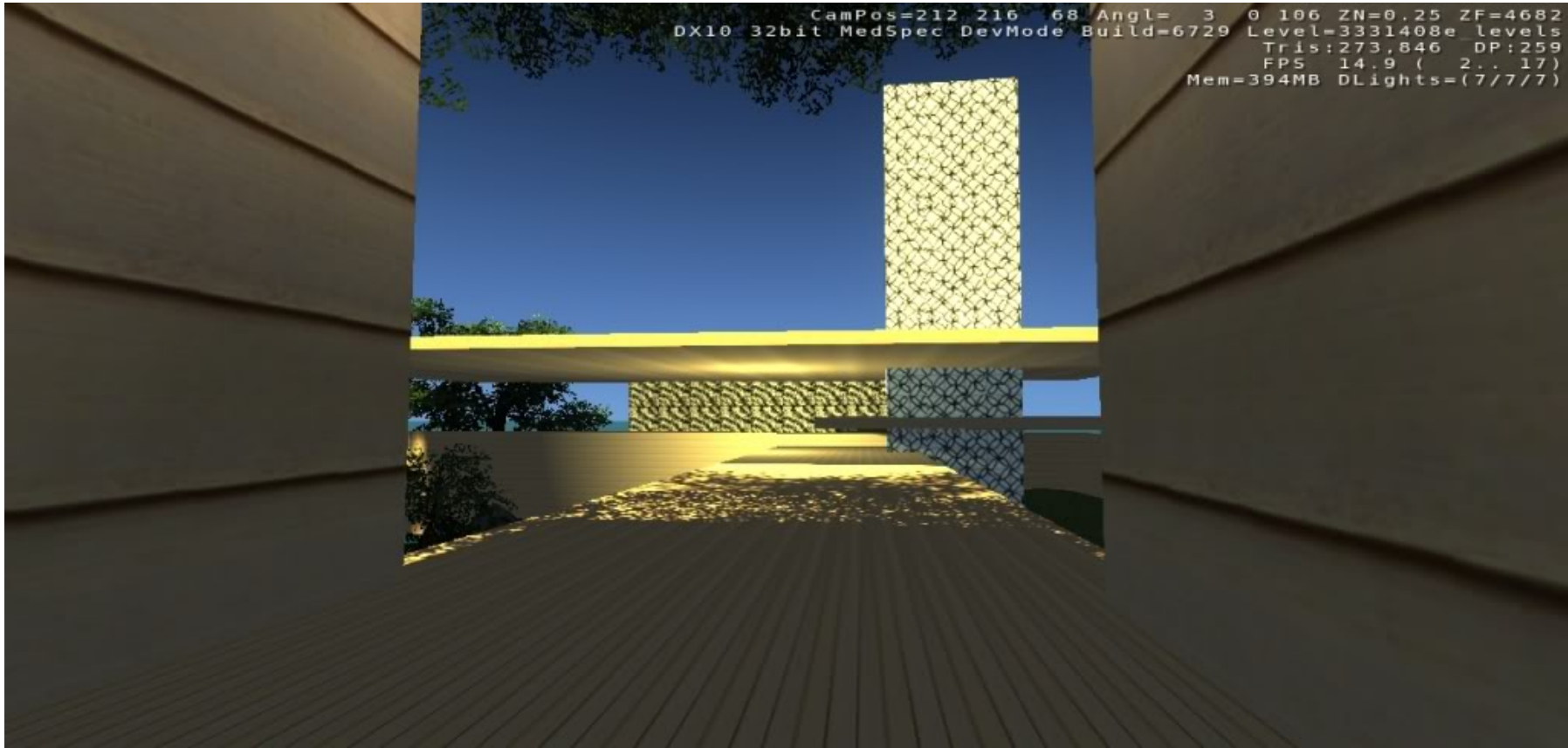
JAMES GITO



OLIVIA GREEN

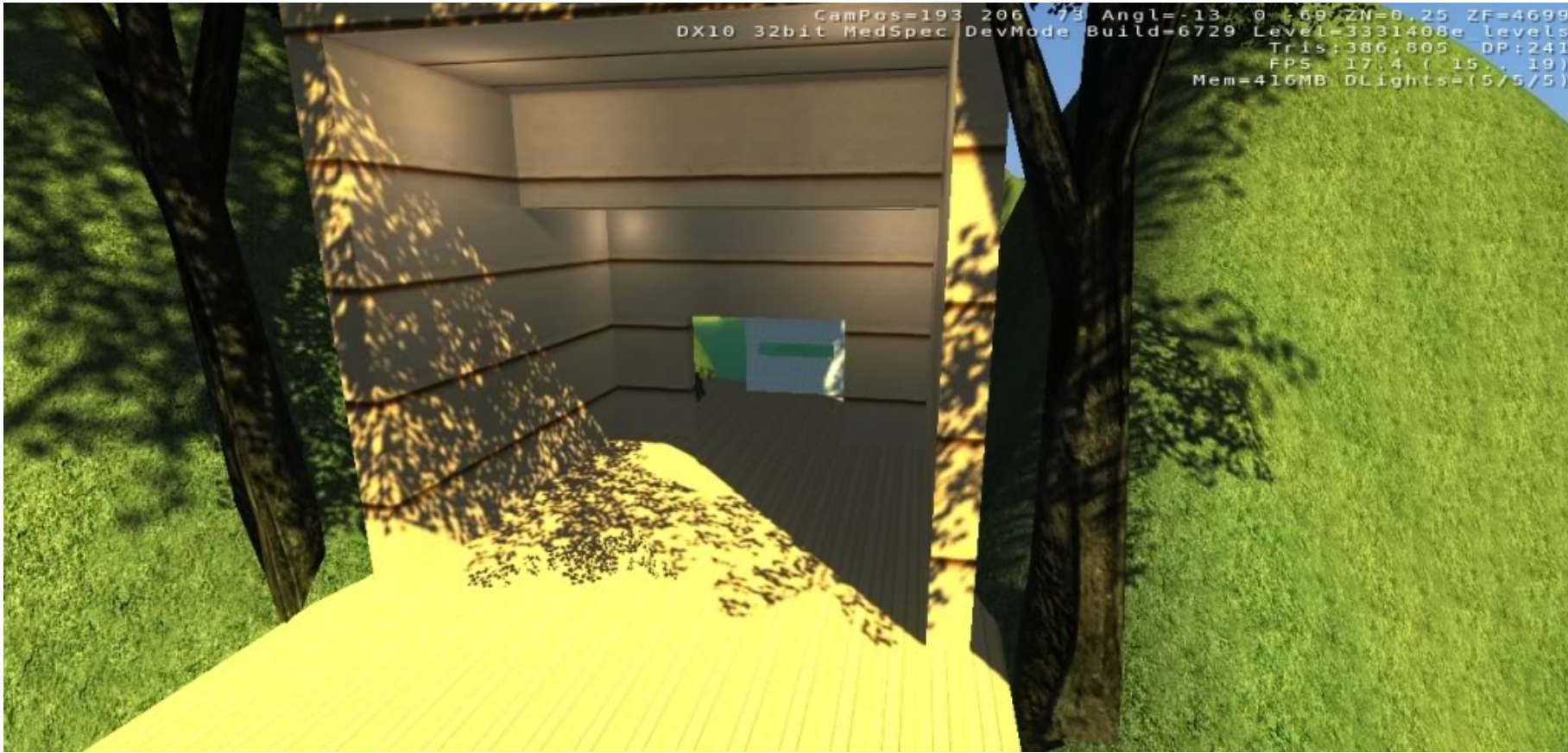


OLIVIA GREEN



OLIVIA GREEN

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Tris:386,805 DP:241
FPS: 17.4 (15. 19)
Mem=416MB DLights=(5/5/5)



OLIVIA GREEN



DEMAS RUSLI

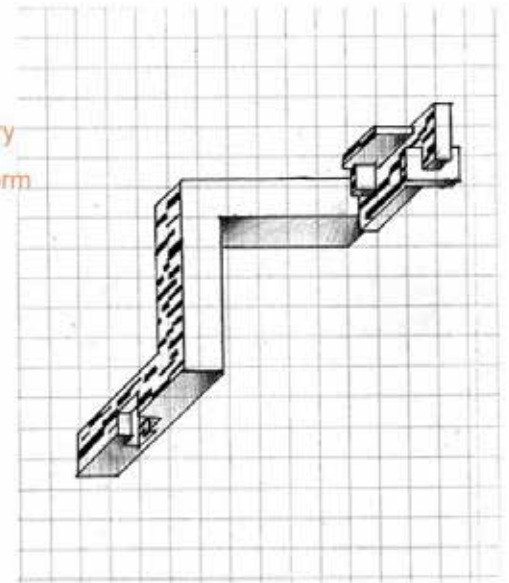
ARCH 1101 EXP2 2010 designed by Ricky Fan

The moodboard of the concept

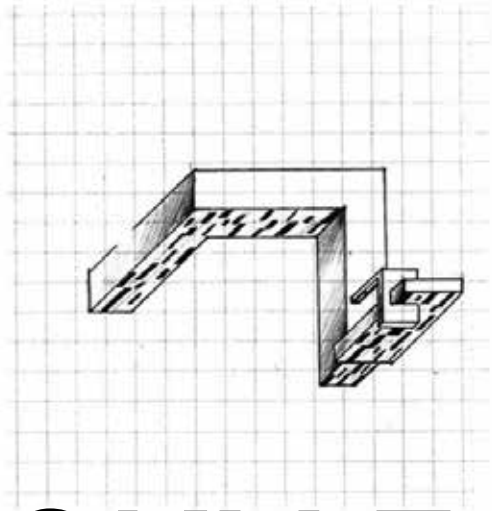
The inspiration of the architecture form

Life
Time
Nature
Insight
Wisdom
Innovative
Resolution

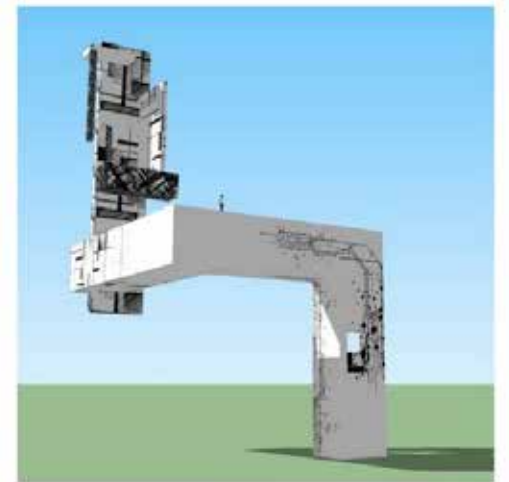
No-Boundary
Invisible Form
Undefine
Wisdom
Twist



The draft sketches of the idea



Branch
Wisdom
Intersection
Life
Relationship
Evolution
Adaptive



RICKY FAN

ARCH 1101 EXP2 2010 designed by Ricky Fan
The moodboard of the concept

The inspiration of the architecture form

I take effort to create
the architecture combining
gradually with the environment



Meeting place:

For the aim of exchanging ideas, I create a space which is the fusion of the sky and earth; the mergence of the horizon and ground surface.

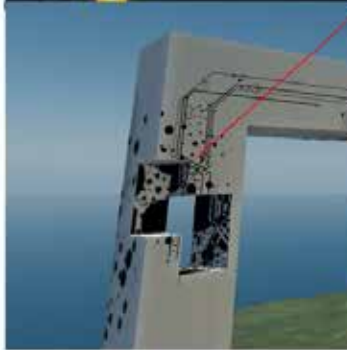
(The space seems to become 'no boundary')



S.H.'s Lab:

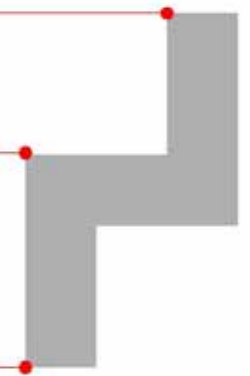
The idea of this space is 'undefine space', in general, the space is comprised from dot to line, from line to surface. But according to S.H.'s 'no boundary' idea, I make a bold assumption and create an experience of 'imaginative space'.

The pattern is supporting this idea



C.D.'s Lab:

'Evolution' is C.D.'s great attainment. The key value of this space are 'intersection', 'chain', 'growth' and 'unlimited'.



RICKY FAN

Stephen Hawking's space

Universe No-Boundary
Invisible Form
Life Empty Love
Peace Time Strong Nature
Undefine horizon
Wisdom
Twist

"...But if the universe is really completely self-contained, having no boundary or edge, it would have neither beginning nor end: it would simply be... What place, then, for a creator?"

The intersection of their ideas

Branch Growth Wisdom
Natural Selection Human
Time Weak Strong Relationship
Intersection Life Evolution Nature

Charles Darwin's space

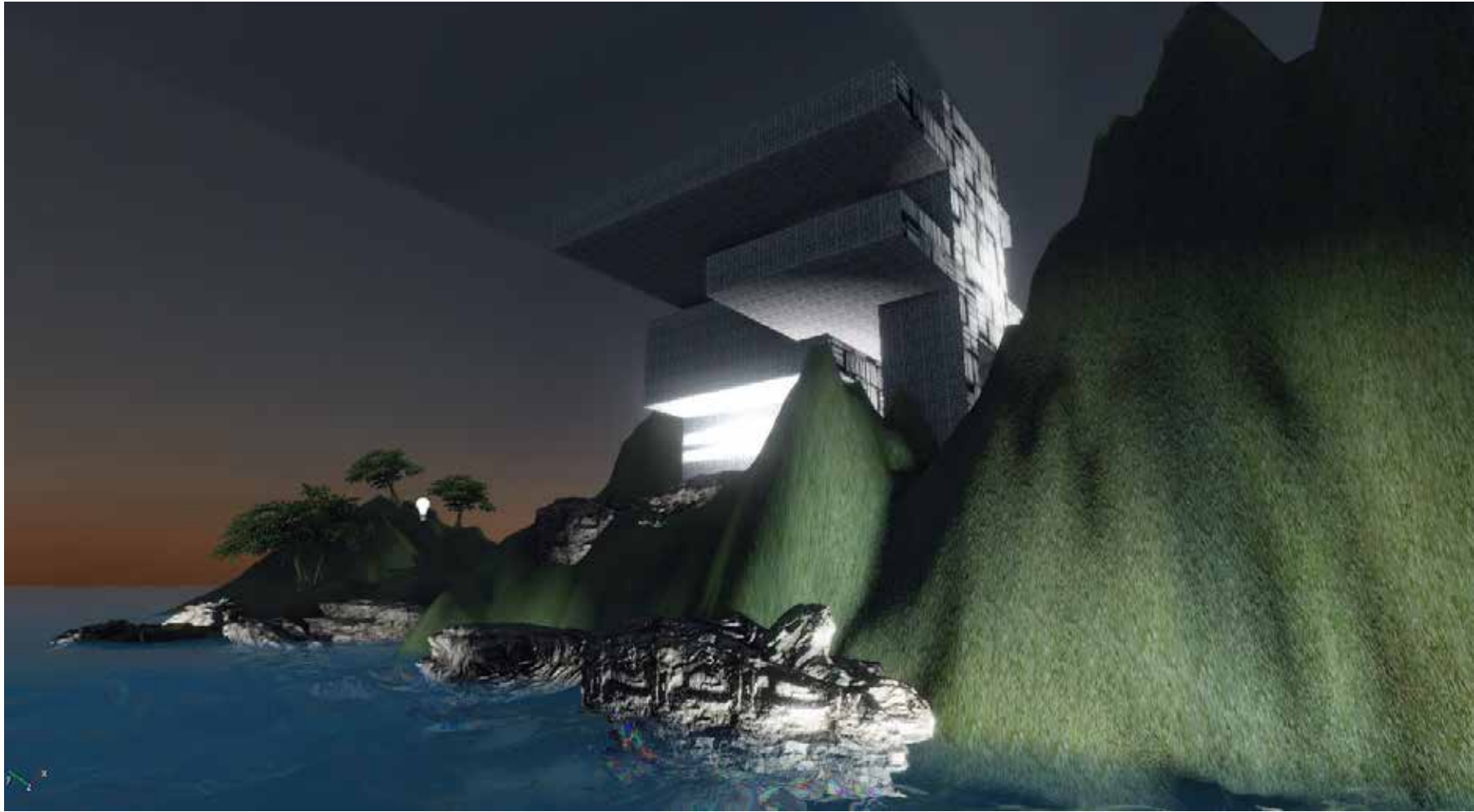
"...under the complex and sometimes varying conditions of life, will have a better chance of surviving, and thus be naturally selected."



RICKY FAN

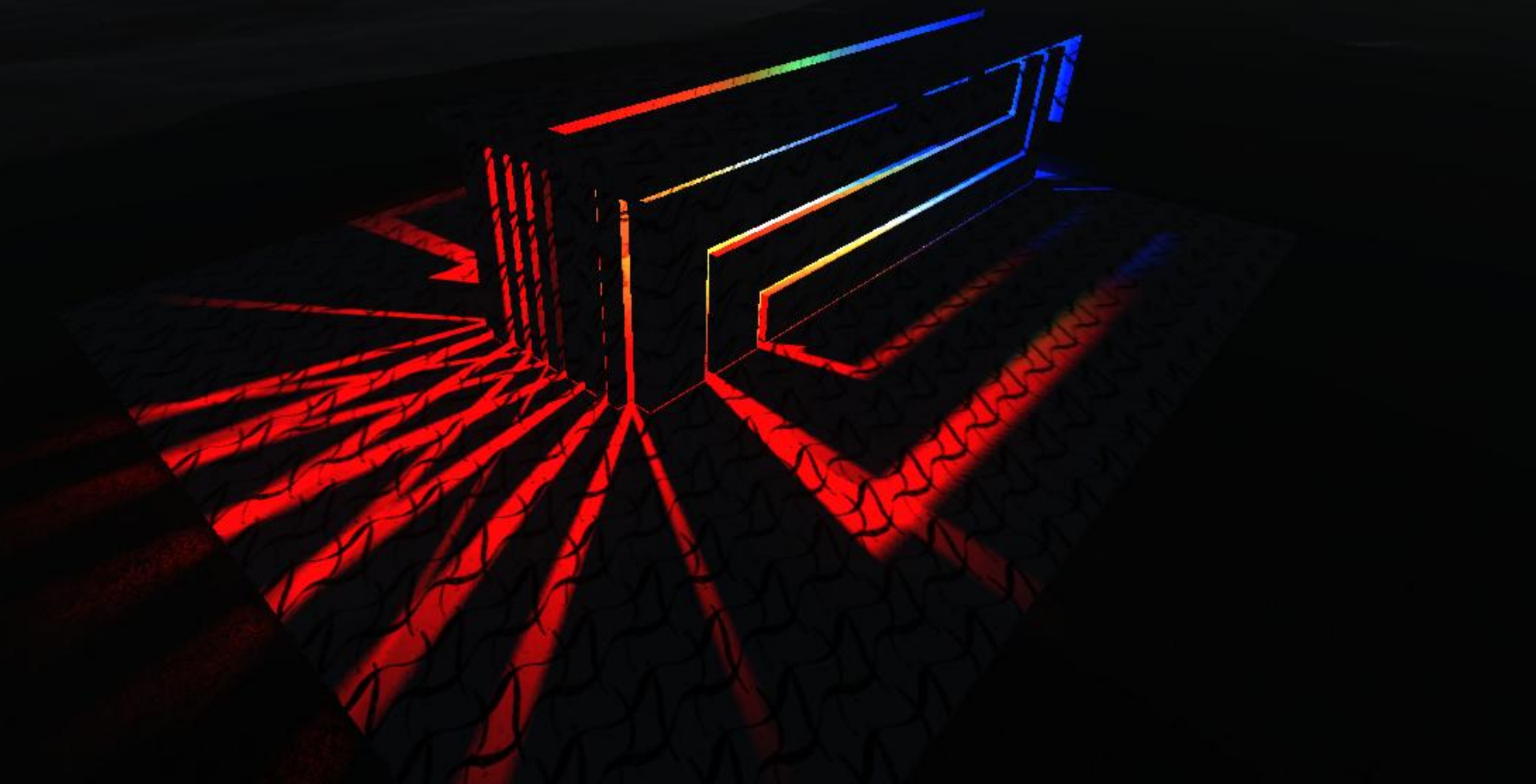


PATRICK LEAL



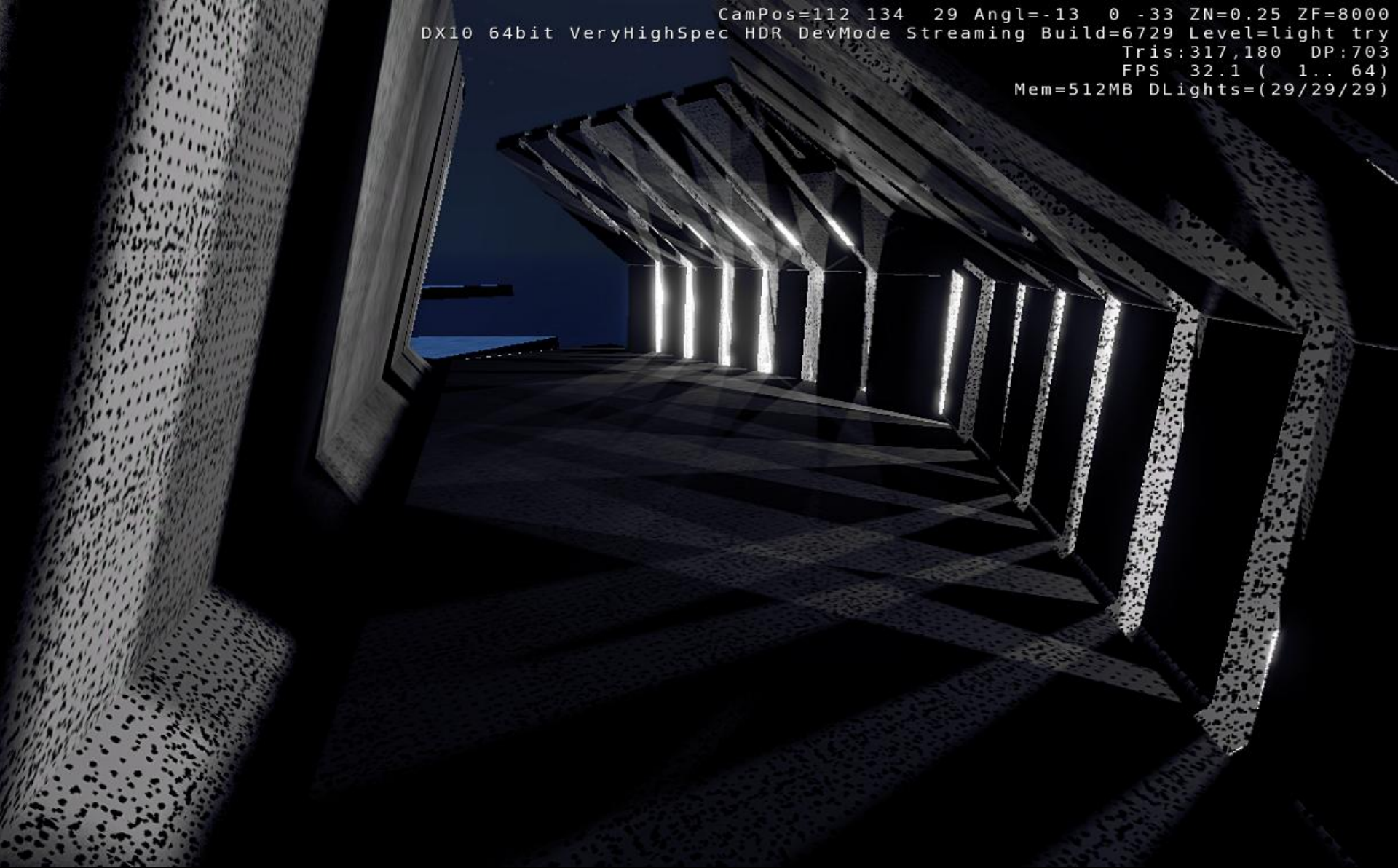
PATRICK LEAL

CamPos= 57 131 23 Angl=-30 0 -45 ZN=0.25 ZF=4527
DX10 64bit MedSpec DevMode Build=6729 Level=light try
Tris:192,361 DP:188
FPS 45.5 (8..152)
Mem=482MB DLights=(0/6/6)



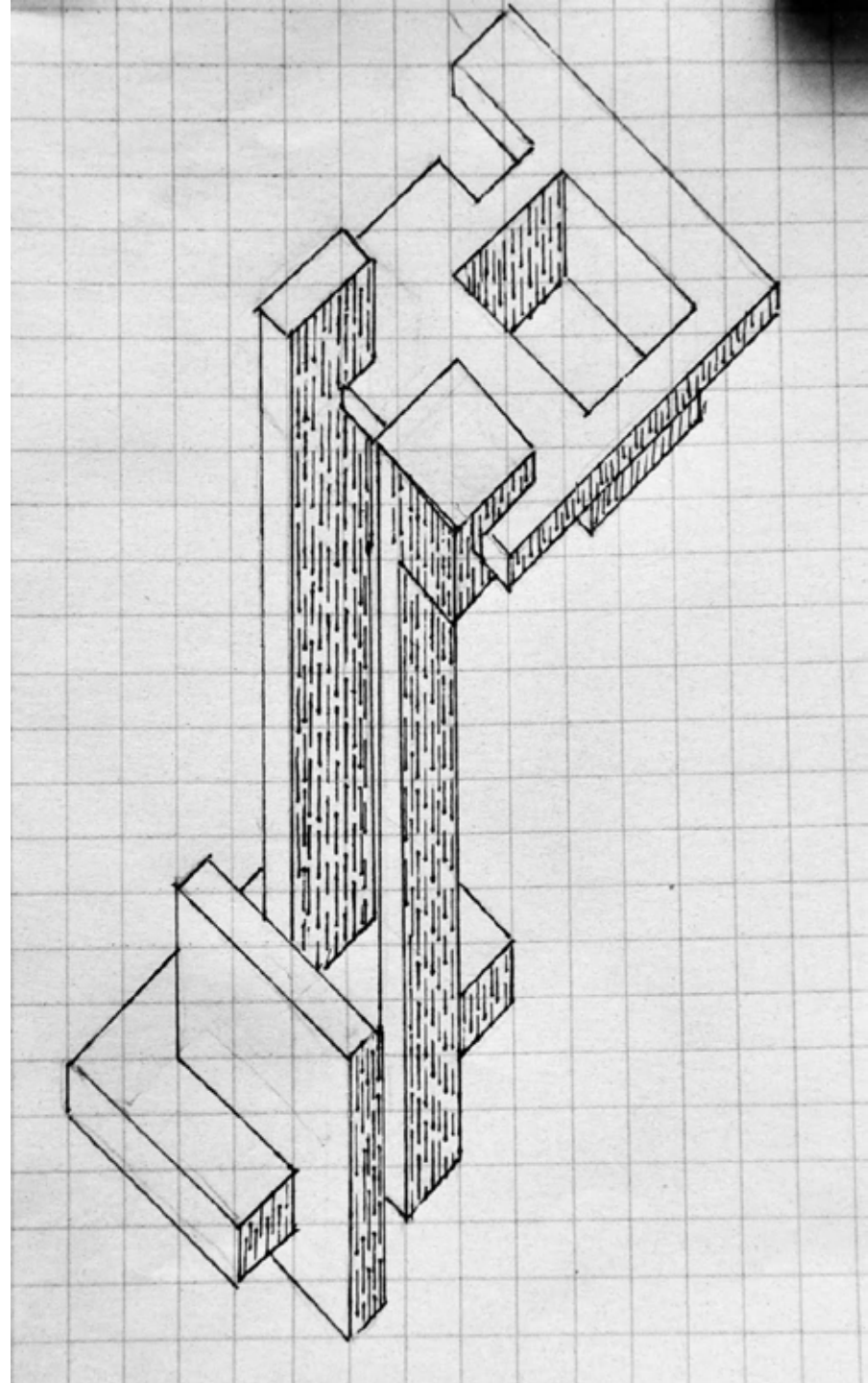
KEVIN SI

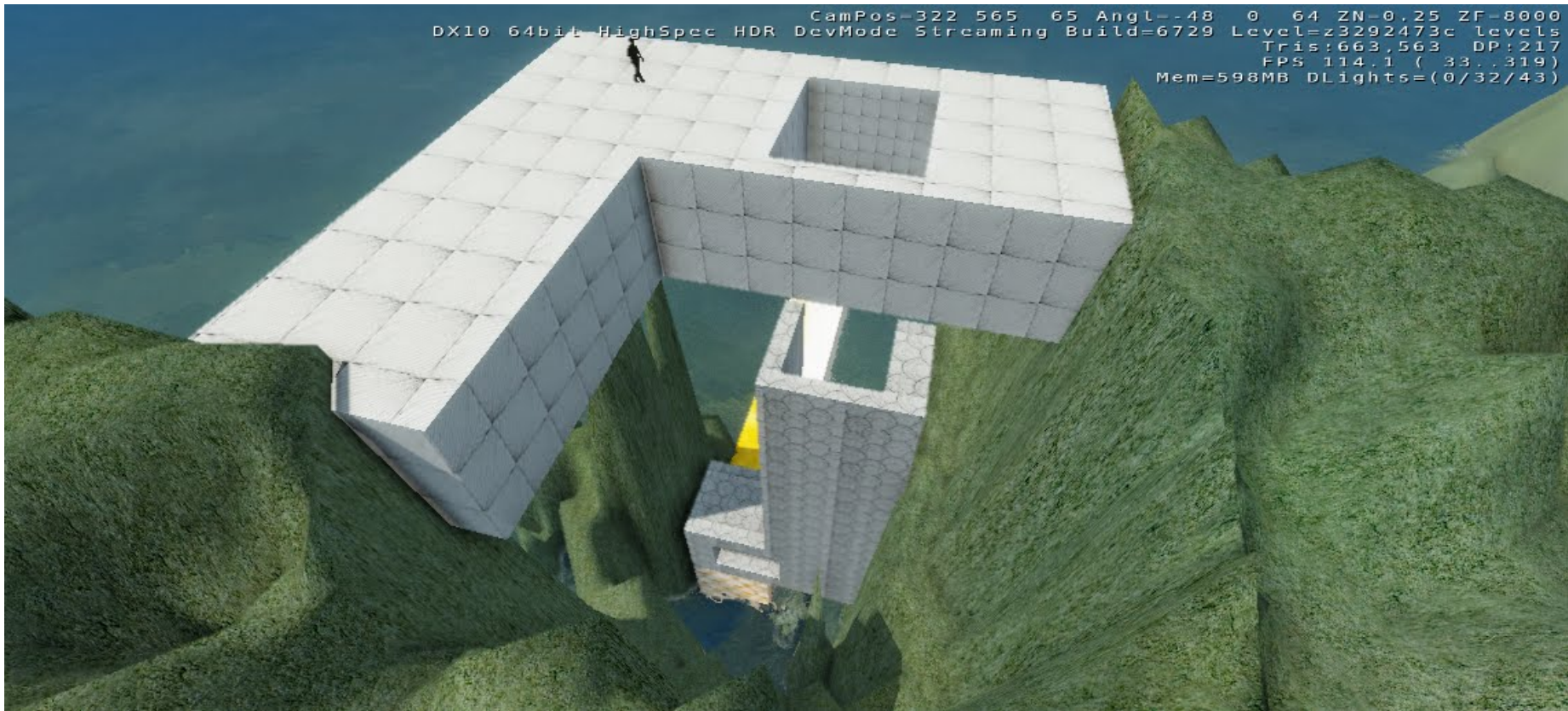
CamPos=112 134 29 Angl=-13 0 -33 ZN=0.25 ZF=8000
DX10 64bit VeryHighSpec HDR DevMode Streaming Build=6729 Level=light try
Tris:317,180 DP:703
FPS 32.1 (1.. 64)
Mem=512MB DLights=(29/29/29)



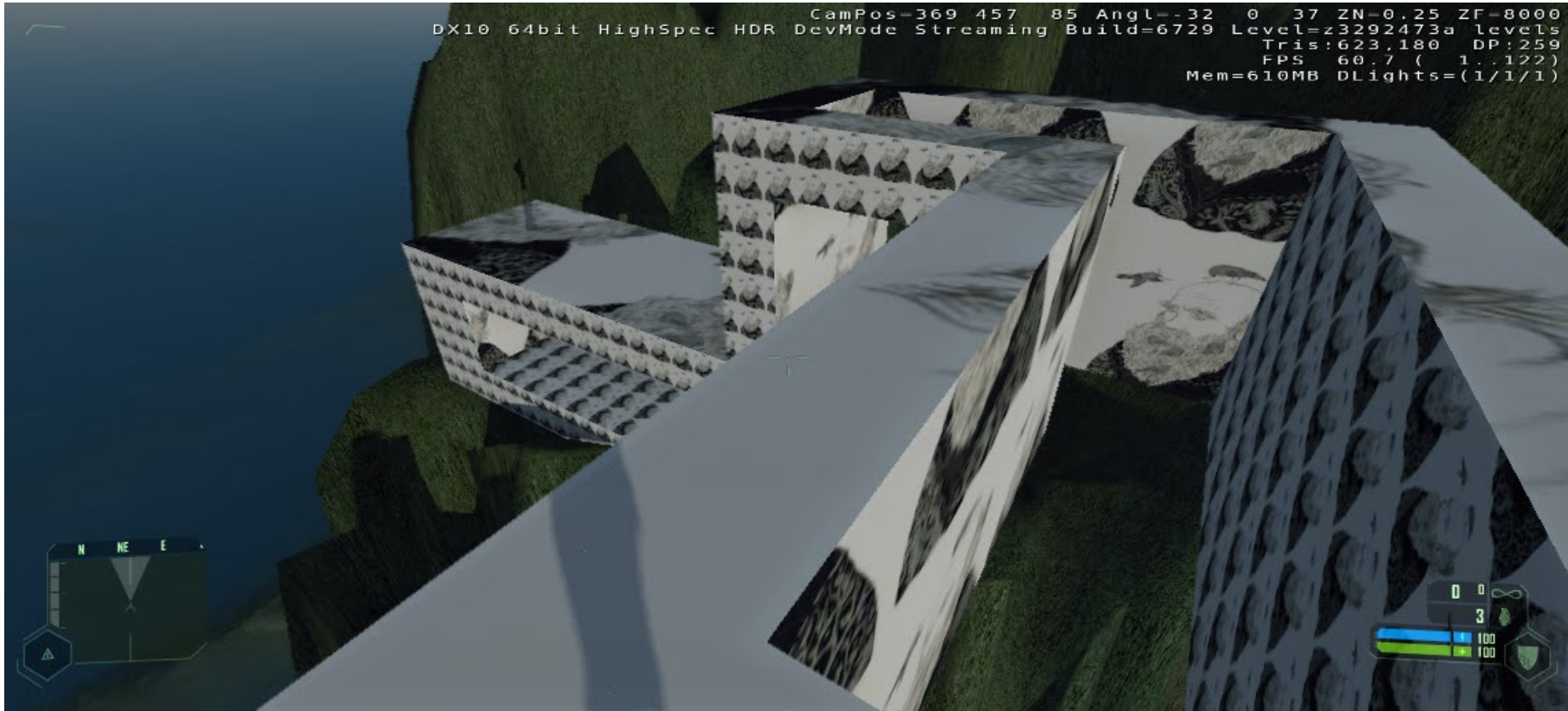
KEVIN SI

XIN ZHANG





XIN ZHANG



XIN ZHANG



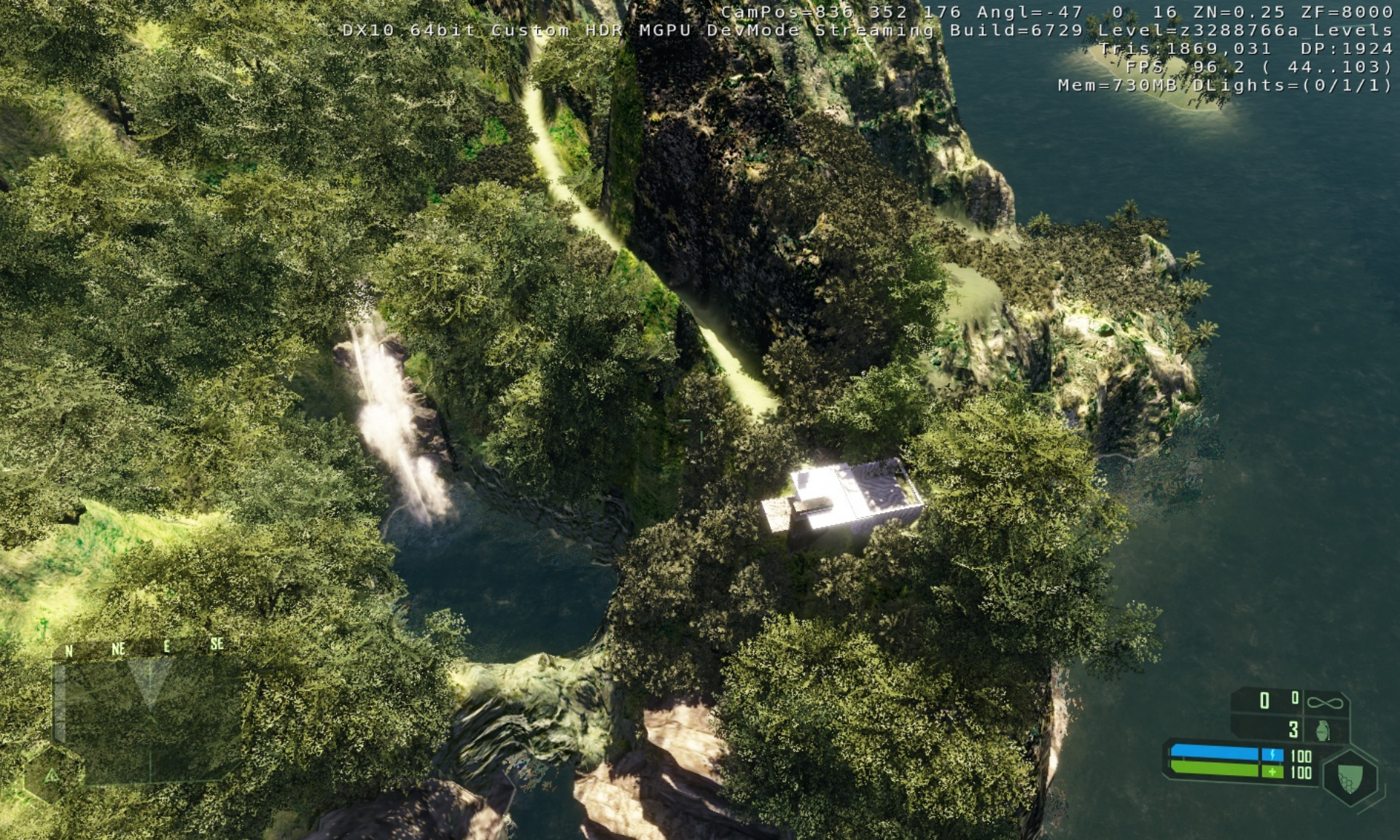
XIN ZHANG

CamPos=244 586 24 Angl= 11 0 -81 ZN=0.25 ZF=8000
DX10 64bit HighSpec HDR DevMode Streaming Build=6729 Level=z3292473c levels
Tris:1222,517 DP:351
FPS 53.7 (50.. 57)
Mem=565MB DLights=(0/32/47)



XIN ZHANG

CamPos=836 352 176 Angl=-47 0 16 ZN=0.25 ZF=8000
DX10 64bit Custom HDR MGPU DevMode Streaming Build=6729 Level=z3288766a Levels
Tris:1869,031 DP:1924
FPS: 96.2 (44..103)
Mem=730MB DLights=(0/1/1)

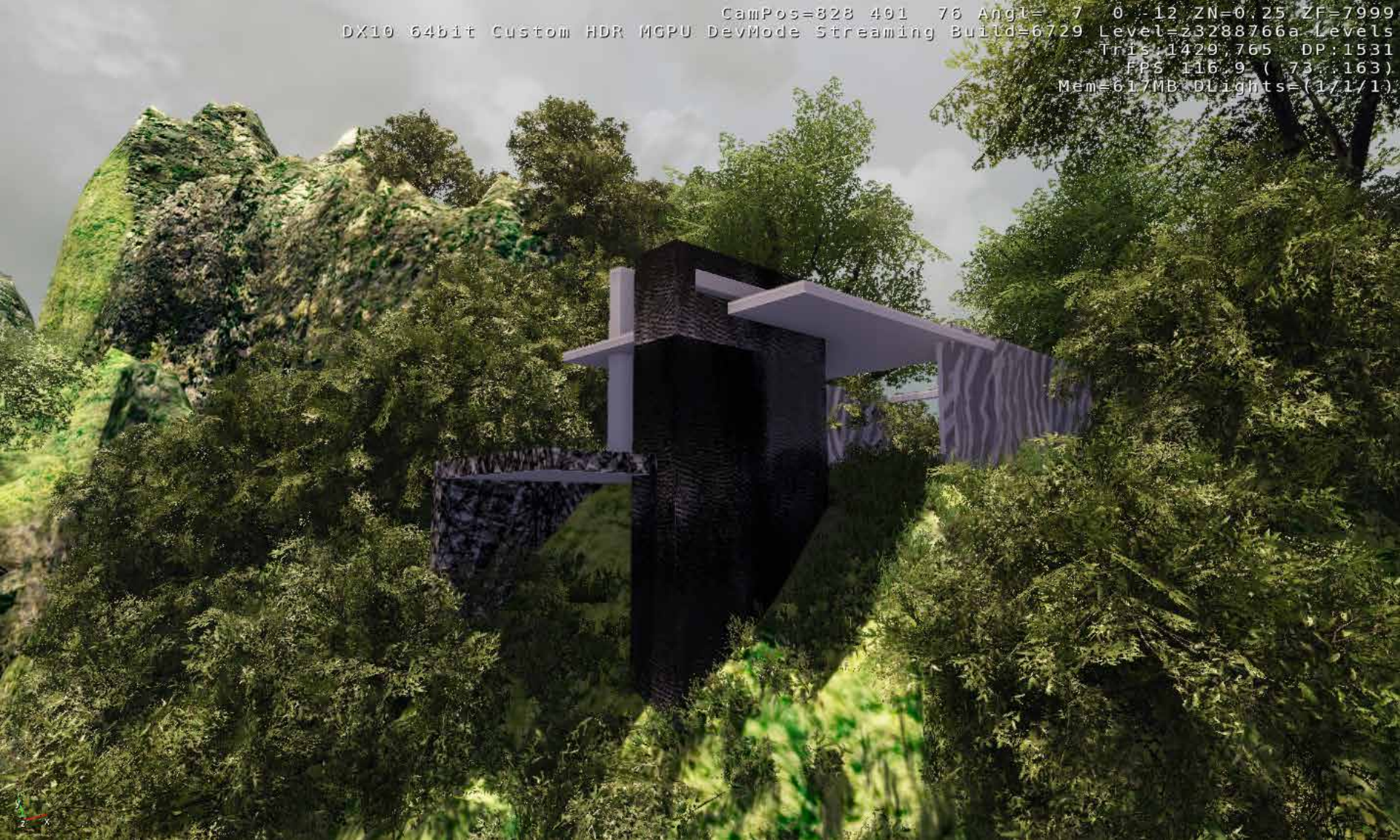


N NE E SE

0 0 ∞
3 3
100 100
100 100

JAMES HARGREVES

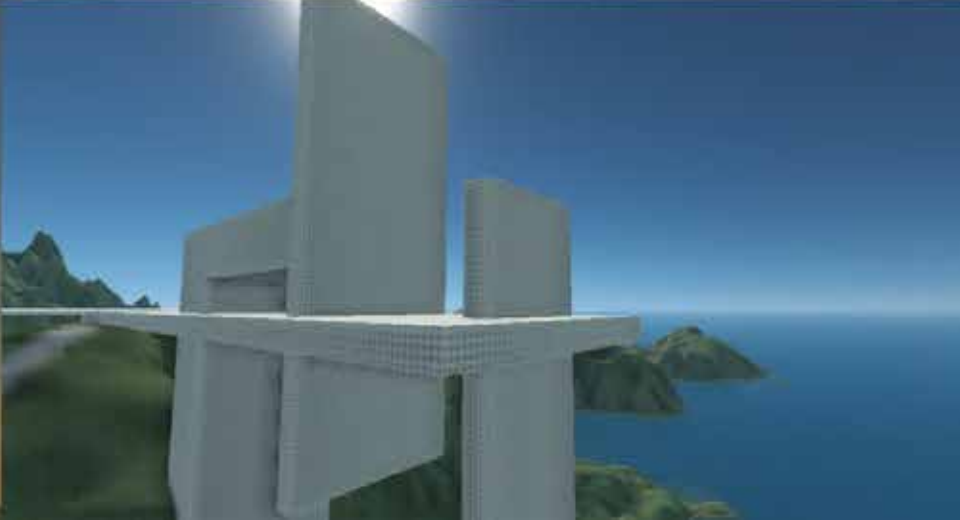
DX10 64bit Custom HDR MGPU DevMode Streaming Build=6729 Level=z3288766a Levels
CamPos=828 401 76 Angl= 7 0 -12 ZN=0.25 ZF=7999
Tris:1429,765 DP:1531
FPS 116.9 (73 163)
Mem=617MB DLights=(1/1/1)



JAMES HARGREVES



JAMES HARGREVES



BRYAN NGUYEN

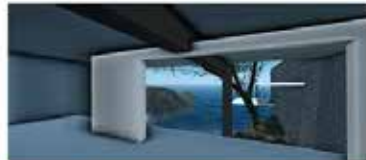


MARIA AGNESI'S LABORATORY

The hypothesis I selected was 'Agnesi's knowledge of multiple languages helped connect all the different facets of her life.' So in my opinion, the Maria's success was based on her different knowledges. And her knowledges support her researchs and achievements. In the architecture, the knowledges can be instead of the column other structural wall. Therefore I design a space which was support by the column and wall and easily saw the structure from the outside.



The texture I choosed was three texture from one group, light to dark. And since the structural wall was main support, I used the darkest texture to show the high density and stable. Use the same reason, the secondary wall used the medium texture. And the roof was used the lightest one.



SIGMUND FREUD'S LABORATORY

The hypothesis I selected was 'Sigmund Freud developed the theory of human mind's organization and internal operations.' That was absolutely different from the Maria's laboratory. The Sigmund look more care the about inside of body. Although the mind was complex, he still could read your mind clearly. So I used the very simple entrance and complex inside space. But you can see through the building by the central hole cross the space. And space was separate by two parts, private inside and public corrida. And the texture I selected was concrete with cool color to show the space hermetic and separate from the maria's laboratory.



WEN JUN HU

1. Draw a series of 3 parallel projections exploring the interconnection between pairs of your drawings from week one (make sure that each one of the pair is from a different client). Use carefully hatched lines to highlight one set of surfaces that exist in parallel planes.
2. Draw the same set of 3 parallel projections from the opposite angle.

Note: throughout the class students will be exporting objects from SketchUp to CryENGINE3. To do this, find a student who has a functioning workflow and has a hardware and operating system setup that is the same as you

TODAYS STUDIO

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TODAYS STUDIO

QUESTIONS?