THE ART OF MONUMENT VALLEY

KEN WONG
LEAD DESIGNER, USTWOGAMES

GDC 2015

@kenwongart
@ustwogames
#monumentvalleygame

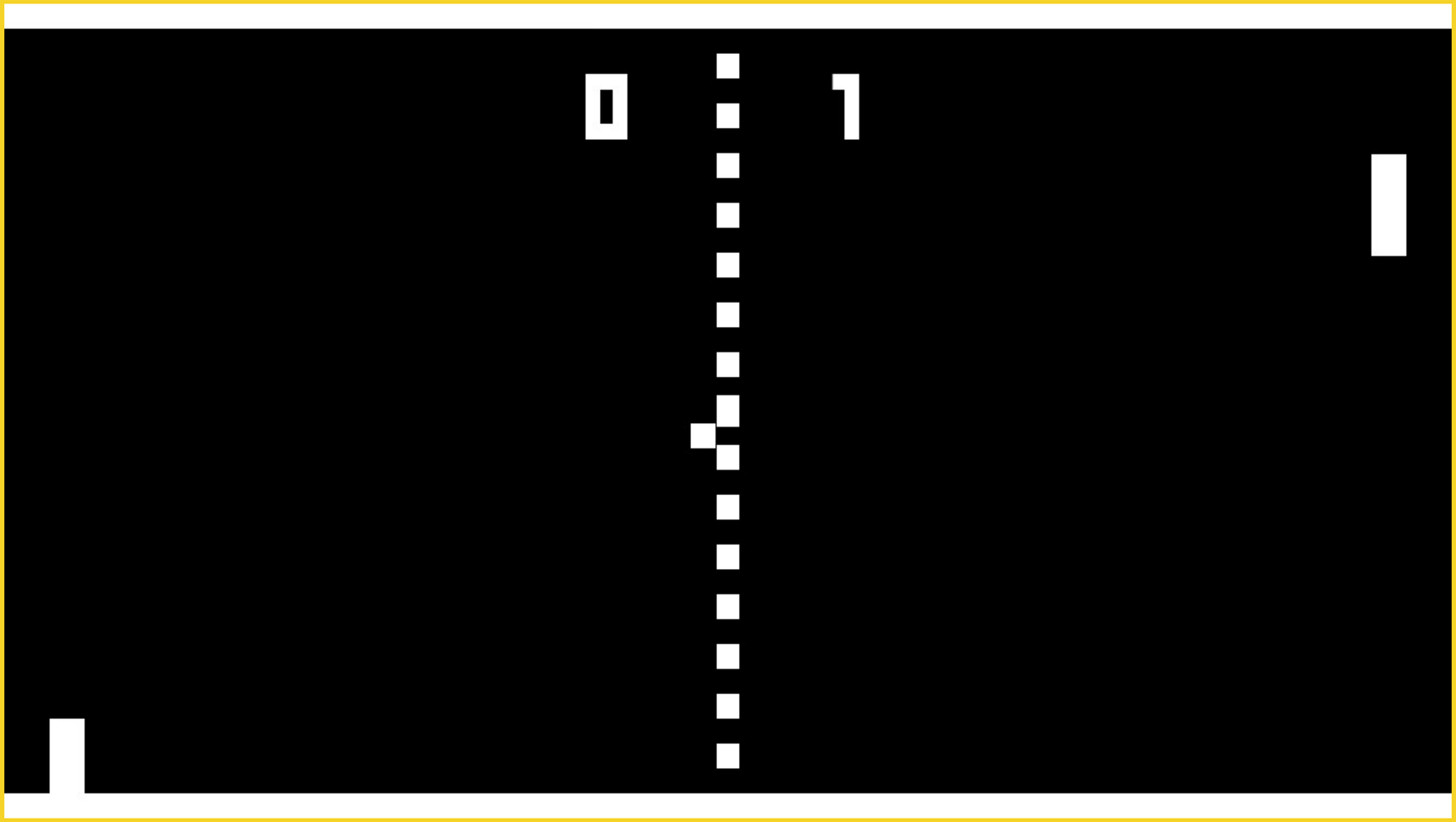
[video game sound effects]

APPLE
DESIGN AWARD
WINNER 2014
APP STORE 2014
IPAD GAME
OF THE YEAR
ACHIEVEMENT IN
ART DIRECTION
DICE AWARDS 2014
COMMUNITY
CHOICE
UNITY AWARDS 2014
BEST 3D
VISUALS
UNITY AWARDS 2014
CREATIVE CONTRIBUTION
AUDIO
DEVELOP AWARDS 2014
BEST iOS GAME
POCKETGAMER
AWARDS 2015
GAME OF THE YEAR
POCKETGAMER
AWARDS 2015
GRAND PRIX
11TH IMGA
INNOVATION
AWARD
GDC AWARDS 2015
BEST VISUAL
ART
GDC AWARDS 2015
BEST MOBILE
GAME
GDC AWARDS 2015

THE ART OF MONUMENT VALLEY

IN WHICH

WE REVISIT THE ROLE OF VISUAL ART IN GAMES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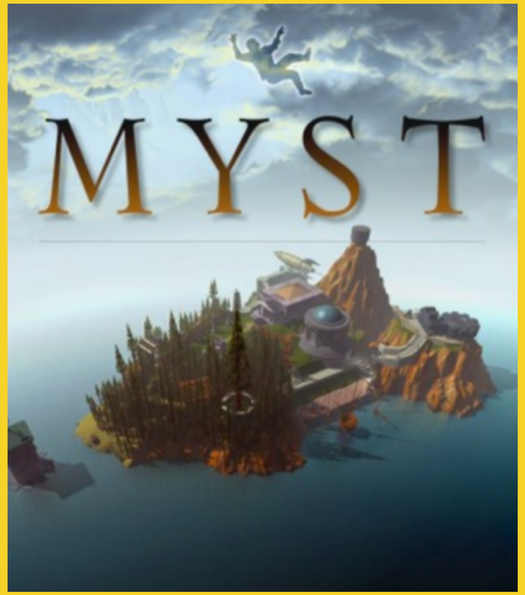
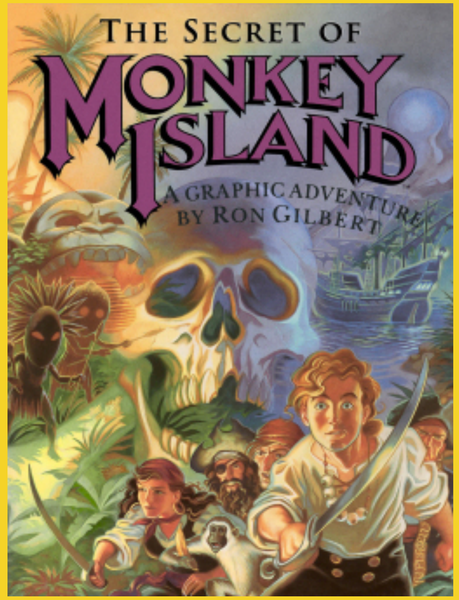
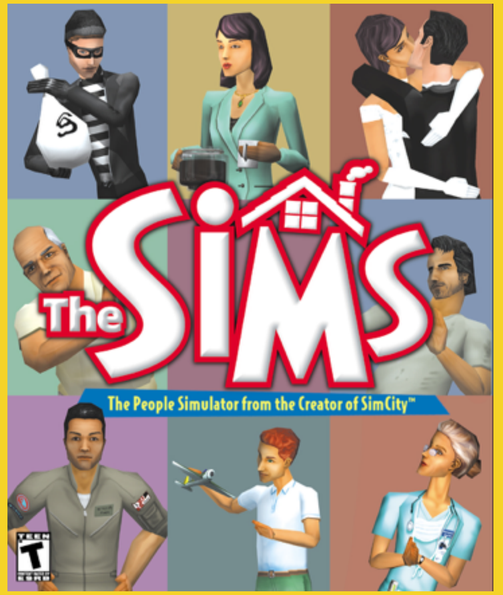

MYST


THE SECRET OF
MONKEY ISLAND
A GRAPHIC ADVENTURE
BY RON GILBERT

PS3
PlayStation.Network
Only On PlayStation.
HEAVY RAIN
MATURE 17+
M
SONY


The SIMS
The People Simulator from the Creator of SimCity™
TEEN
T

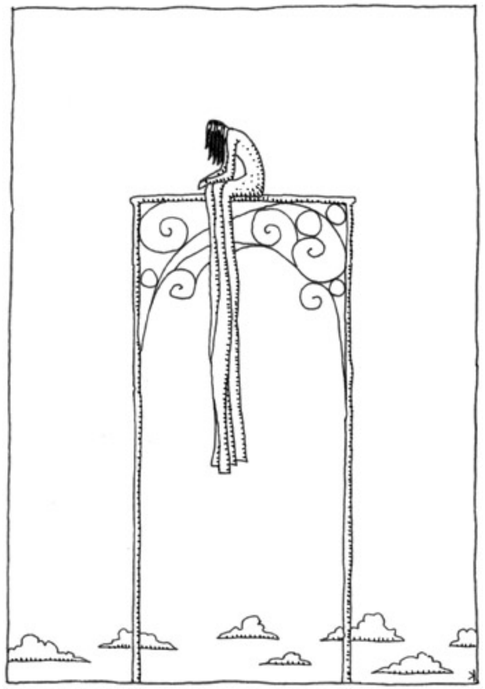
- We create entire **player experiences** — not just mechanics dressed up with art and story.
- For some players, **enjoyment** comes more from story, **art**, sound, less from gameplay.

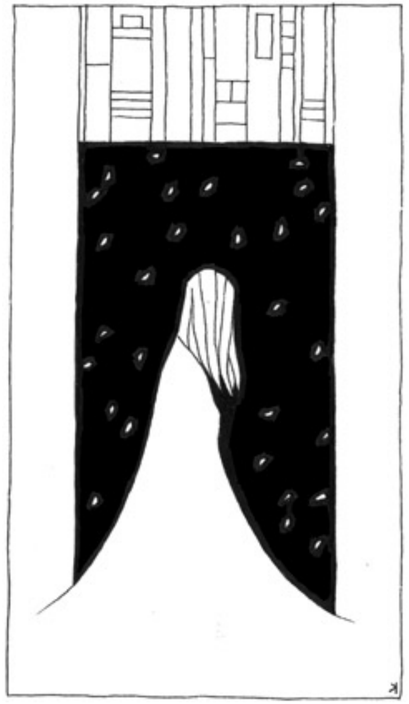
Designing with **aesthetics** as a **focus**

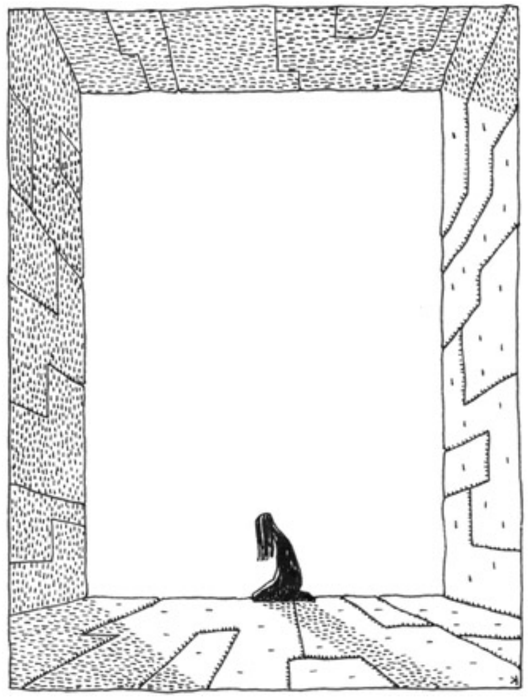
leads to the creation of **different experiences.**

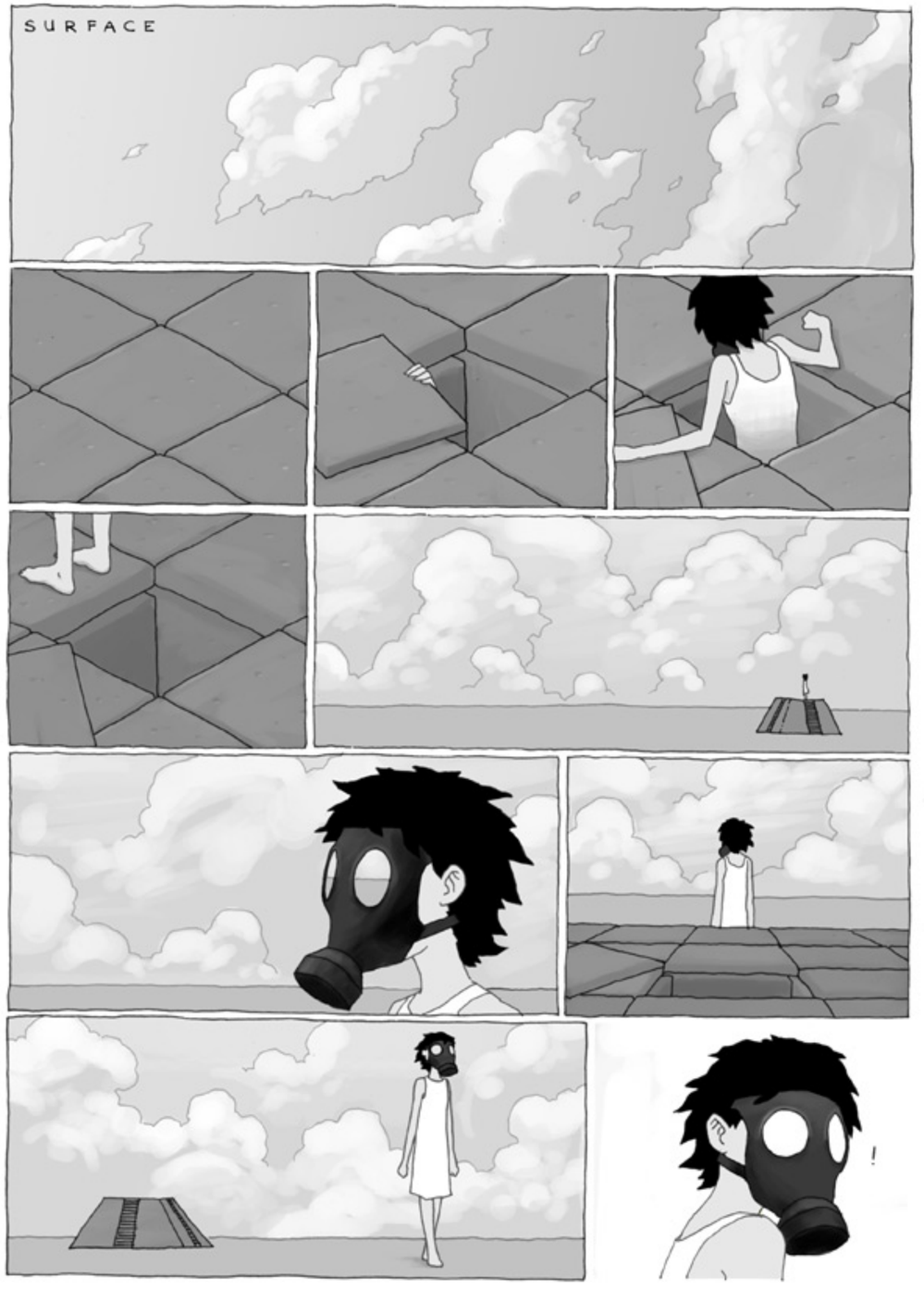
THE ARTIST AS GAME DESIGNER

MY ILLUSTRATION WORK







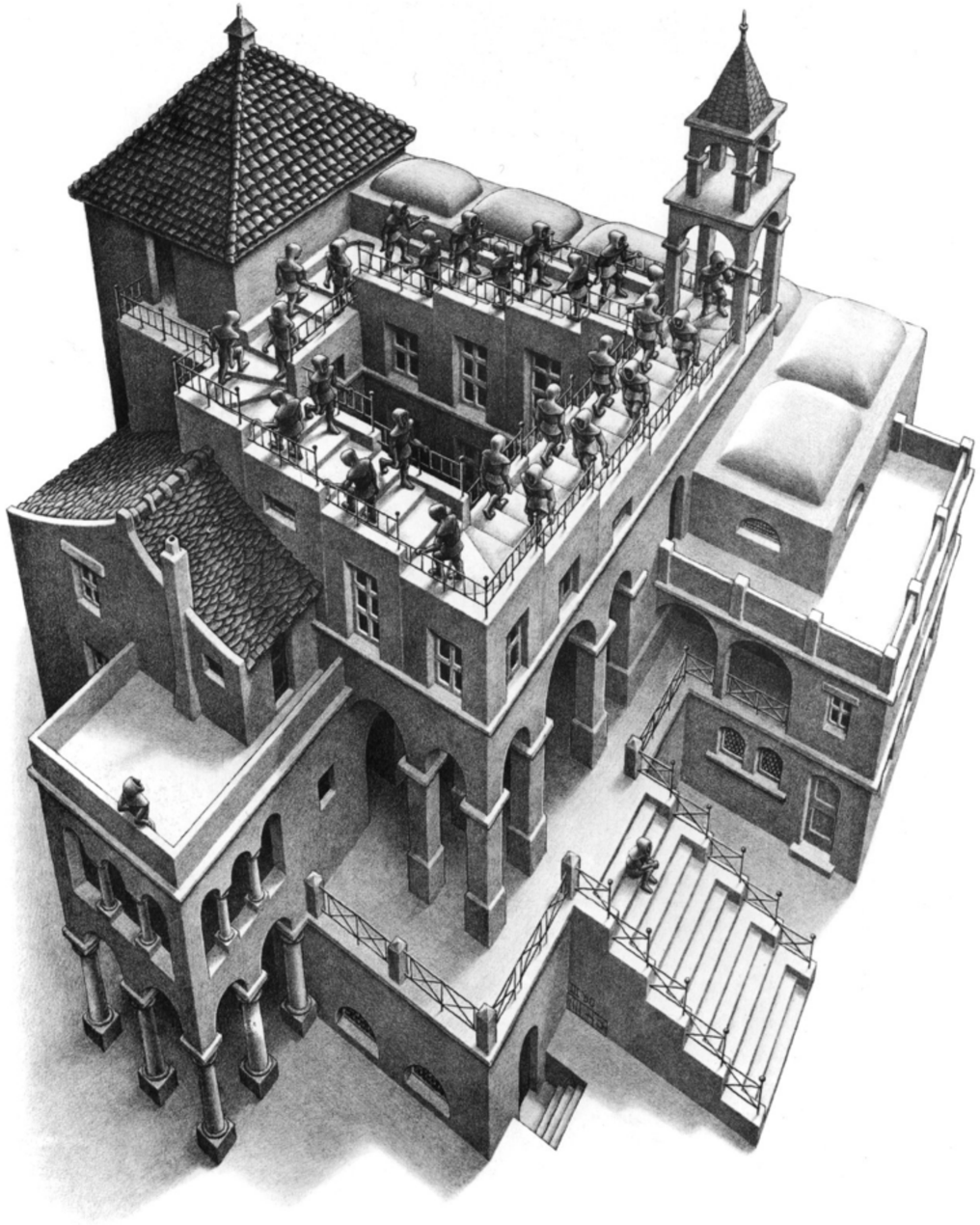

SURFACE

ALICE
MADNESS RETURNS™
MATURE 17+
M
CONTENT RATED BY ESRB
PC
DVD-ROM
SOFTWARE
AN AMERICAN MCGEE GAME
EA

USTWO IS NOT A GAMES COMPANY

THE GAMES TEAM

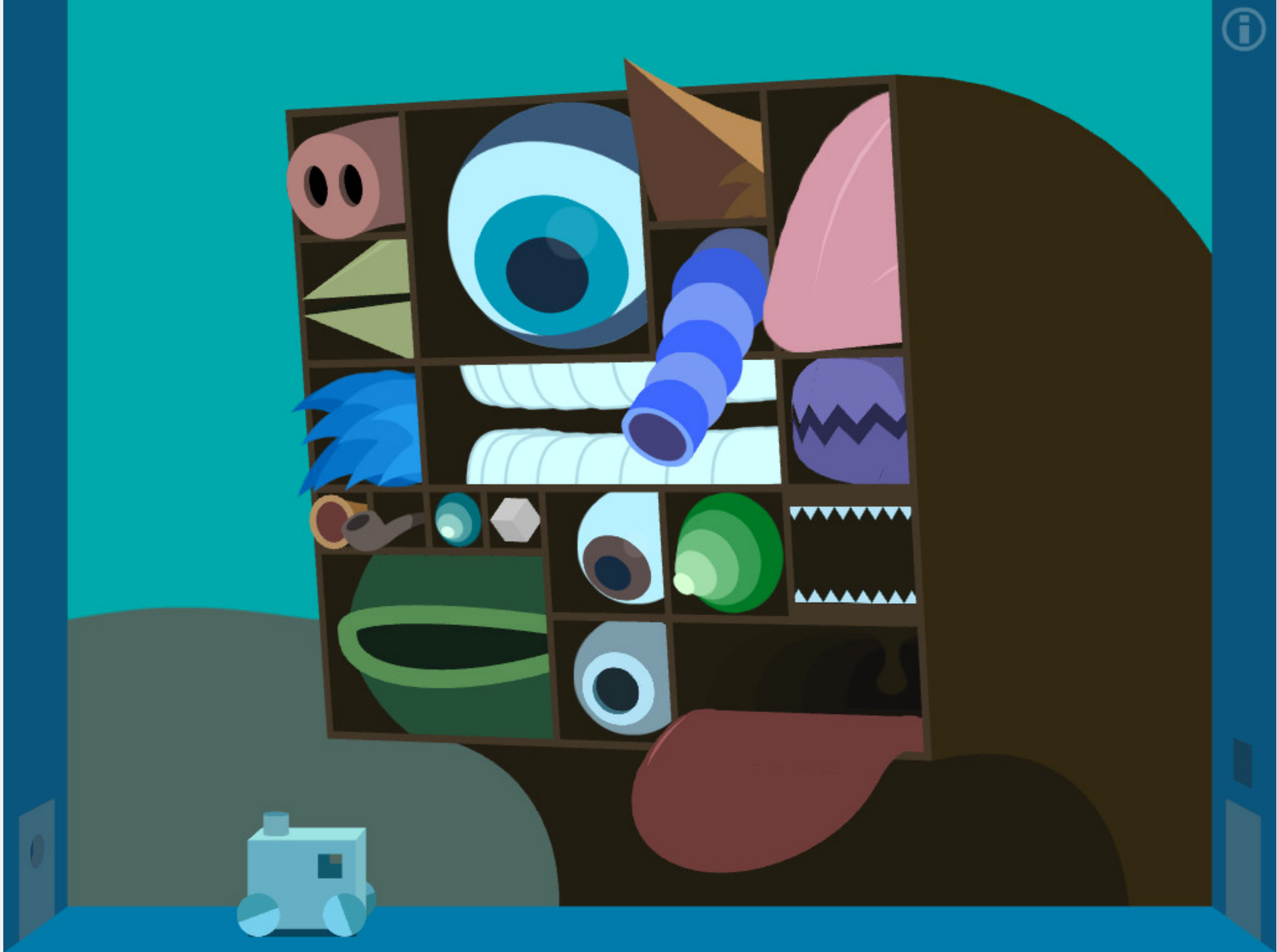
A LOVE OF ARCHITECTURE



WINDOSILL

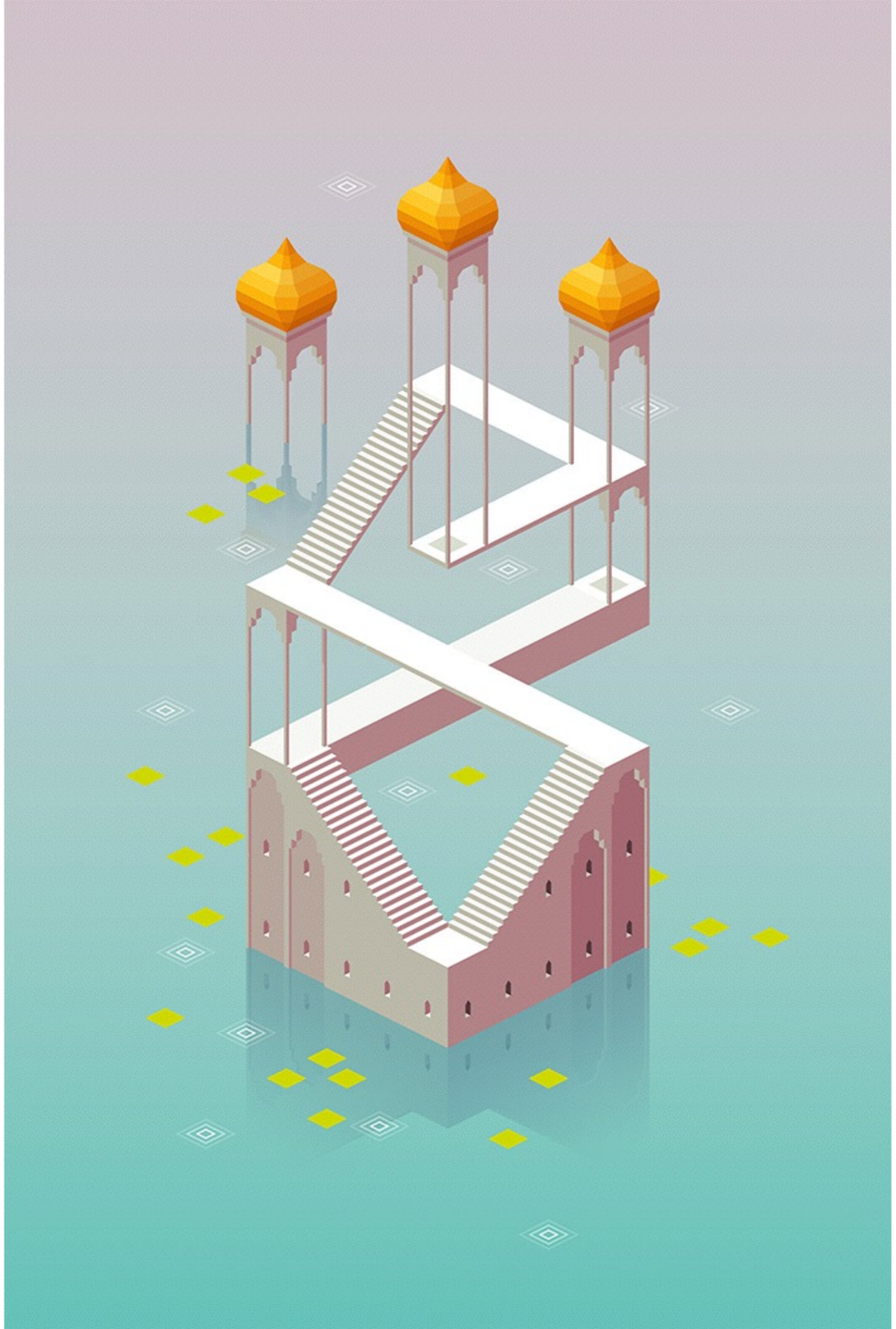
VECTORPARK

2009



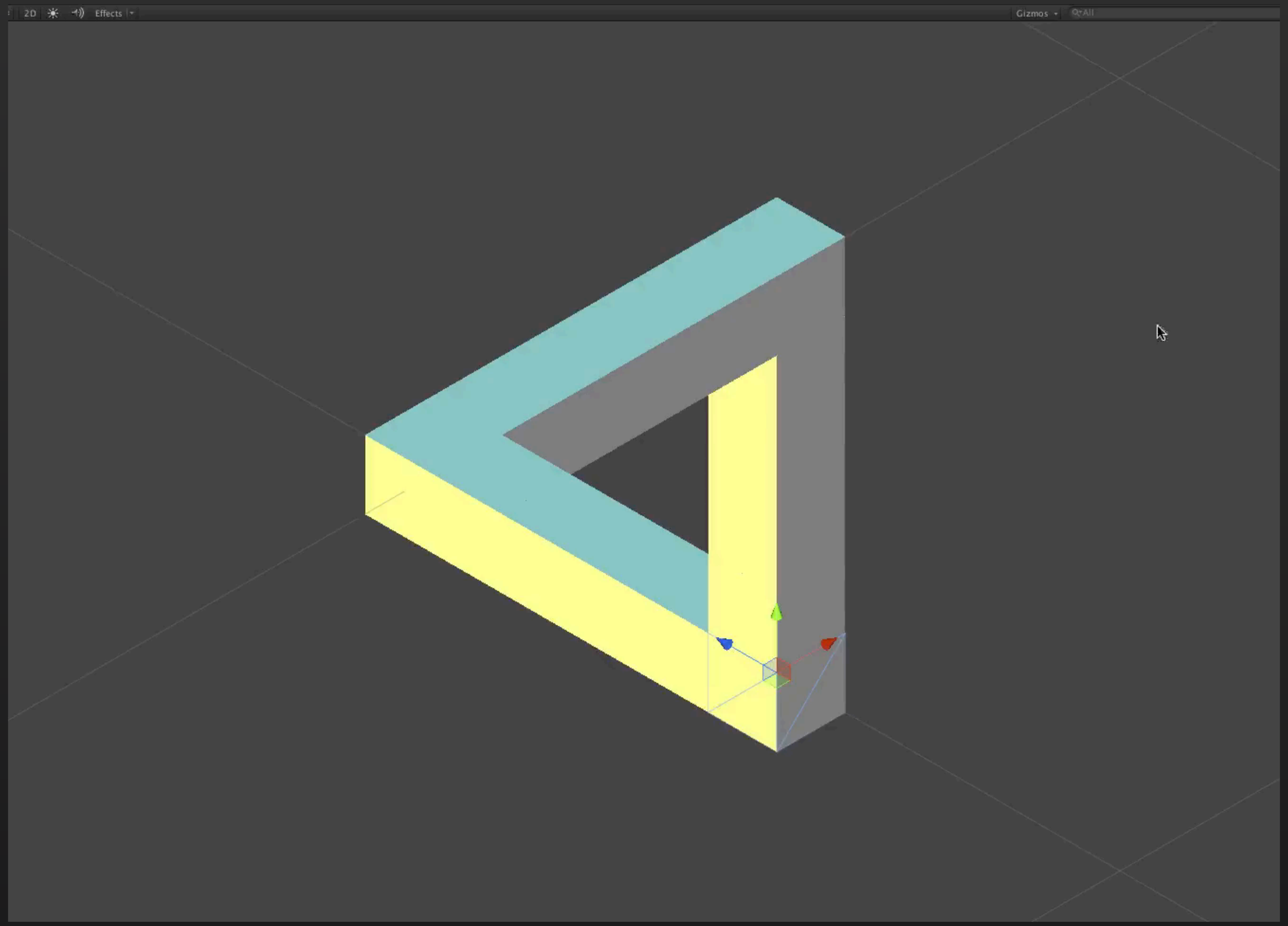
FIRST CONCEPT ART

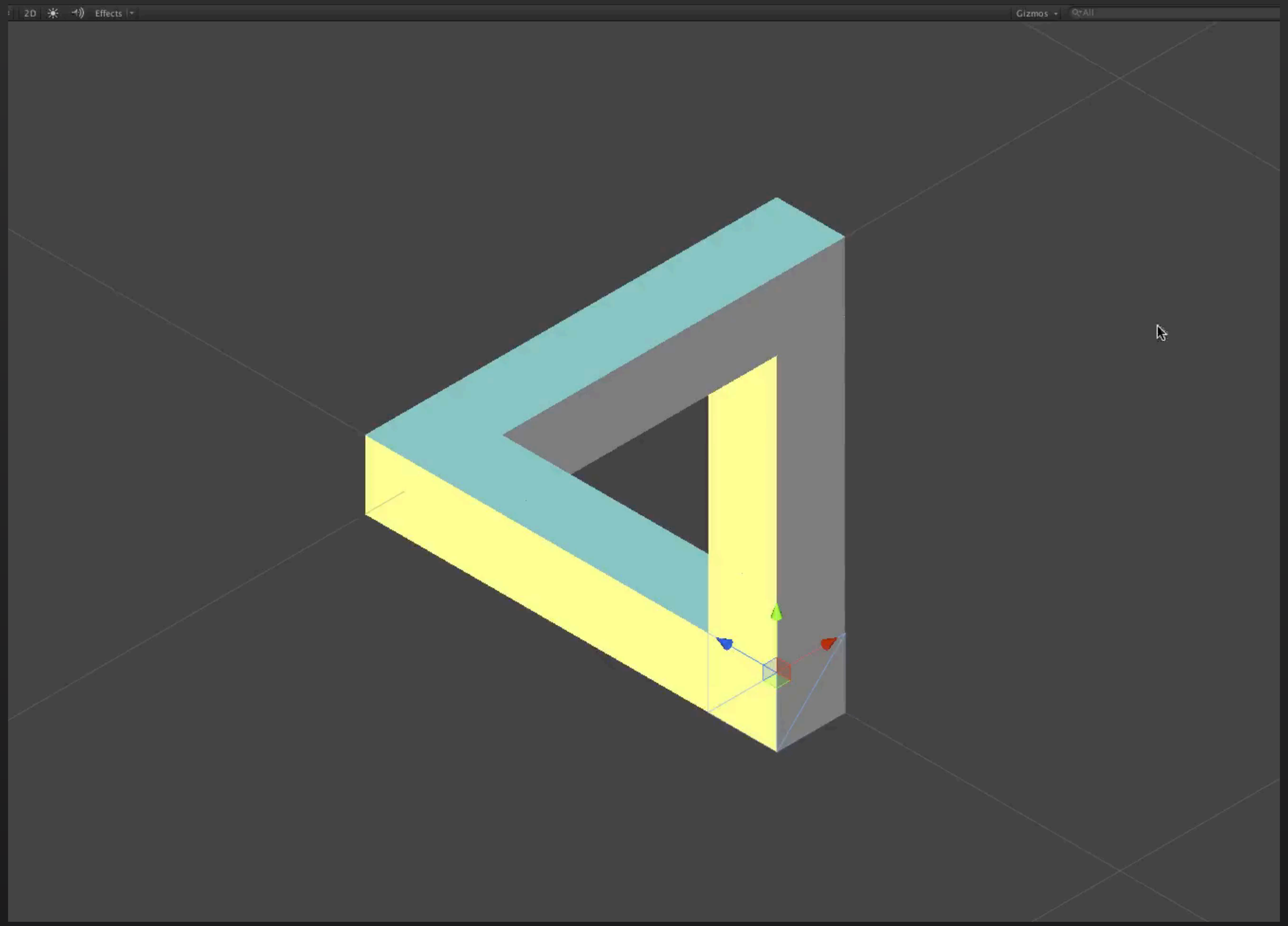
IMPOSSIBILITY

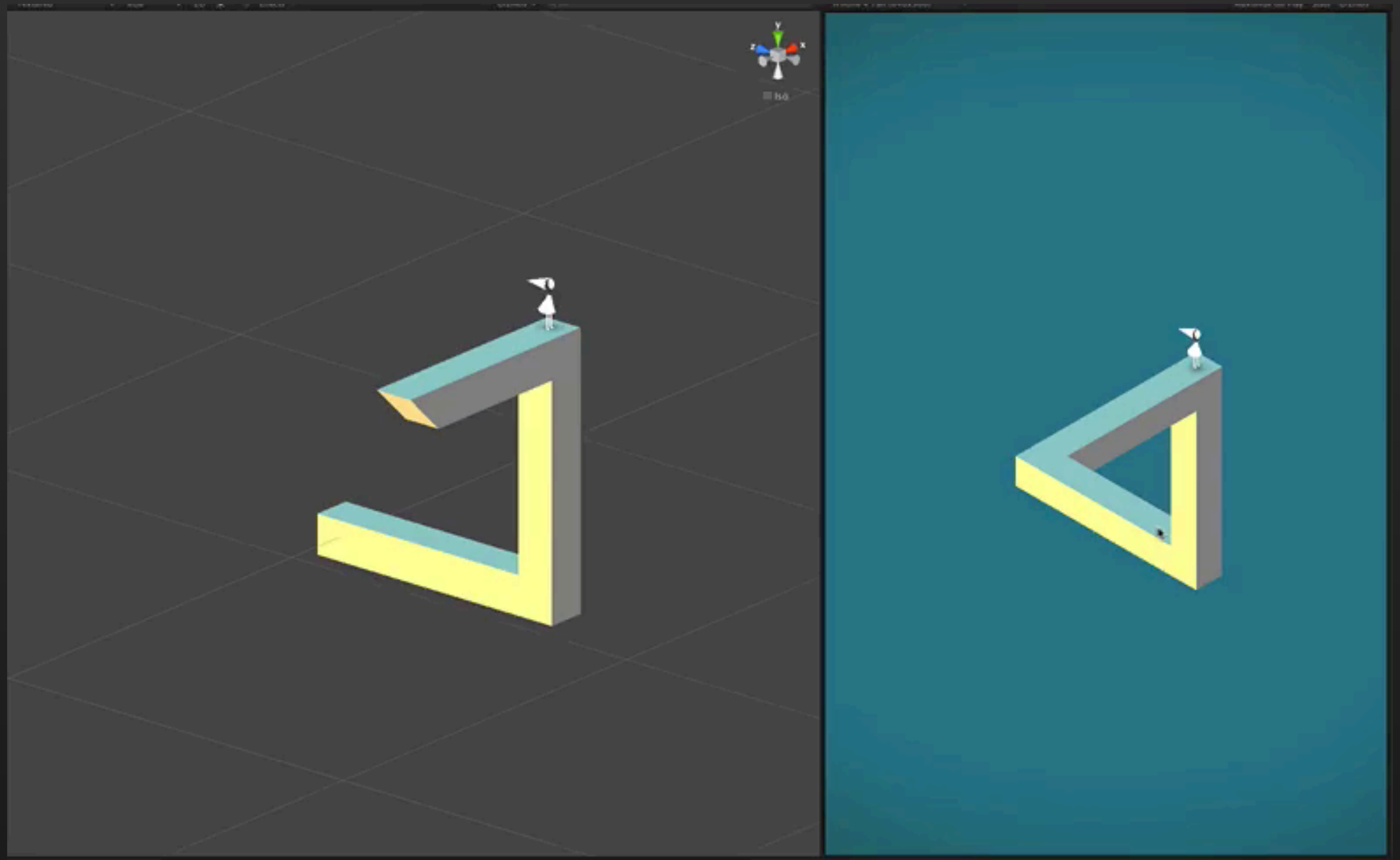


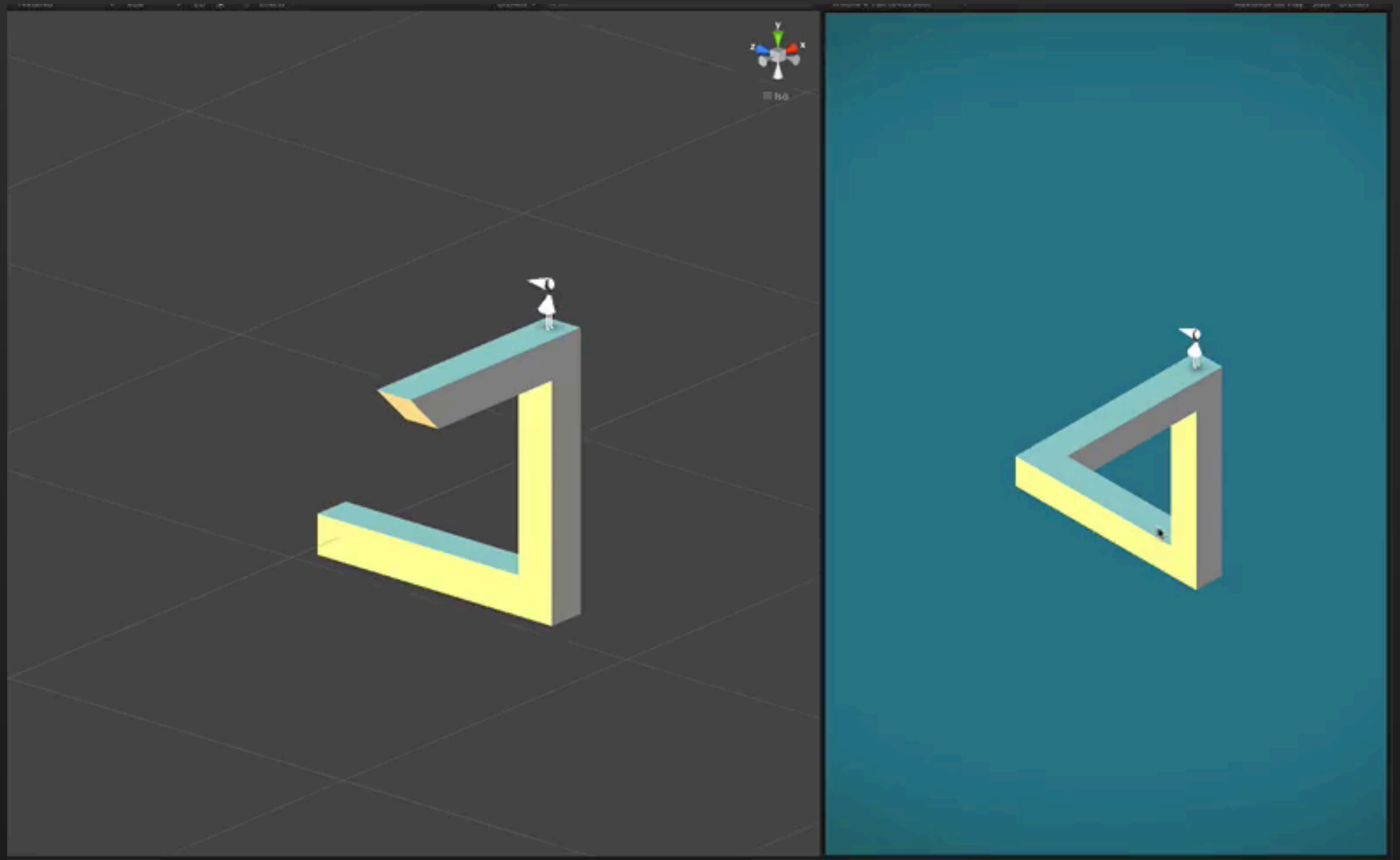
CENTRAL CAR CARE

TRAL CAR CARE


2D
Effects
Gizmos
All


2D
Effects
Gizmos
All





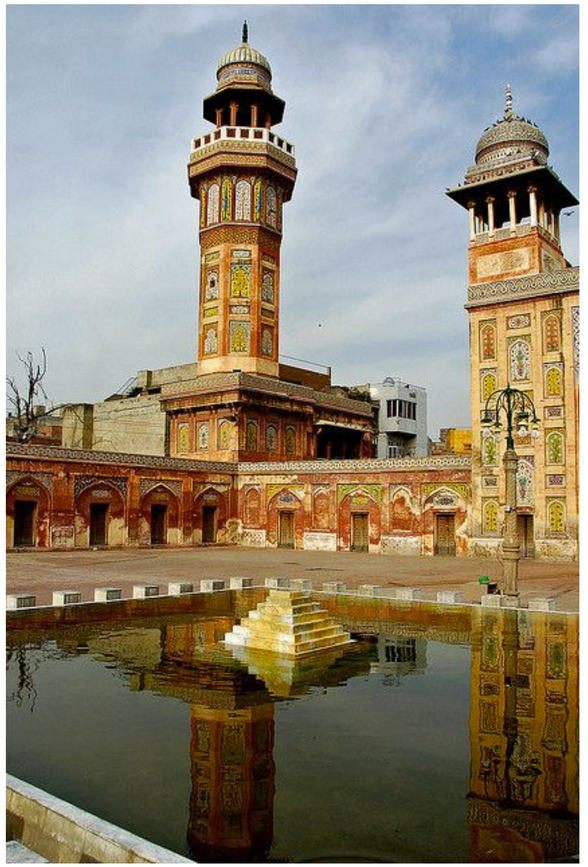
INSPIRATION

DAVID FINCHER AND SPIKE JONZE PRESENT
"MAGNIFICENT!"
-ROGER EBERT
A FILM BY TARSEM
The Fall
LEE PACE CATINCA UNTARU
A LITTLE BLESSING IN DISGUISE
DAVID FINCHER AND SPIKE JONZE
AND ROADSIDE ATTRACTIONS PRESENT
A GOOGLY FILMS PRODUCTION A FILM BY TARSEM "THE FALL"
LEE PACE JUSTINE WADDELL AND CATINCA UNTARU
CASTING BY DANIEL HUBBARD COSTUME DESIGNER EIKO ISHIOKA MUSIC COMPOSED BY KRISHNA LEVY
EDITOR ROBERT DUFFY PRODUCTION DESIGNER GEO CLARKE DIRECTOR OF PHOTOGRAPHY COLIN WATKINSON
EXECUTIVE PRODUCERS AJIT SINGH TOMMY TURTLE
SCREENPLAY BY DAN GILROY AND NICO SOULTANAKIS & TARSEM
GOOGLY FILMS
PRODUCED & DIRECTED BY TARSEM
WWW.THEFALLTHEMOVIE.COM
R RESTRICTED
SOME VIOLENT IMAGES

SPAIN

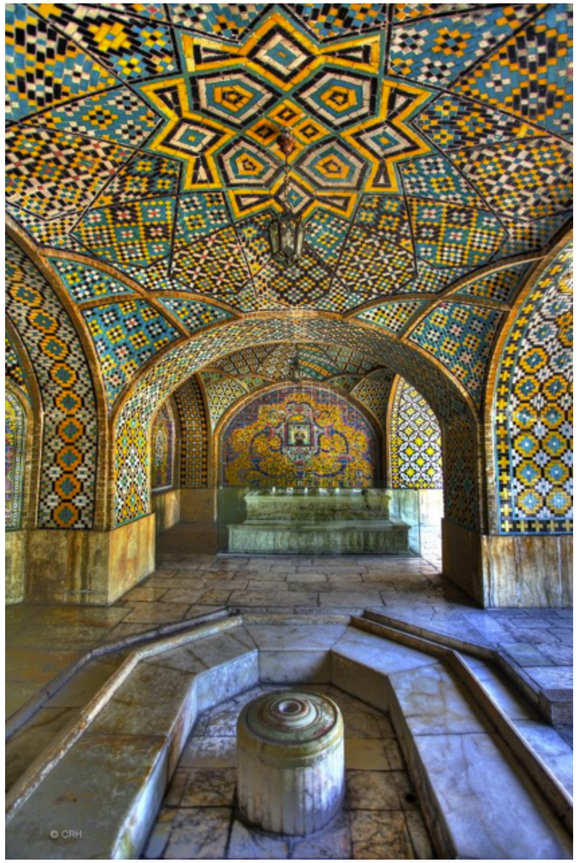
RUSSIA

MOROCCO

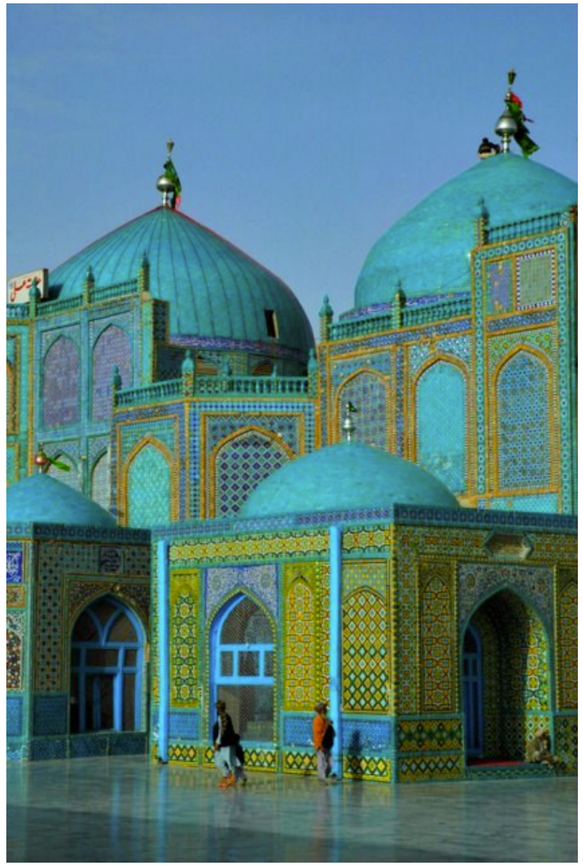


PAKISTAN

INDIA



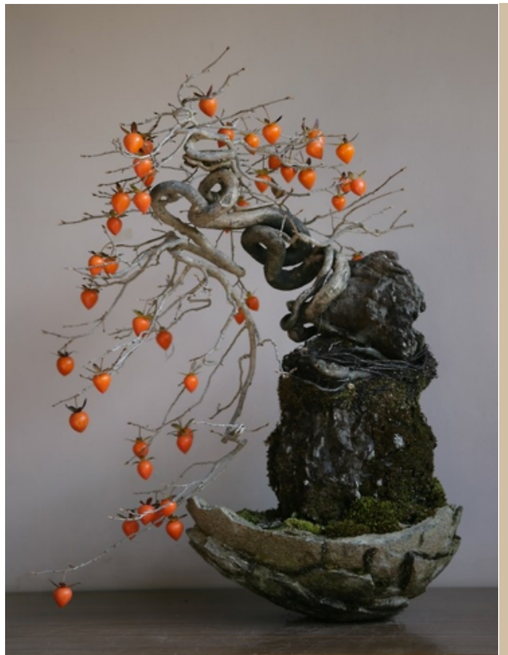
IRAN



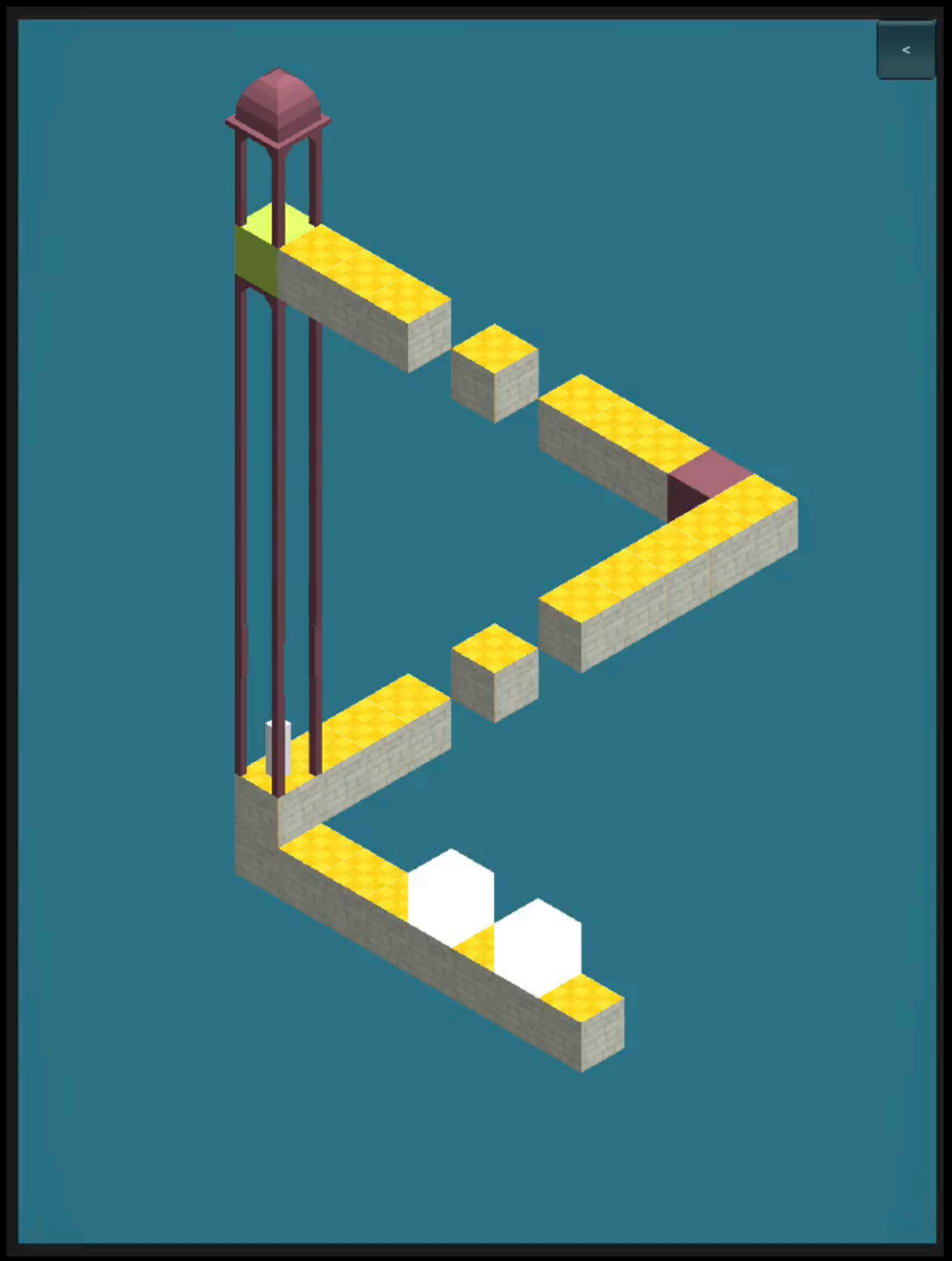
AFGHANISTAN

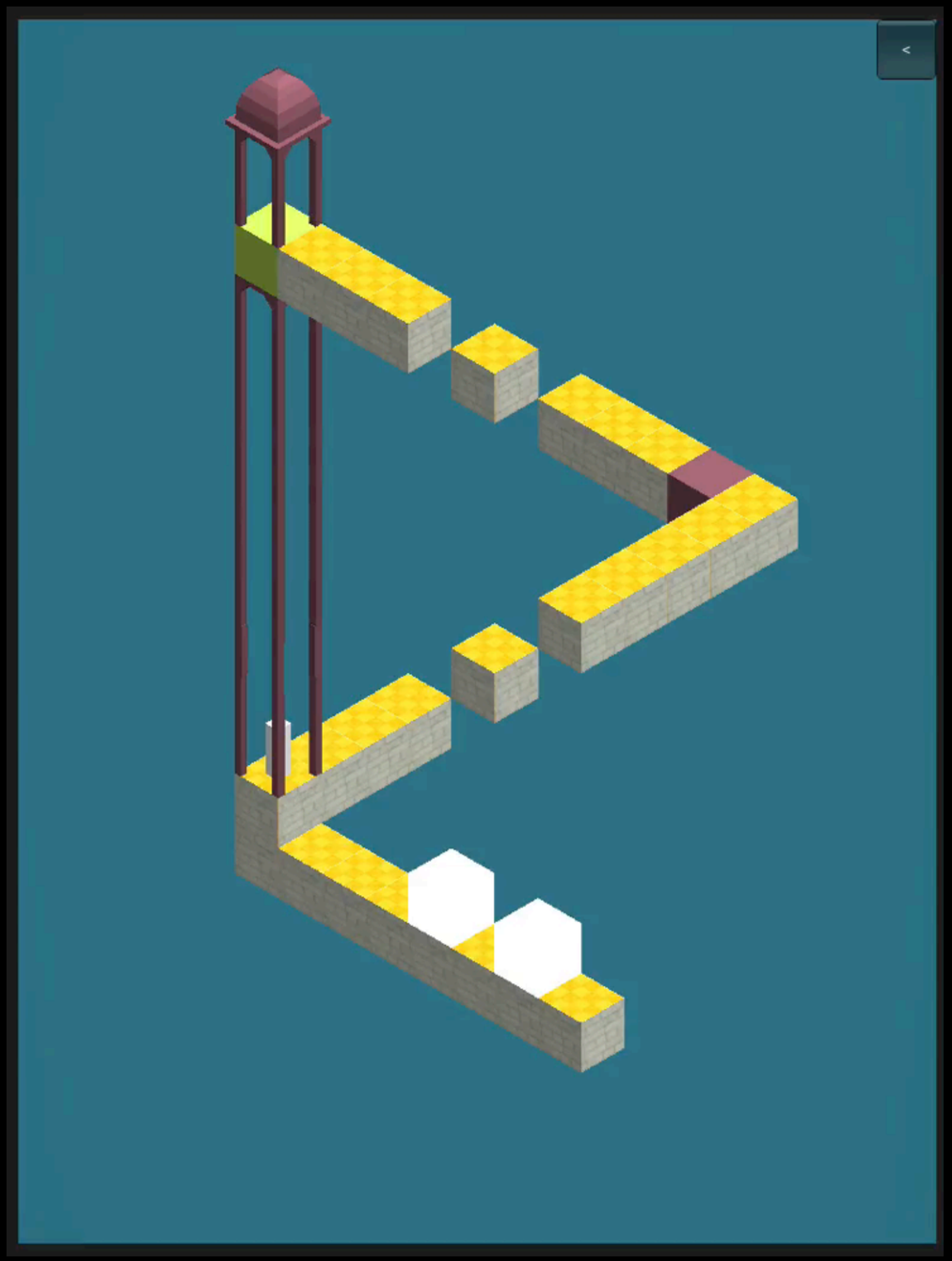
UZBEKISTAN

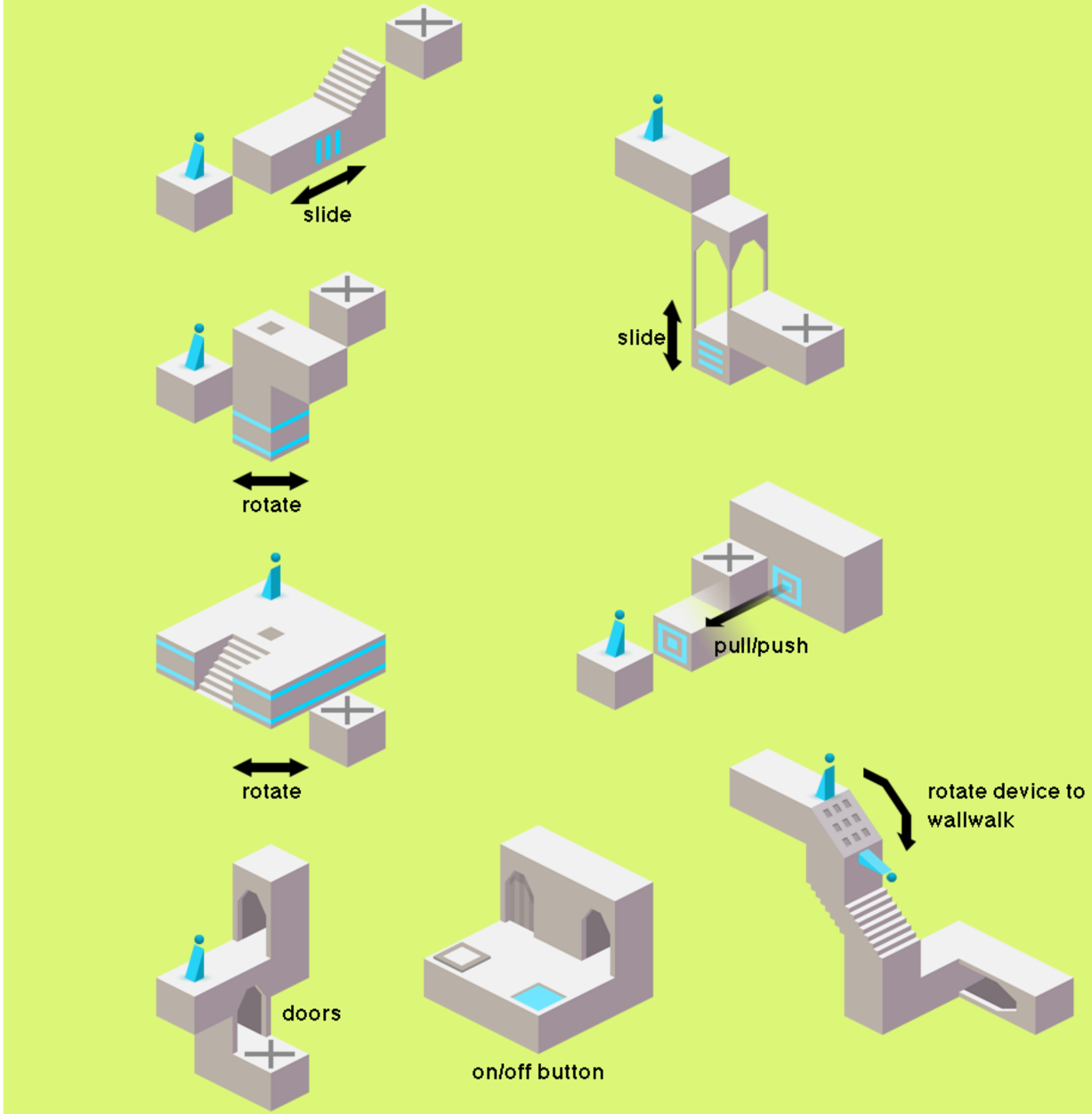
LITTLE WORLDS

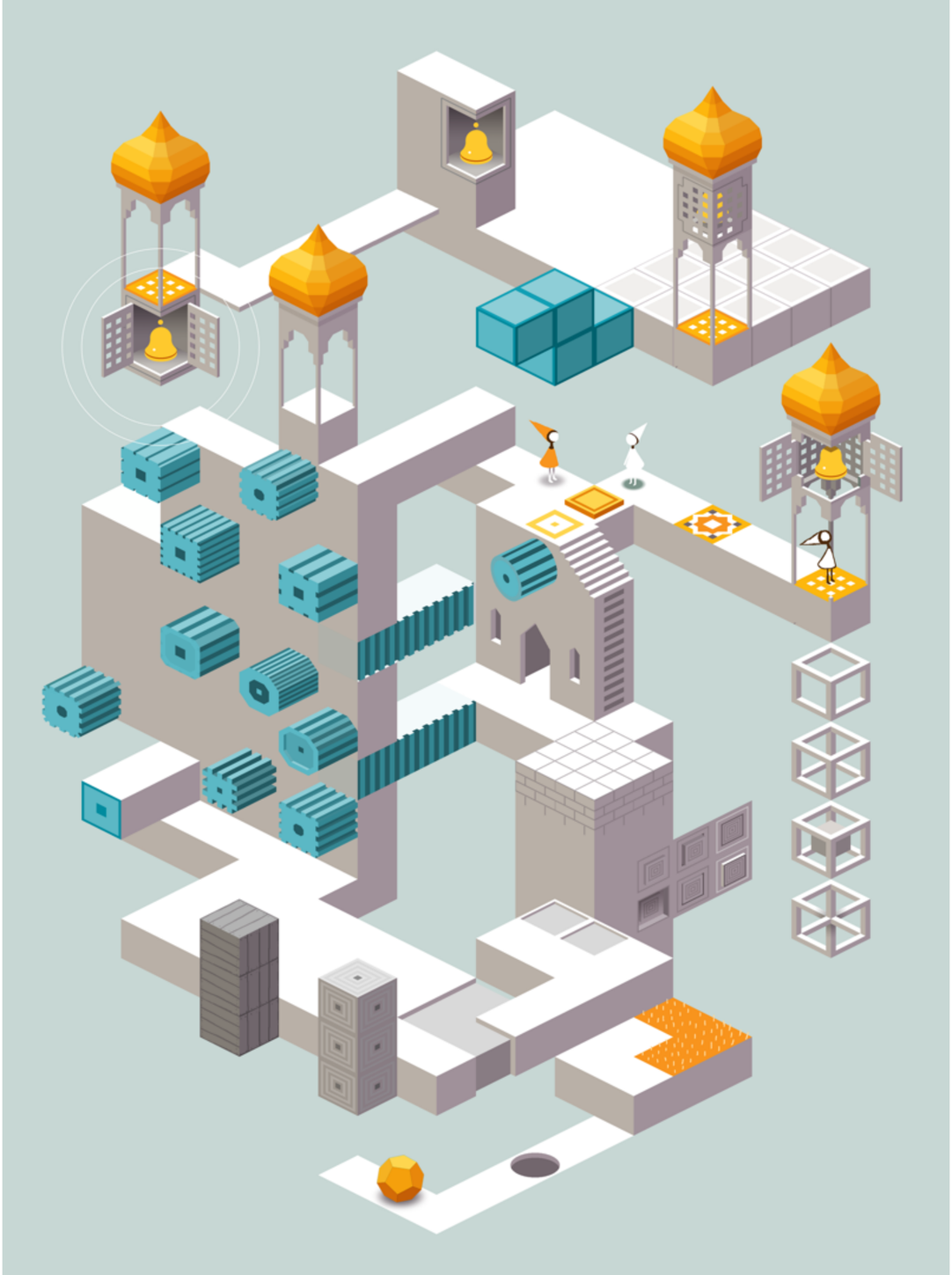


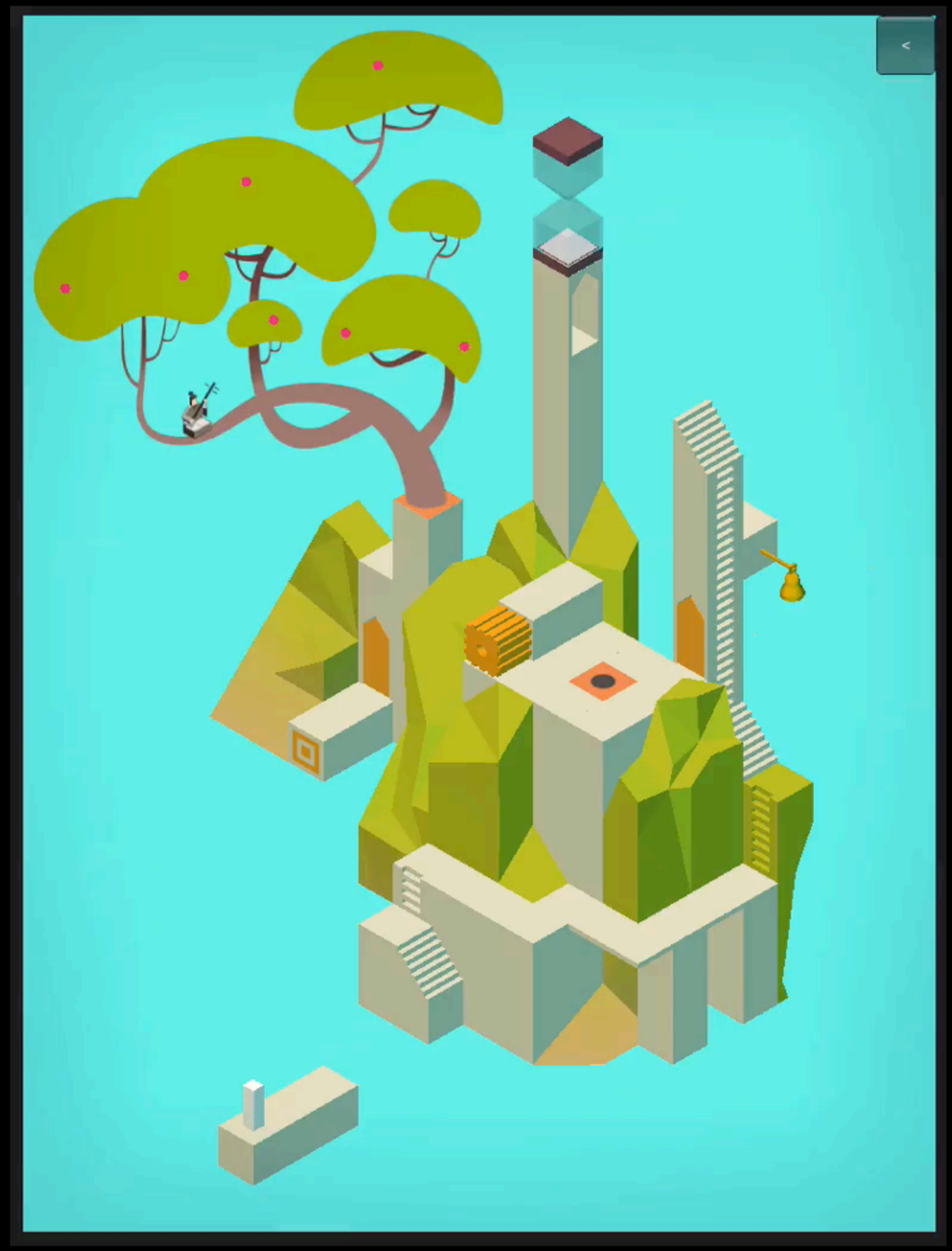
EXPLORATION

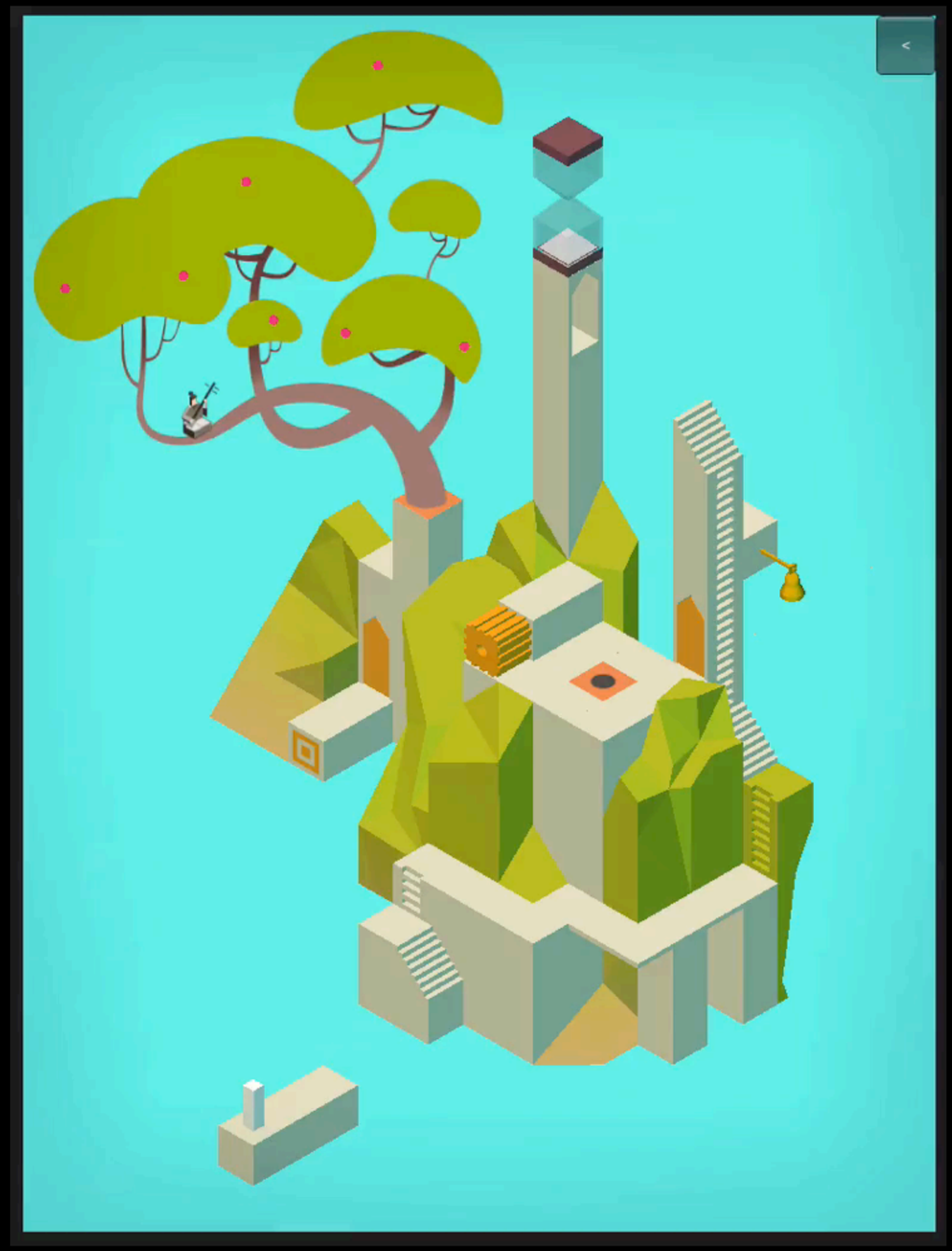


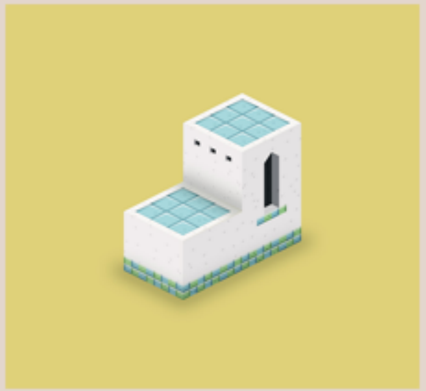


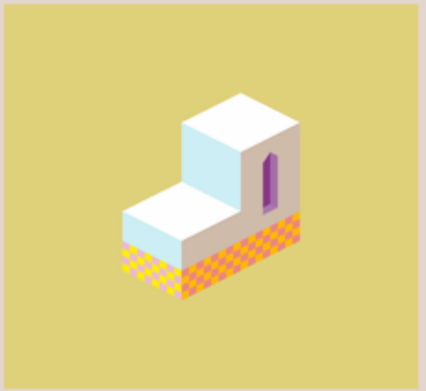

slide
slide
rotate
pull/push
rotate
rotate device to
wallwalk
doors
on/off button

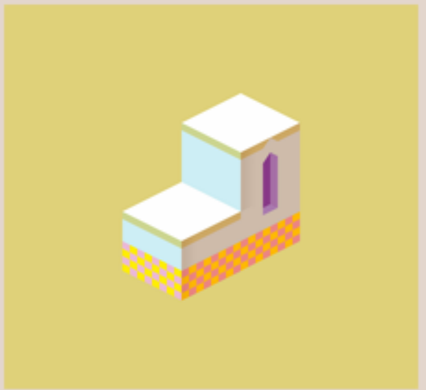
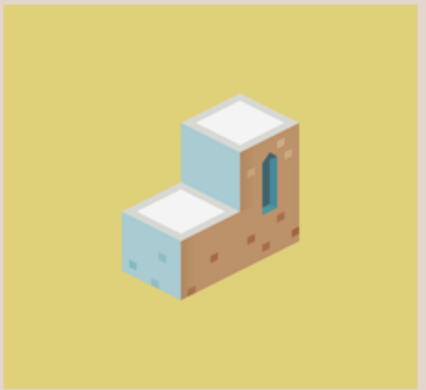


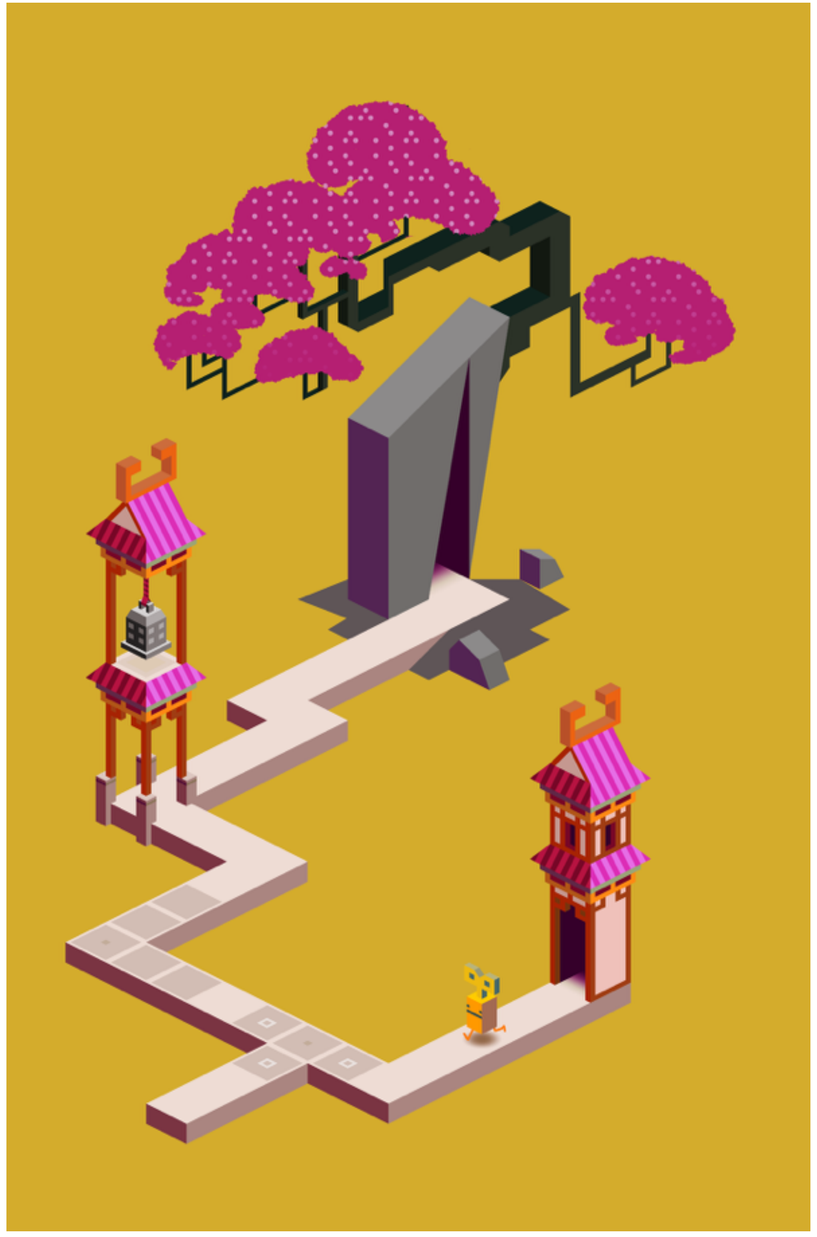


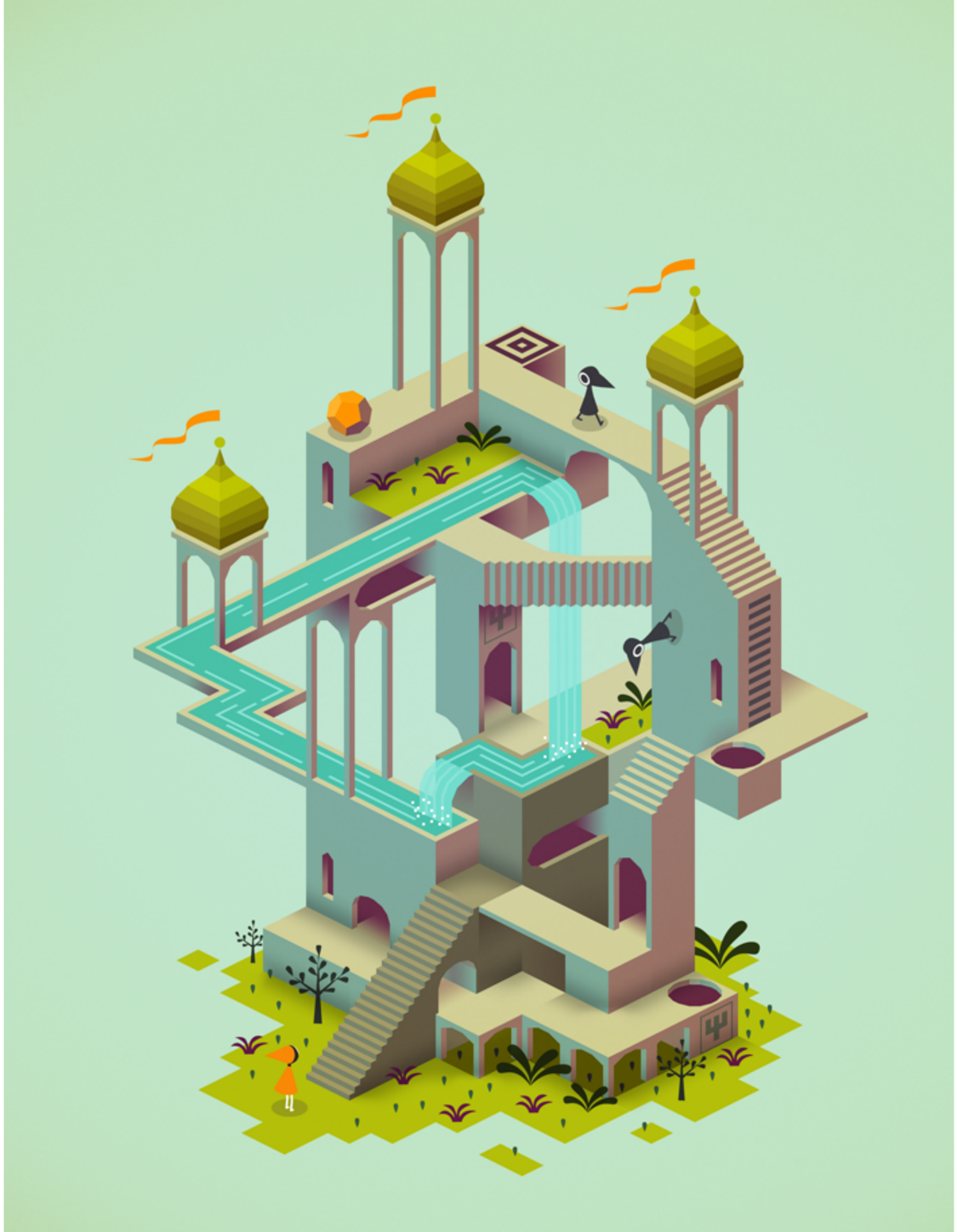




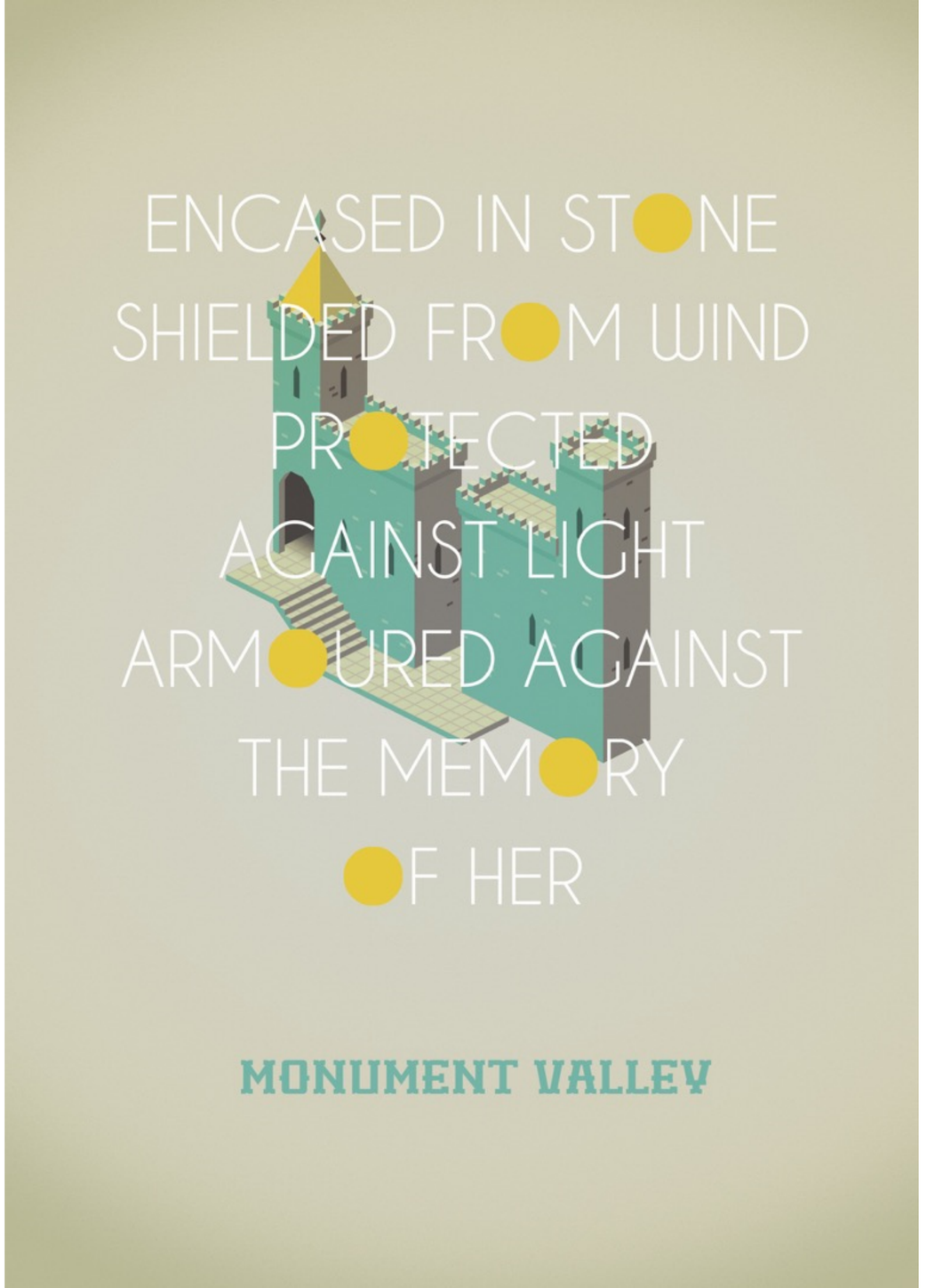






IN A
SECRET
GARDEN
BENEATH
A PERFECT
SURFACE
I DROWNED
THE PAST
MONUMENT VALLEY


ENCASED IN STONE
SHIELDED FROM WIND
PROTECTED
AGAINST LIGHT
ARMOURED AGAINST
THE MEMORY
OF HER
MONUMENT VALLEY

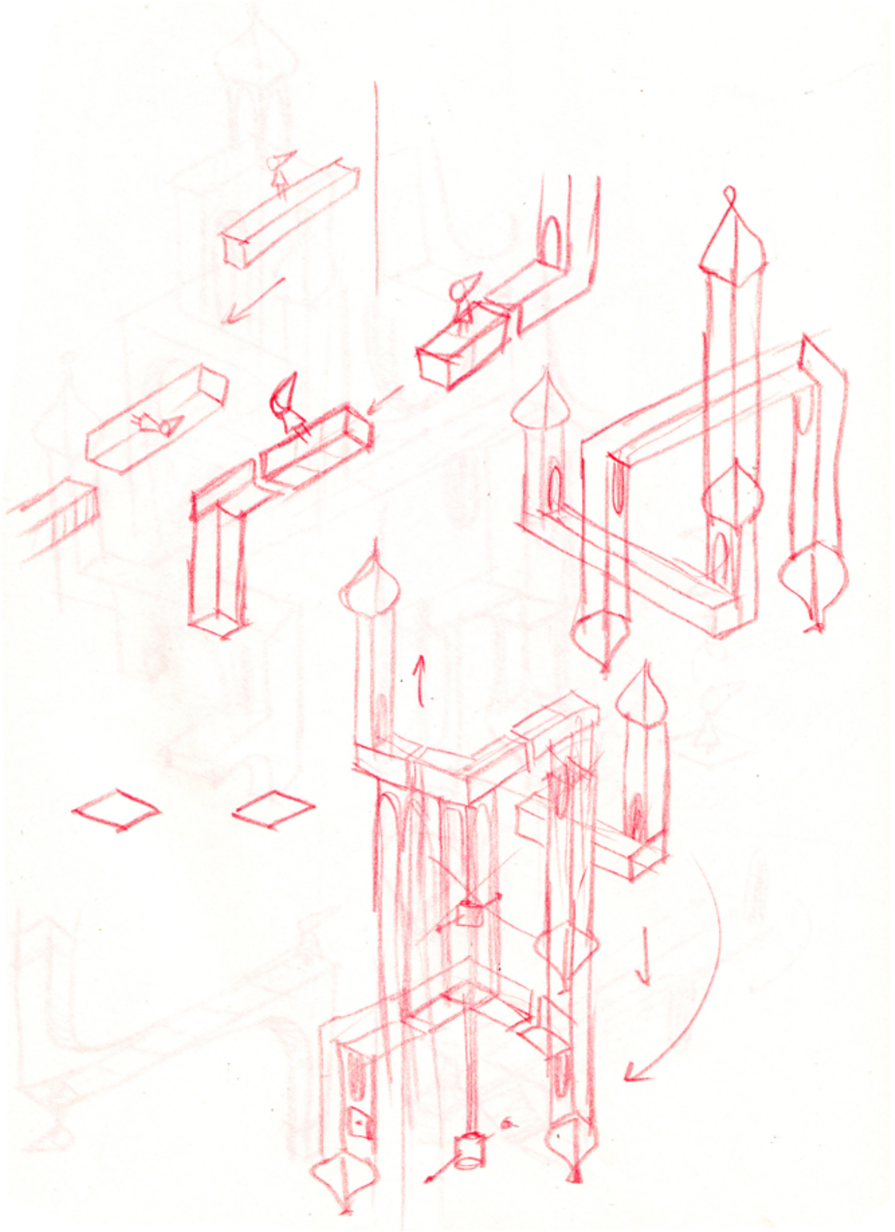
Available on the App Store

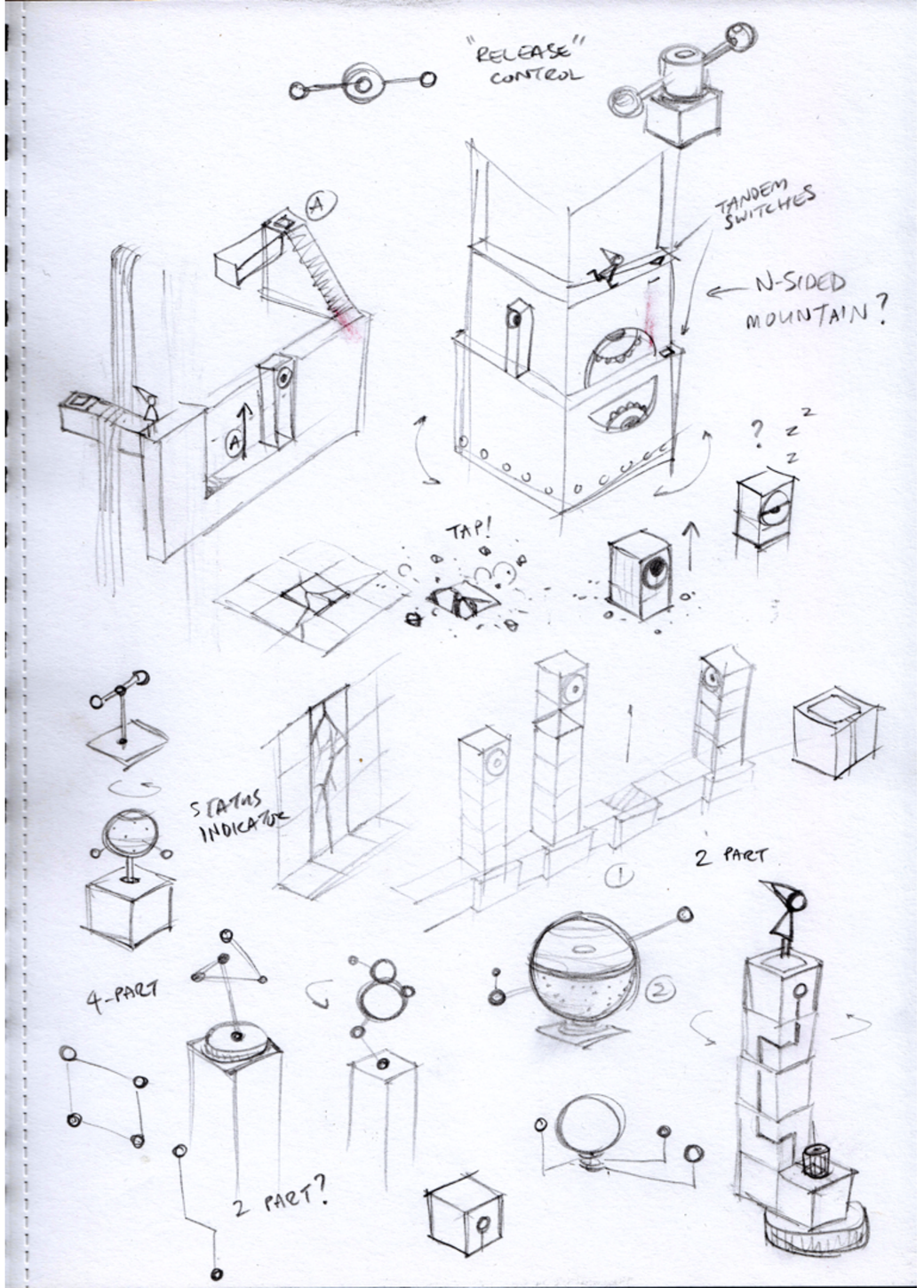
ANDROID APP ON Google play

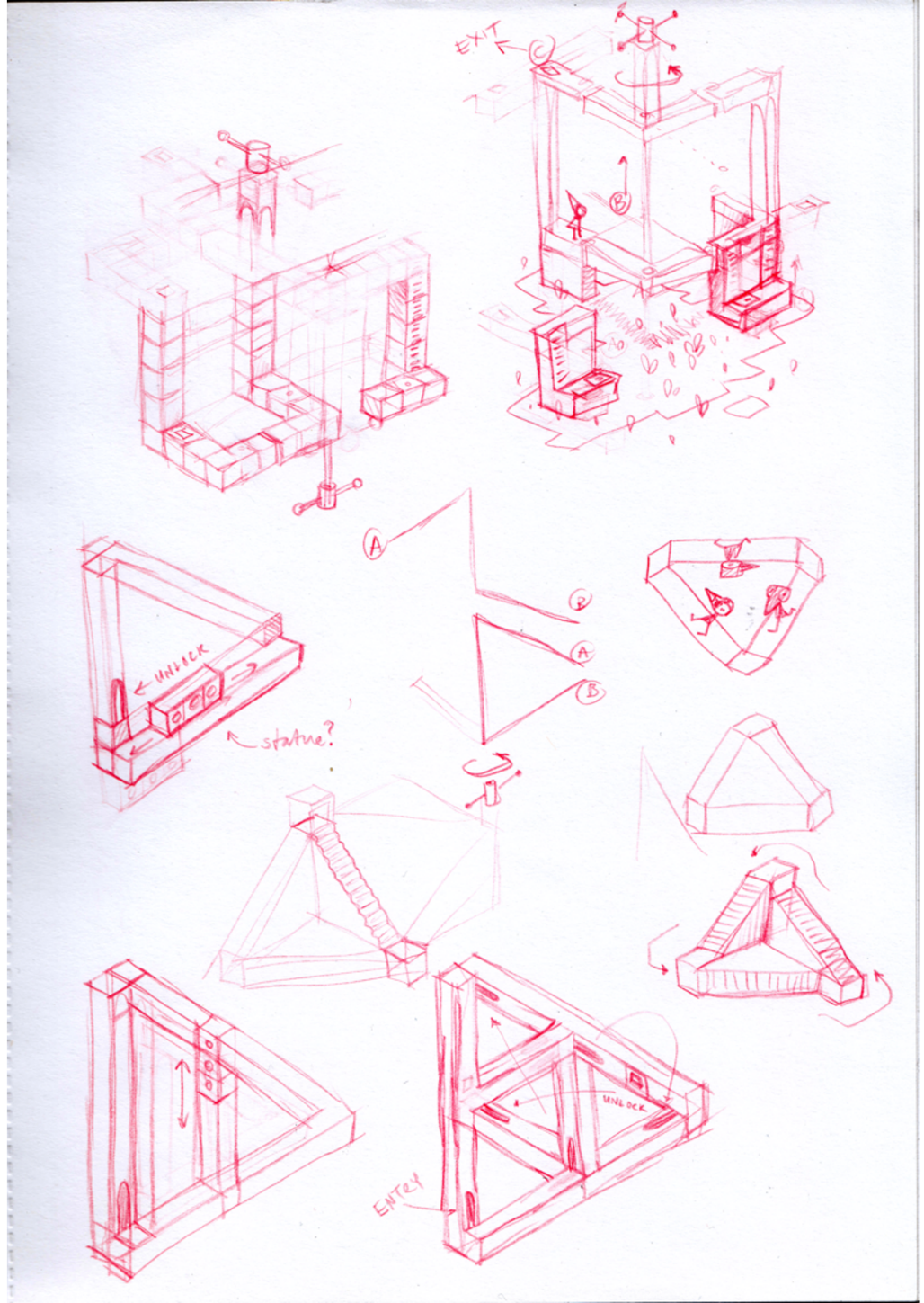
MONUMENT
VALLEY

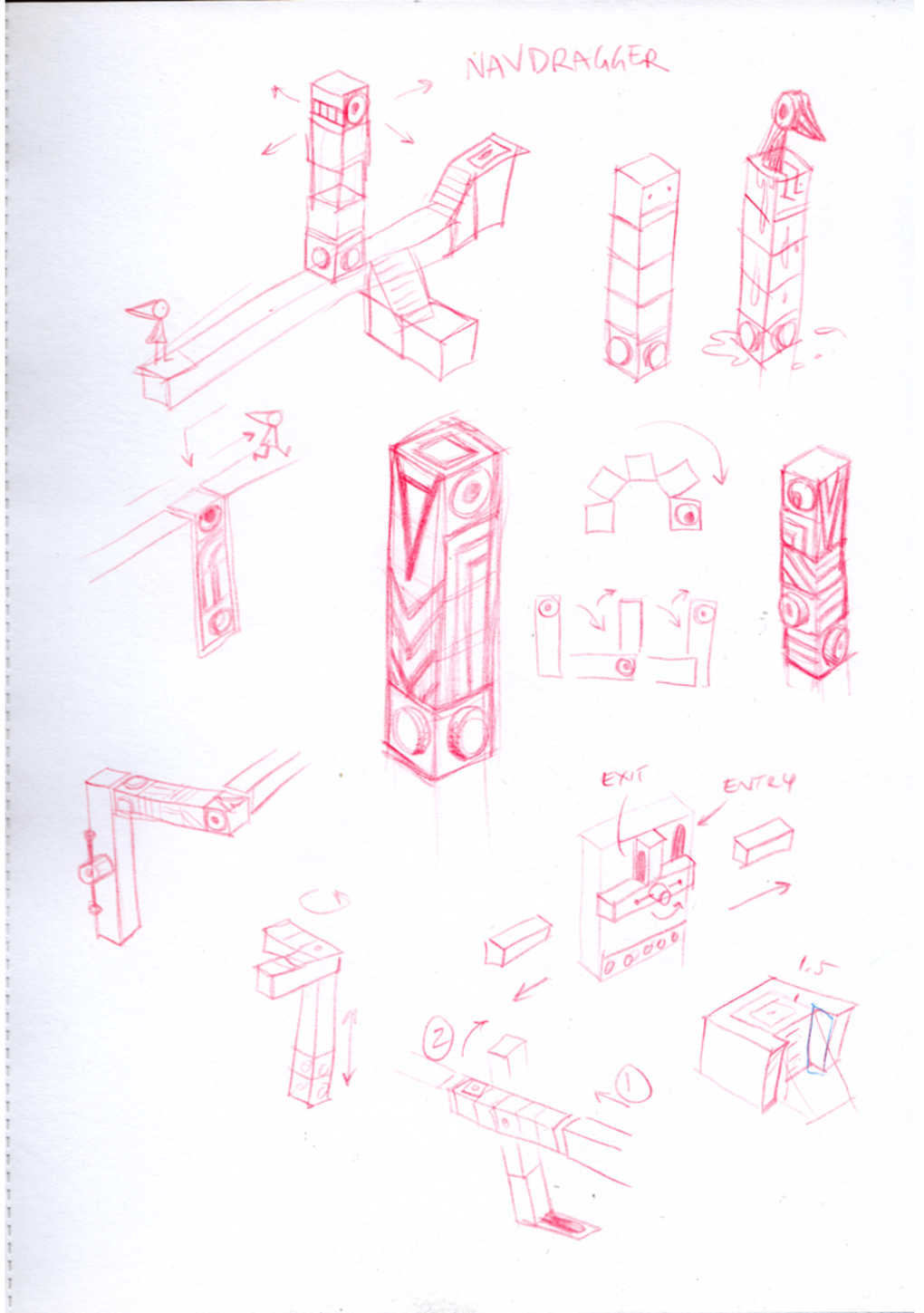
Available on the App Store

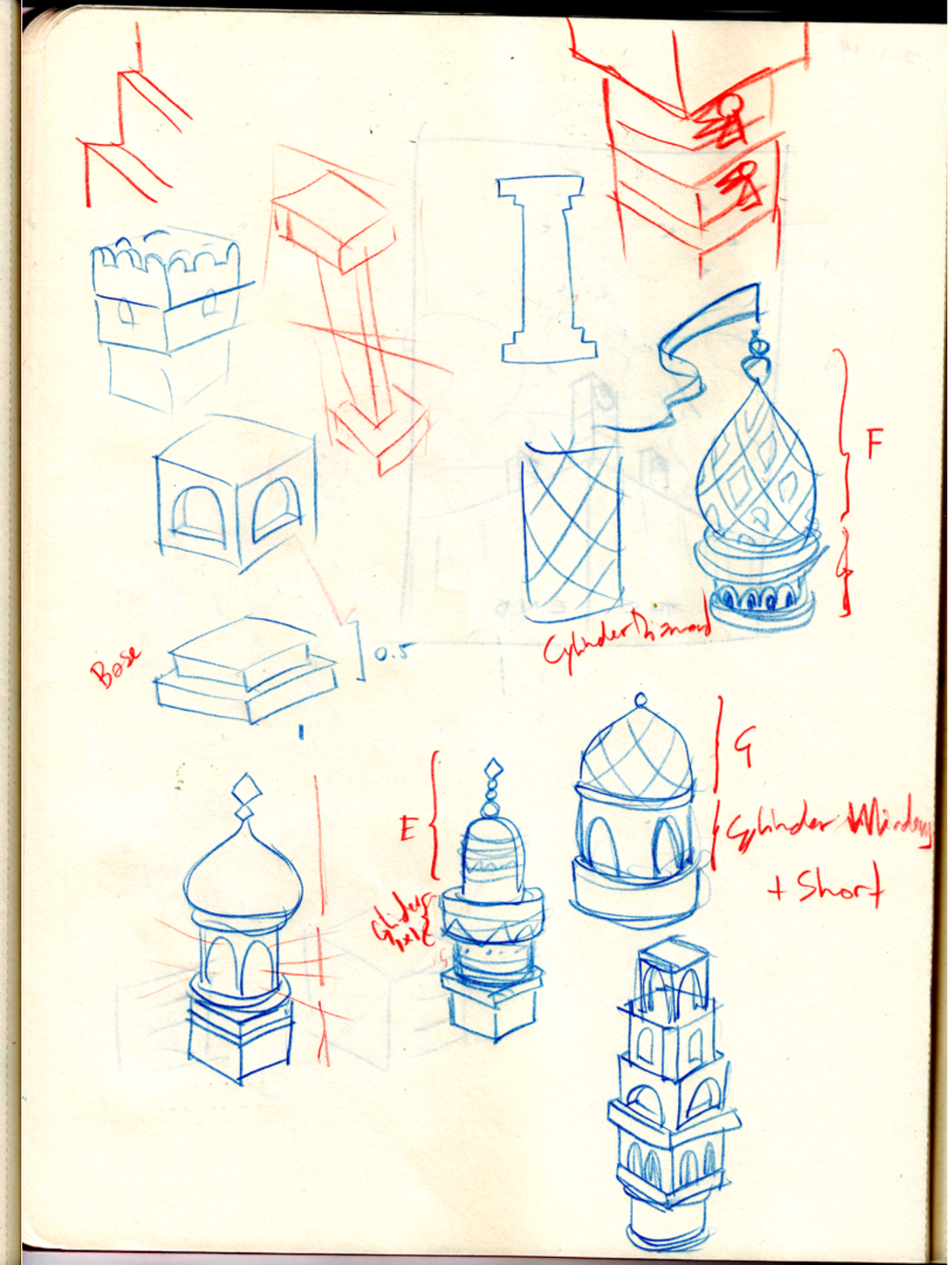
ANDROID APP ON Google play

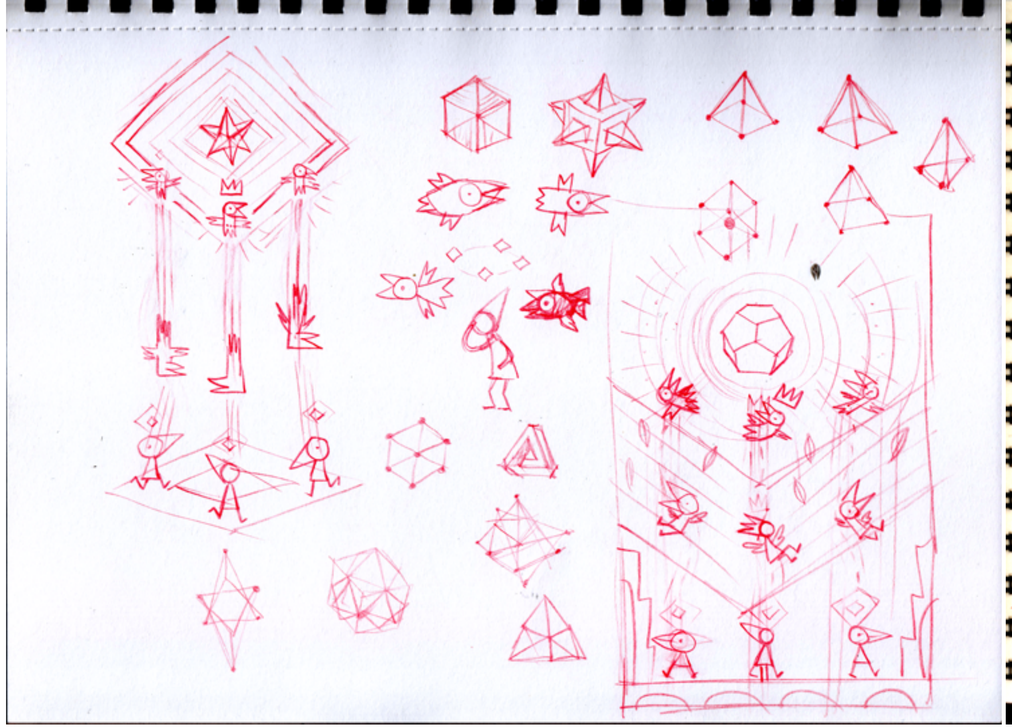


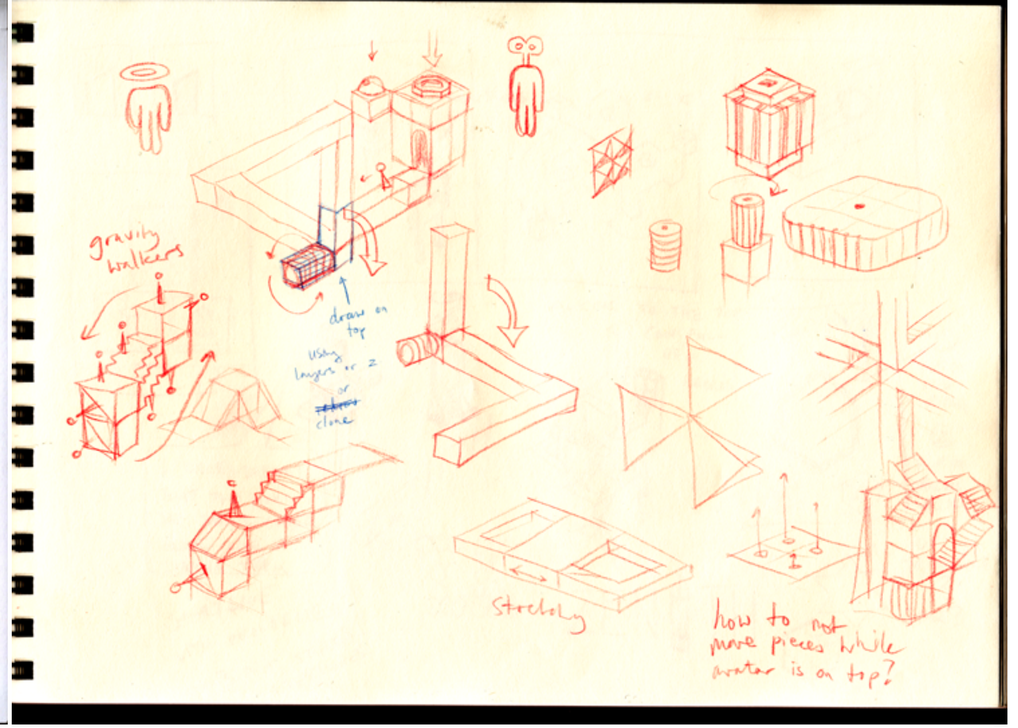

"RELEASE" CONTROL
TANDEM SWITCHES
N-SIDED MOUNTAIN?
A
A
TAP!
? z z z
STATUS INDICATOR
2 PART
4-PART
2 PART?

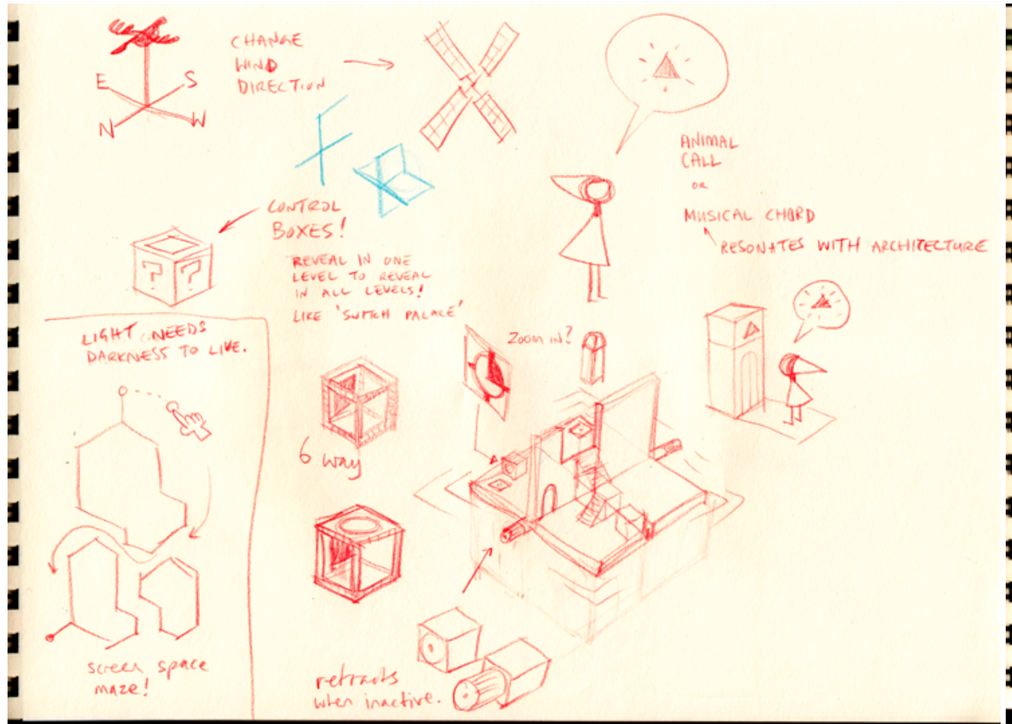

EXIT
C
B
A
UNLOCK
statue?
A
B
A
B
UNLOCK
ENTRY

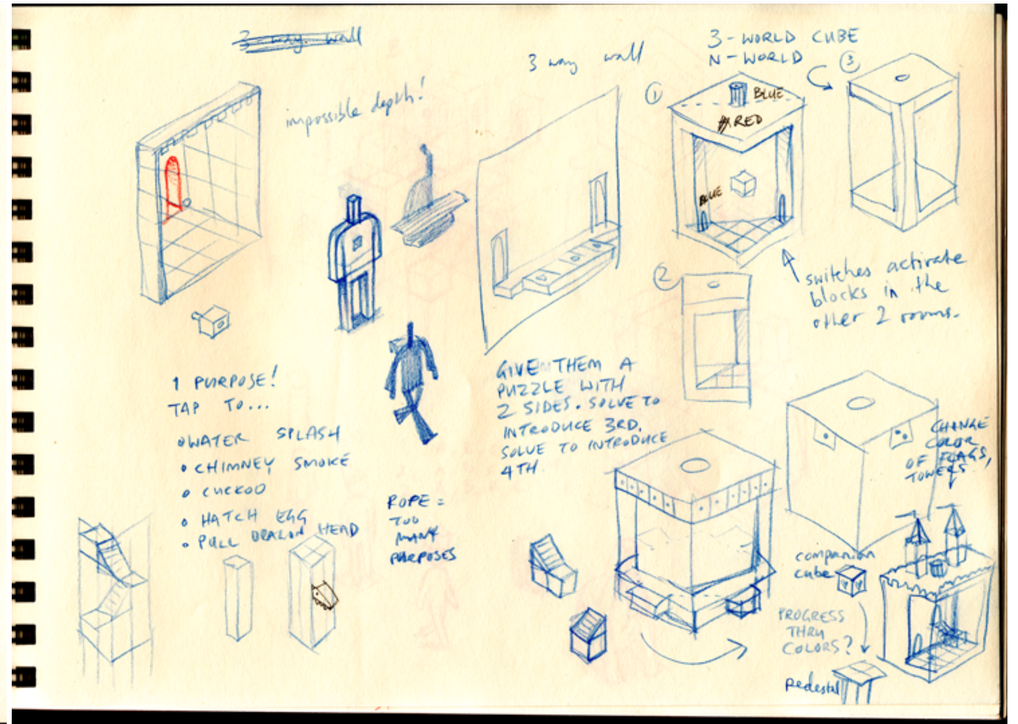

NAVDRAGGER
EXIT
ENTRY
1.5
2
1


F
Base
0.5
E
G
+ Short




gravity walkers
draw on top
clone
stretchy
how to not move pieces while avatar is on top?

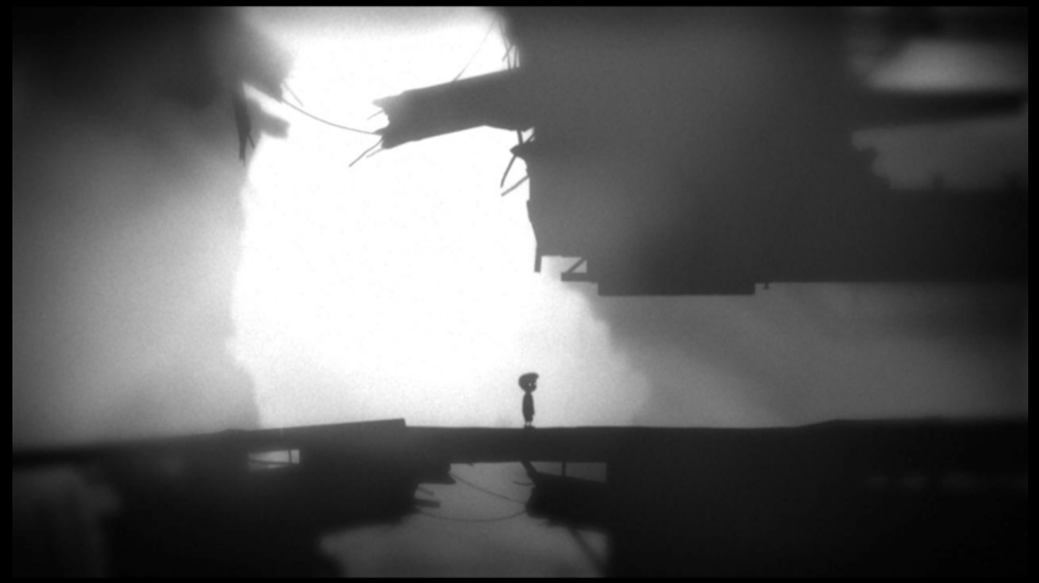

E
S
N
W
CHANGE WIND DIRECTION
CONTROL BOXES!
REVEAL IN ONE LEVEL TO REVEAL IN ALL LEVELS!
LIKE 'SWITCH PALACE'
ANIMAL CALL
or
MUSICAL CHORD
RESONATES WITH ARCHITECTURE
LIGHT NEEDS DARKNESS TO LIVE.
screen space maze!
6 way
Zoom in?
retracts when inactive.


3 way wall
impossible depth!
3 way wall
3-WORLD CUBE
N-WORLD
BLUE
RED
switches activate blocks in the other 2 rooms.
1 PURPOSE!
TAP TO...
•WATER SPLASH
• CHIMNEY SMOKE
• CUCKOO
• HATCH EGG
• PULL DEAD HEAD
ROPE = TOO MANY PURPOSES
GIVE THEM A PUZZLE WITH 2 SIDES. SOLVE TO INTRODUCE 3RD. SOLVE TO INTRODUCE 4TH
CHANGE COLOR OF FLOORS, TONEYS
companion cube
PROGRESS THRU COLORS?
Redestal

THE FREEDOM TO EXPLORE
REQUIRES THE FREEDOM TO DISCARD

COMPOSITION

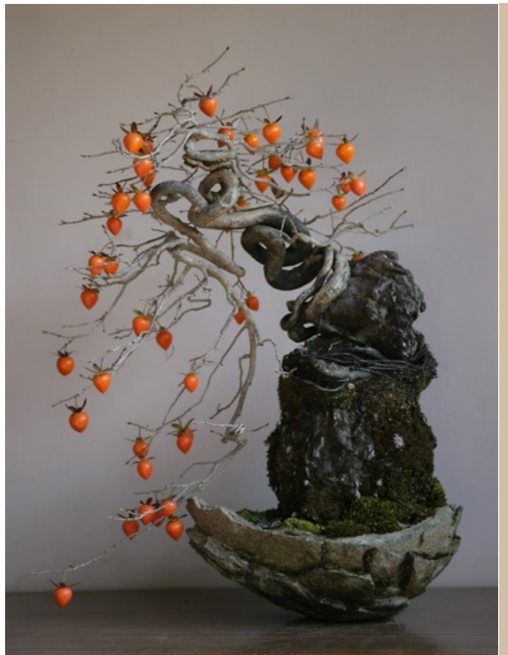
SARA QUALEY

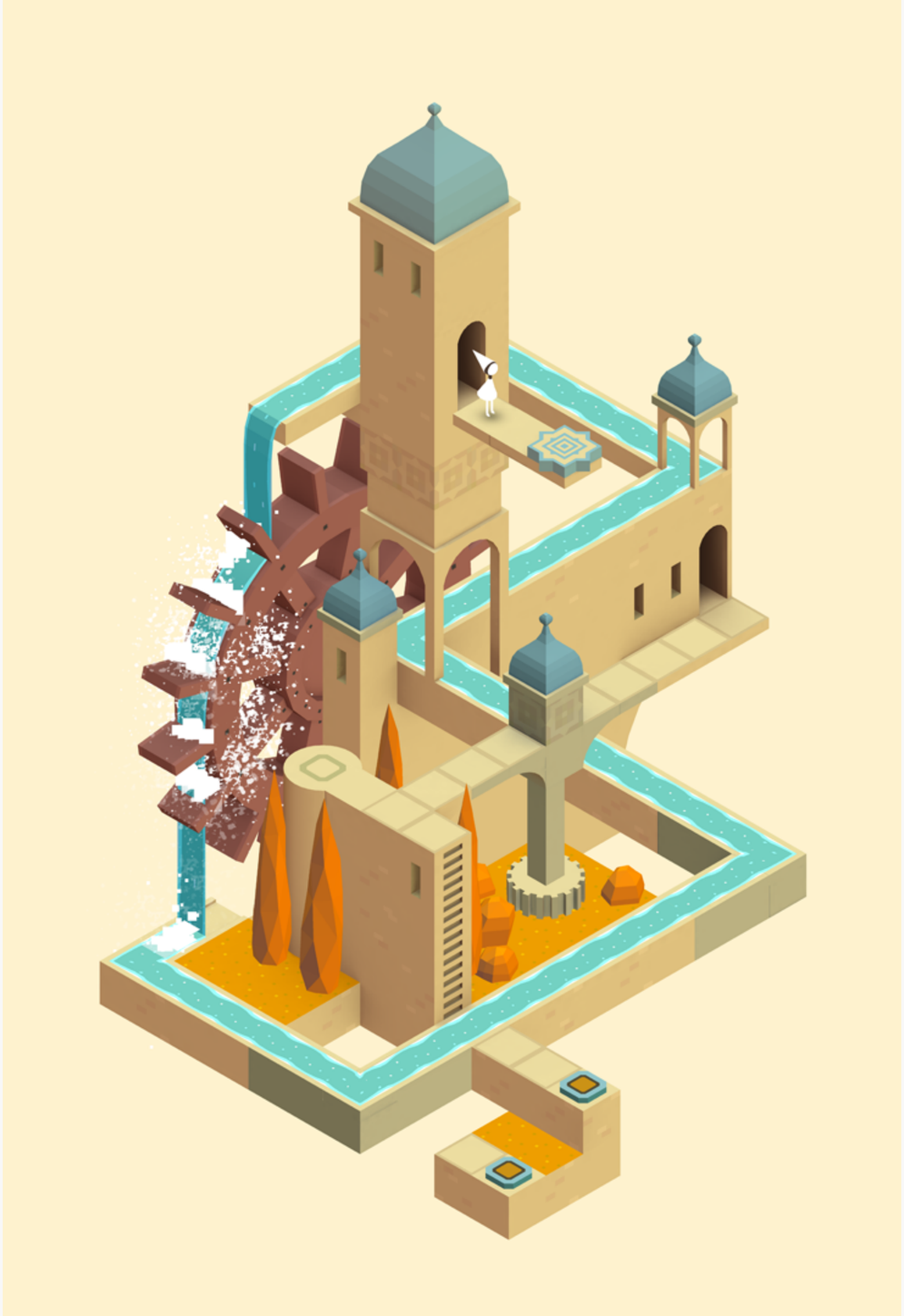


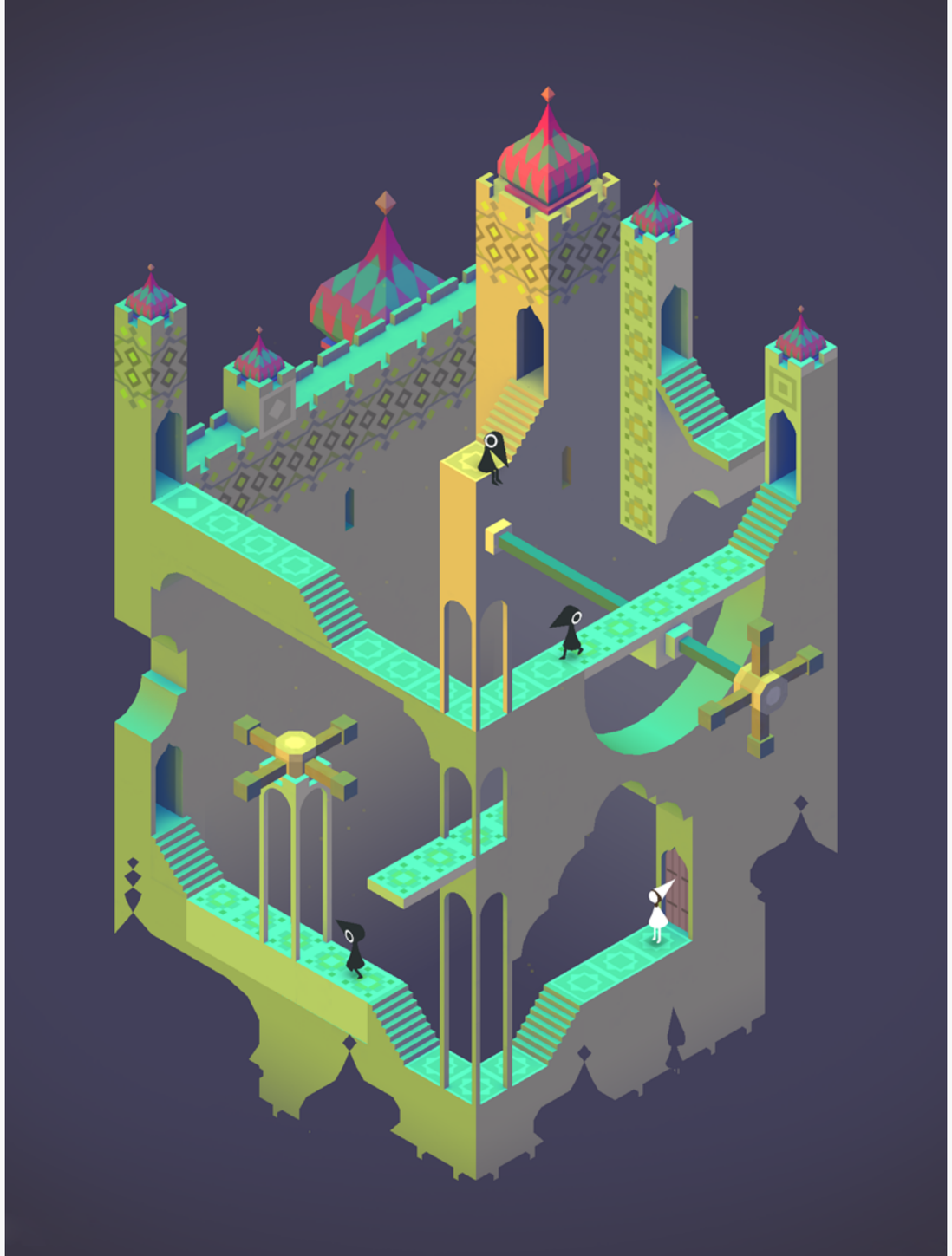
ographs and other works of art clustered all over the walls. It was completely
way.

A mansion ... or a castle perhaps?

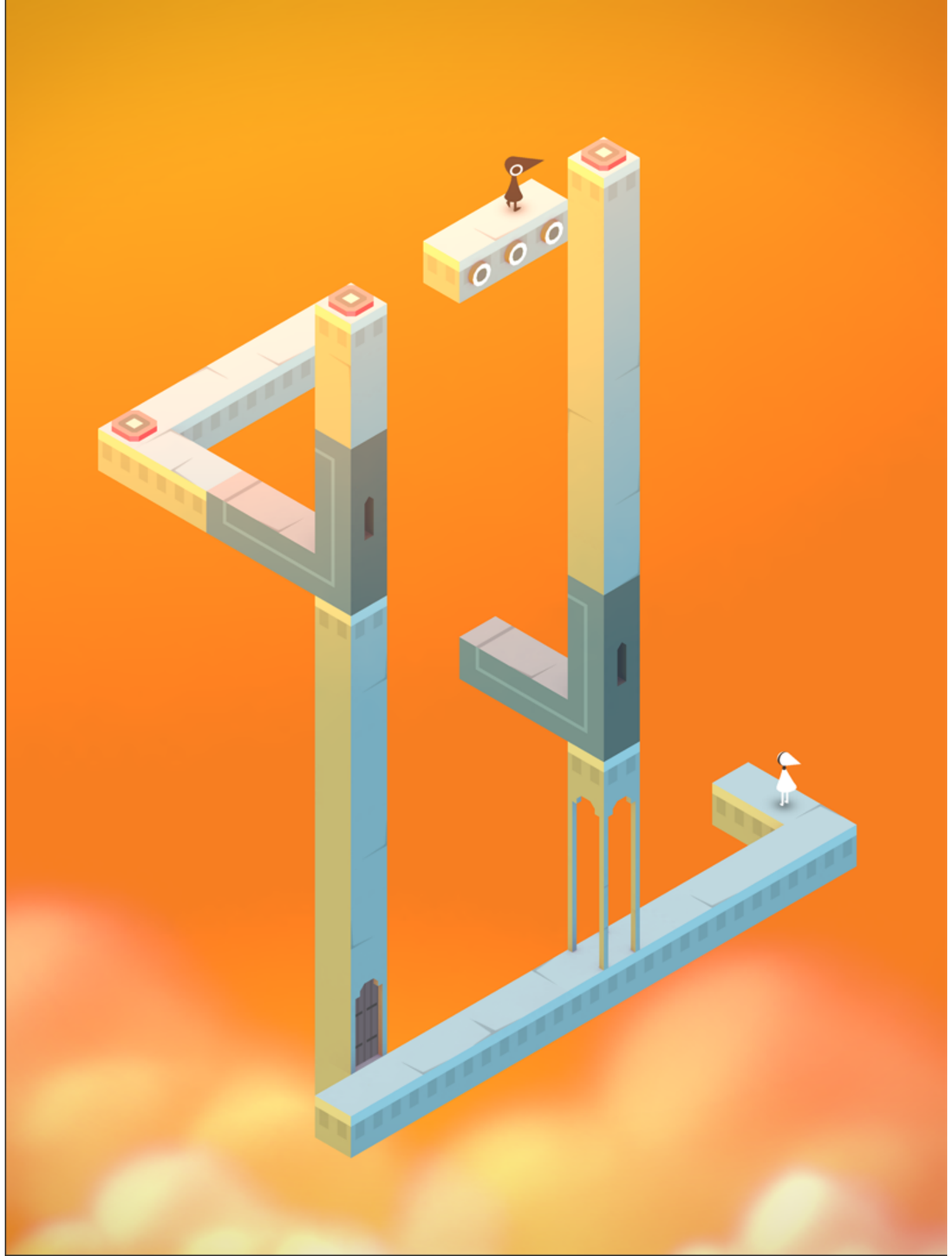
LITTLE WORLDS

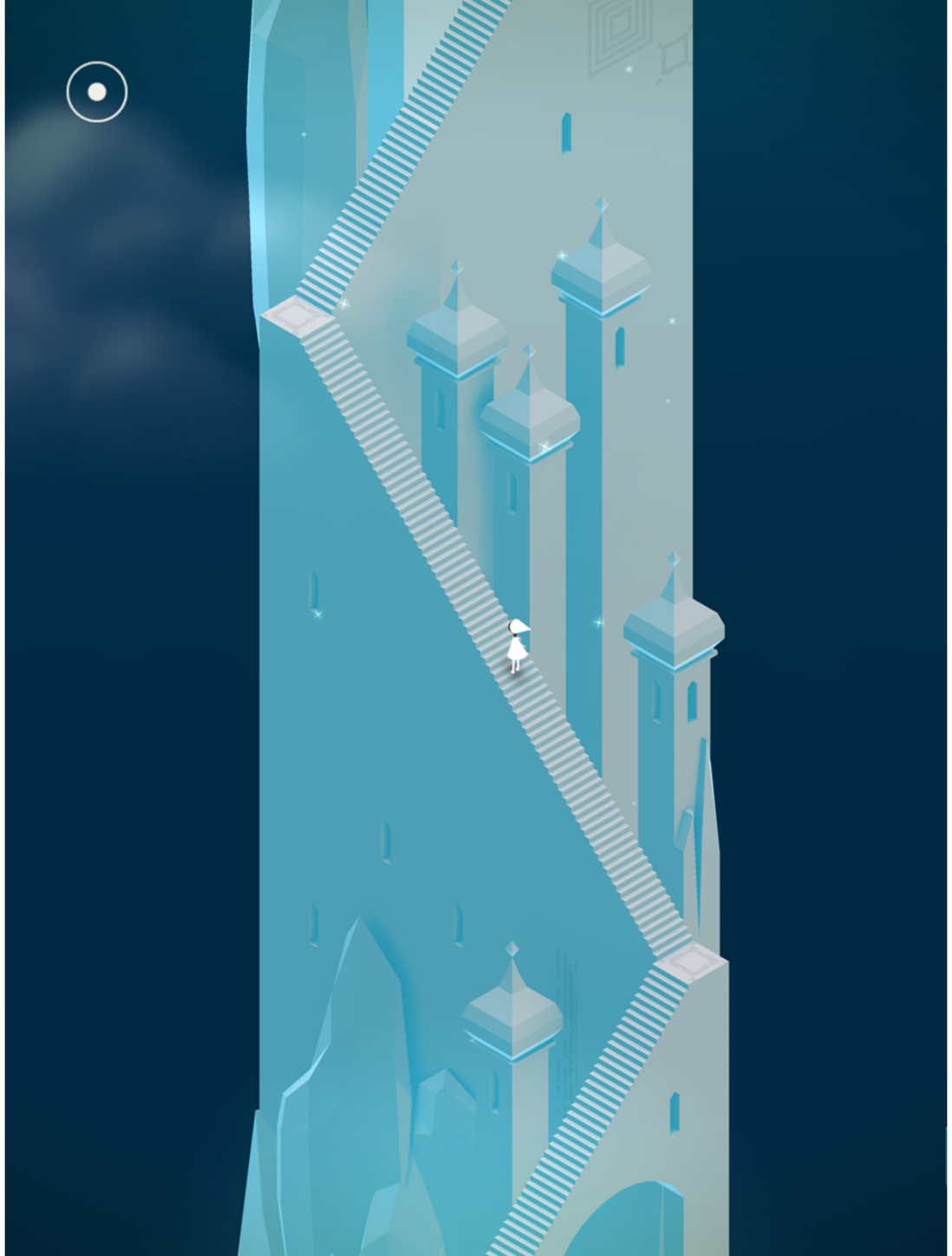




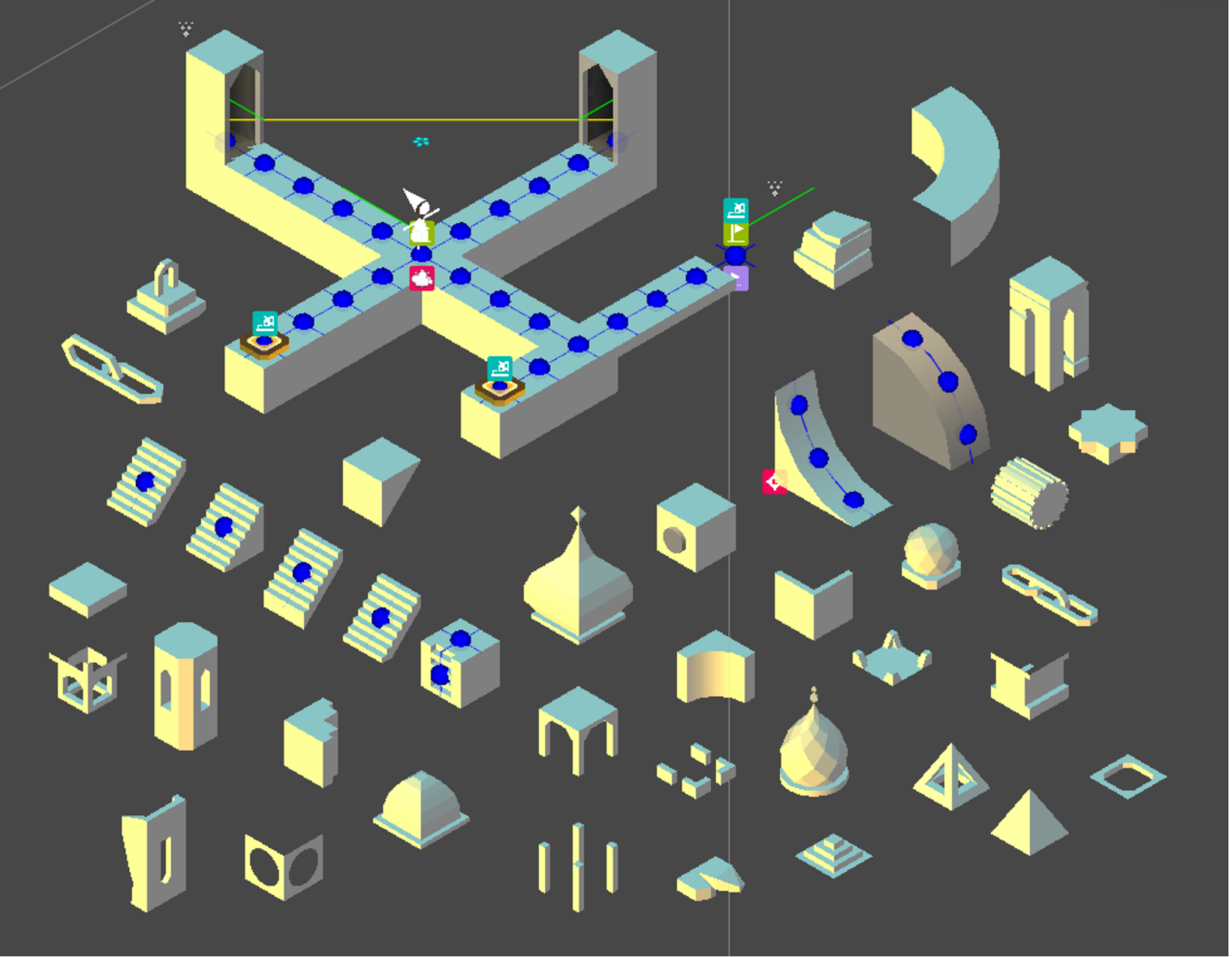


MINIMALISM





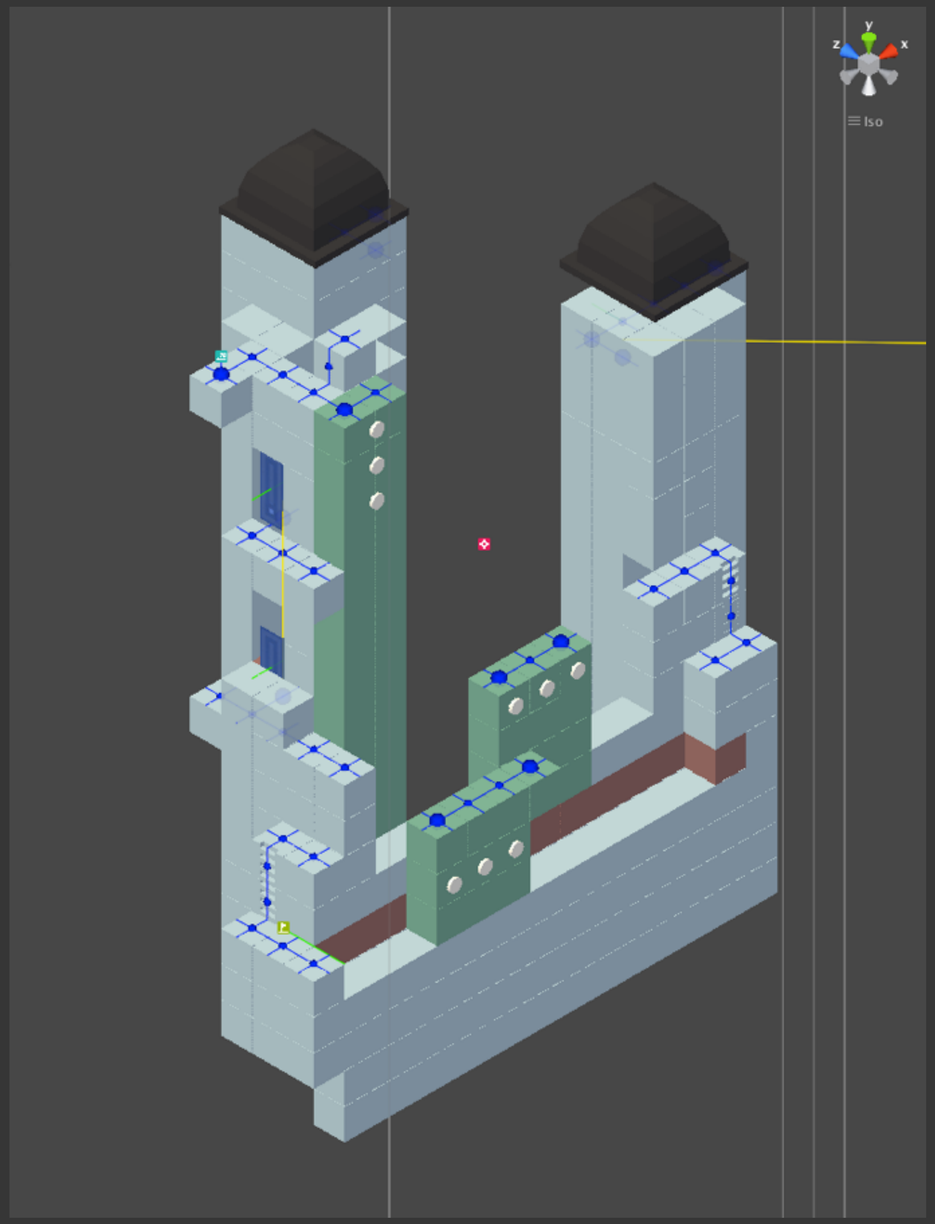
WHITEBOX TO VIS



WHITEBOX

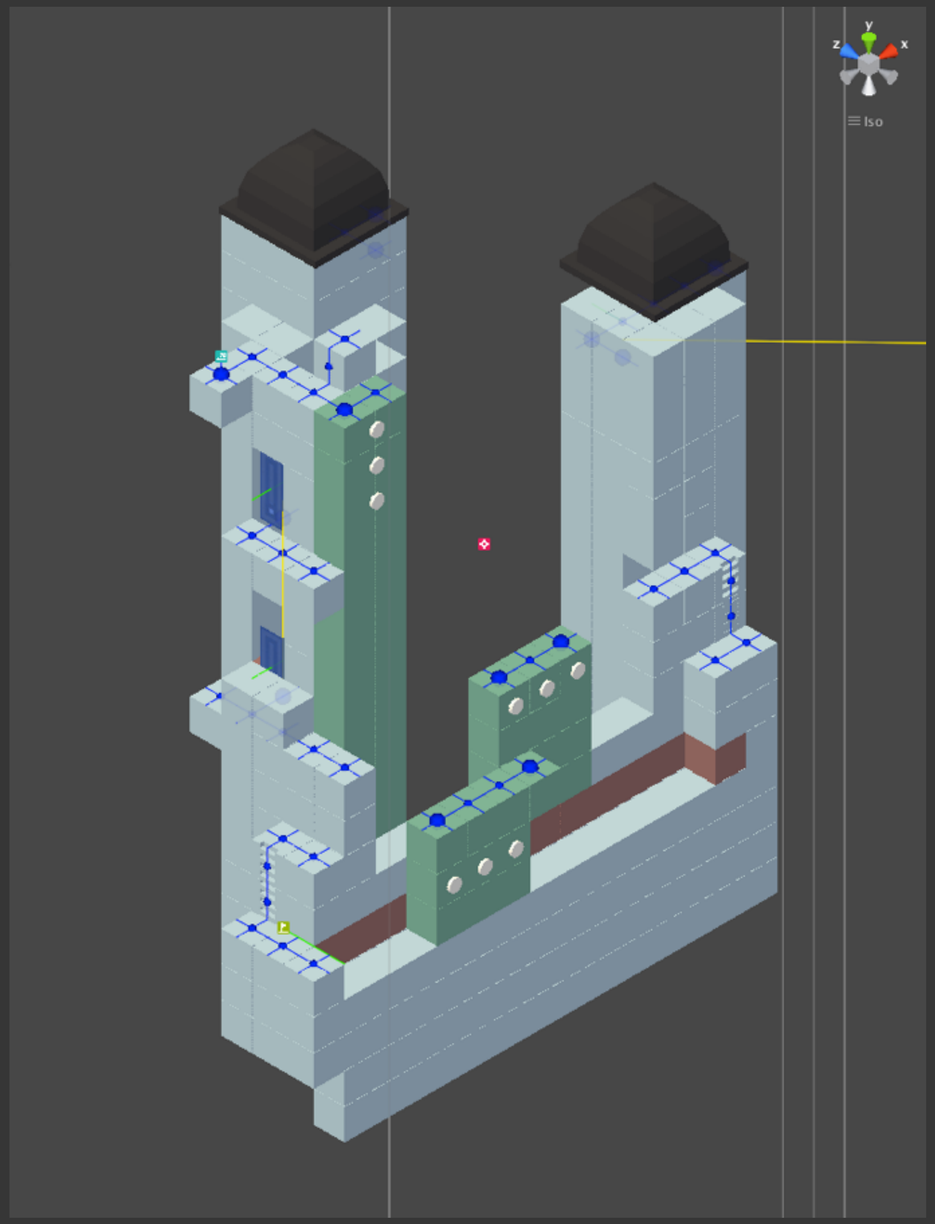
PIECES

(PARTIAL)



WHITE BOX

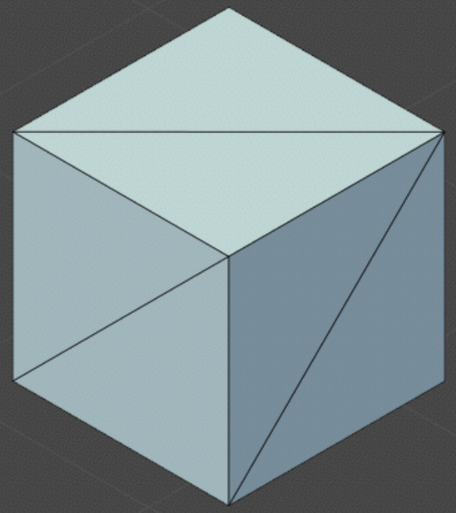
FINAL ‘VIS’

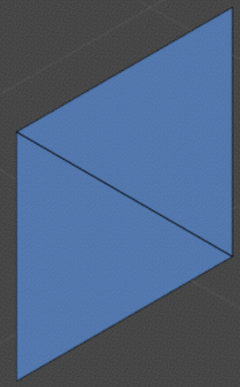


WHITE BOX

FINAL ‘VIS’

CUBES ⟶ QUADS





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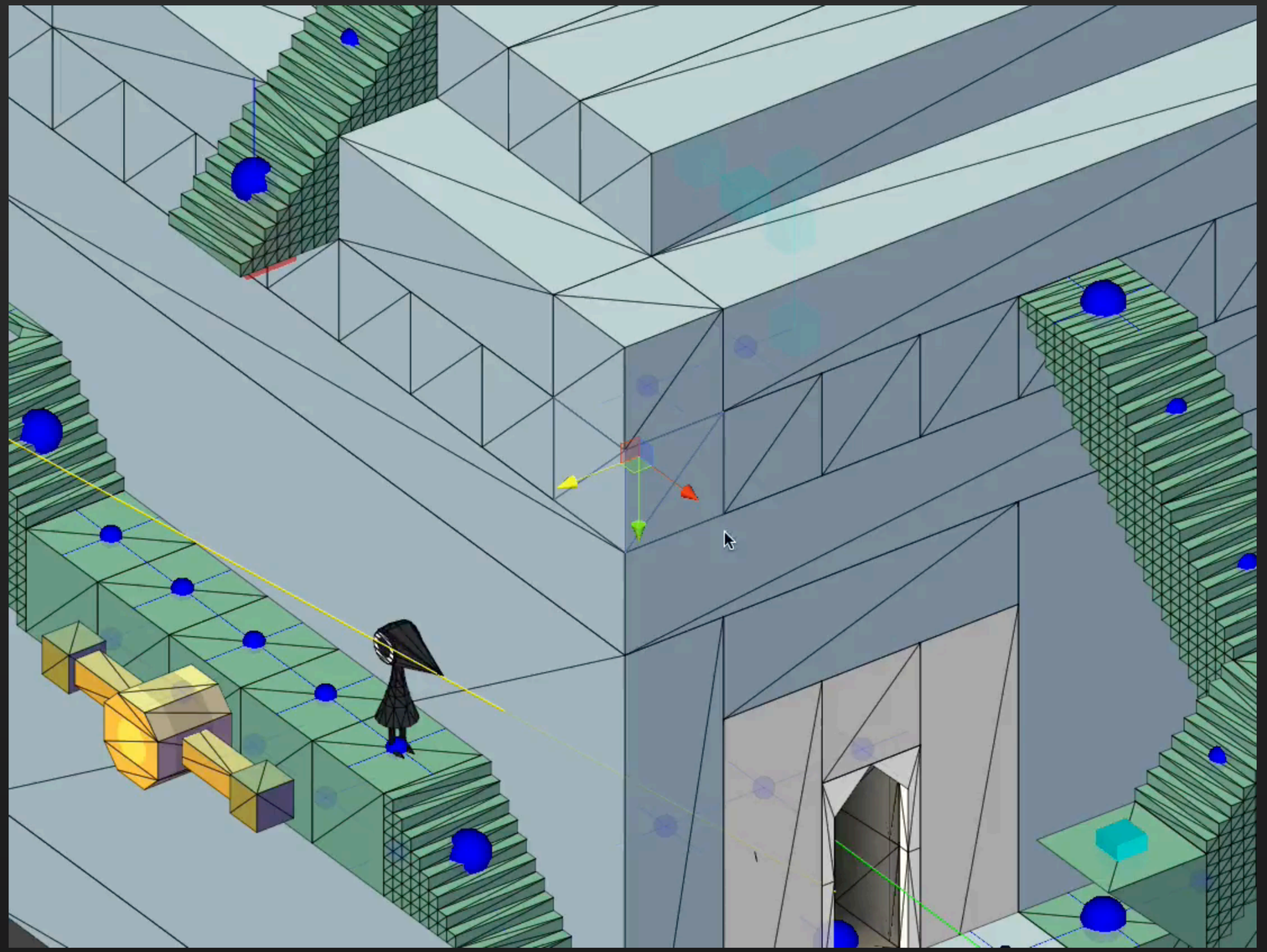

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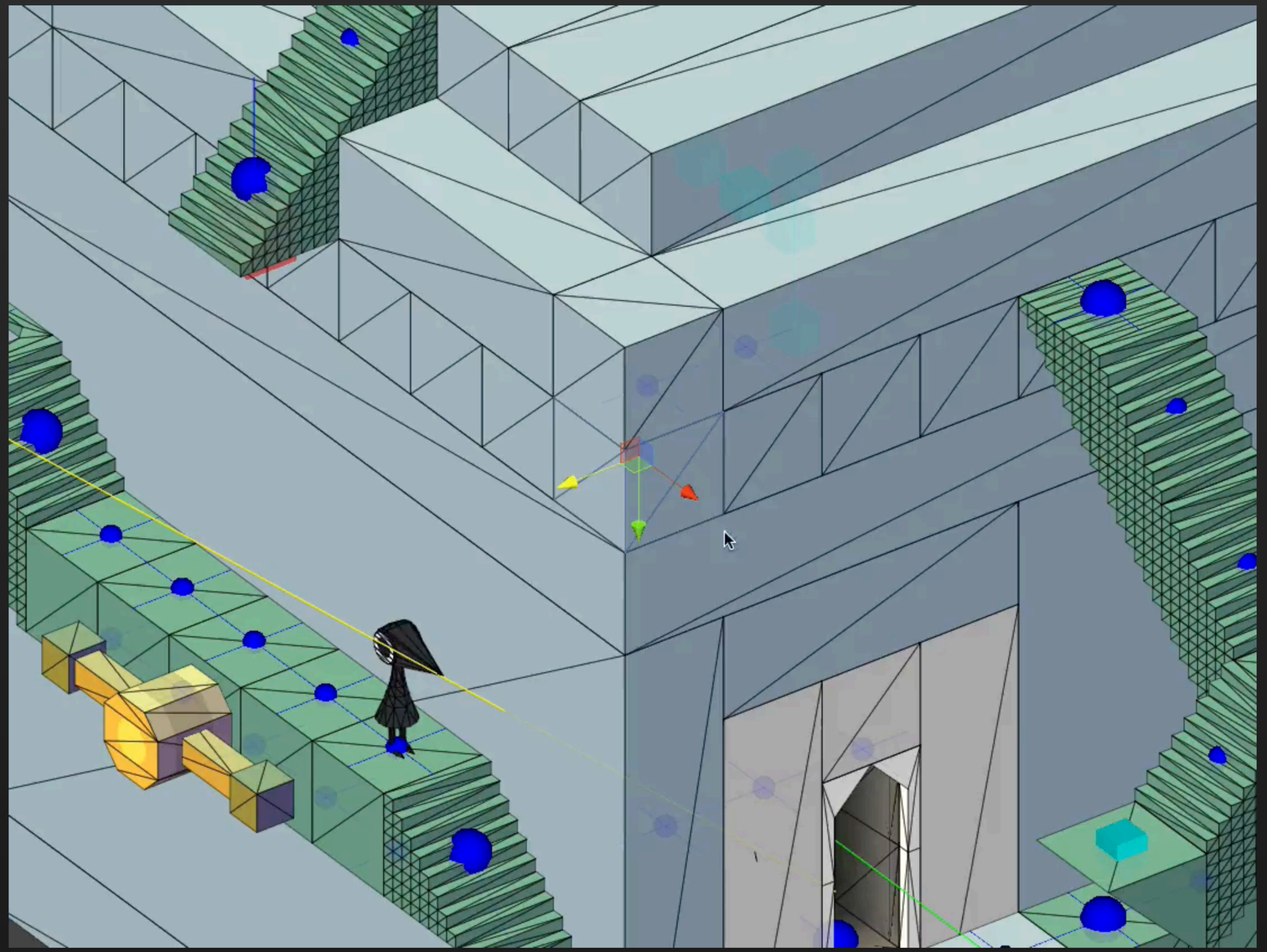
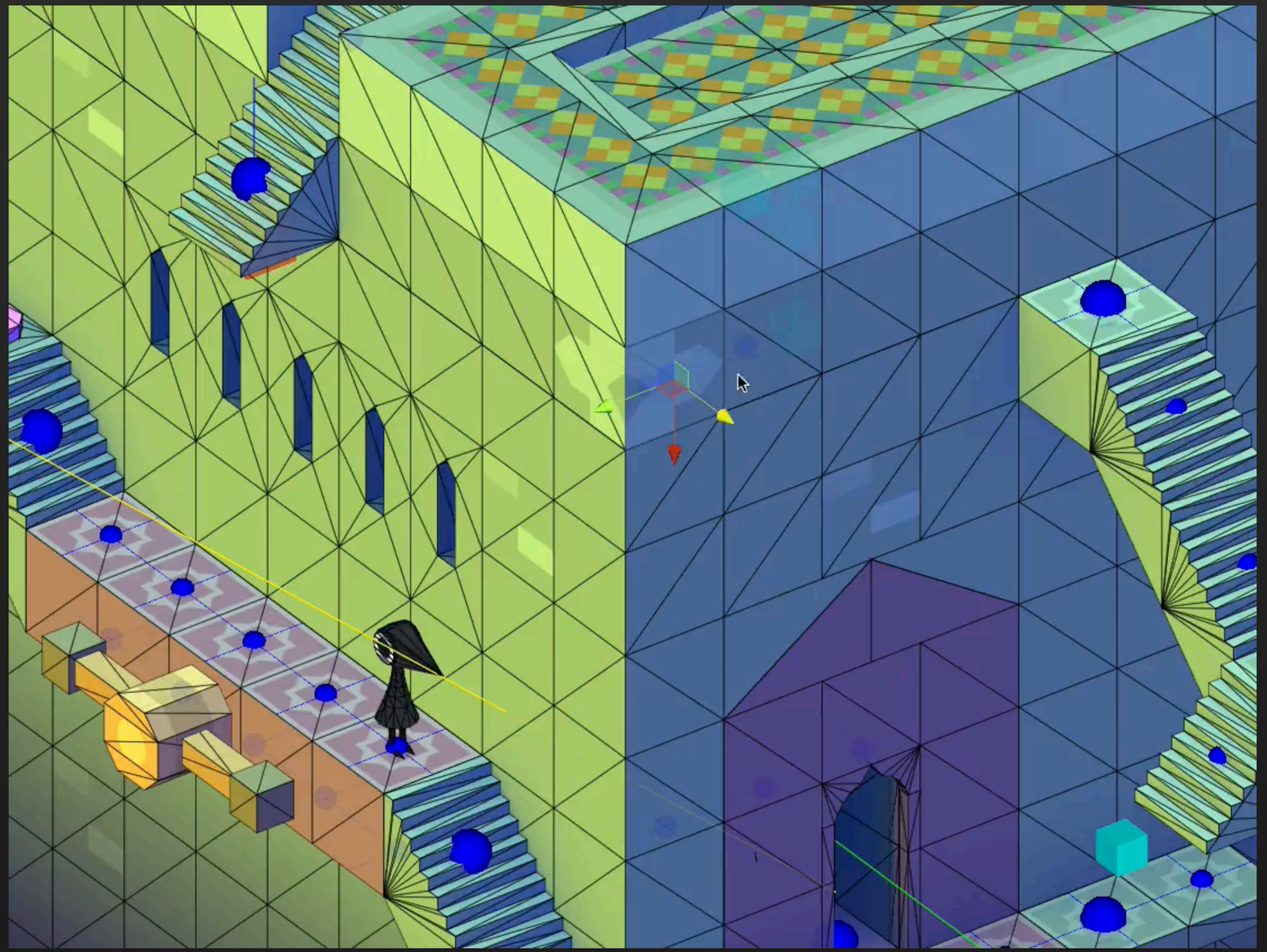
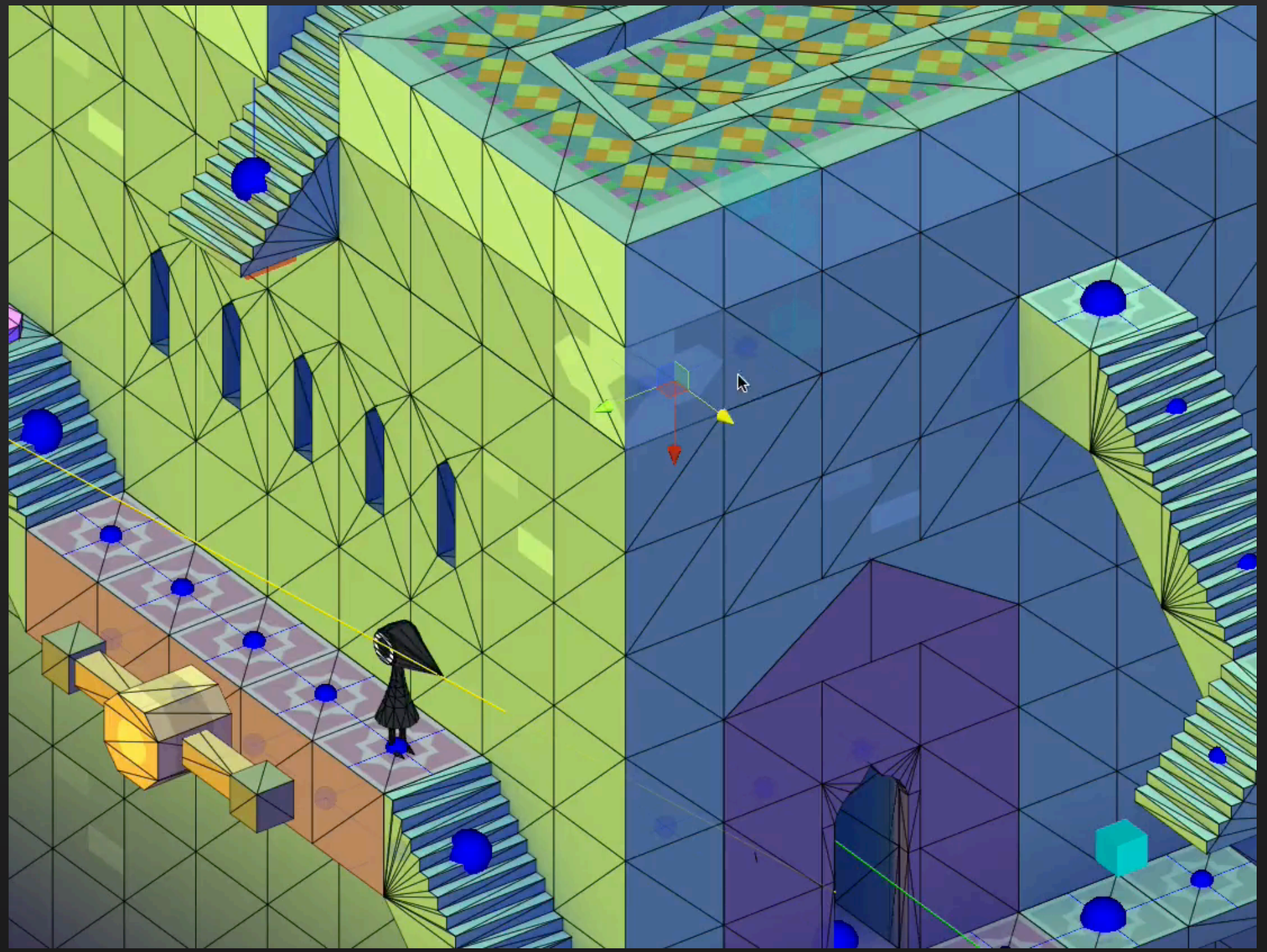


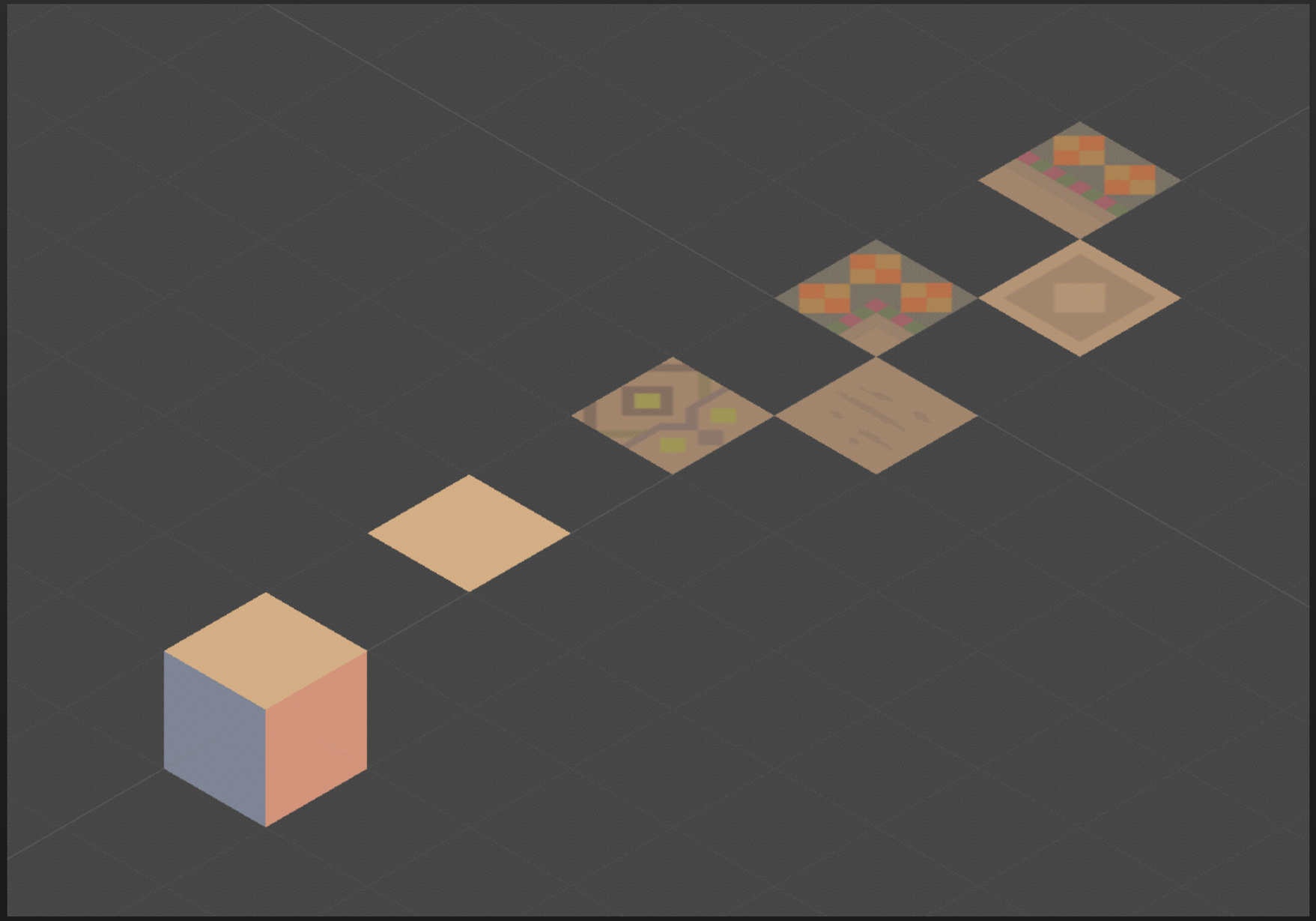
VIS



VIS

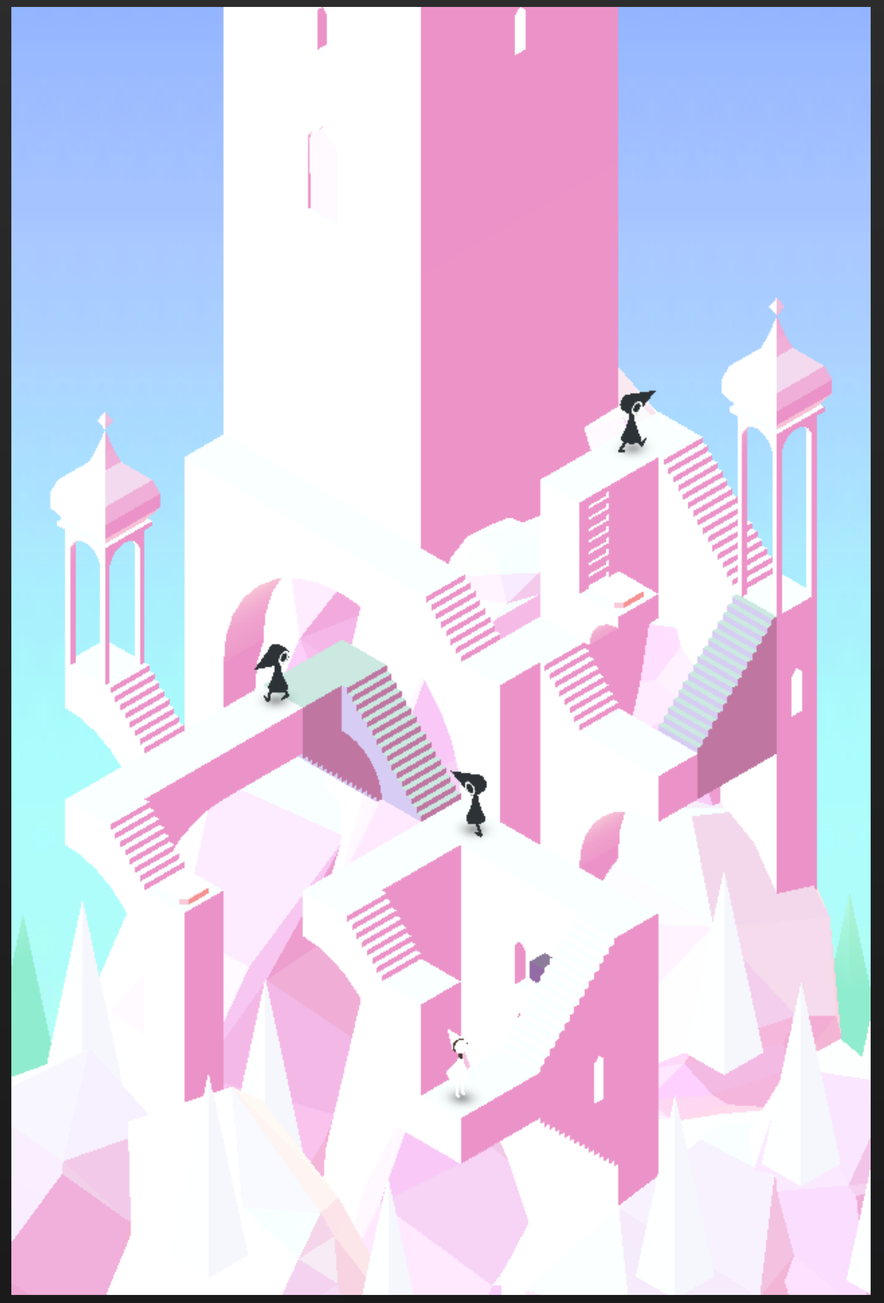


MESH VARIATION PIPELINE



TEXTURE ONLY

‘LIGHTING’ ONLY



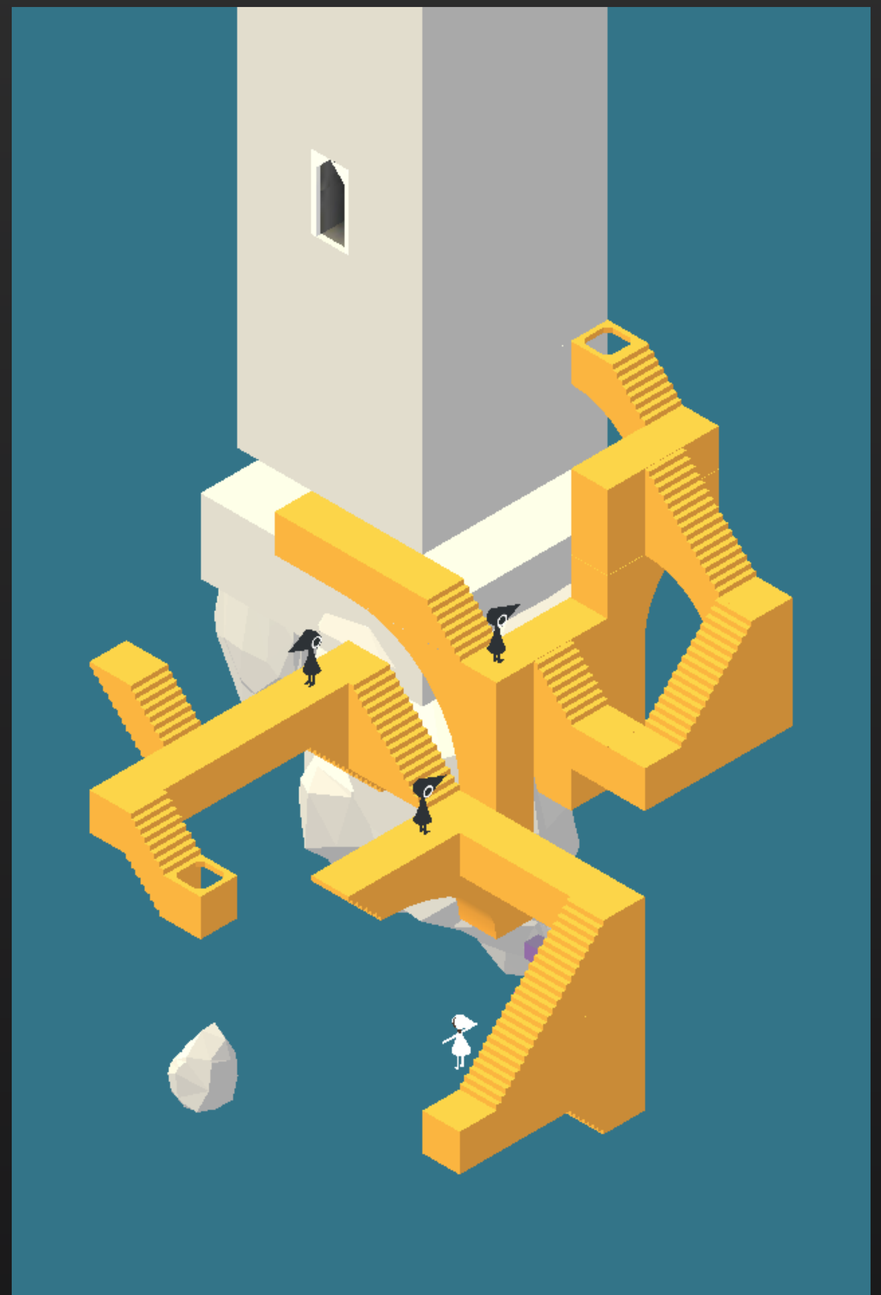
TEXTURE + LIGHTING

+ AMBIENT OCCLUSION

OVERLAYS

VIGNETTE

WHITEBOX



FINAL

EXPORT PROCESS

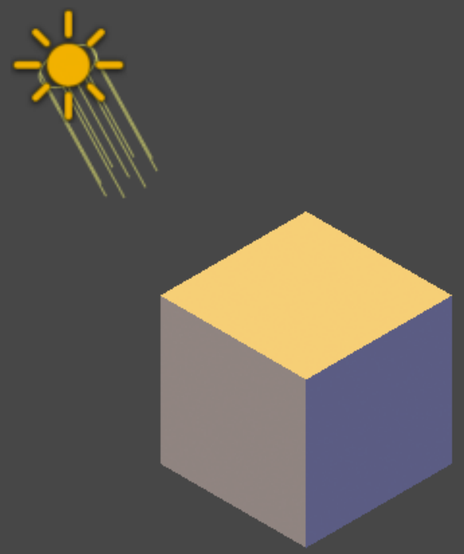
- Chunk3_TROLLCROW
  - _Clouds
  - CameraLookAtPoint3_New
  - Doorway5-TopPillarEntry
  - Doorway5-TopPillarExit
  - Doorway_TrollCrowEntry
  - Ground
  - LeftSide
  - NewTrollCrowLogic
  - PolyrainContainer
  - PolyrainContainer
  - RightSide
    - _Vis
      - Cube
      - Cube
      - Flag
      - Keep_Stairs_Plain
      - Keep_Stairs_Plain
      - Keep_UnitQuad_Plain
      - Keep_UnitQuad_Plain
      - Keep_UnitQuad

COLORS & SHADERS

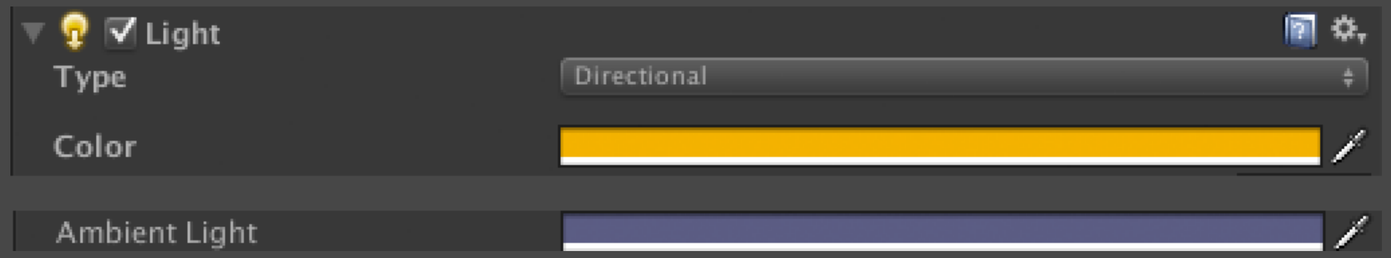
ISOMETRIC ART

UP LEFT RIGHT

DEFAULT (LAMBERT) SHADING USING DIRECTIONAL LIGHT



SOURCE COLORS

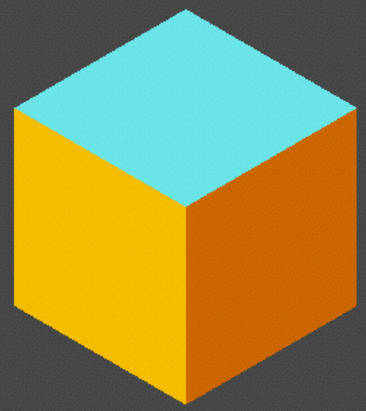


RESULT COLORS

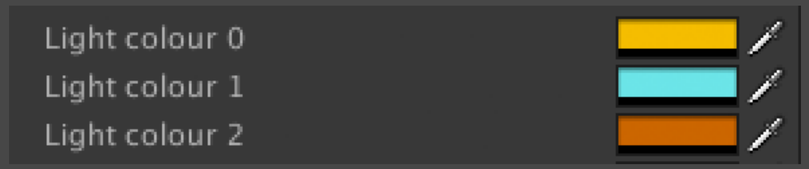
MAXIM TICTAC

PATSWERK

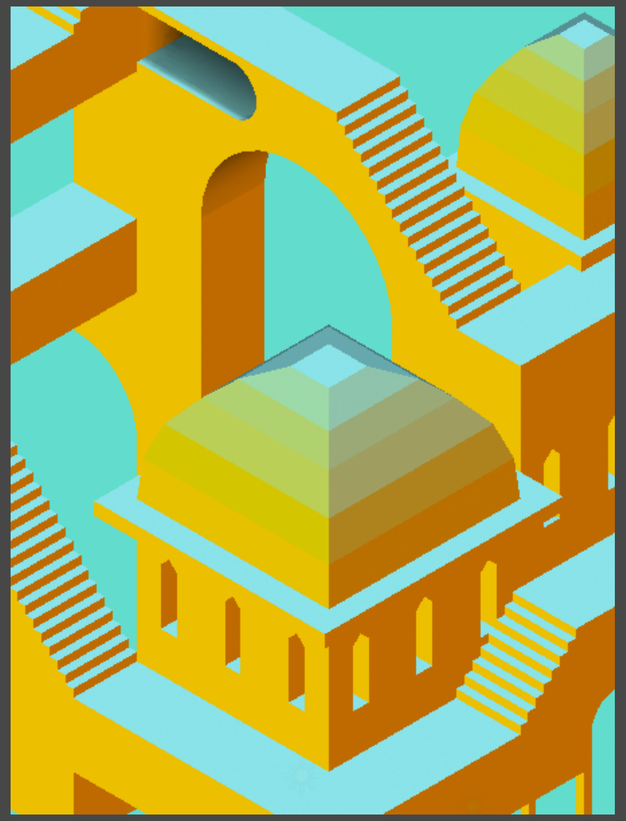
MONUMENT VALLEY SHADER



APPLY COLORS DIRECTLY TO TOP/LEFT/RIGHT SURFACES

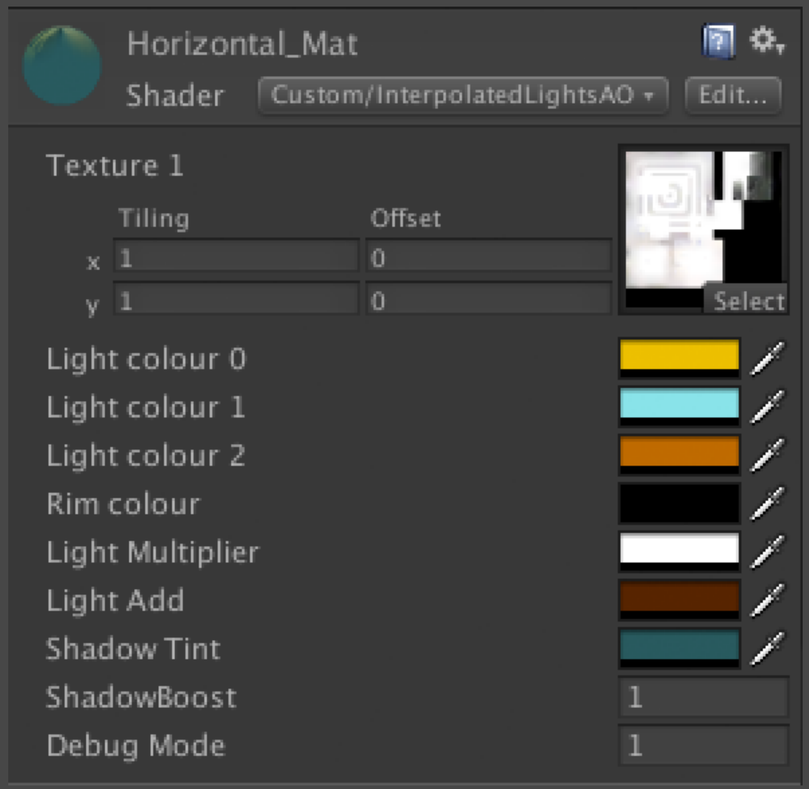


COLORED ADD, MULTIPLY, AND AMBIENT OCCLUSION



THREE COLORS
ONLY

LIGHT ADD,
AMBIENT OCCLUSION

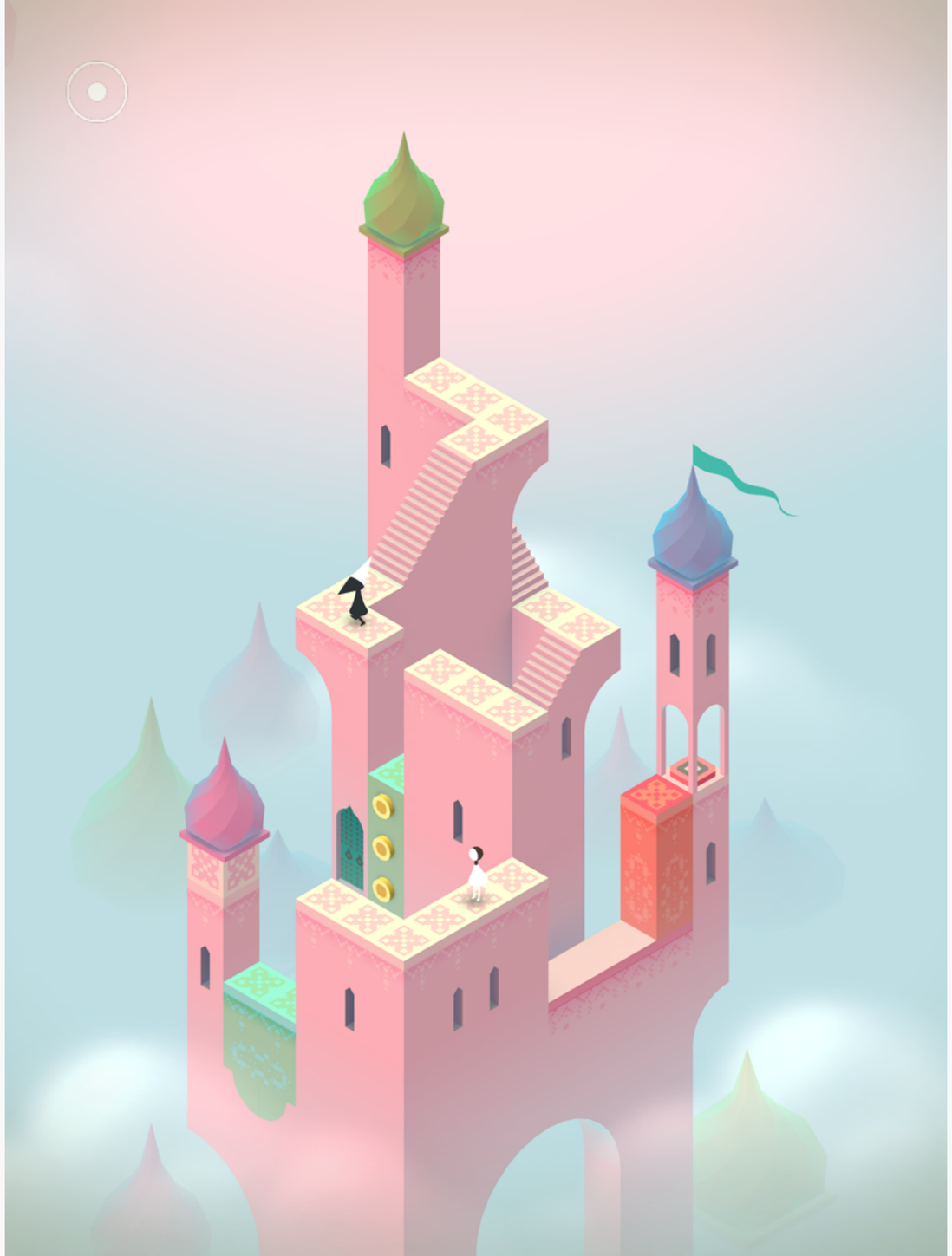


MONUMENT VALLEY
LONG HAVE THESE OLD BONES WAITED IN DARKNESS.
NOW ALL THAT REMAINS ARE OUR MONUMENTS, STRIPPED OF THEIR GLORIES.
THOSE WHO STOLE OUR SACRED GEOMETRY HAVE FORGOTTEN THEIR TRUE SELVES.
LONG AGES LIE HEAVY ON OLD BONES IN THESE BURIED HALLS.

FORGOTTEN SHORES

MONUMENT
VALLEY
• FORGOTTEN SHORES •

MONUMENT
VALLEY
IDA'S (RED) DREAM



OPPORTUNITIES

Designing with **aesthetics** as a **focus**

leads to the creation of **different experiences.**

Current video game aesthetics

are extremely **conservative**

Aesthetics is **free marketing**

Aesthetics allows smaller projects

to **punch above their weight**

Having **different priorities**

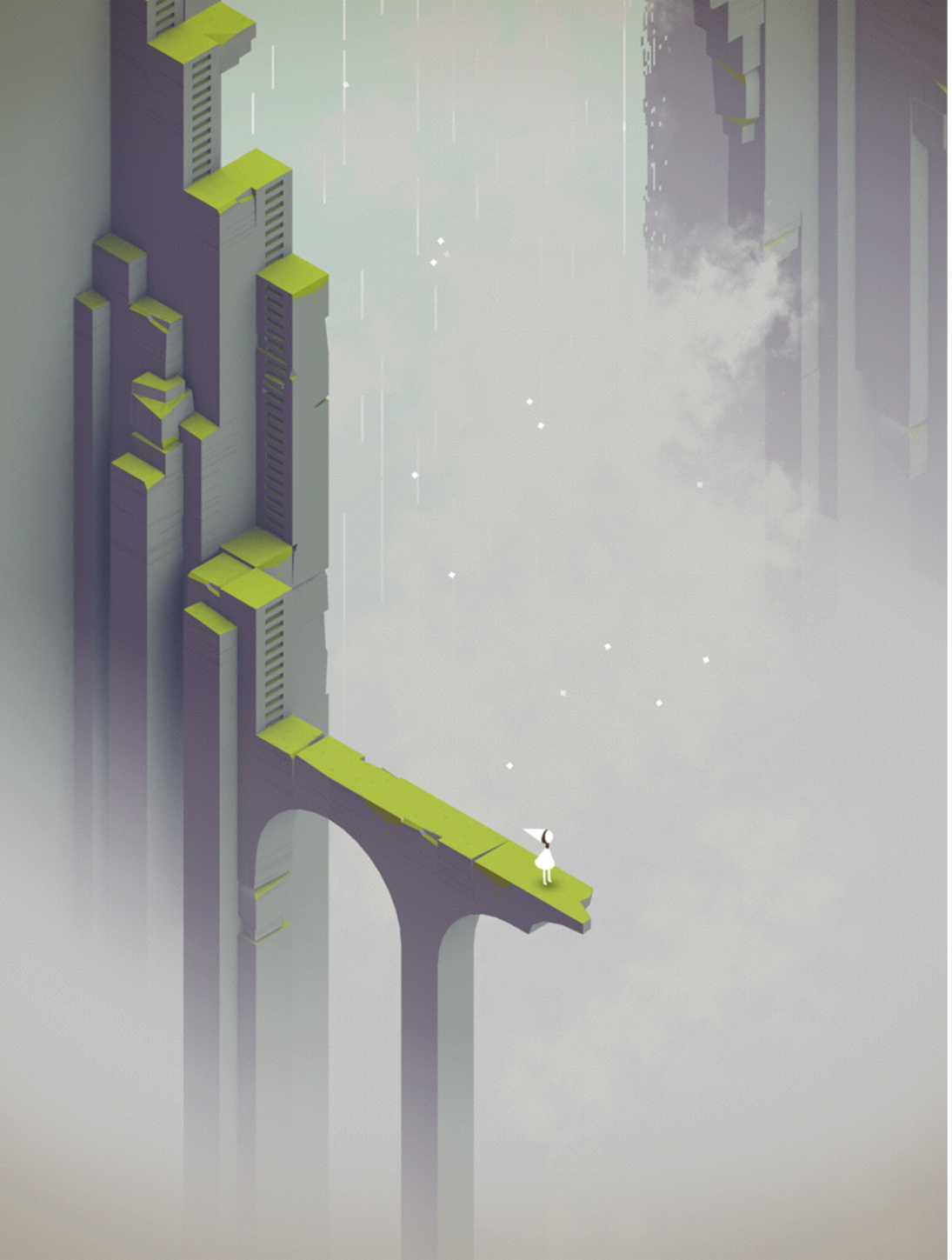
can steer the game design in unexpected directions.

Leaning on aesthetics rather than mechanics

can make your game more accessible to **non-gamers**

VR / AR will be less about mechanics,

more about aesthetics



THANK YOU

@KENWONGART
KEN@USTWO.COM

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