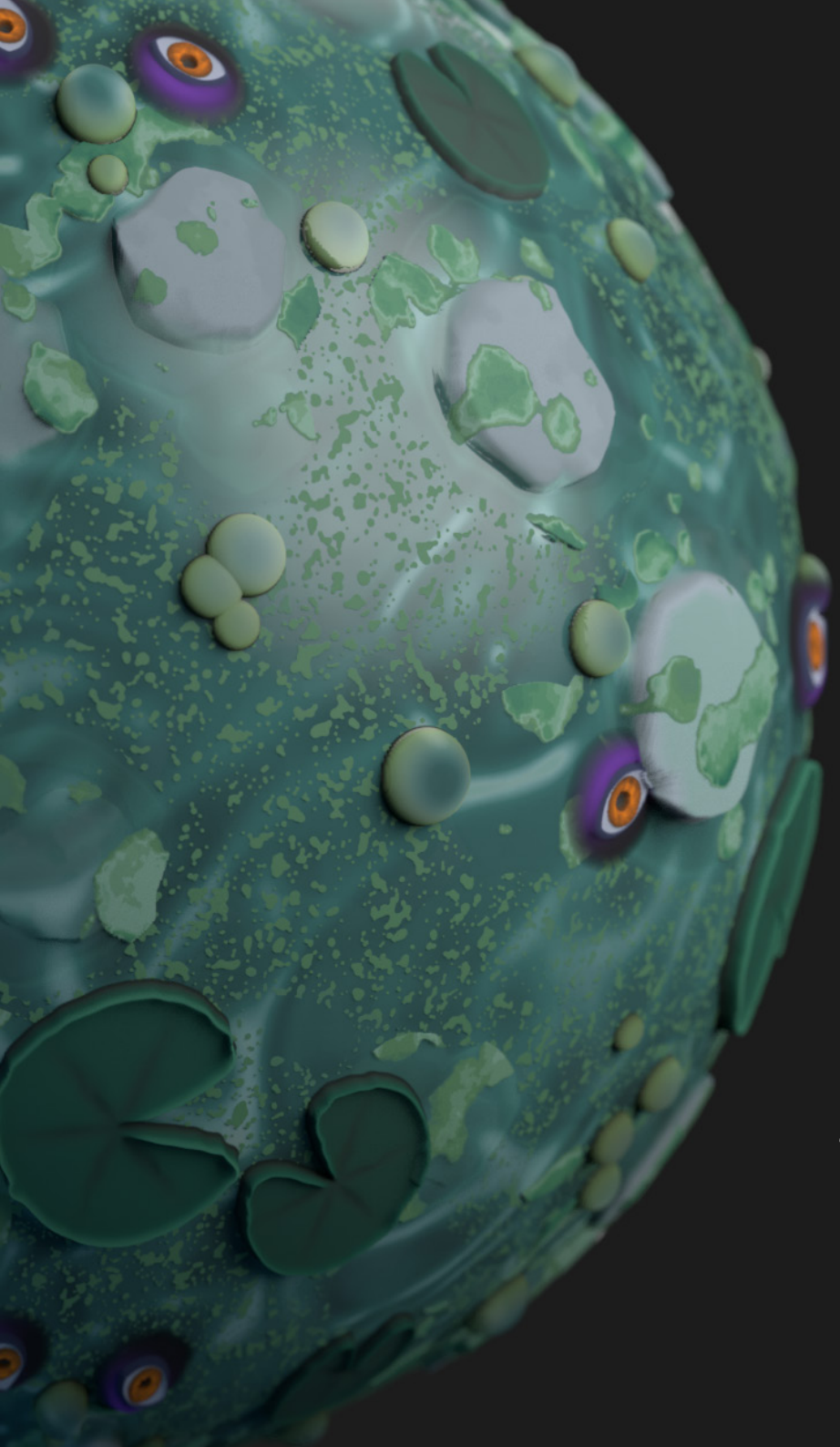

MAGIC MATERIALS

DESIGNING PROCEDURAL AND DYNAMIC MATERIALS FOR GAMES

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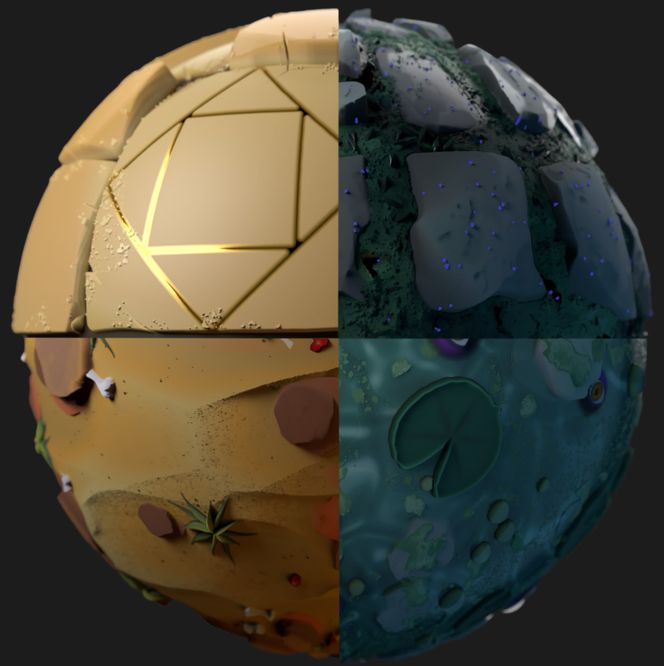
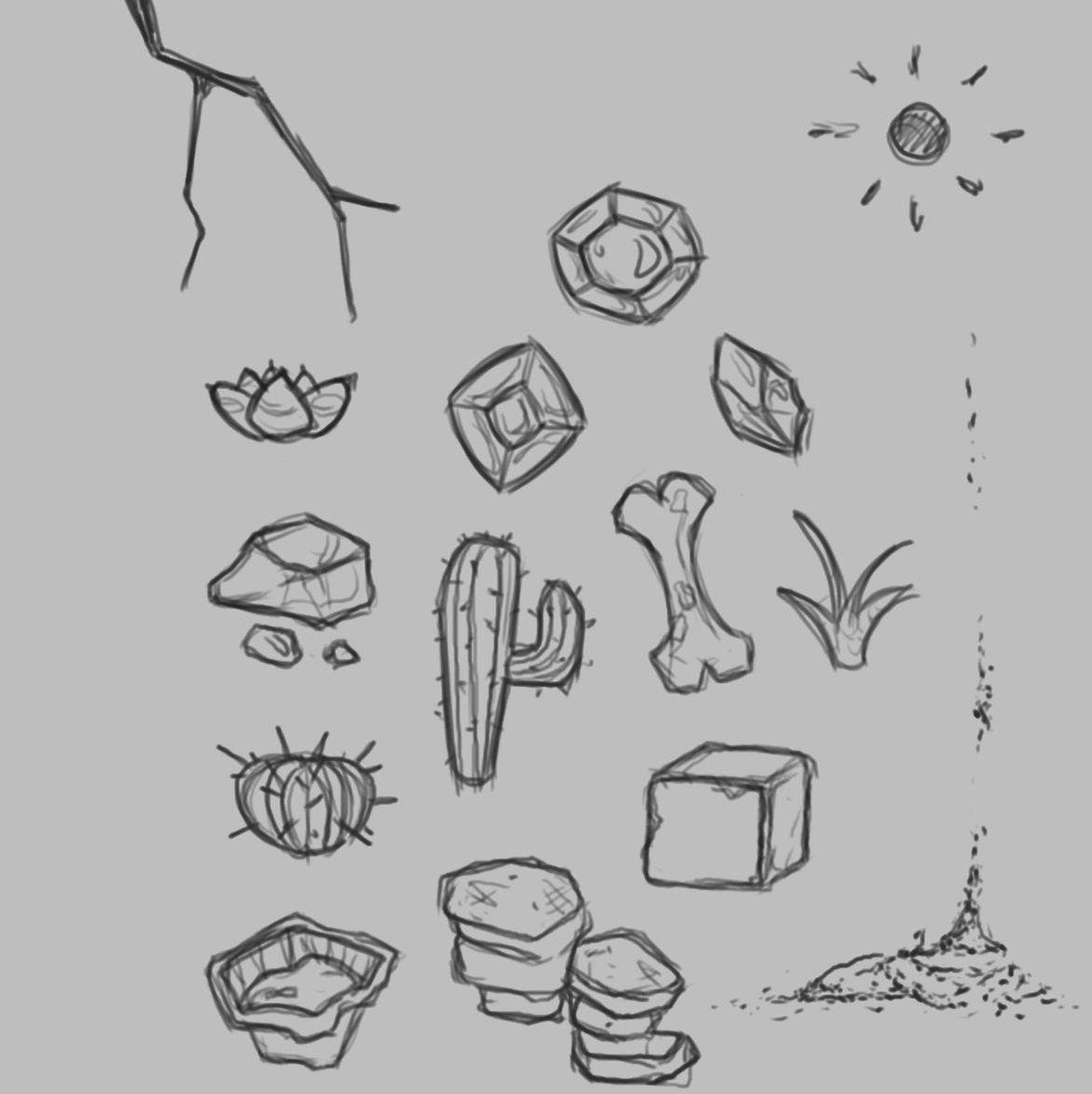
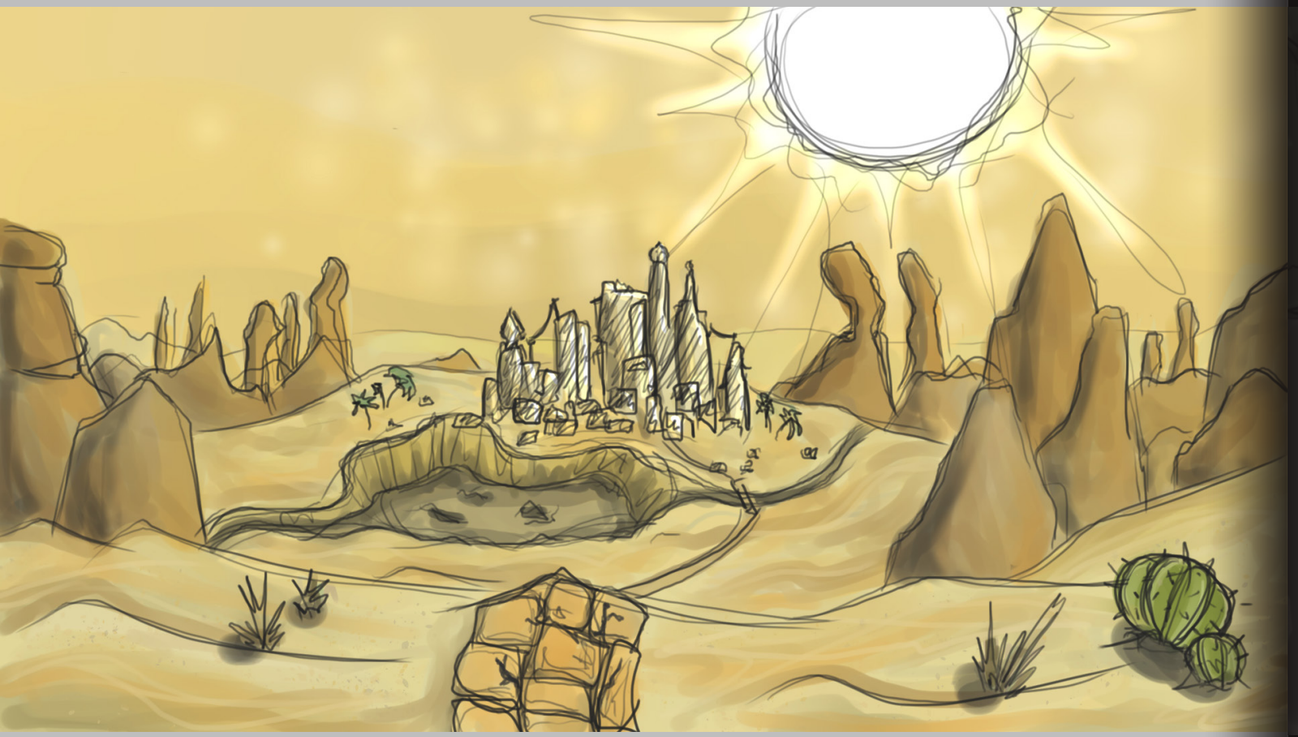
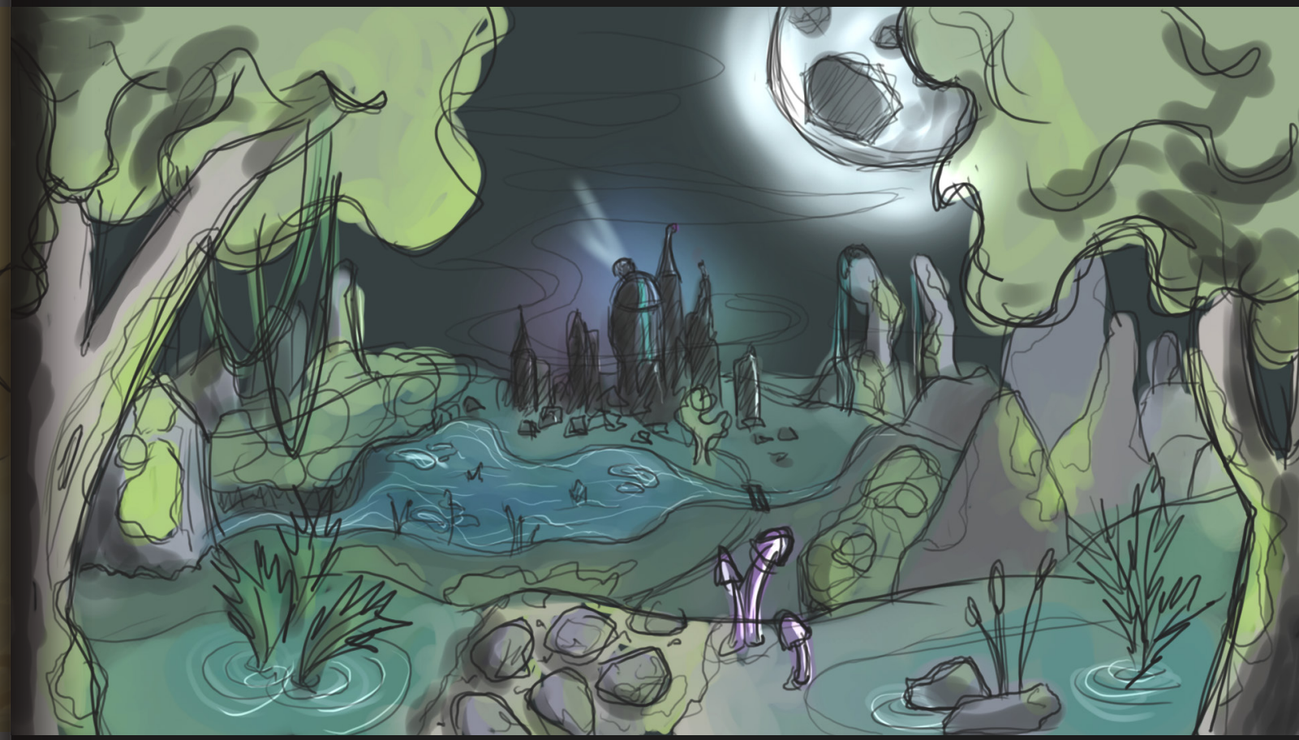


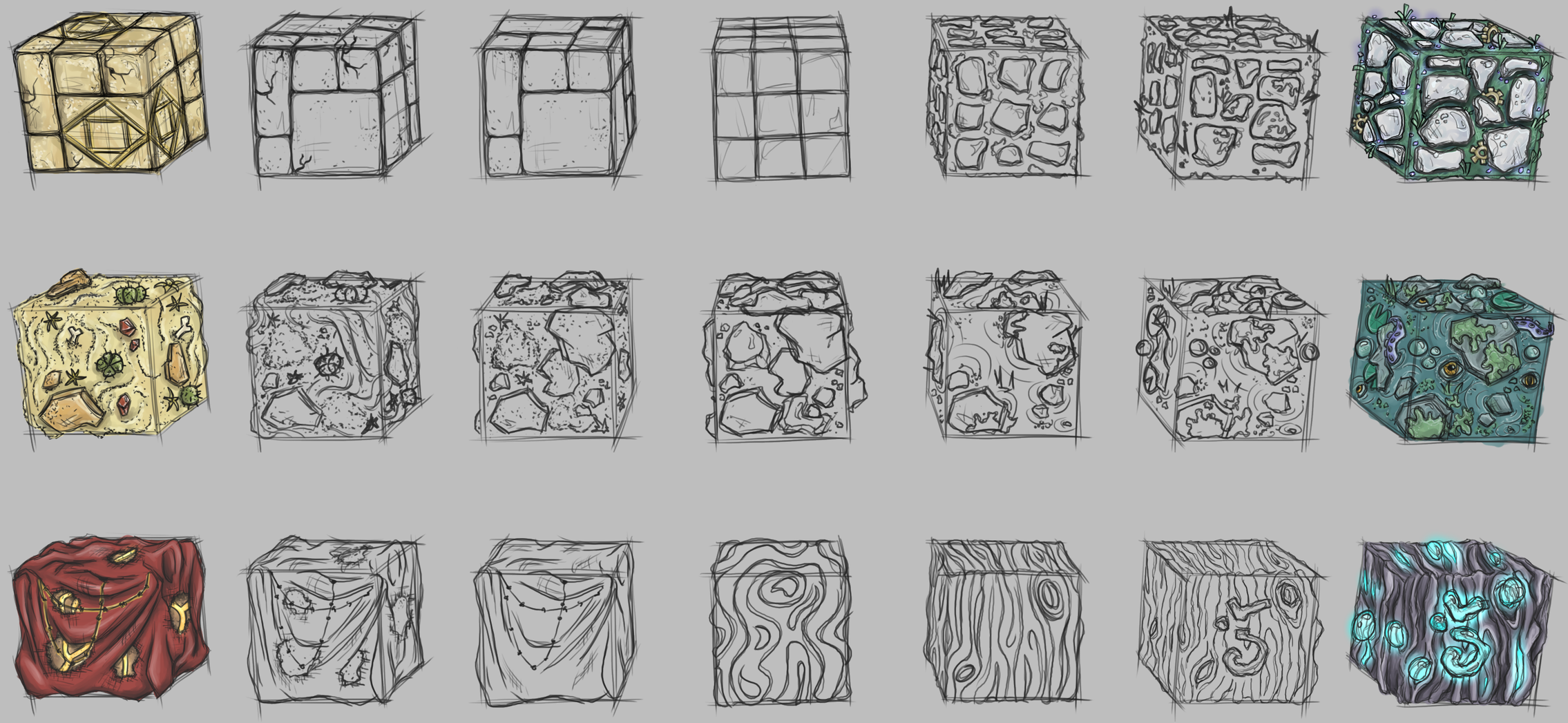
PROJECT DESCRIPTION

DIVE INTO THE WORLD OF „MAGIC MATERIALS". THIS ARTBOOK CONTAINS THE CONCEPTUALISATION AND CREATION OF PROCEDURAL MATERIALS IN SUBSTANCE DESIGNER AND THEIR IMPLEMENTATION IN UNREAL ENGINE. LEARN MORE ABOUT THE BACKGROUND AND DESIGN DEVELOPMENT OF THE DIFFERENT TEXTURES AND THEIR USAGE AS DYNAMICALLY CHANGING MATERIALS THAT CAN BE INTEGRATED INTO A GAME ENGINE AS PUZZLE MECHANICS.





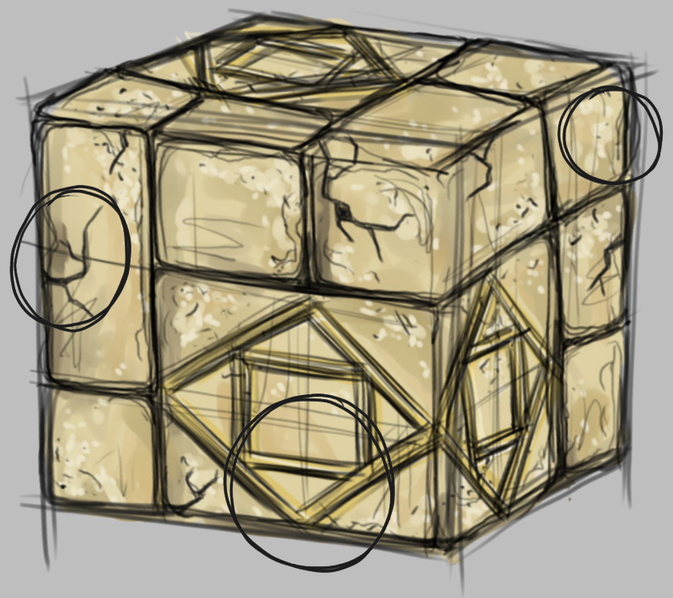




SANDSTONE FROM DRY DESERT ROCK

CRACKS IN THE ROCKS DUE TO DRY CLIMATE

SURFACE COVERED WITH GRAINS OF SAND



GEOMETRIC SIMPLE ARCHITECTURE

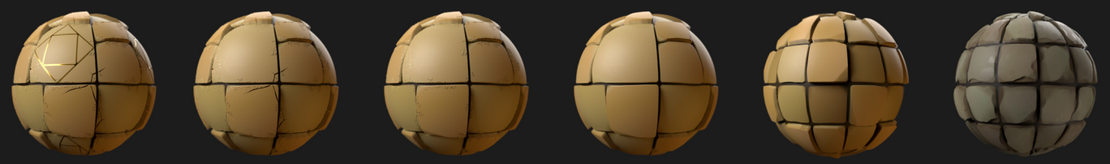
GOLDEN ART DECO ORNAMENTS FOR SHOWING SPLENDOR & VALUE

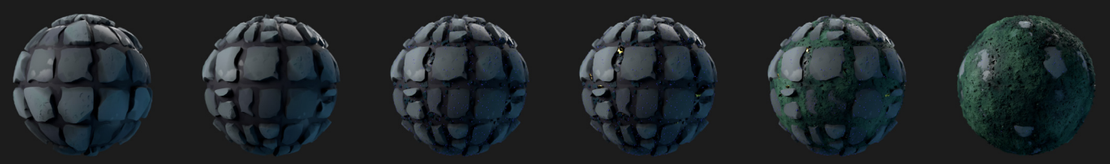
GEAR REMAINS POINT TO INVENTIVENESS OF THE CULTURE

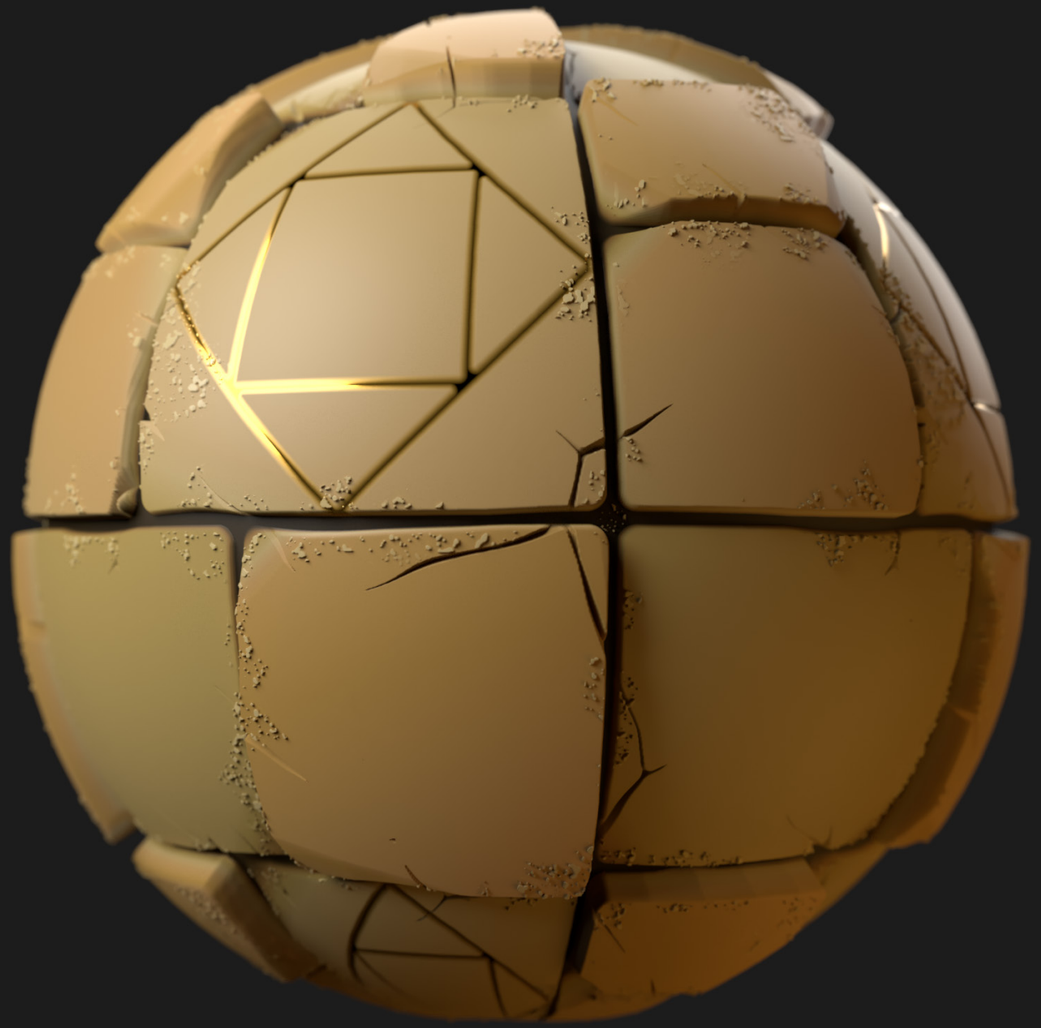
MANMADE STRUCTURES TEND TO BE MORE NATURAL, LIVING WITH NATURE

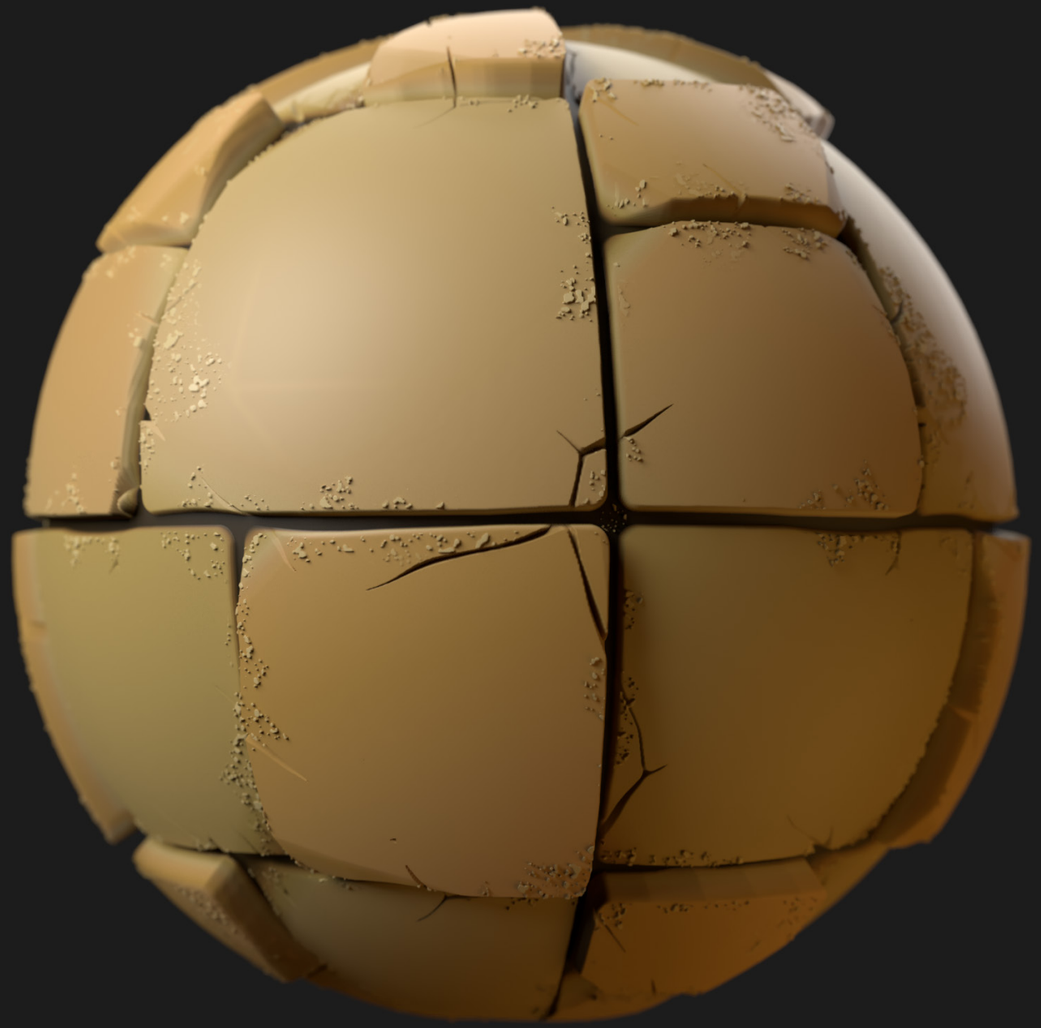
REMAINS OF GRAINS OF SAND LEFT OVER FROM THE DAY REACT WITH THE ENERGY AT NIGHT & BECOME CHARGED

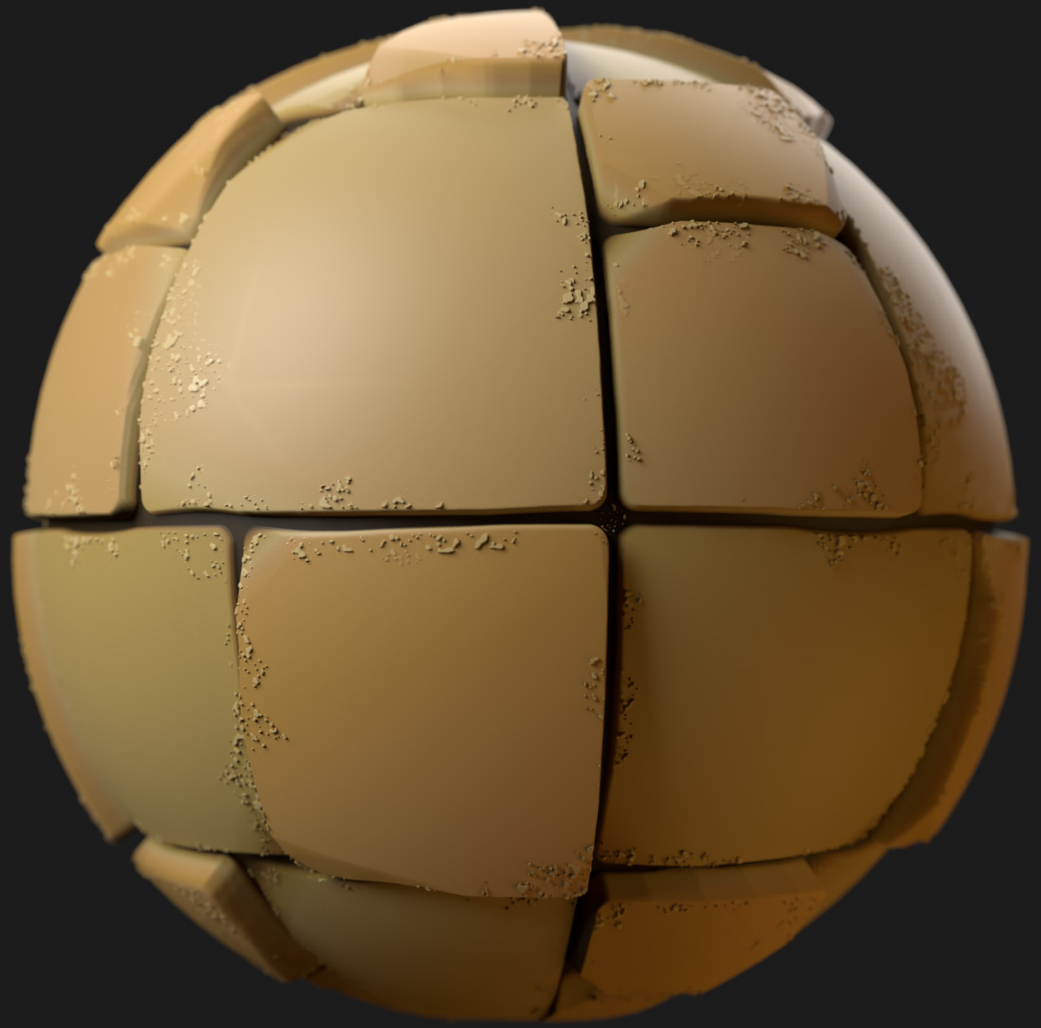
PALE MOONSTONE

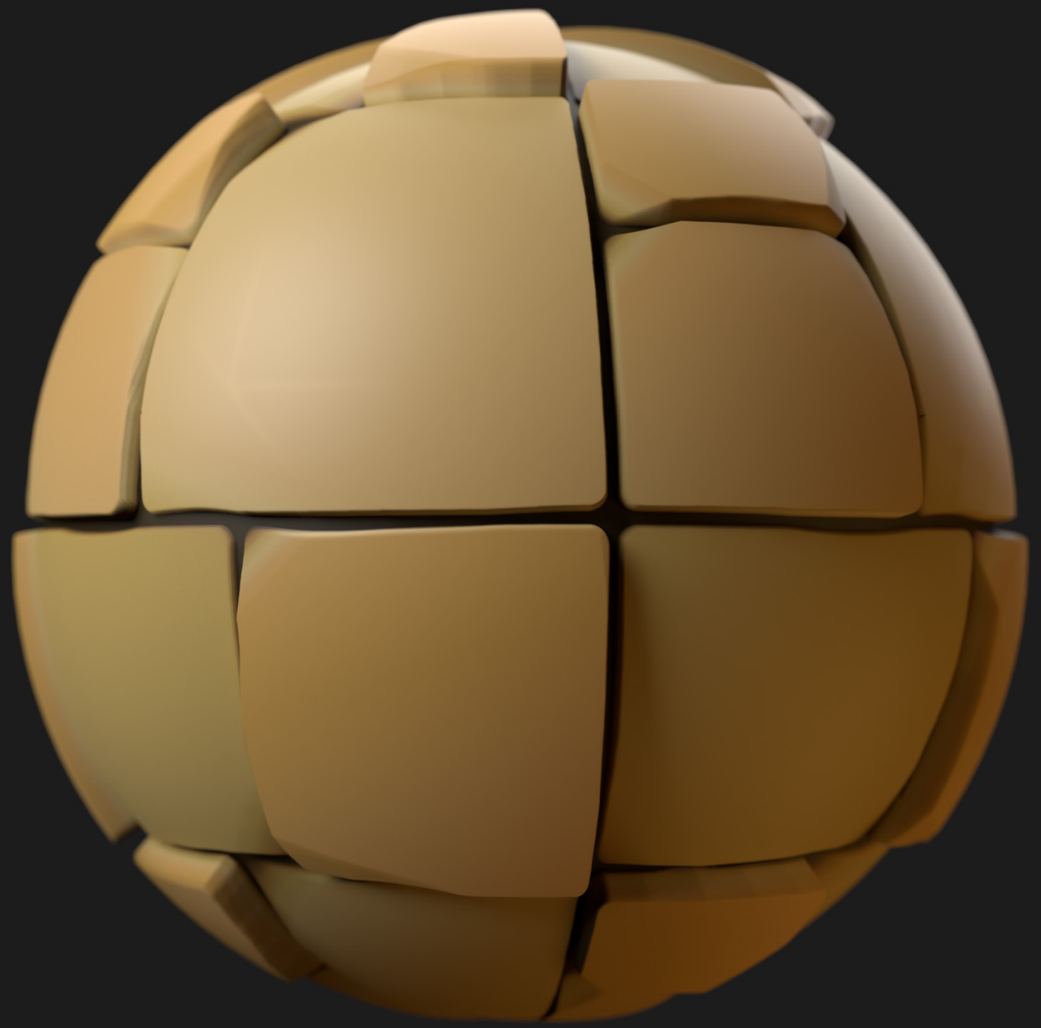


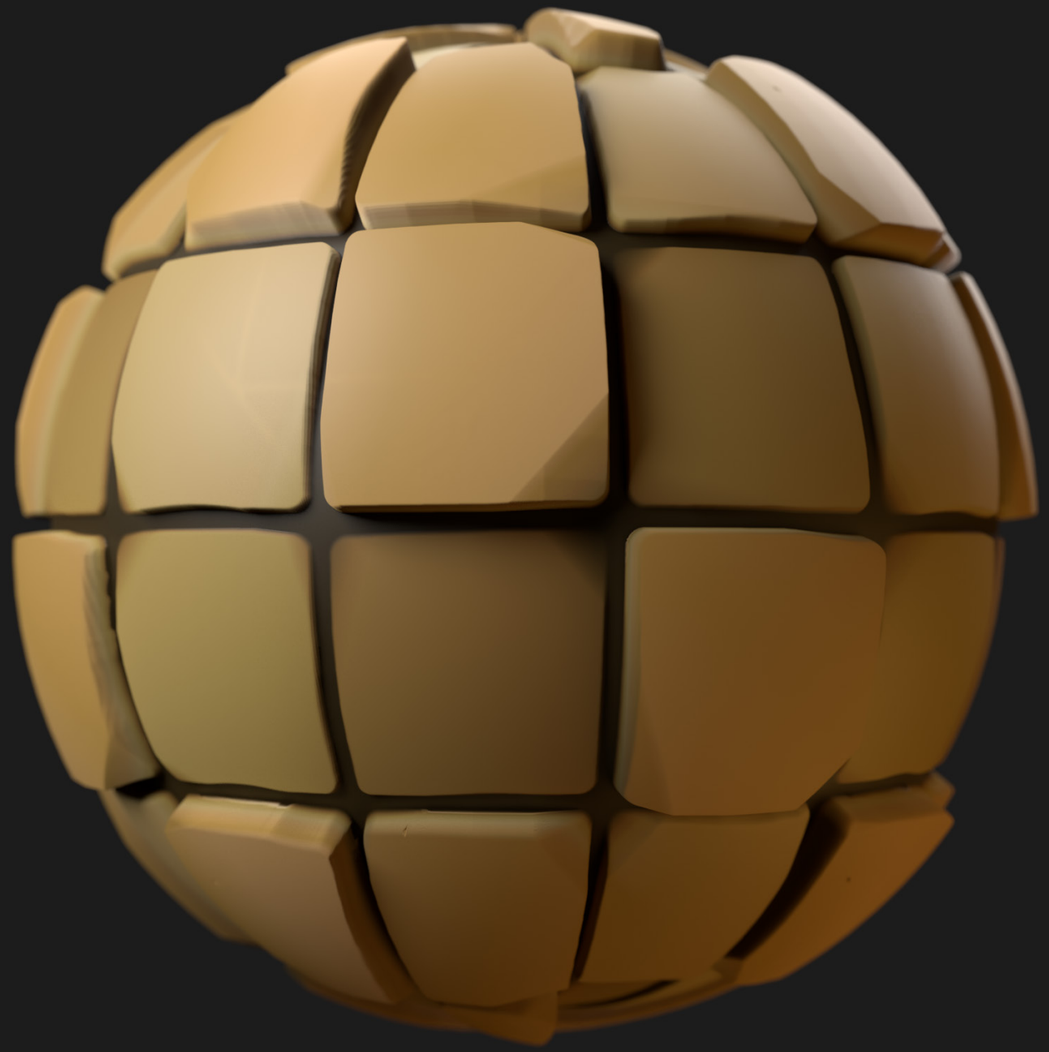


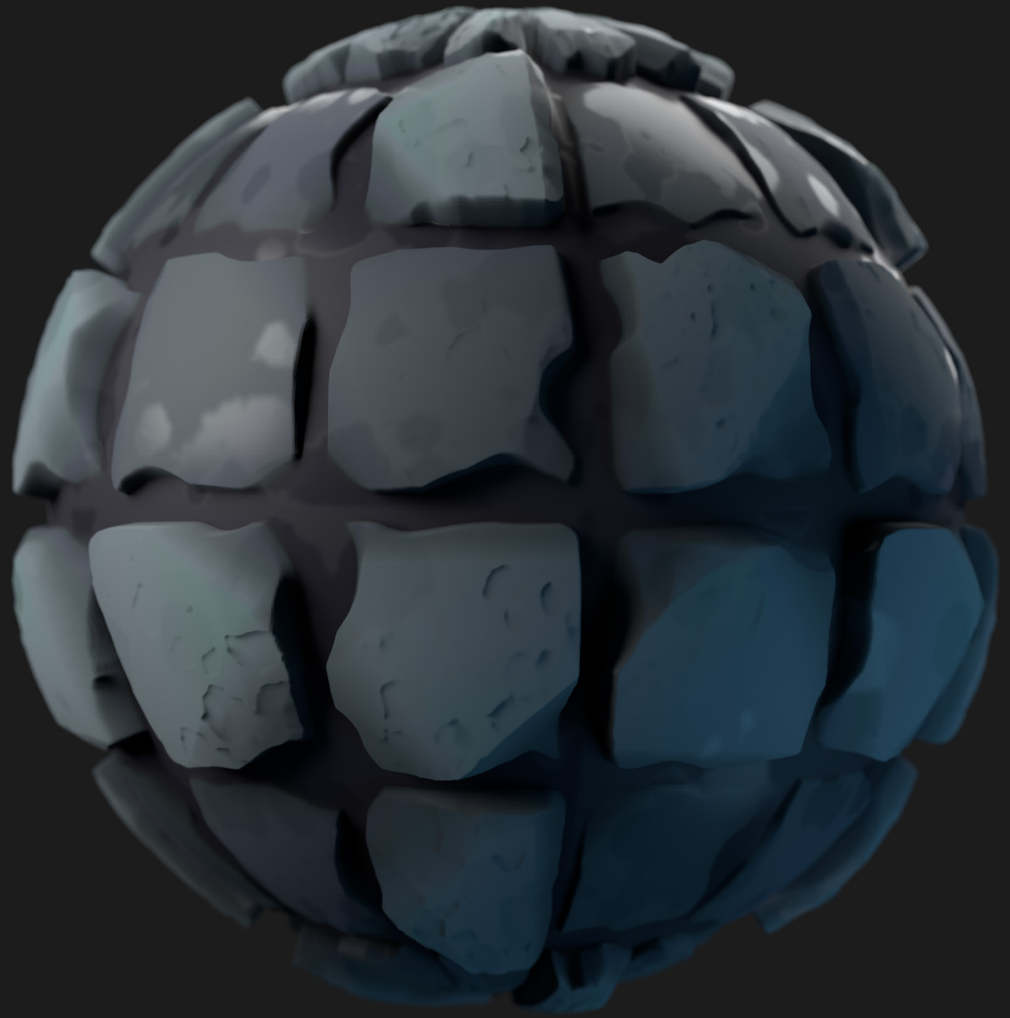


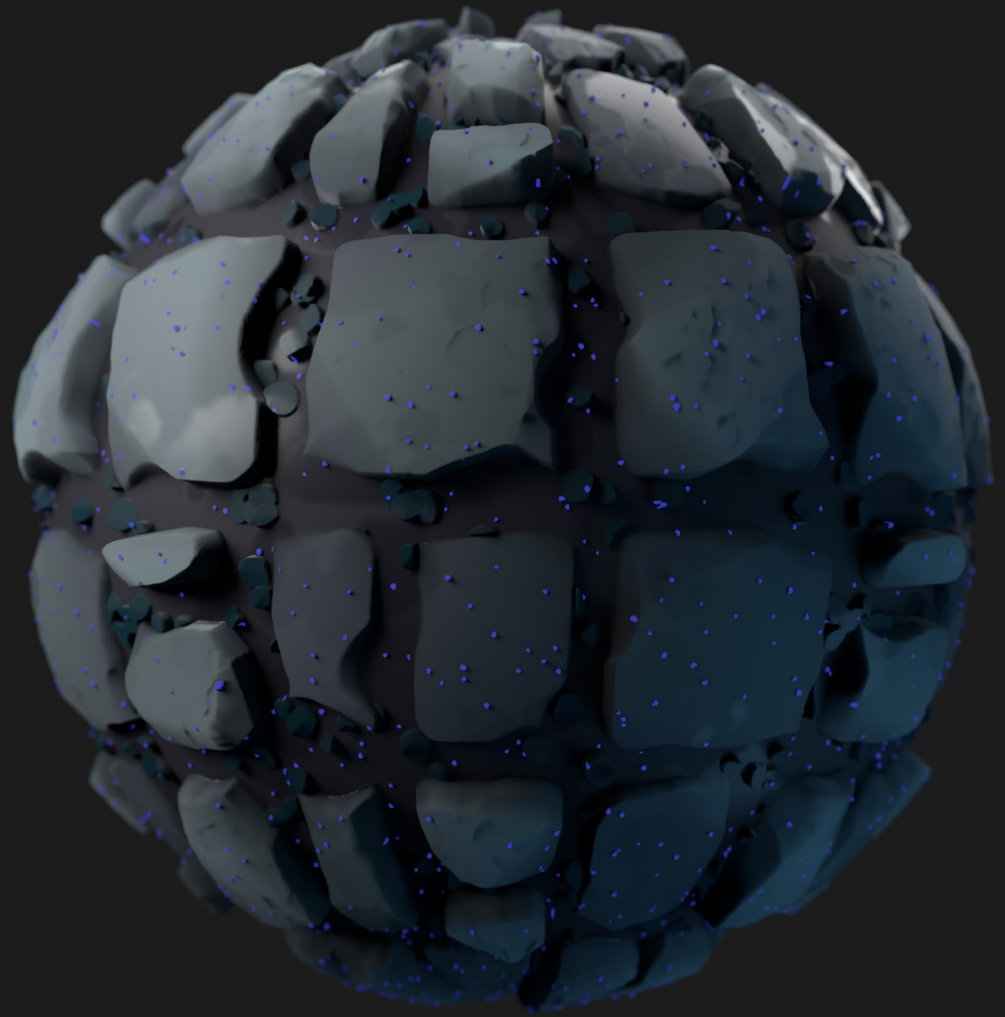


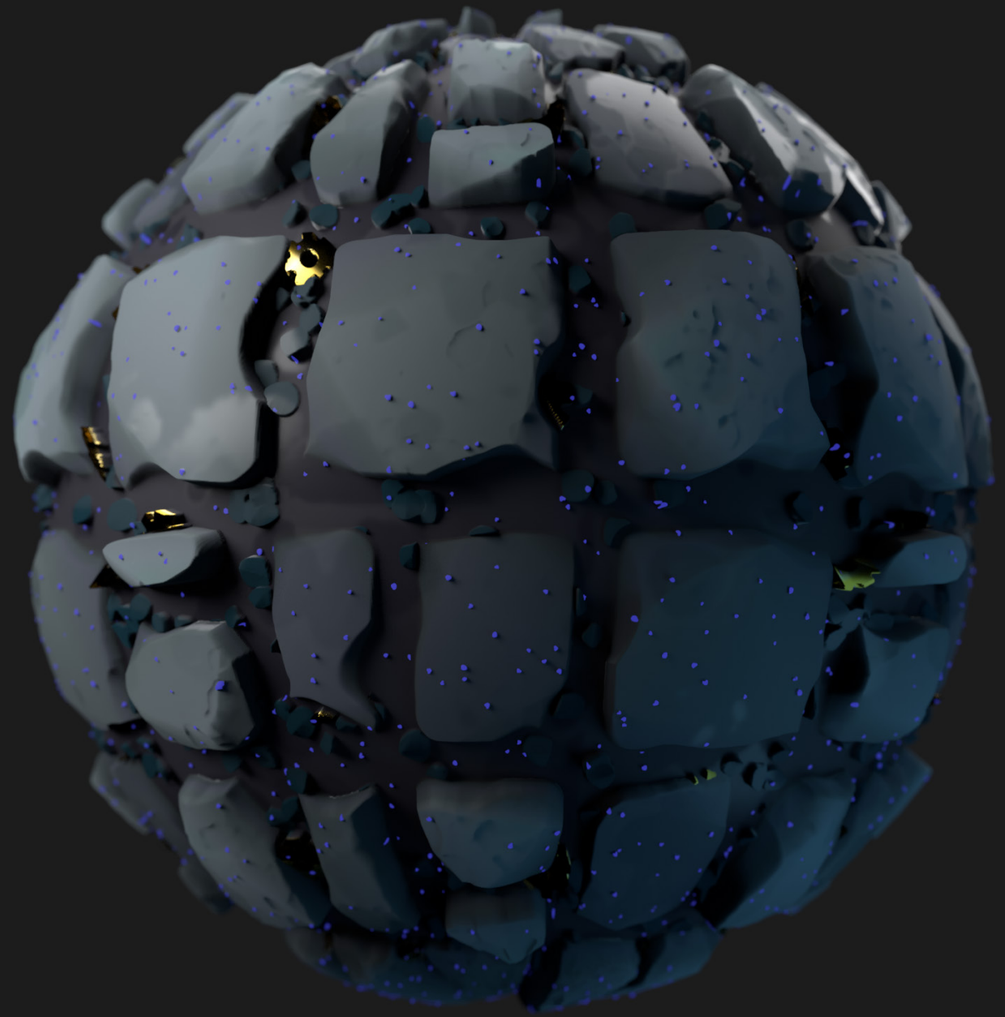


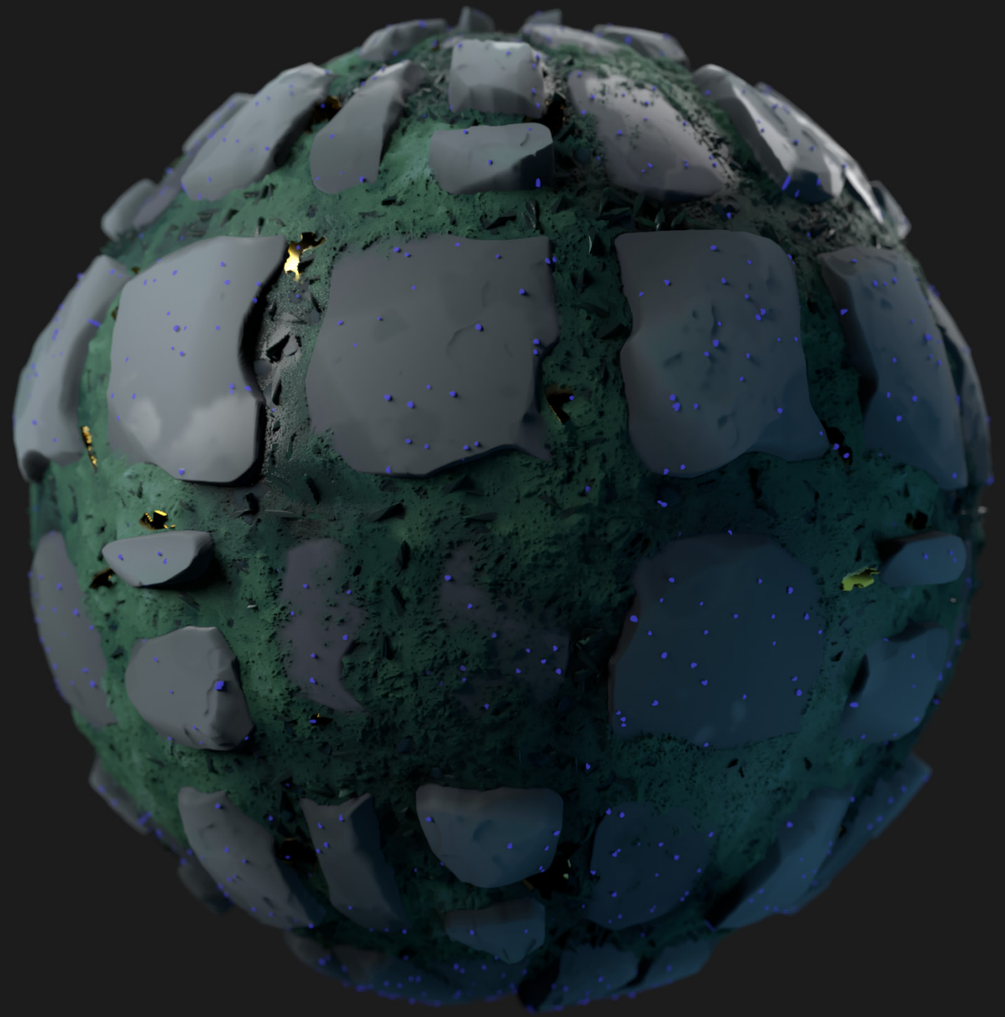


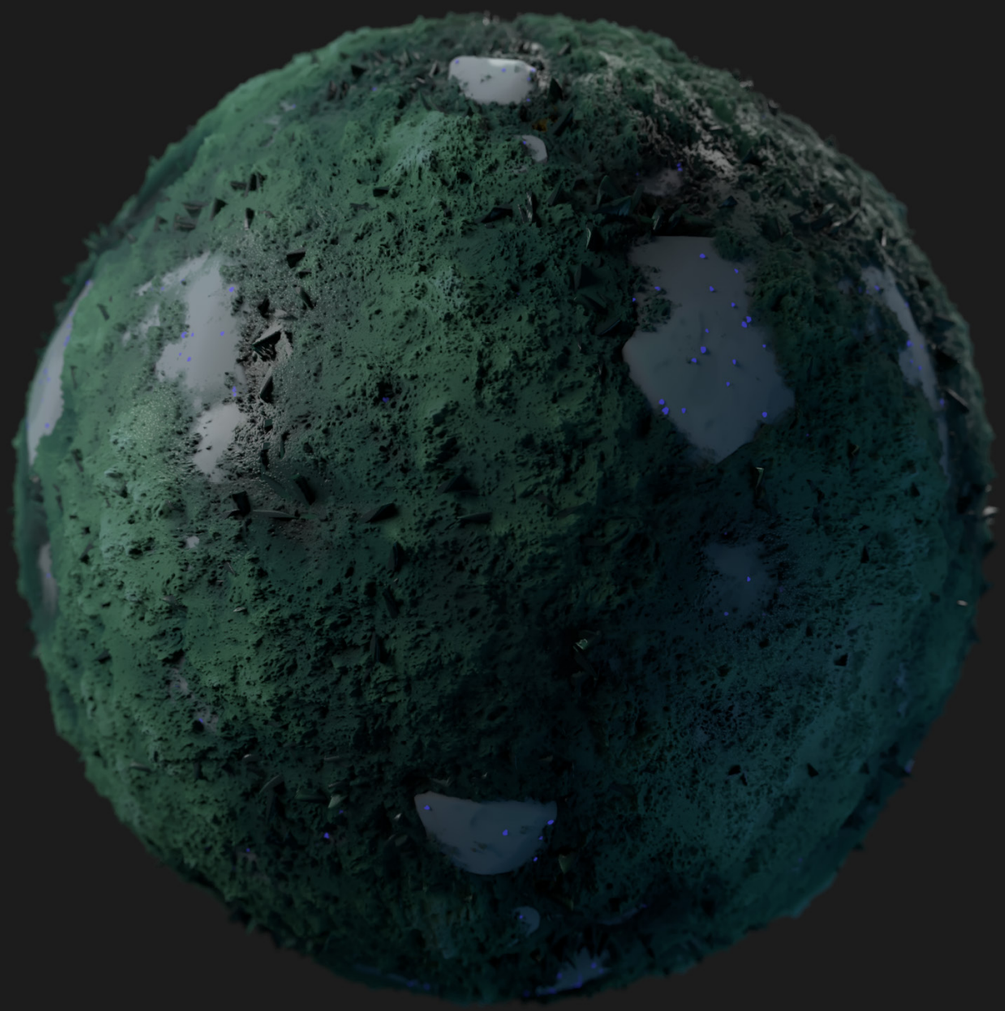












SAND IS GENERATED IN PLANET CORE & PUSHED ONTO THE SURFACE

DRY GRASSES & SPARSE DESERT PLANTS

ANIMAL CADAVER FROM SWAMP

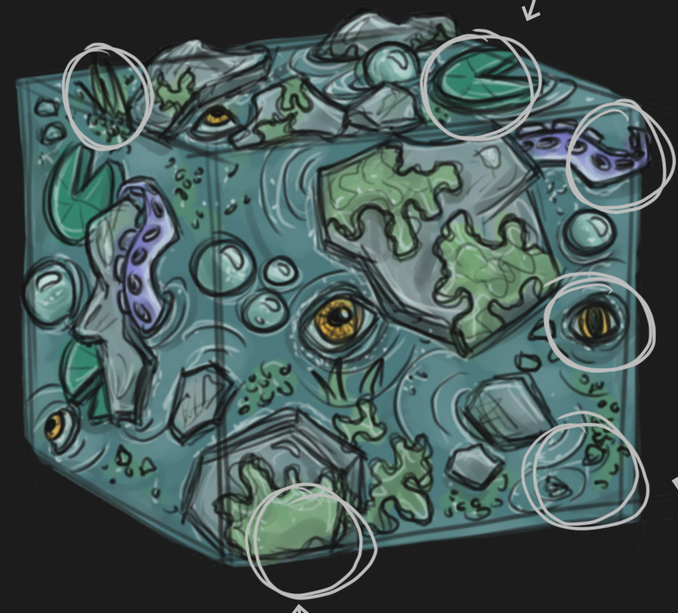
DRY SAND- AND STONE DESERT

NATURALLY CUT GEMSTONES & GLASSES THANKS TO FAST ENVIRONMENT CHANGE

LILY PADS ON WATER SURFACE

INCREASED PLANT GROWTH DUE TO HIGH HUMIDITY

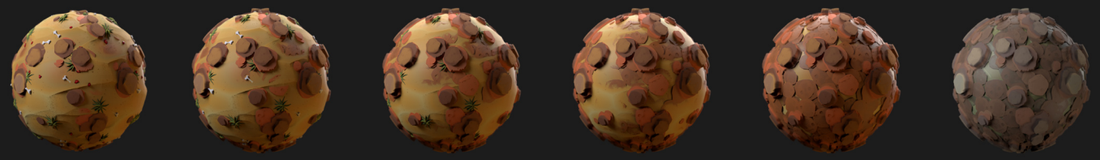
WEIRD CREATURES IN THE DEPTHS OF THE SWAMP WATER

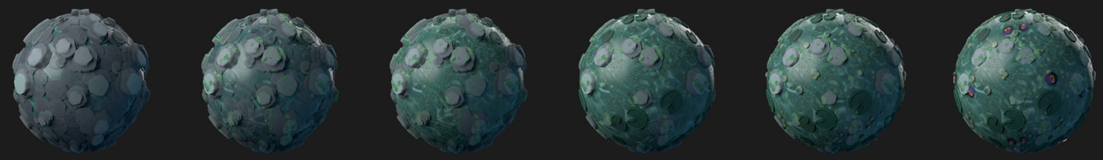


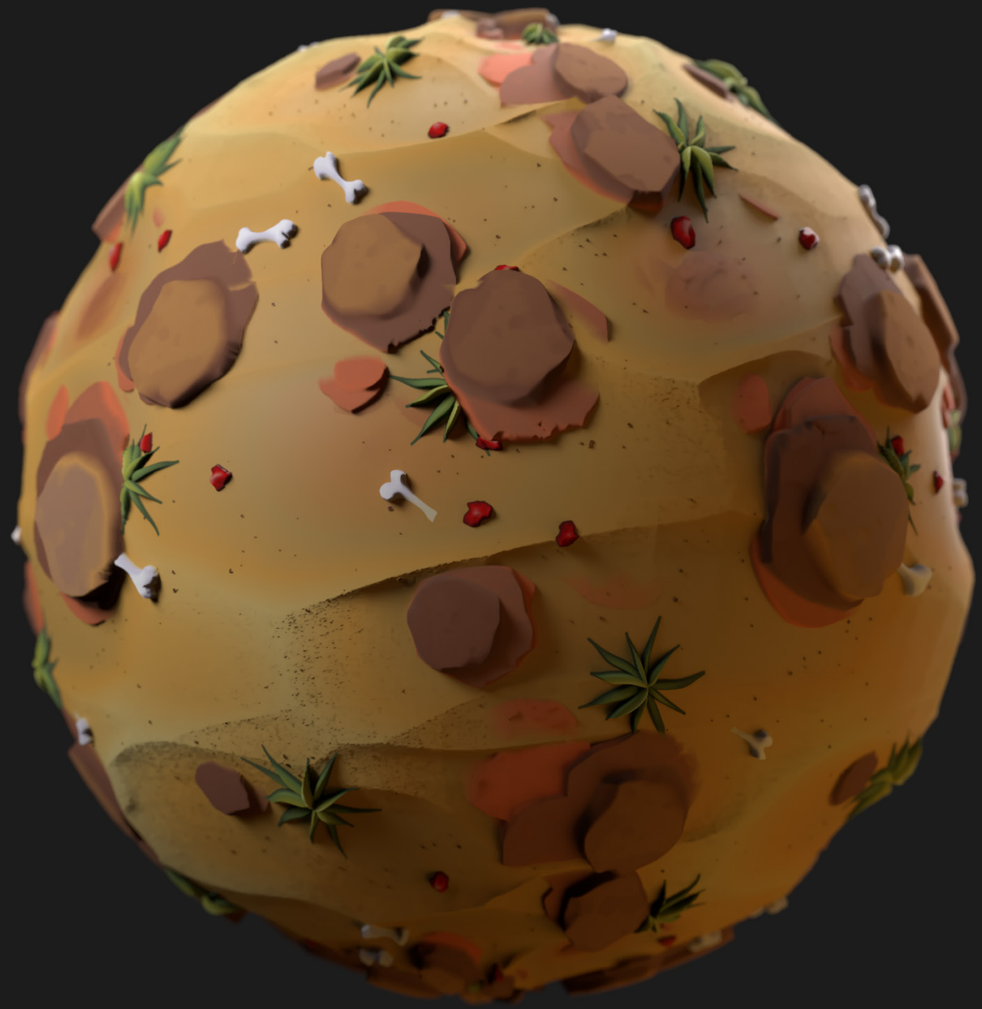
WET SWAMP

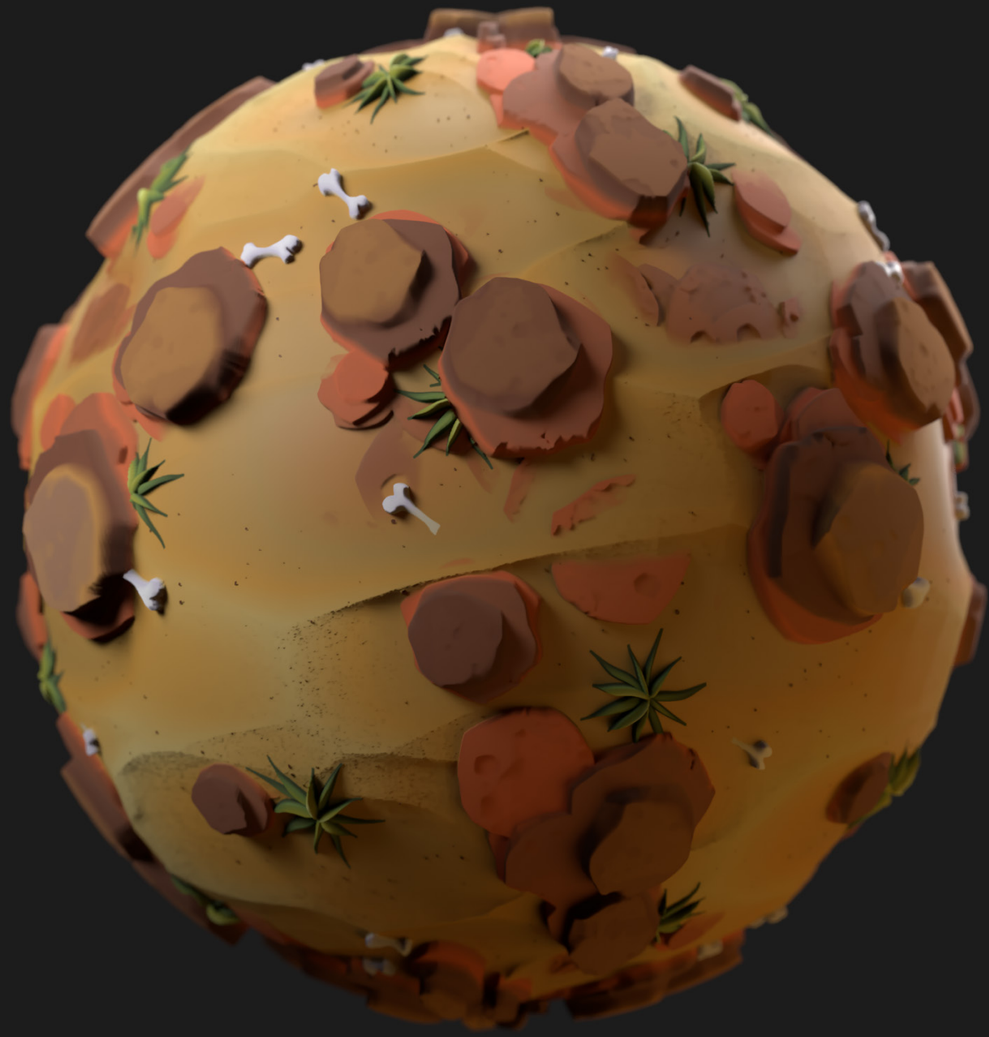
STONES OVERGROWN WITH MOSS

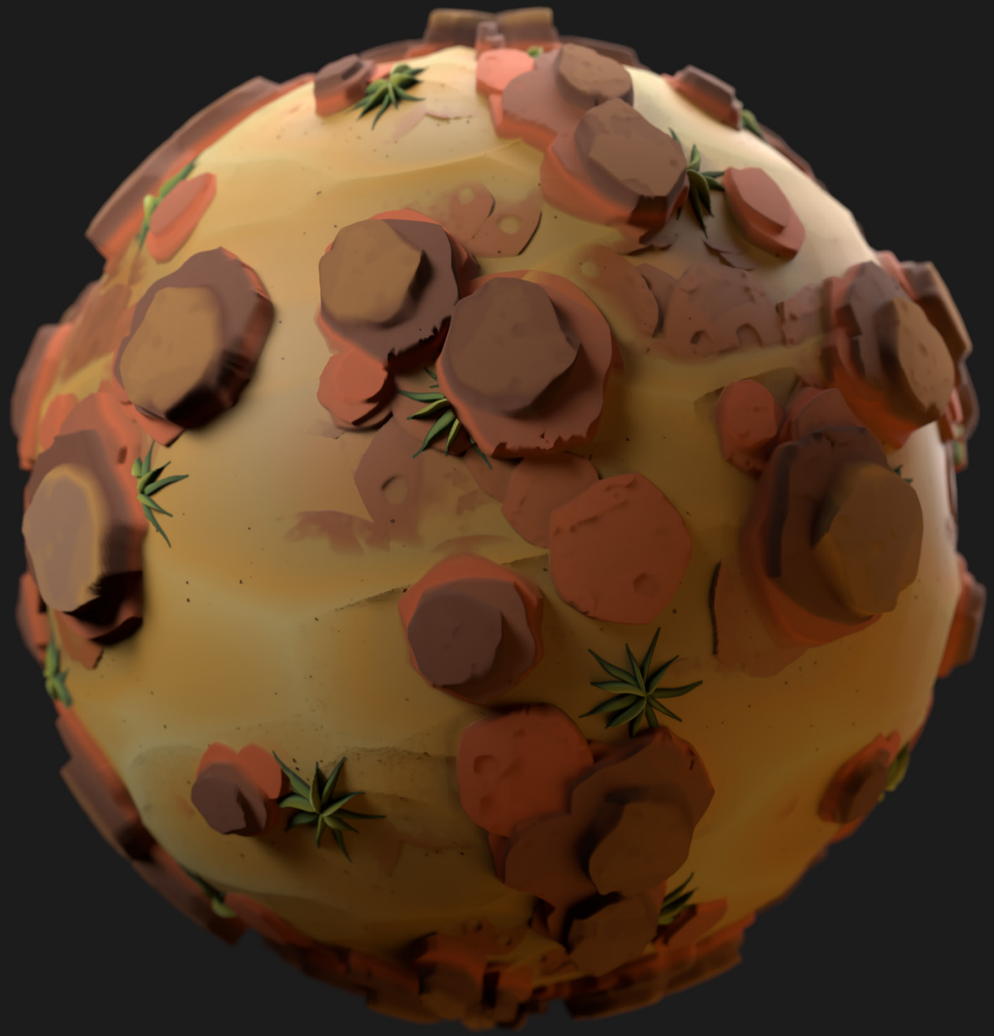
SPACES BETWEEN STONES ARE FILLED WITH SLIPPY WATER

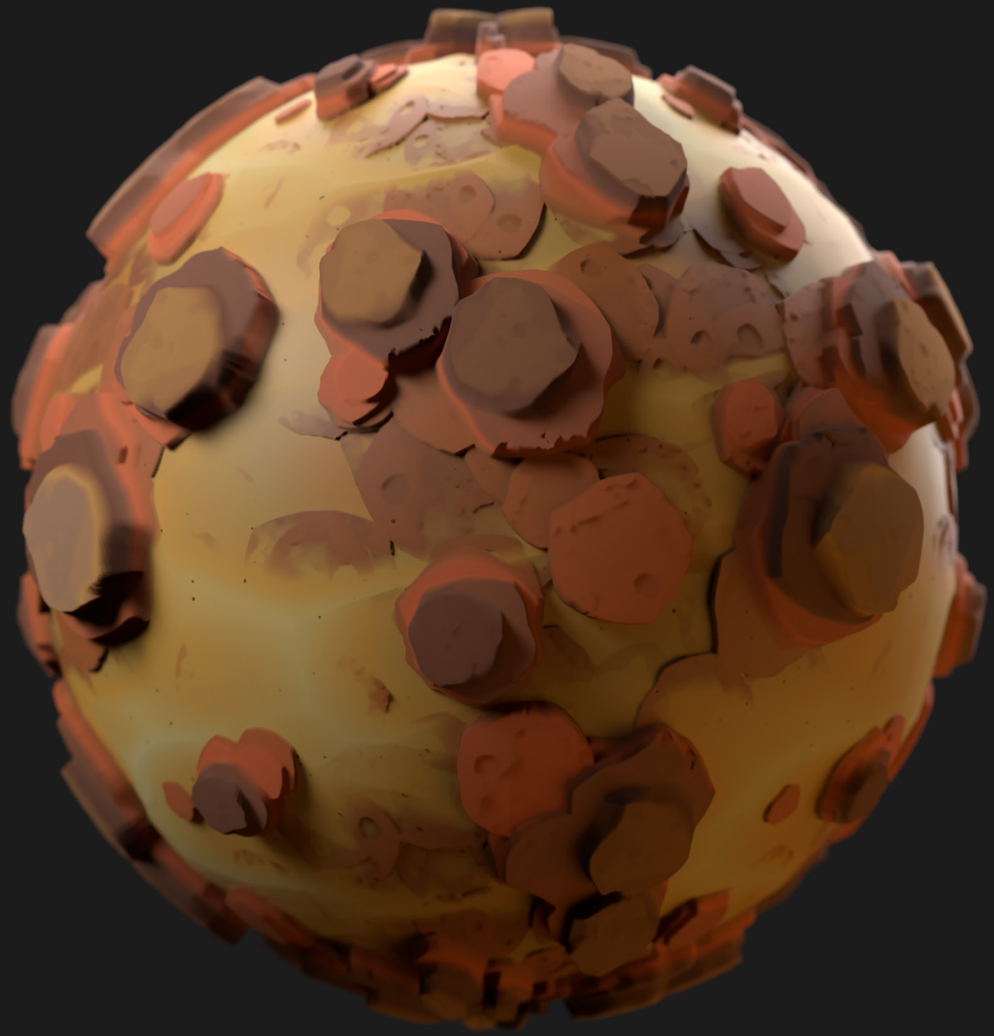


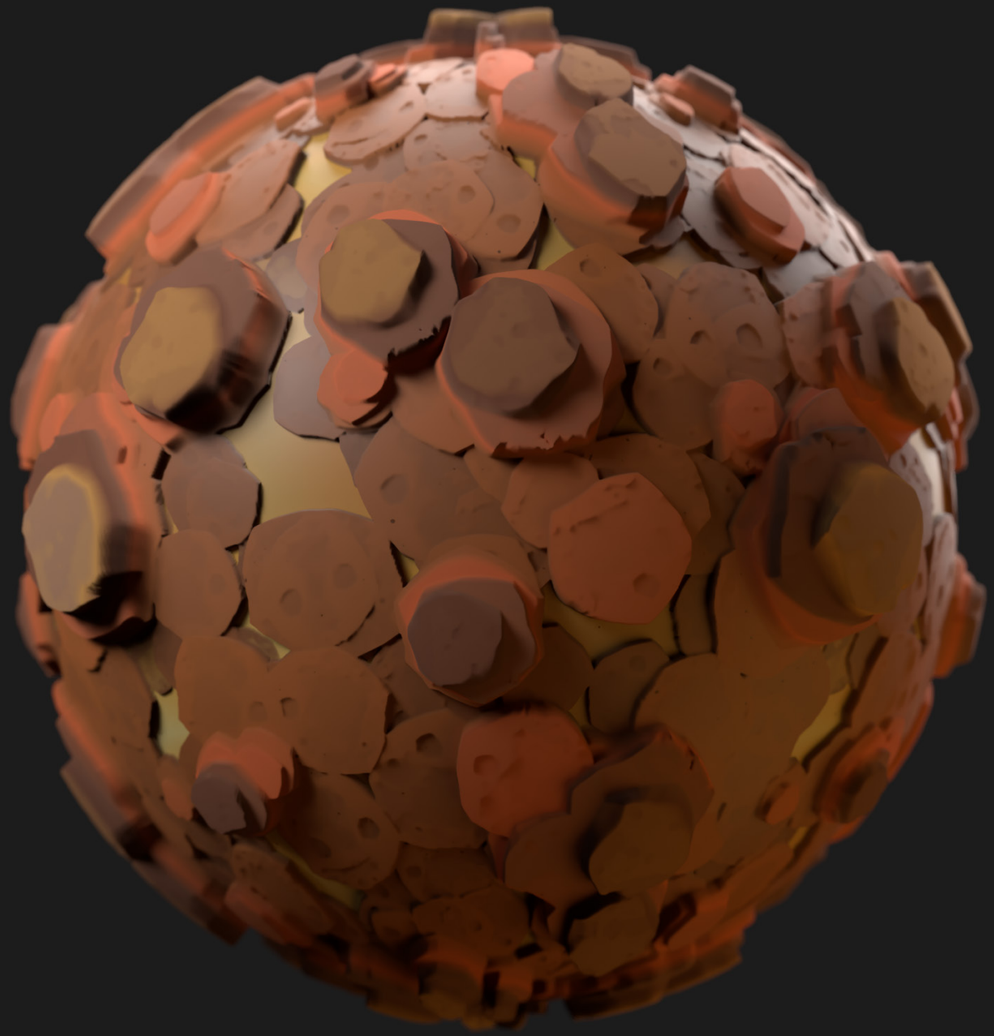


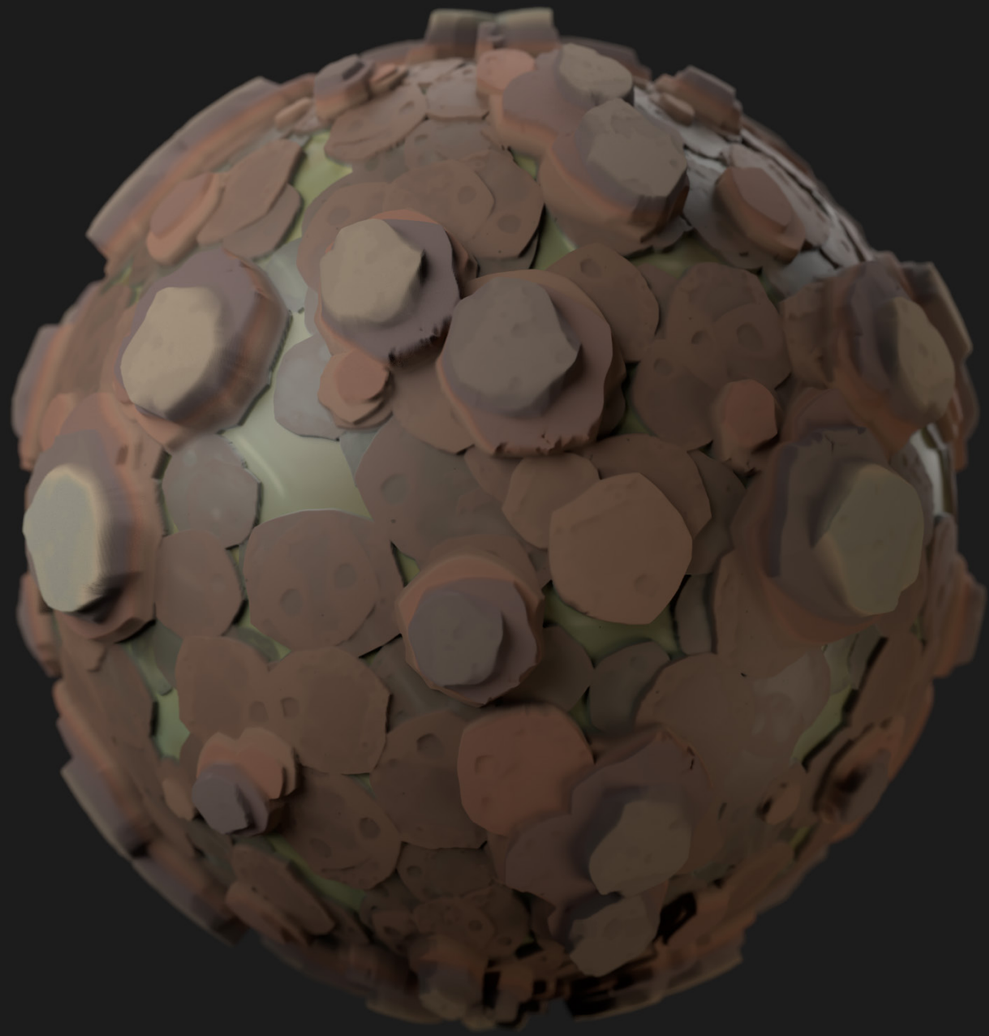


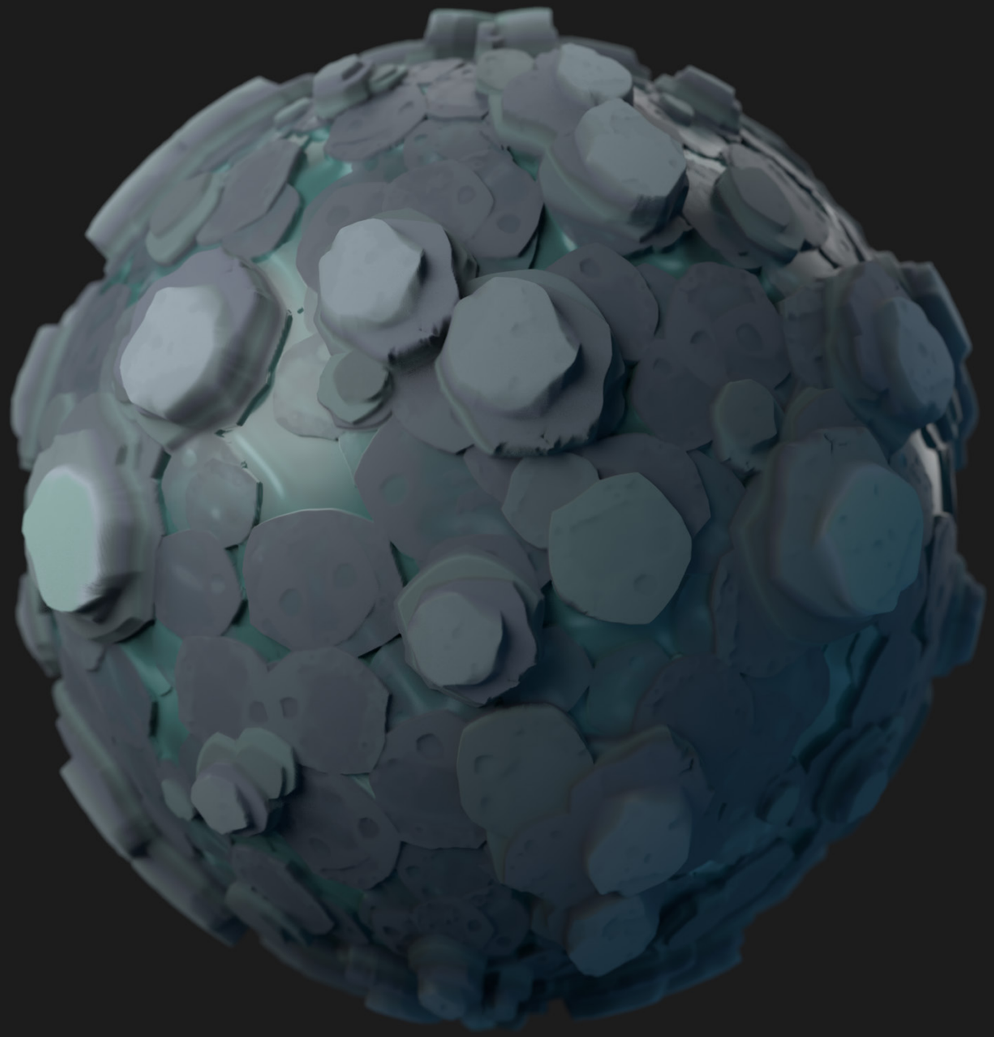


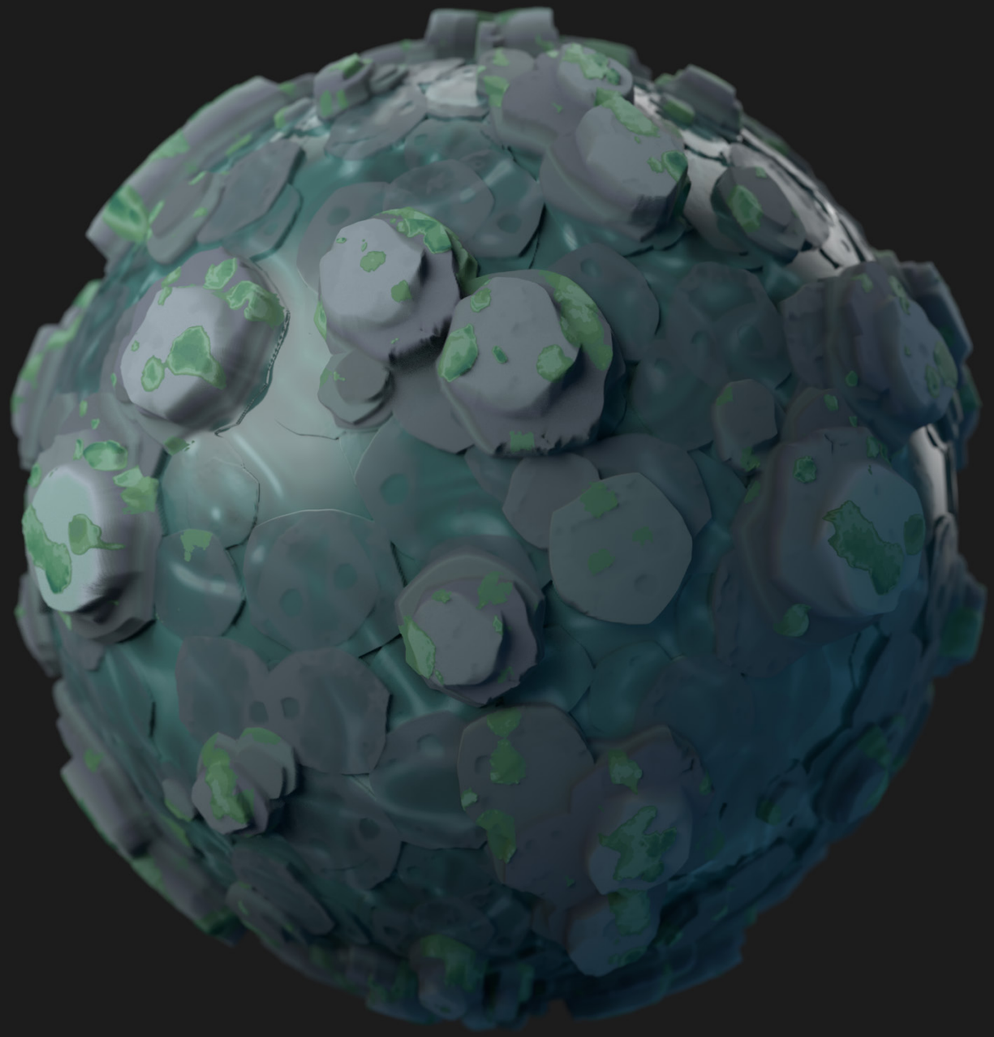


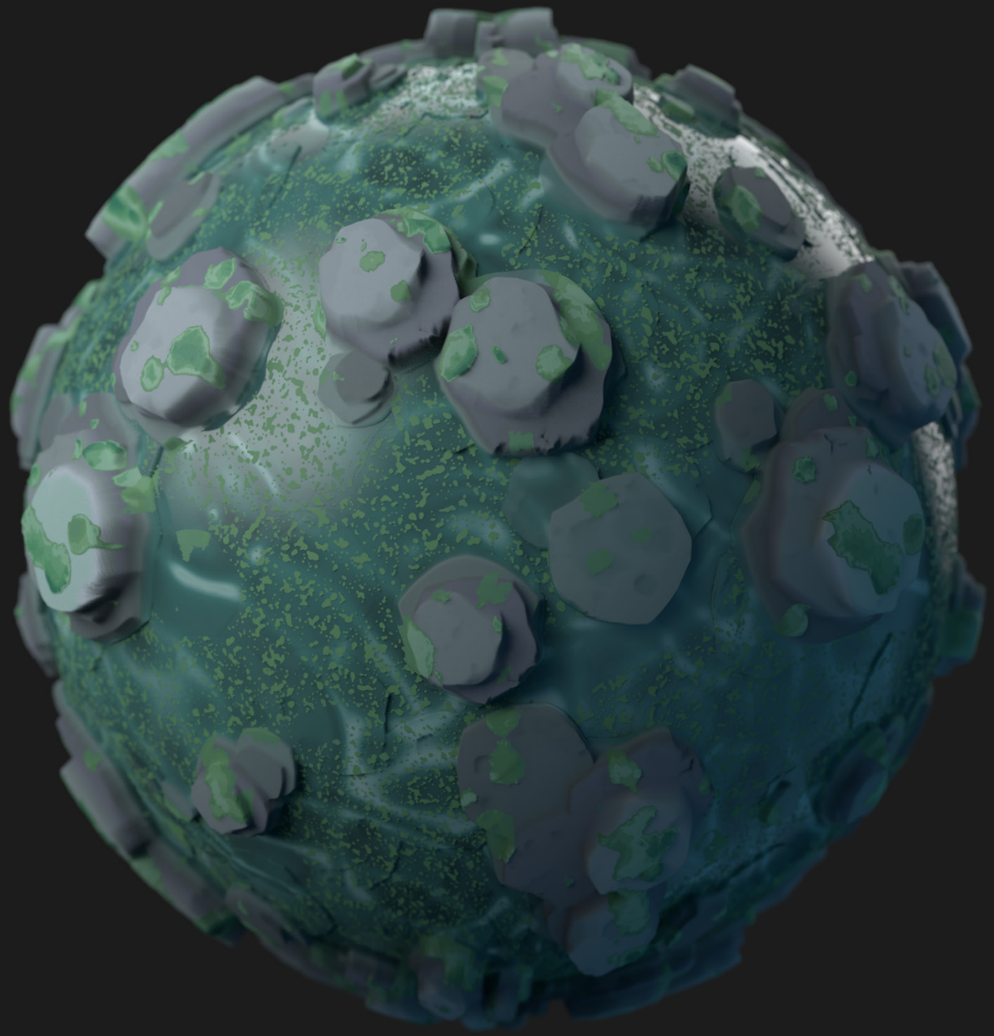


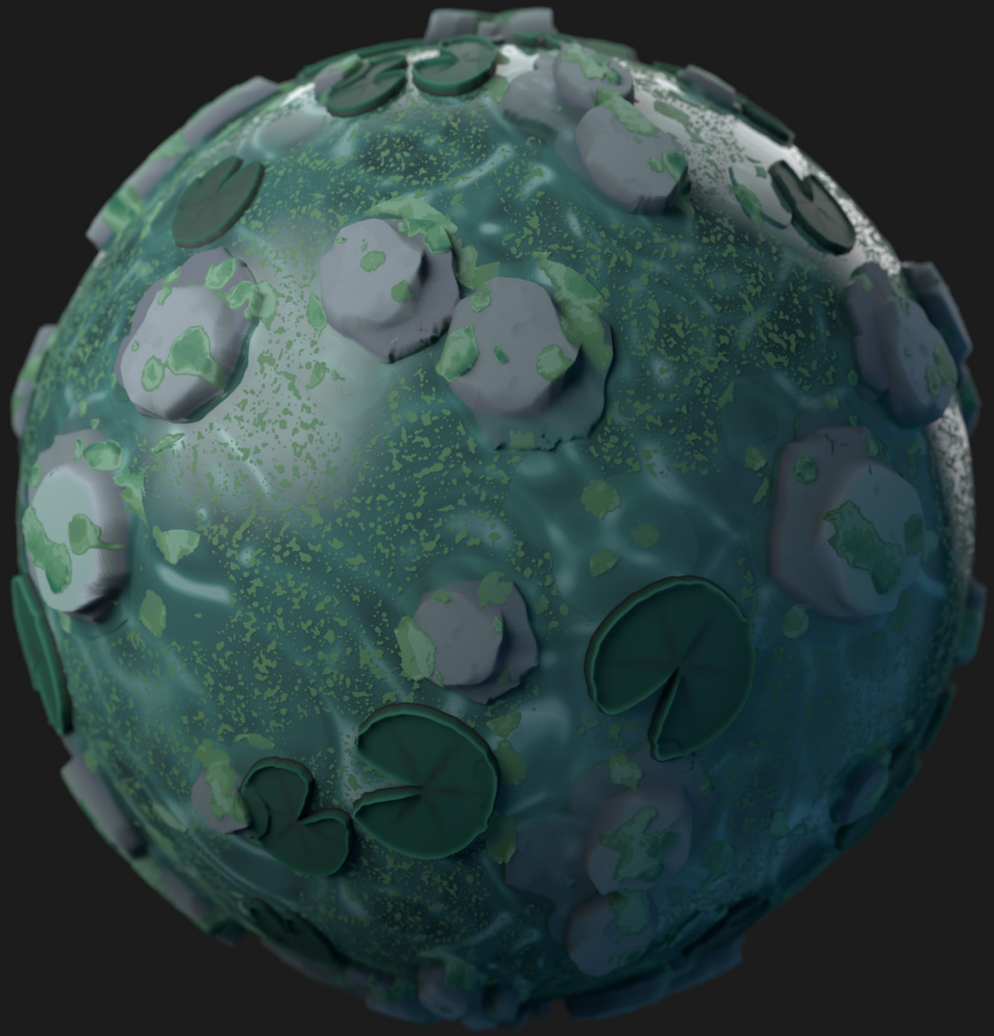


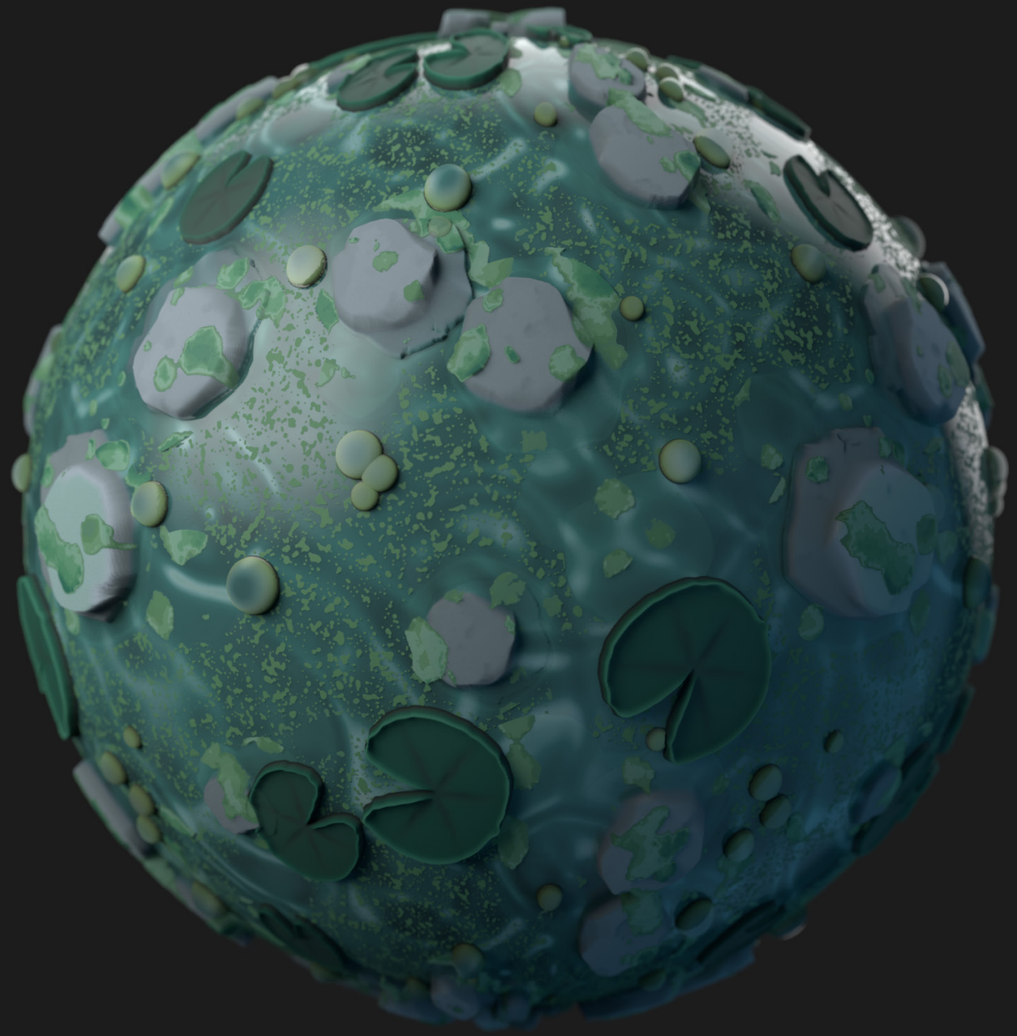


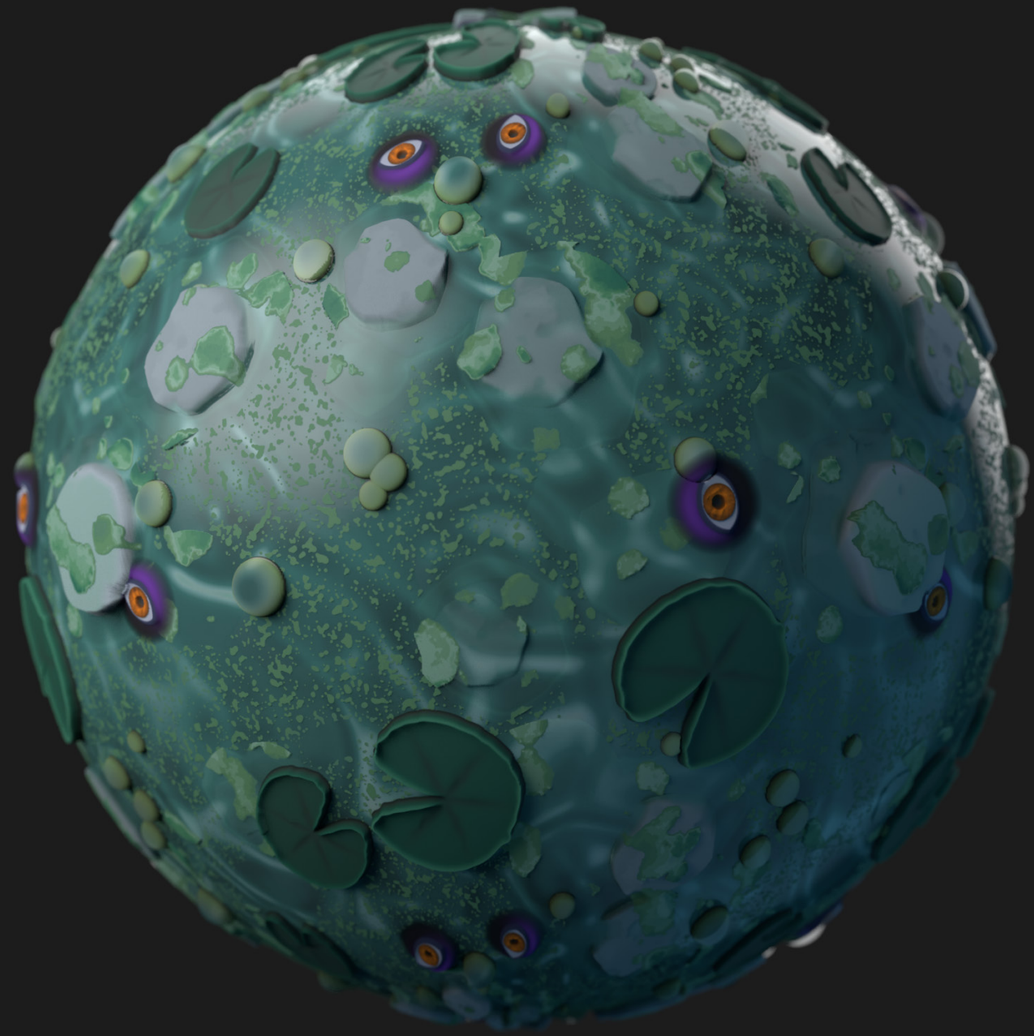








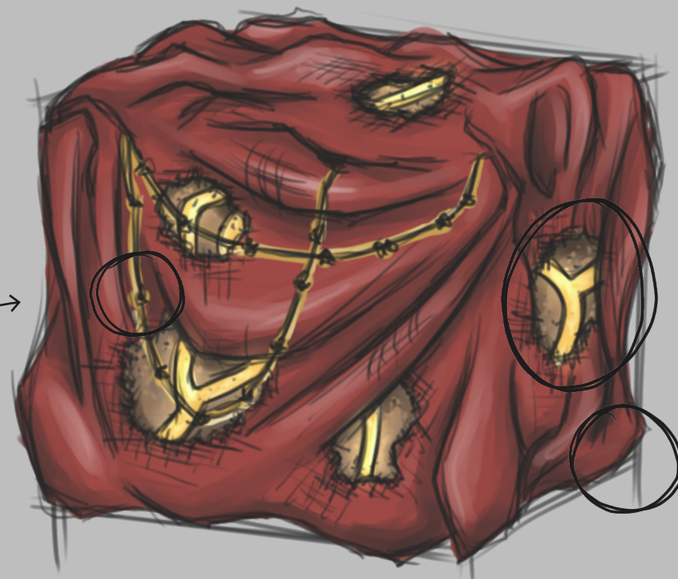




INTERNAL ENERGY

MAGICAL POWERS CAN BE " CHANNELED " WITHIN THE BODY FOR STRENGTHENING

HOLES IN FABRIC THROUGH INCREASED PHYSICAL STRENGTH



GOLD JEWELRY CHAINS AS A SYMBOL OF SPLENDOR

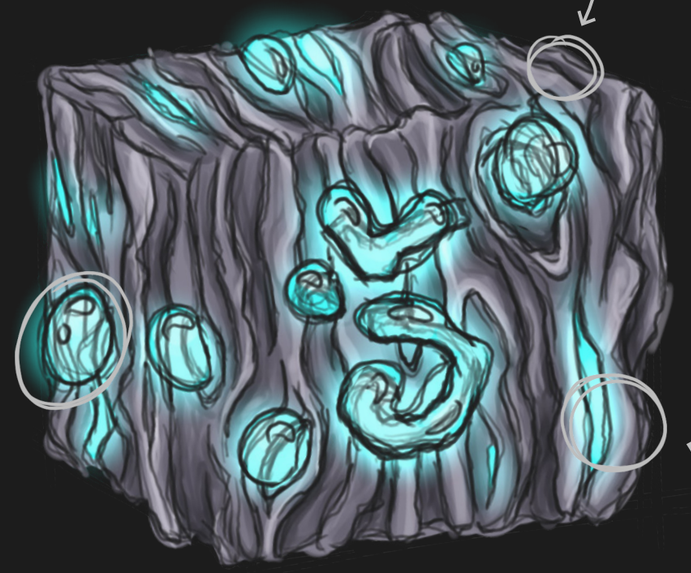
FINELY WOVEN FABRIC EXPRESSES THE CRAFTSMANSHIP OF CULTURE

MAGIC POWER IS LOCATED WITHIN THE BODIES OF THE "SUN WORSHIPPERS"

FEW PIGMENTS IN TREE BARK DUE TO LACK OF SUNLIGHT

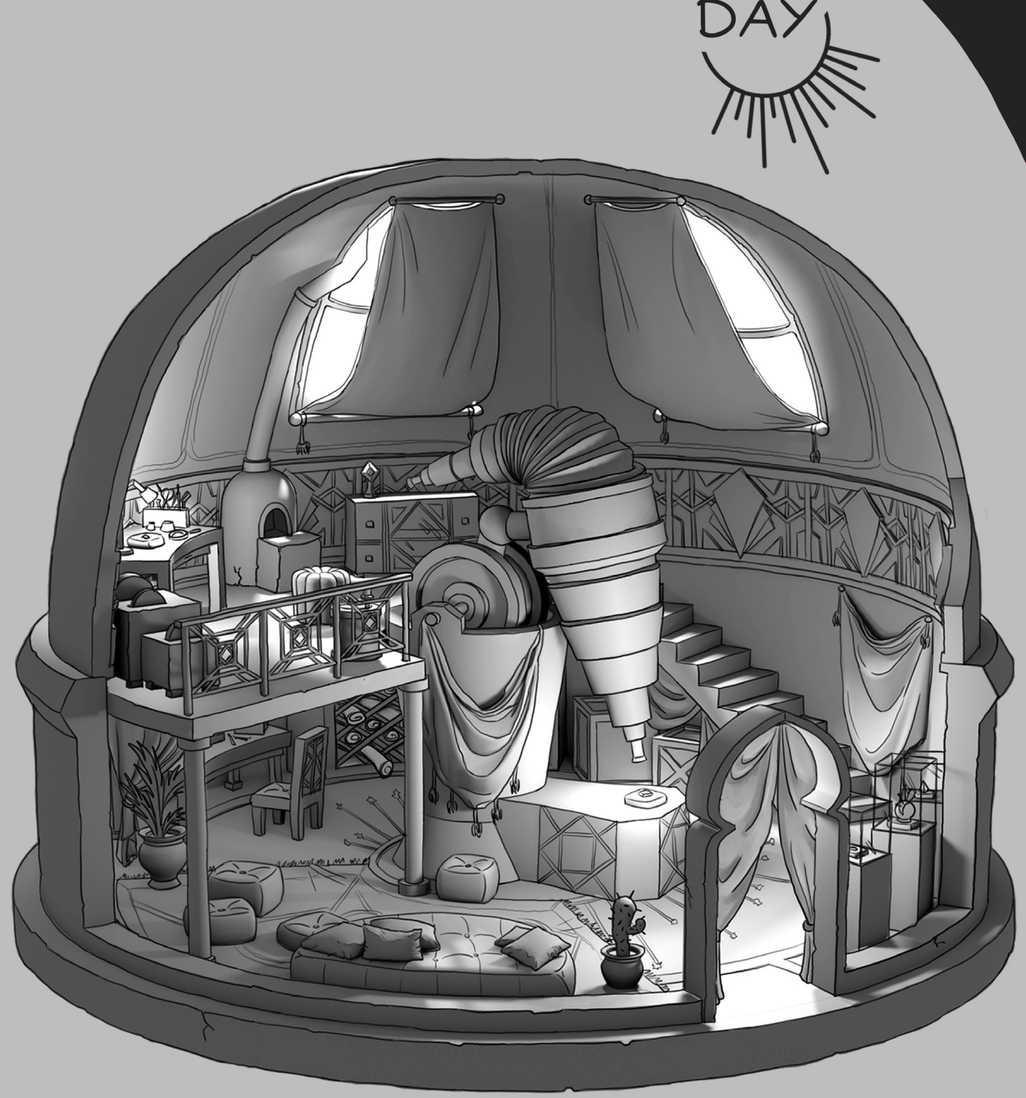
ENERGY IS VISIBLE AND CHANGEABLE SO IT CAN BE FURTHER PRO-CESSED

EXTERNAL ENERGY

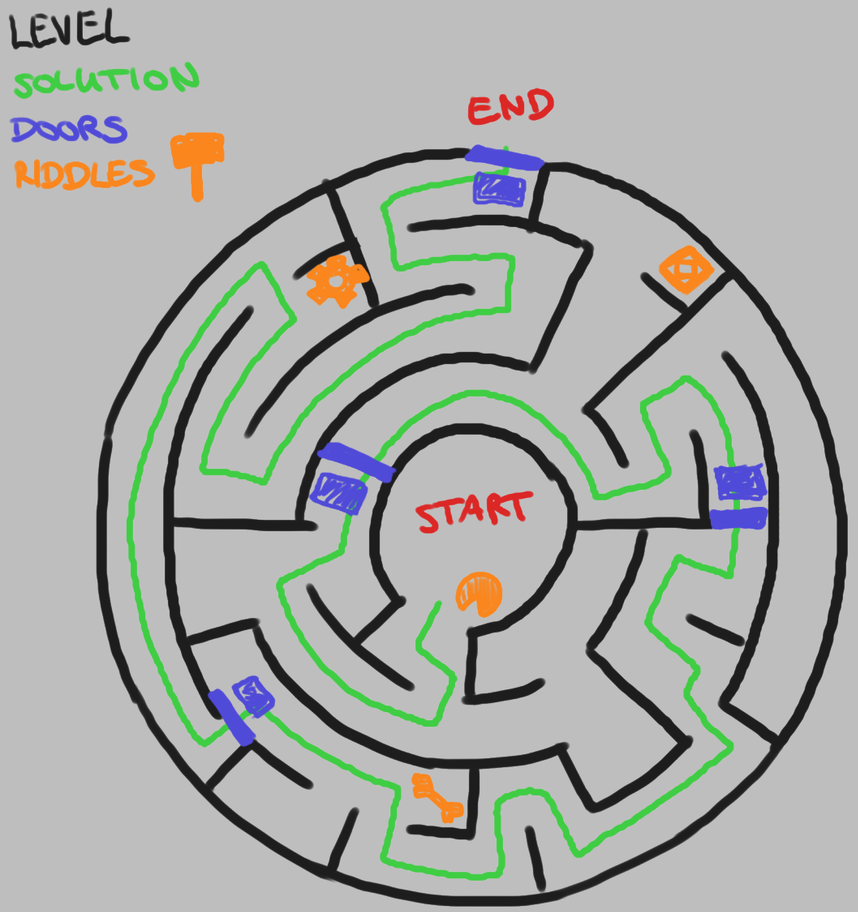


MAGIC IS ABSORBED FROM THE WORLD & INFUSED INTO OTHER OBJECTS AND BROUGHT INTO OTHER STATES

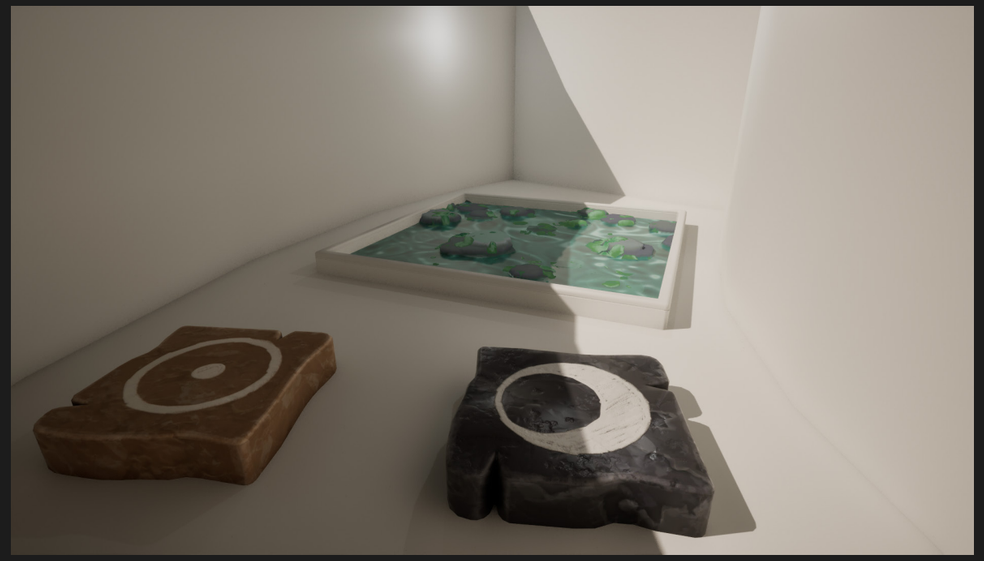
BARK CRACKS OPEN & RELEASES ENERGY


DAY

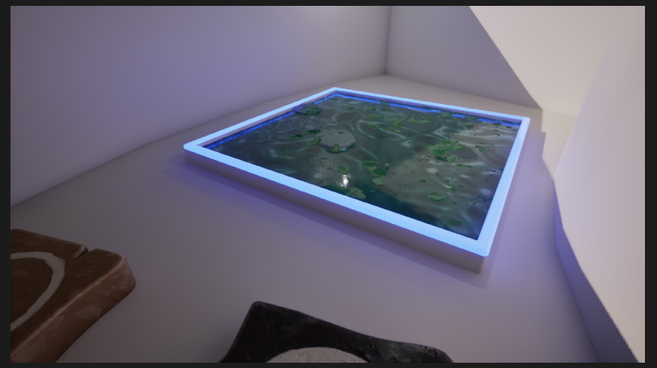
NIGHT

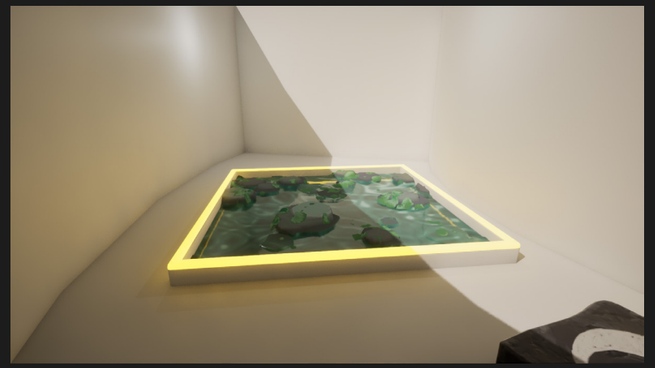

LEVEL
SOLUTION
DOORS
RIDDLES
END
START

1
search for a sign
with a symbol on it
3
find the symbol of
the sign within the
changing material
stand on
to change
on th



Pause
Continue
Restart
Quit



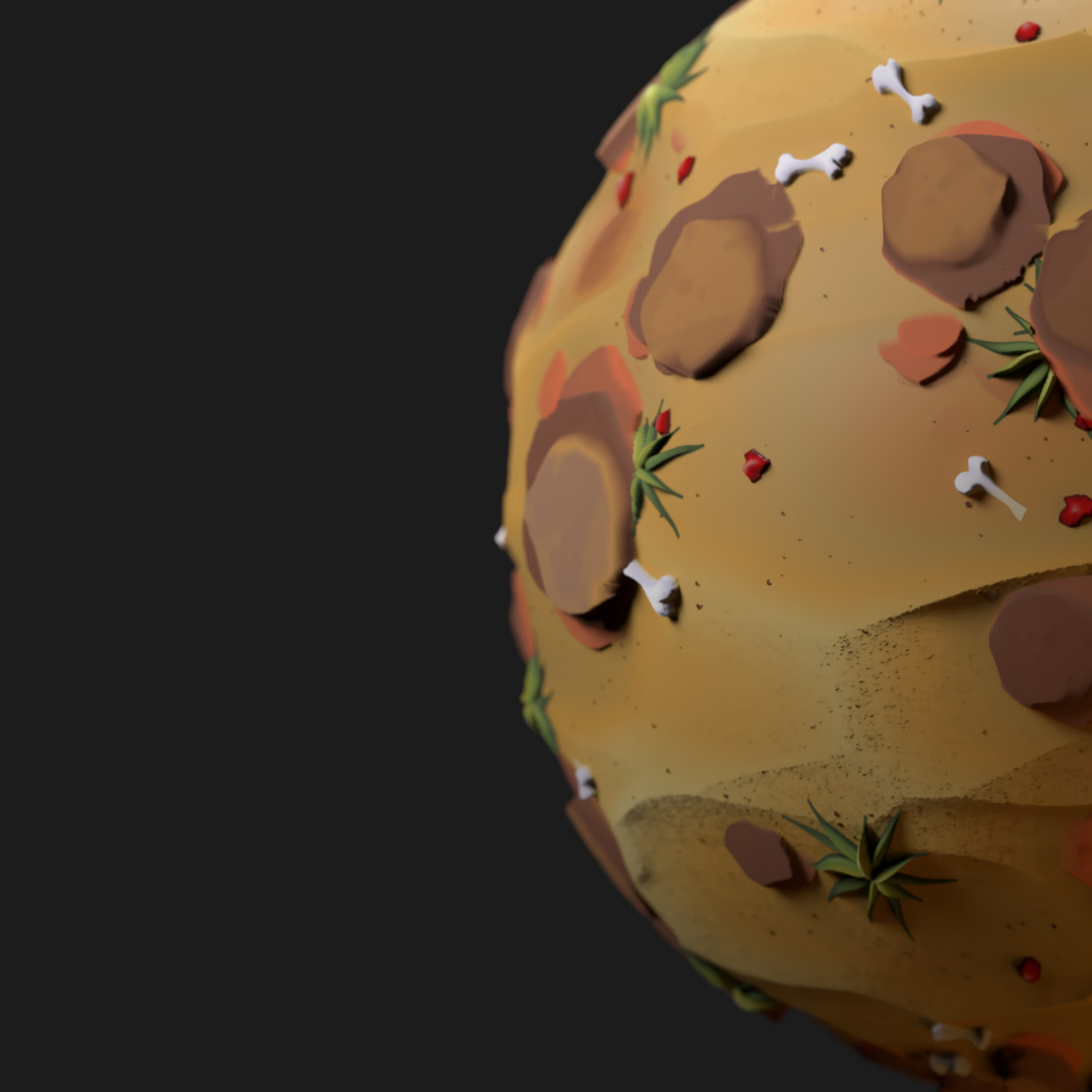


PROJECT INFO

MASTER PROJECT

MAGIC MATERIALS - KONZEPTION UND UMSETZUNG VON PROZEDURALEN UND DYNAMISCHEN MATERIALIEN FÜR GAMES

LAURA KÄPPNER

TECHNICAL UNIVERSITY OF APPLIED SCIENCES AUGSBURG
INTERACTIVE MEDIA SYSTEMS
WINTER SEMESTER 2023/24

SUPERVISION: PROF. JENS MÜLLER