# Digital Design Studio

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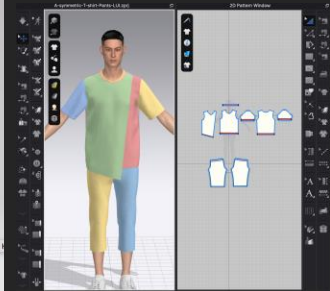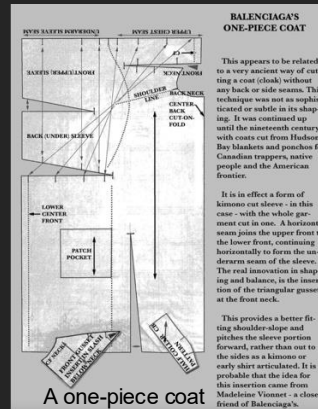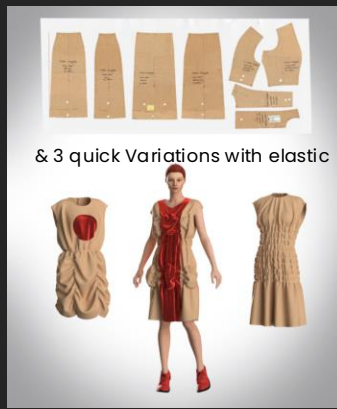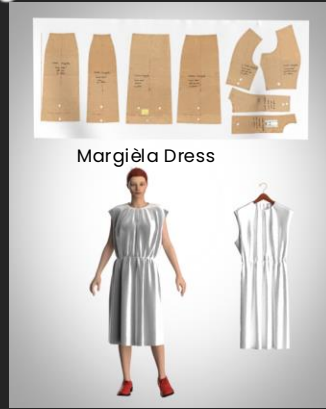
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# DIGITAL DESIGN IN FASHION &TEXTILES

## THE POWER OF DIGITALIZATION

-Design, Garment Construction
-Changing Design Processes
-Textures & Prints & Finishings + Exercise
-Avatar, Animation & Render + Exercise
-Goals and Deliverables
-What we don't want: https://youtu.be/MKTN2OiR2R8



VOGUE
SINGAPORE

ISSUE EIGHT
september

NEW

The Fabricant x Shavonne Wong
'The RenaiXance Rising', 2021

BEGINNINGS

07:02am Singapore, Metaverse

Margièla Dress

& 3 quick Variations with elastic

**BALENCIAGA'S ONE-PIECE COAT**

A one-piece coat

Designed by Balenciaga

# DIGITAL DESIGN & GARMENT CONSTRUCTION:
Is Direct, Playful, Smart, Quick, Traditional, Kinetic, Facilitates No-Waste, Is a Creative Exploration and Sustainable



ZERO WASTE DRESS

No-Waste Design created by: Balenciaga, CLO3d, Pattern Magic, Timo Rissanen, Zil Vostalova, HollyMcquillan

https://youtu.be/fOk4ld7ZR0U

# FREEDOM OF CREATION  IN_SHAPE_MATERIAL_DETAIL_EXPRESSION_SIGNATURE



**DIGITAL FASHION DESIGN**: traditional pattern cutting craft with the creative work of a fashion designer.
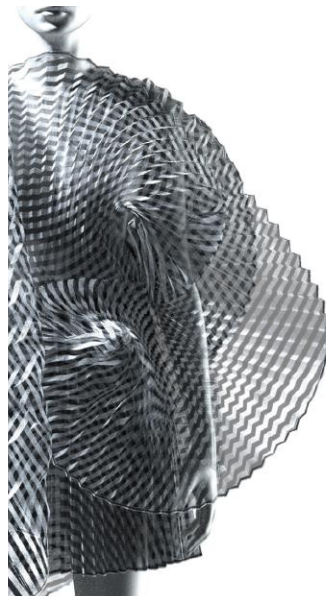
# FREEDOM OF CREATION IN DIGITAL CRAFTSMANSHIP



This is work from students 3D Hypercraft 2021

**AVATAR**          **TEXTURING**          **SMART TOOLS**          **DIGITAL REFINEMENT**

OSLOMET_2022/23
Ineke Siersema AMFI

transiti*ns


Co-funded by the European Union

# A CHANGE OF PARADIGM

TRUST VIRTUAL SAMPLING



2D CAD Pattern    3D Simulated Sample    Manufactured sample



Placing patterns    3D Simulation    Rendering    Animation    Showpiece



Mobility trousers by Arc'teryx and Skip

**3D FASHION DESIGN PLATFORMS:**
CLO3D
MARVELOUS DESIGNER
BROWZWEAR
VSTITCHER
OPTITEX
LECTRA & GERBER
STYLE3D

**FOR FABRIC SIMULATION:**
VIZOO
ADOBE SUBSTANCE 3D

**ASSETS, AVATARS ENVIREMENTS :**
BLENDER
Z-BRUSH
RHINO
META HUMAN
UNREAL ENGINE

**2D DESIGN PLATFORMS:**
ILLUSTRATOR
PHOTOSHOP
CREATIVE CLOUD

**WORKFLOW CHANGES**



**TRADITIONAL PROCESS**
≈ 18 MONTHS

DESIGN → PRESENT → ORDERS → PRODUCE → STORE → SELL

**DIGITISED PROCESS**
≈ 1 MONTH

DESIGN → PRESENT → SELL → PRODUCE



SLASH YOUR LEAD TIMES

BEFORE (W/O 3D)        AFTER (WITH 3D)

SAMPLE LEAD TIME
37 days

MATERIALS
DESIGN
SAMPLE
REVIEW
MARKET

MATERIALS
DESIGN
3D SAMPLE
REVIEW
SAMPLE
MARKET

SAMPLE LEAD TIME
27 hrs

SAMPLE ADOPTION RATE
15%

SAMPLE ADOPTION RATE
55%



**ATACAC:**
**REDUCE WASTE**
**OPEN-SOURCE,**
**PRODUCT TRANSPARANCY**
**SHAREWARE FOR ALL DESIGN**
**KINETIC GARMENT CONSTRUCTION**

ATACAC RESEARCH- https://issuu.com/rickardlindqvist

## DESIGN, PRESENT, PRE-ORDER, FIT VIRTUAL, PRODUCE ON DEMAND & CREATE NFT's, USE DIVERS' PLATFORMS



THE OUTPUT

DESIGN → PRESENT → SELL → PRODUCE

**DESIGN**
– 3D Garment
– Tech pack
– Approved physical sample

**PRESENT**
– Website design
– Content creation
– Product images / videos
– Social media
– Ads
– Newsletter assets

**SELL**
– Launch products on pre-order
– Communicate in Social media
– Advertising
– Virtual fitting
– Customer service
– Collect all pre-orders for production

**PRODUCE**
– Sourcing material
– Produce garments
– Quality control
– Pack products & ship



METALIVES | VIRTUAL POSSESSIONS
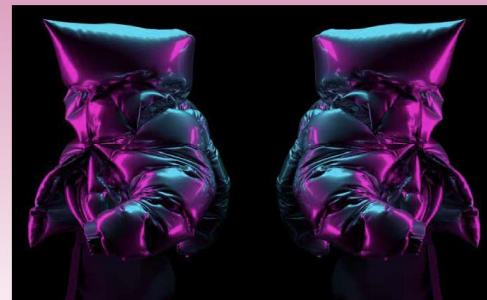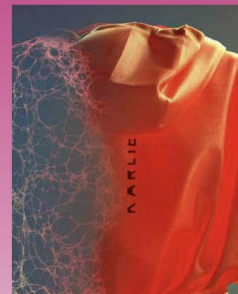
**DIGITAL DESIGN:**
**DESIGN**
**PRESENT**
**SELL**

# THEDIIGITALS_HYPER REALISTIC 3D AVATAR_SHUDU _A DIGITAL IDENTITY _FROM 2017



**SHUDU**
**Instagram:** @shudu.gram
**Instagram followers:** 239k
**Country:** US

Shudu is the world's first black virtual supermodel and influencer.  Created by fashion photographer Cameron-James Wilson in 2017, Shudu is a fashion queen and uses cutting-edge technology to showcase the latest trends and styles. With a strong presence in editorial
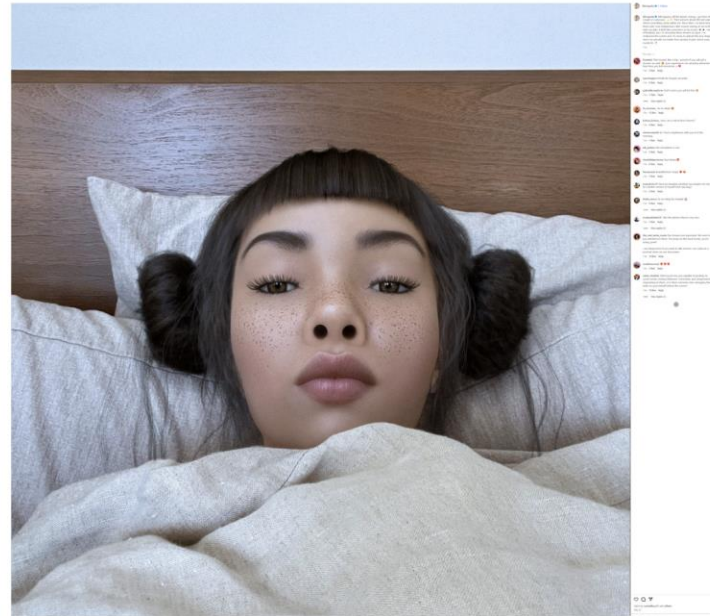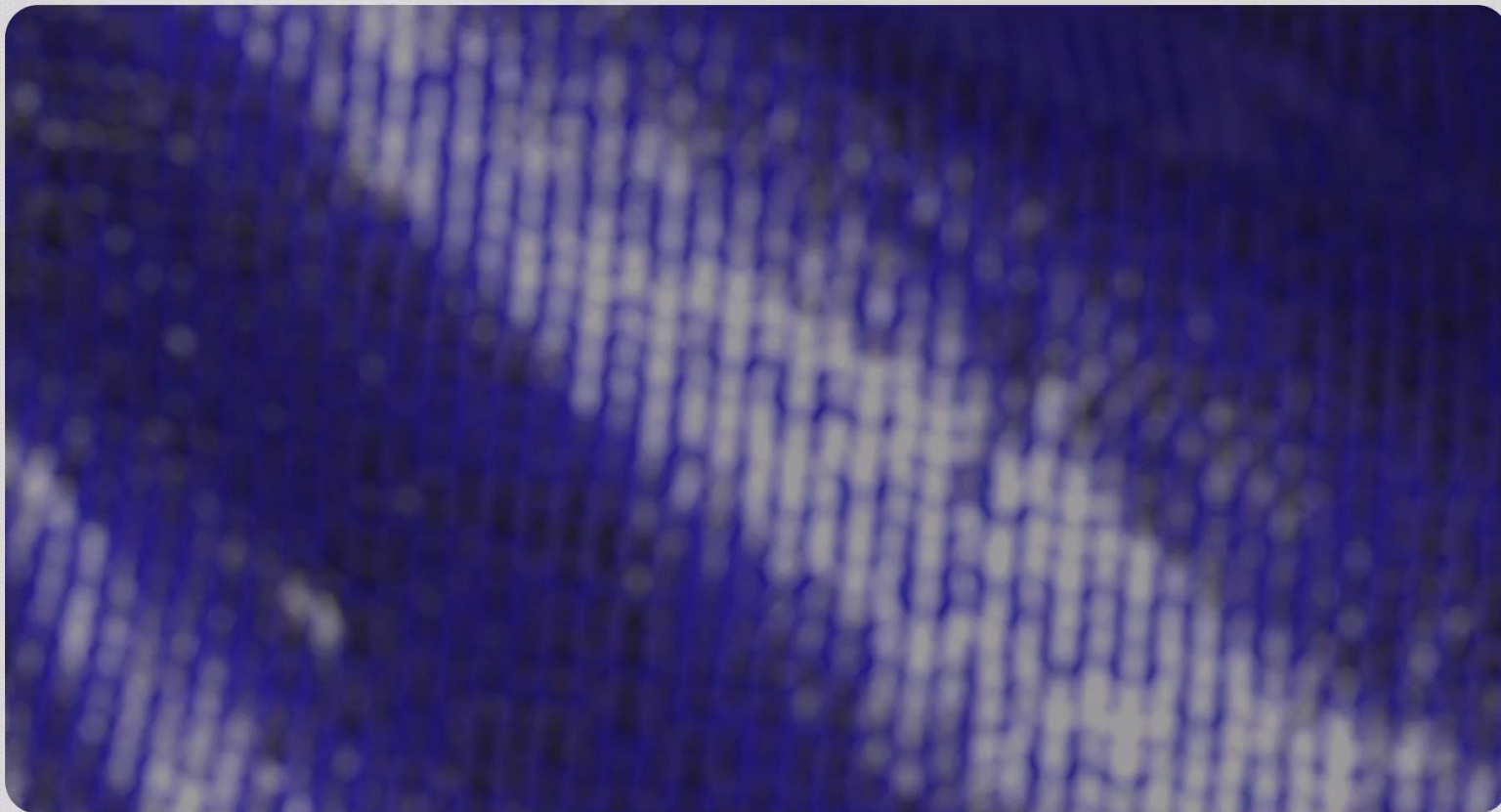


**MIQUELA**
**Instagram:** @lilmiquela
**Instagram followers:** 2.6M
**Country:** US

Miquela Sousa is a Brazilian-American 19-year-old created by American AI company Brud.
She is one of the most popular virtual influencers in the fashion industry.

**THE FABRICANT DEVELOPES CO-CREATION TO DESIGN THE WARDROBE OF THE METAVERSE TOGETHER**

# CHANGING DESIGN PROCESSES PREDICTING FASHION TRENDS BY DATA ANALYSIS & AI

Fuelled by AI and fashion expertise, it provides brands with visual data, past trend trajectories, and predictive insights on prints, colours, fabrics, iconic models and silhouettes for upcoming seasons.
**See companies as: HEURITECH and WGSN**

RESOURCES

BOOK A DEMO

-Design Processes are Changing

**Step 1**

Define representative panels

**Step 2**

Applying our computer vision technology to millions of social media images stemming from these panels

**Step 3**

Use our machine learning forecasting algorithms to predict trends up to two years in advance
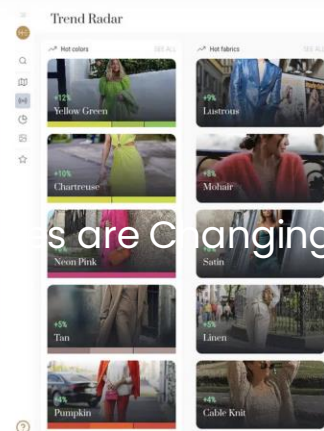
**Step 4**

Insert Heuritech's data into our Market Insights platform

Trend Radar

Hot colors

+12% Yellow Green

+10% Chartreuse

Neon Pink

+5% Tan

Pumpkin

Hot fabrics

Lustrous

Mohair

Satin

Linen

Cable Knit

# GENERATIVE AI CREATES IMAGES & LEARNS HOW TO TRANSLATE AN IMAGE OR DRAWING INTO REAL PATTERNS ?

Changing Design Processes

AI Pipeline **ALVANON**

PROMPT

IMAGE REFERENCE

GET INSPIRATION THROUGH AI

CREATE AUTHENTIC DIGITAL GARMENT

DEVELOP & APPROVE PHYSICAL SAMPLE

ITERATE WITH AI

Alvanon's research using Midjourney and the prompt "wide leg sleeveless jumpsuit with collar on female; full-body pose, front and back view"

**THE FABRICANT**

Home Page | Design Tools ⌄ | About Us | Contact Us

Sketch-to-Photoreal
Image-to-Pattern (coming soon)
Image-to-3D
Virtual-Try-On (coming soon)

The Fashion Value Chain. Supercharged.

From Design to Virtual Tr... fashion's creative and co... high-quality. Always crea...
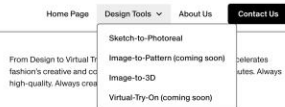
Transform your image to a sewing pattern

Effortlessly convert images into precise sewing patterns with The Fabricant Intelligent Tool. Streamline your design process, reduce manual work, and gain more time for creativity.
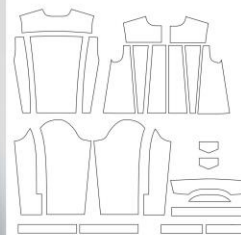
Step 5 - Transform your design to 3D instantly

Our innovative technology allows designers to create 3D assets directly from 2D images. This seamless process increases speed and quality when it comes to the 3D modeling process within fashion by providing accurate scale and volume information to be used in any 3D software.

**A CHANGE IN THE DESIGN PROCESS AS CO-DESIGNING TOGETHER WITH AI**

fashion designer mugler in collaboration with massimo dutti and the military design clothing for aliens, non-humans, superior technology, extraterrestrial life forms, outer space fashion, humanoid alien, alien fashion, alien design, military base clothing, cargo pockets, functional clothing, full body render, colourful, red and orange colours, lilac, purples. Flowing shapes, soft shapes, organic, silk fabrics, organza, plissé fabric – @Chey (fast)

3

T

Chosen style

U1  U2  U3  U4
V1  V2  V3  V4

U1  U2  U3  U4
V1  V2  V3  V4

CO-Designing with AI

Create a prompt containing designers, styles, details, fabrics, colours etc. The more words you use, the wilder the generations become, which makes it easy to generate large amounts of styles in 1 go.

Then pick one image and start making variations and re-uploading it to create more of this chosen style. Re-upload the designs and add different colours, fabrics or styles to iterate and create more designs.

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Same base prompt but different fabrics, colours and style detail imput.

3 chosen styles

CO-Designing with AI _ Working methode

Pinterest images

+
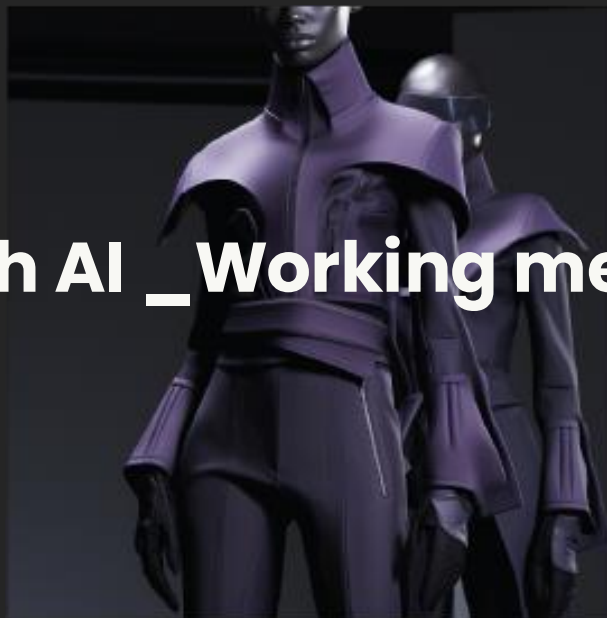
Midjourney AI image generation

=

My Sketch

DRAW REAL PATTERNS, EXPERIMENT WITH FABRICS, CREATE THE PROTOTYPE, USING DIFFERENT SOFTWARE

Made using:

CLO3D
Blender
Daz3D
Mixamo
Unreal Engine 5
and Quixel assets
Midjourney AI
VMOD Fabricator AI

IMARA V.D WEL
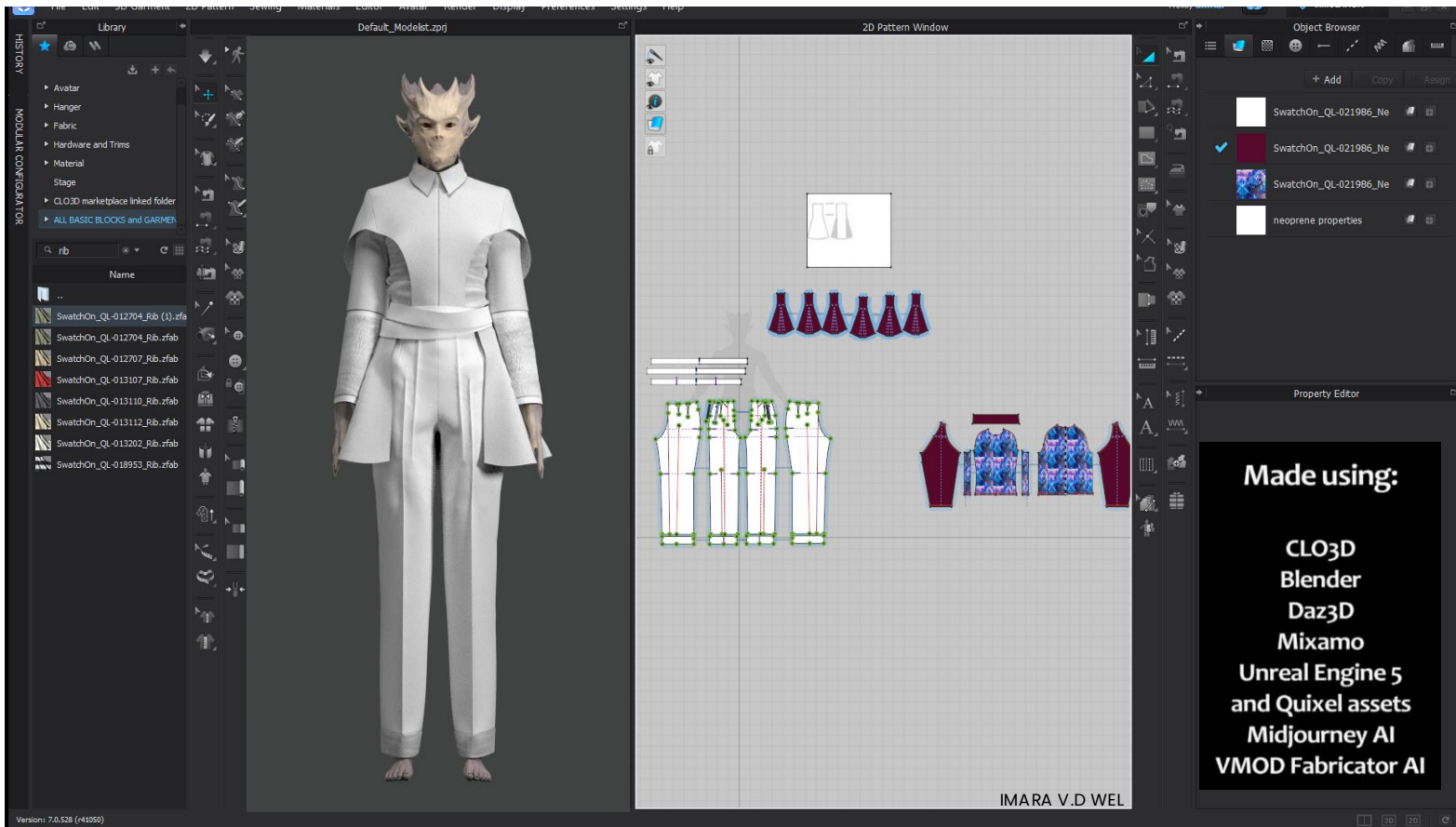
# Materialization : 3D Textures-Prints & Avatars

CREATE TRUE TO LIVE SIMULATIONS in a 3d environment

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https://cpetry.github.io/NormalMap-Online/

# VISUAL Properties and PHYSICAL Properties

**WHAT IS A TEXTURE ?**
A surface decoration for an object or fabric, the Visual properties and not the physical properties
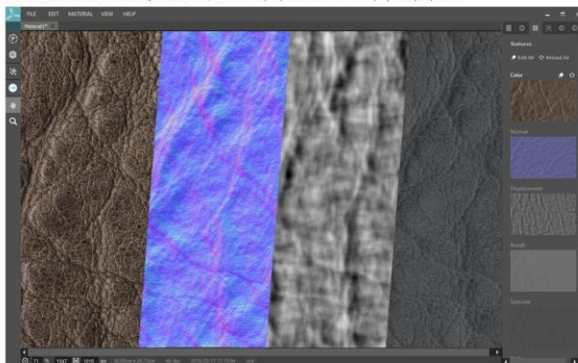
HAS A REPEAT or TILING + COLOR map_NORMAL map_DISPLACEMENT map_ROUGHNESS map

Source: Vizoo

+EXERCISE

# Fabric_Drape_Texture maps_Finishings_Render

# INDIVIDUALS STUDIO _DESIGNS THE FUTURE WITH & FOR THE INDUSTRY_THE GLORY OF THE TEXTURE MAPS



AMFI_G31_ 20/21_corona _RED AND BLUE_Statement collection _Texture developments _avatar identity

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Co-funded by
the European Union

object browser

property editor

# The CLO Library

-Search & Select a Fabric in the Fabric Folder, double click and it fly's to your Object Browser

-Try the Hardware and Trims, see what's in it

-Change the avatar pose, see library

-Experiment and find answers online

Or use a HANGER from the Libray
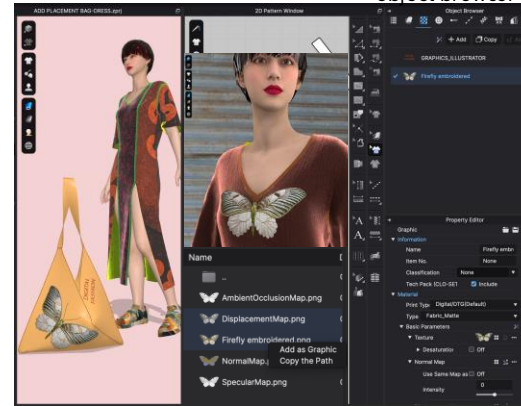
Add placement BAG-DRESS, use print FIREFLY & maps

Change the Fabric and Print/Dessin

Settings TEXTURE Mirror

+EXERCISE

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# Personalize **Your Avatar, Pose & Texture, Finish Garment & Render**

TEXTURING AVATARS FOLLOWS THE SAME PRINCIPLE AS TEXTURING FOR FABRICS AND OTHER OBJECTS, try-out, experiment and search online for Instruction moveis, you will find them.

AVATAR JOINTS

+ EXERCISE
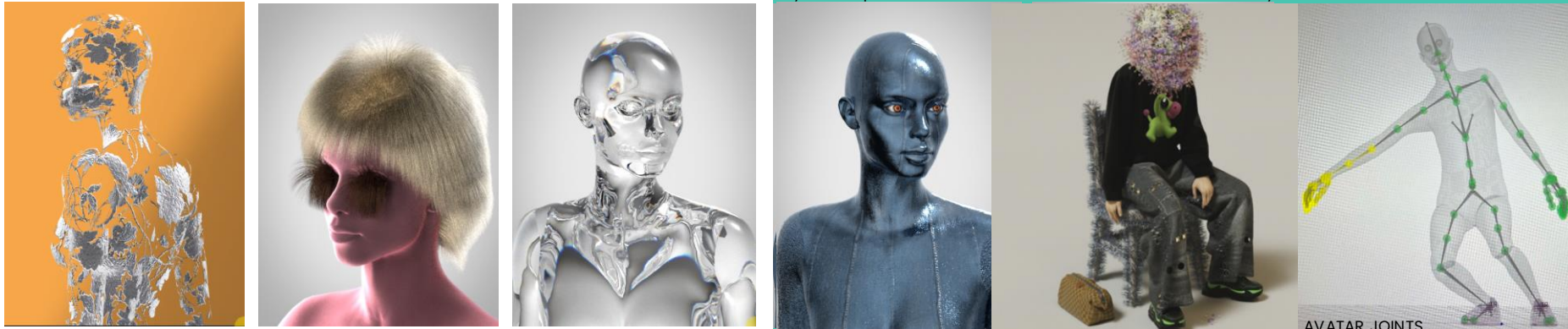
# 3D Rendering & Presentation

-Style, Render, Turntable/Animation

-Presentation Goals

-Deliverables

TOILE
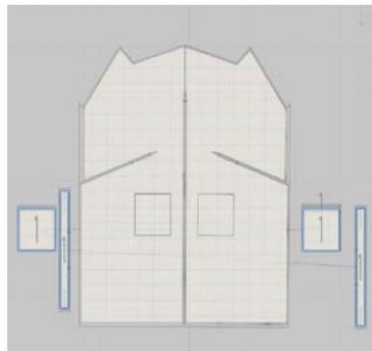
CREATE A PLAN

# Digital Design Presentation Enrich Creative Thinking

1. WHAT POSE DO I WANT?

2. WHAT ANIMATION?

3. AM I MAKING A VIDEO/ IMAGE?

3. AVATAR VS CLOTHING

4. ENVIRONMENT

SCHEMATIC RENDER

EXPLODED VIEWS

How to create:
https://youtu.be/f4DLK1zWVfw

TURNTABLE

ANIMATION (High Quality)

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Co-funded by the European Union
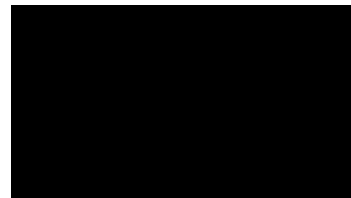
PERSONALISE AVATAR AND FINISH ALL DETAILS
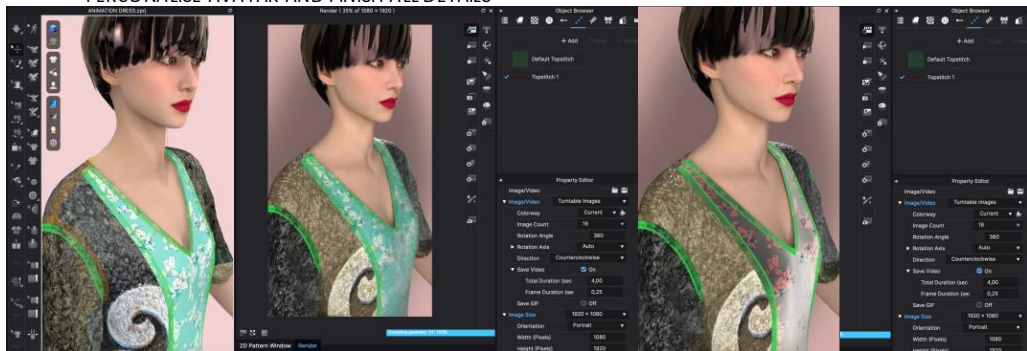
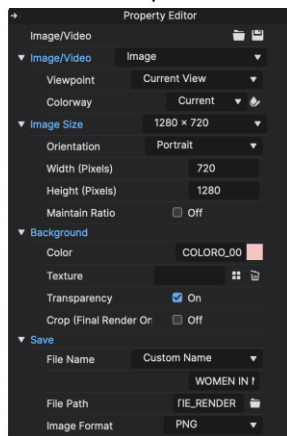# Stage, Avatar Pose, Lighting, Settings

FIND BEST LIGHTING

FIND BEST STAGE IN LIBRARY
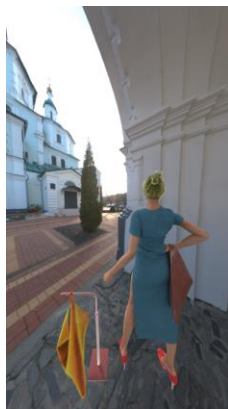
BACKGROUND IMAGE
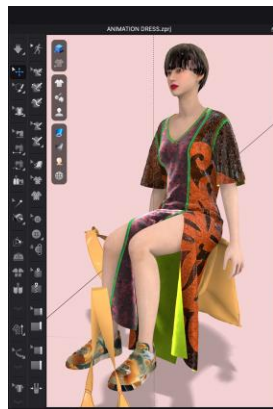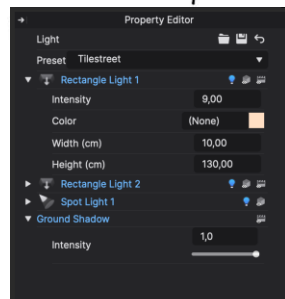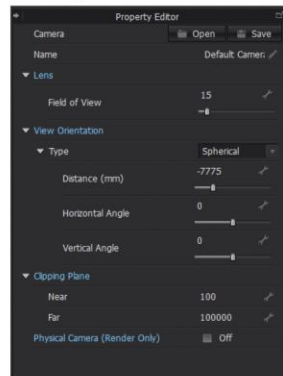
CHANGE POSE AND ANGLE

+ EXERCISE

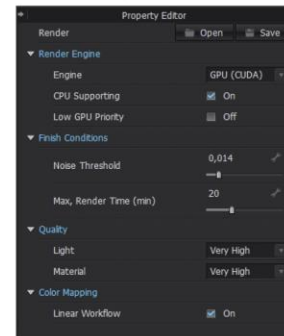**THEN IT'S ON TO RENDERING**



Result after 5 min.

Image/Animation?
Size
Save

Environment light
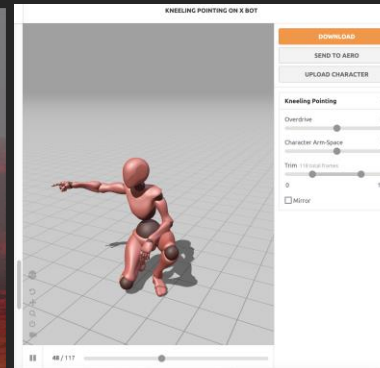Light effects
Shadows

Camera angle
Camera effects
Depth of field
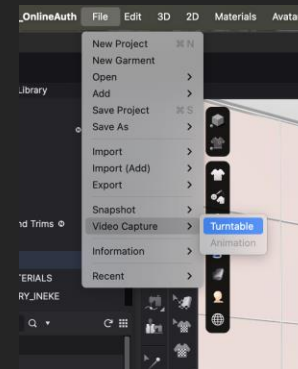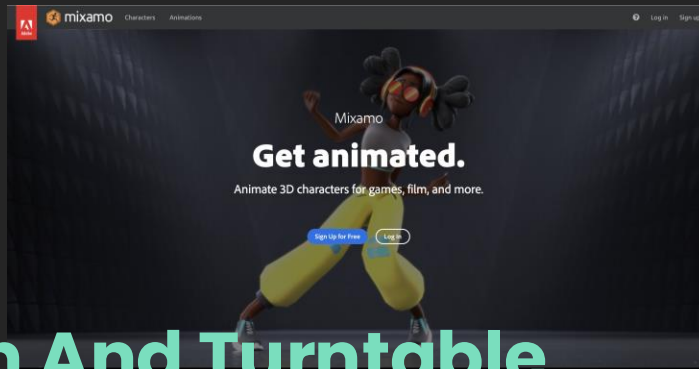
Noise (set to 0,014)
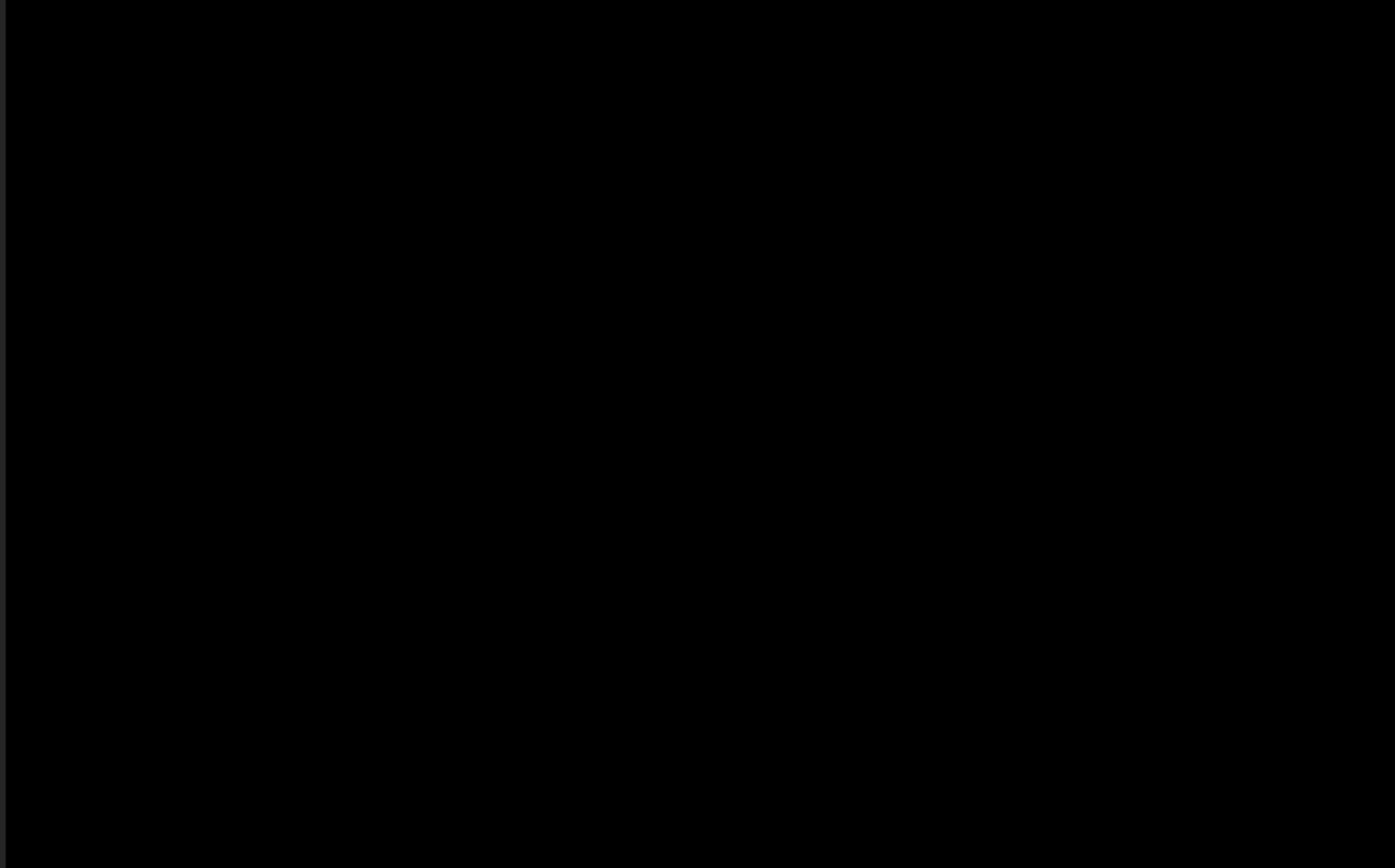Render time
Quality

+EXERCISE

# Animation And Turntable

**SKILLSET Digital Literacy:**

-Technology to Reduce Resources

-Critical Thinking

-Software Flexibility

-Conscious Decision making

-Respect Craft

-Design smarter, work greener and innovate faster

+EXERCISE

2019 _ THE FABRICANT Collection 'Deep. Is created with generative AI, data from thousands of catwalk collection photographs

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