

POWER OF AR AND VR

3D SCAN FROM BLENDER TO UNITY



Co-funded by
the European Union



2024-1-PL01-KA220-VET-000243150

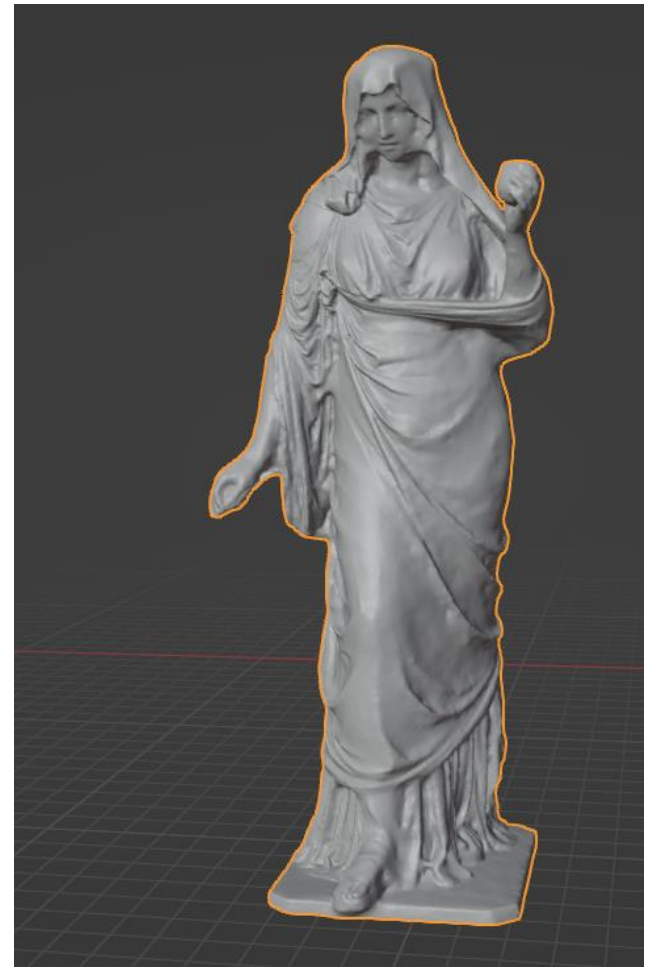
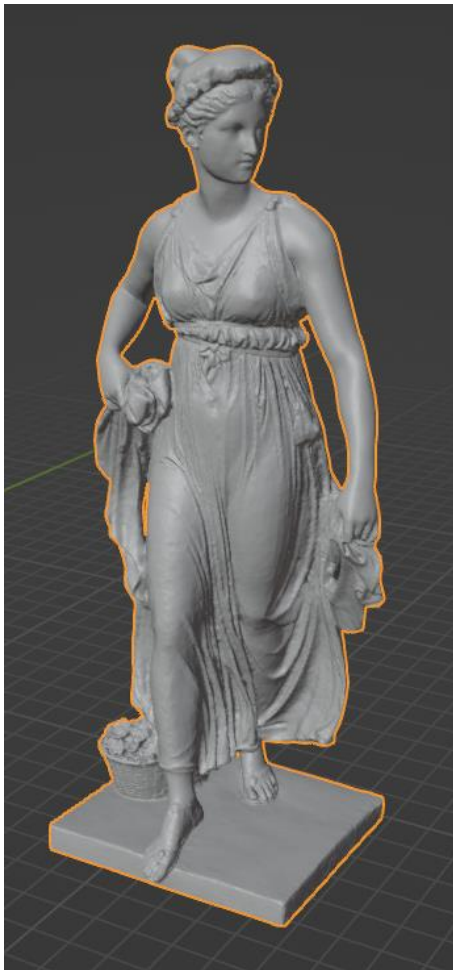
JACEK KAWAŁEK

**IN THIS TRAINING I WILL SHOW YOU HOW TO
REDUCE THE SIZE OF A SCANNED 3D MODEL
WITHOUT LOSING THE QUALITY
OF THE VISUALIZATION.**

**WE WILL PREPARE THE FILE SO THAT AS IT
GETS DISTANT, IT WILL BE LIGHTER
FOR THE PROCESSOR.**

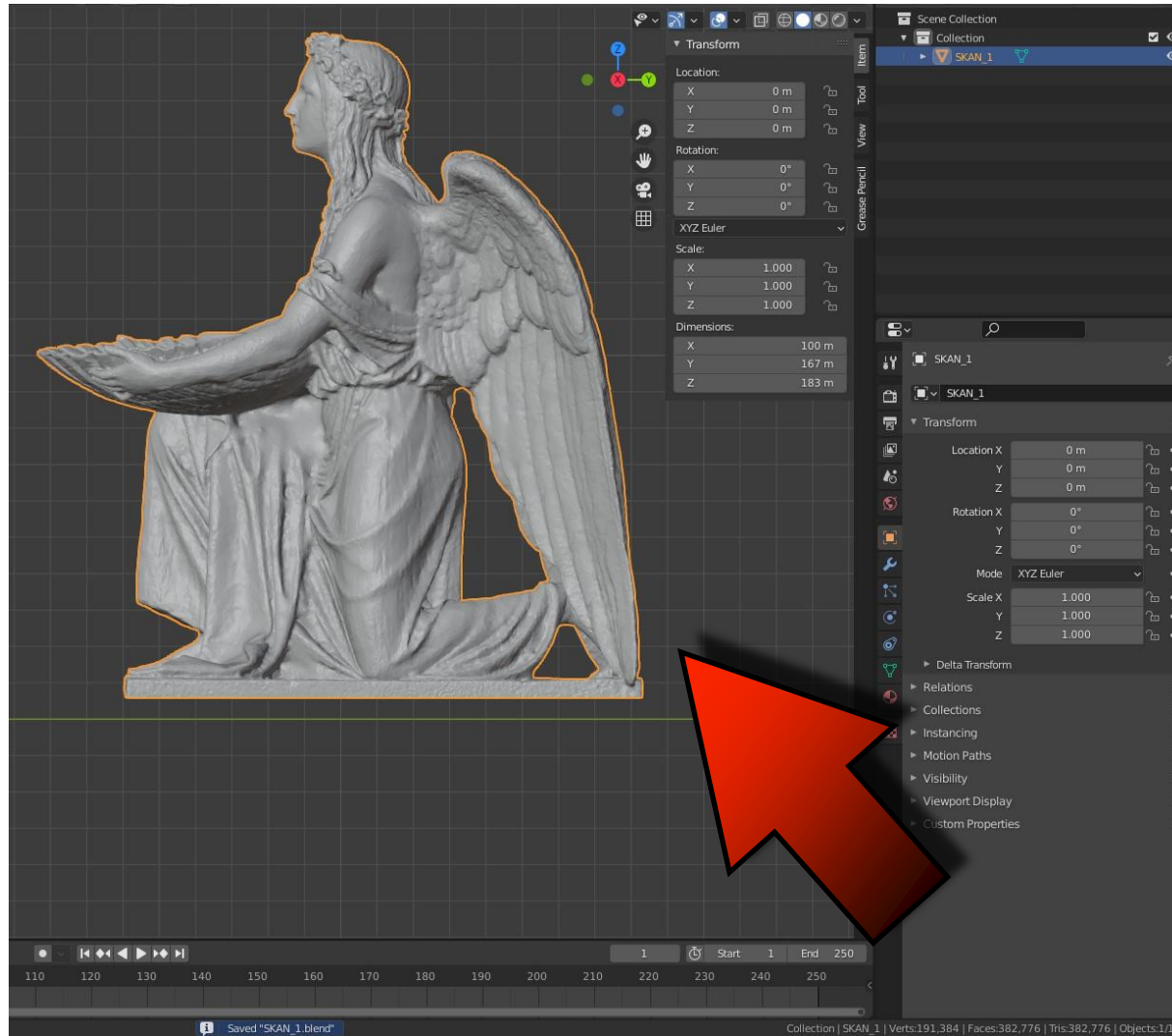
**I WILL SHOW THIS WITH AN EXAMPLE
OF EXPORTING FROM BLENDER TO UNITY.**

FOR EDUCATIONAL PURPOSES WE CAN DOWNLOAD THE FILE FROM THE INTERNET OR MAKE OUR OWN 3D SCAN



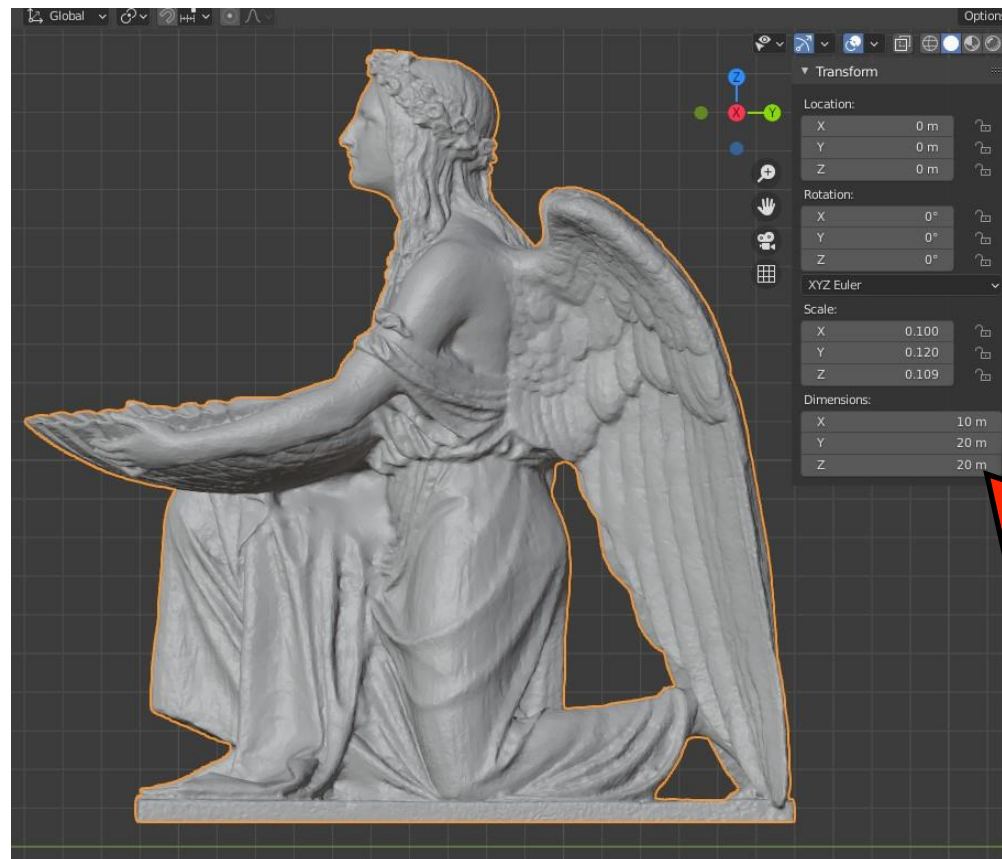
3D SCAN - FROM BLENDER TO UNITY

I WILL USE AN IMPORTED STL FORMAT FILE



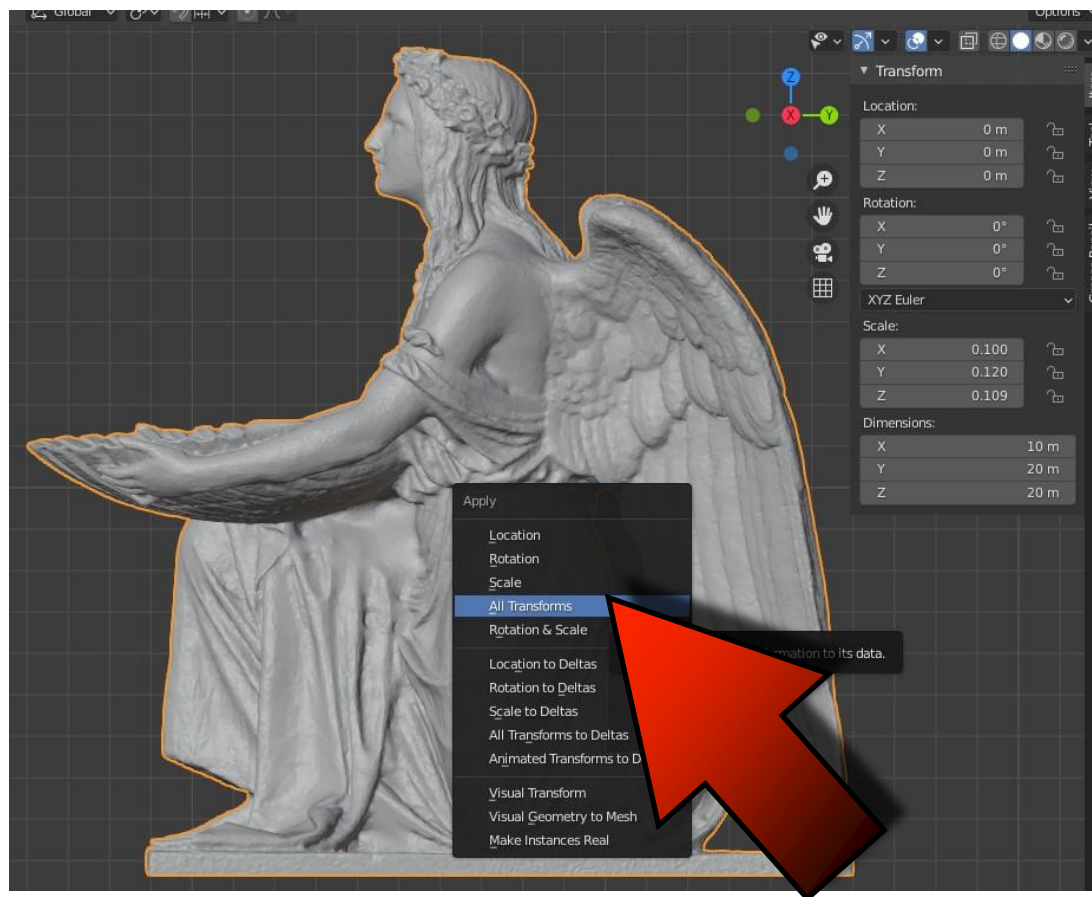
3D SCAN - FROM BLENDER TO UNITY

STL FILE IS INTENDED FOR 3D PRINTING SO WE NEED TO REDUCE IT SO THAT IT CAN BE USED FOR PRESENTATION IN 3D GLASSES



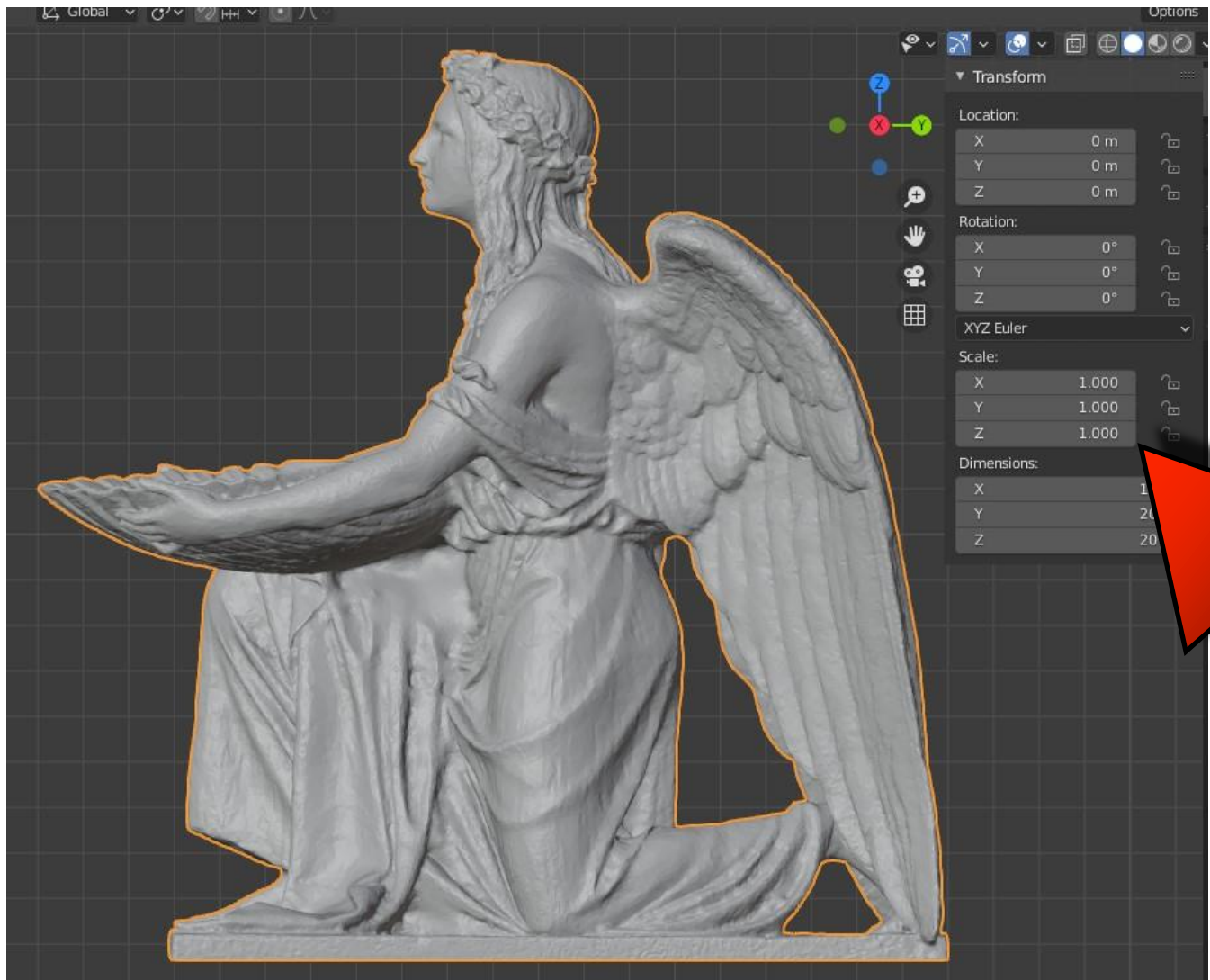
3D SCAN - FROM BLENDER TO UNITY

PRESS **CTRL+A AND SELECT
ALL TRANSFORMATION
TO RESTART ALL TRANSFORMATIONS**



POWER OF AR AND VR

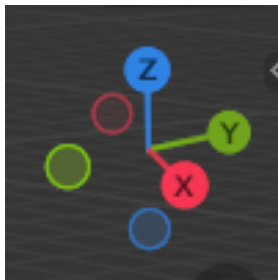
SCALE WILL BE SET TO 1



3D SCAN - FROM BLENDER TO UNITY

BLENDER AND UNITY PROGRAMS HAVE THE Y AND Z AXES SET DIFFERENTLY, SO WE NEED TO DO A CERTAIN PROCEDURE SO THAT THE MODEL IS CORRECTLY INTERPRETED WHEN IMPORTING TO UNITY.

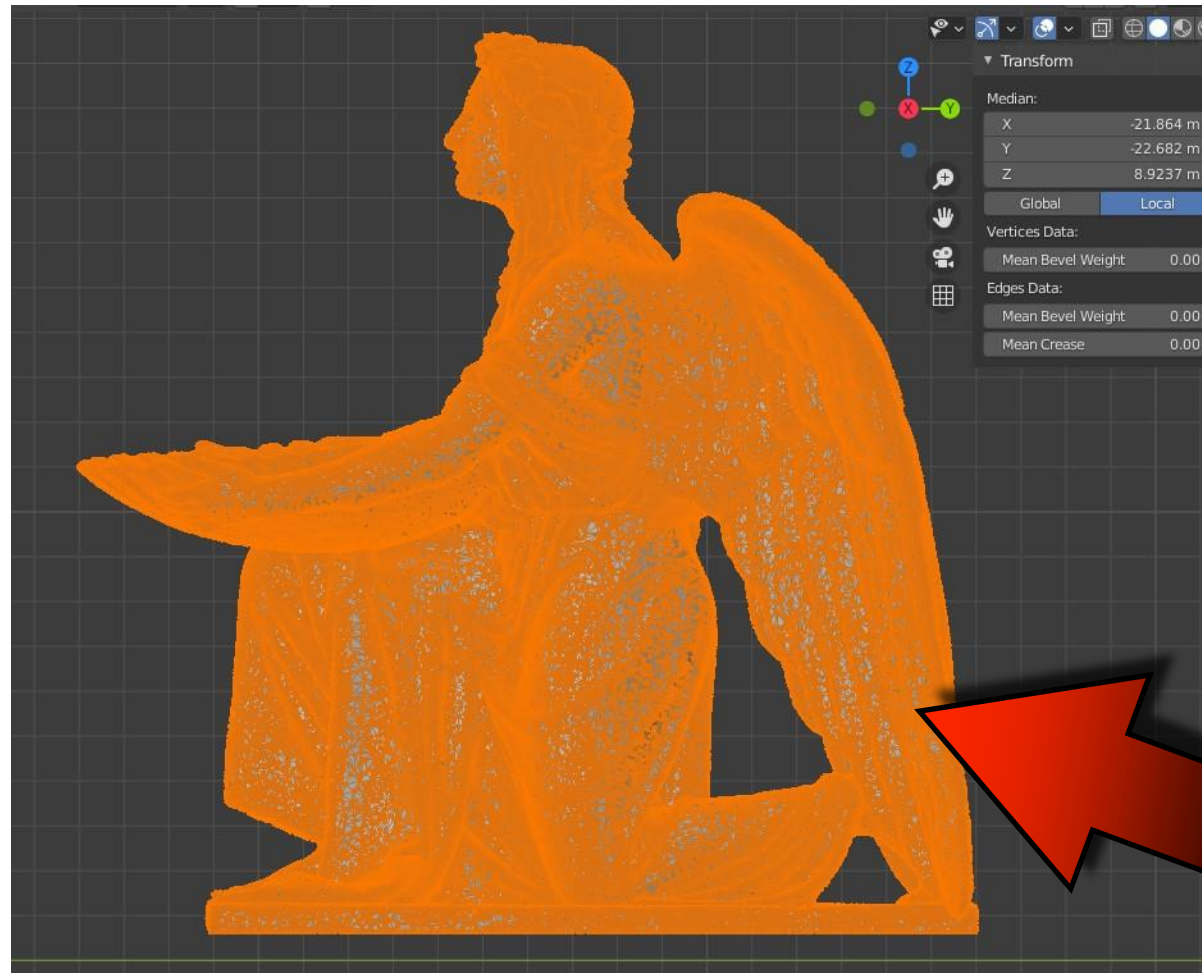
BLENDER



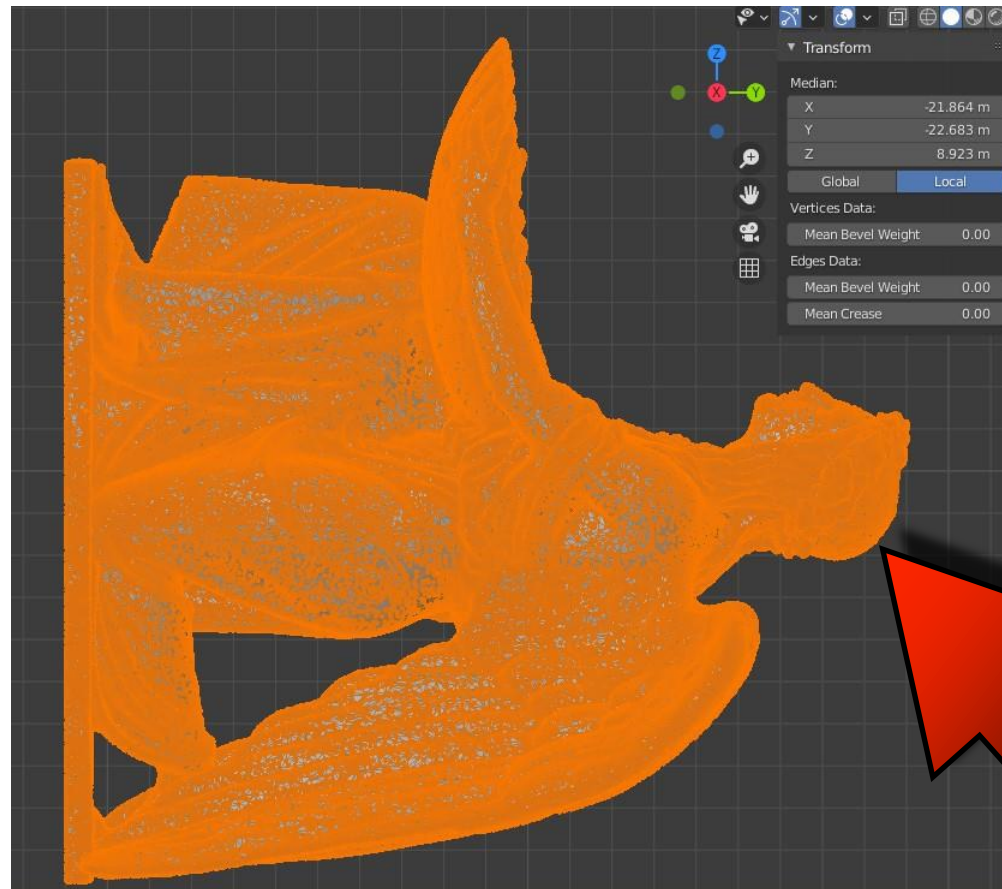
UNITY



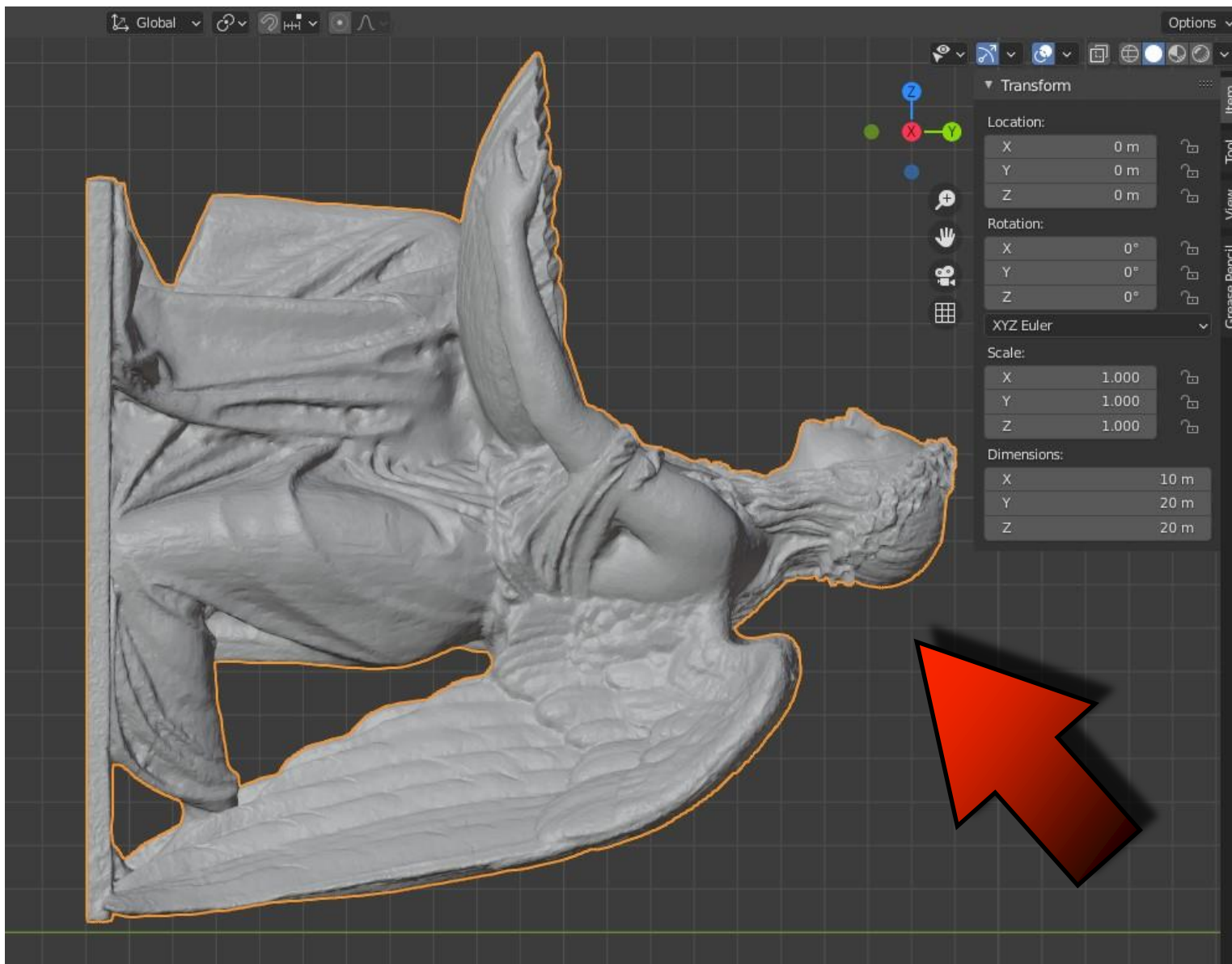
ENTER **EDIT MODE** WITH **THE TAB KEY**



ROTATE AROUND THE X AXIS BY 90 DEGREES

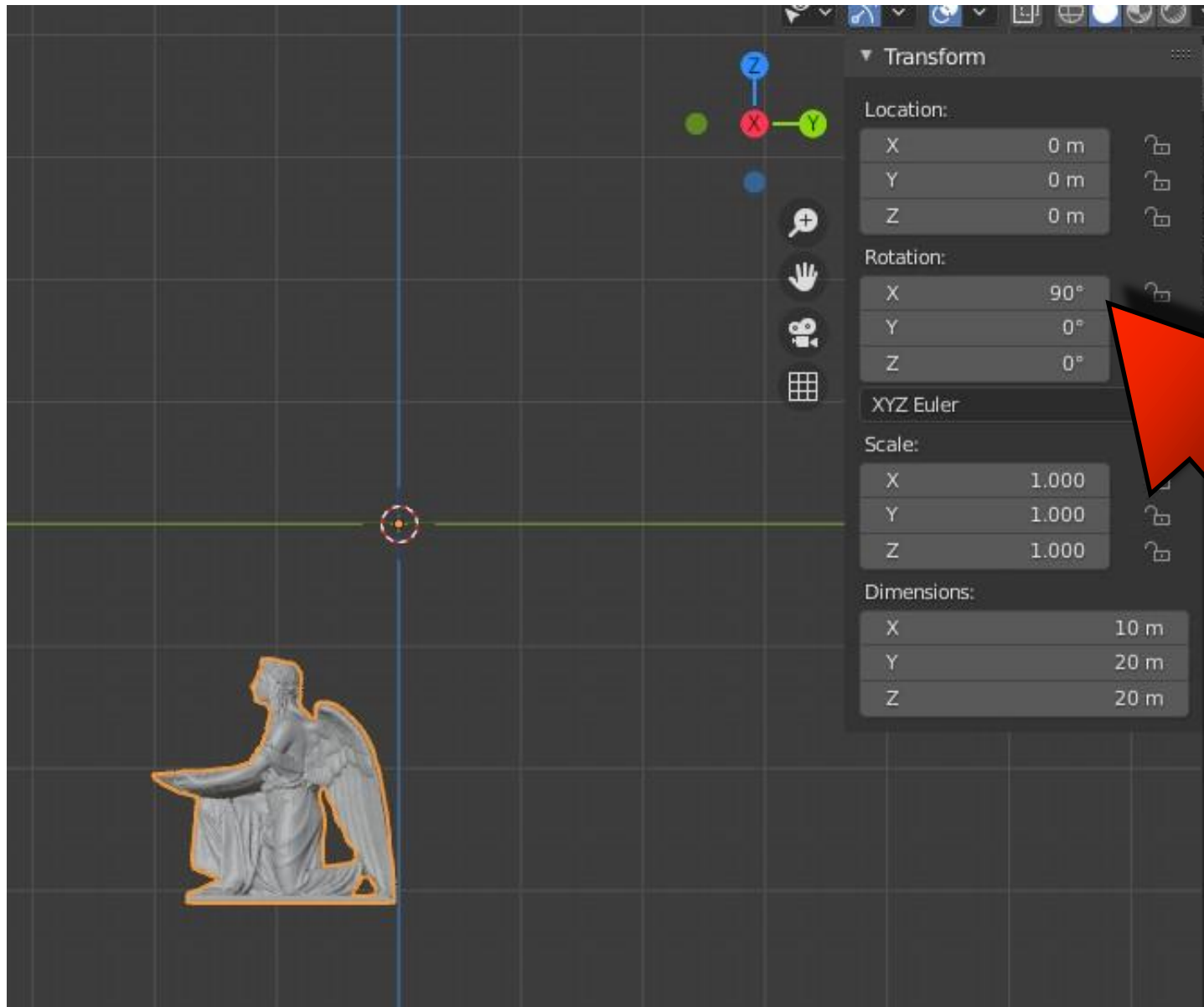


EXIT EDIT MODE WITH TAB KEY

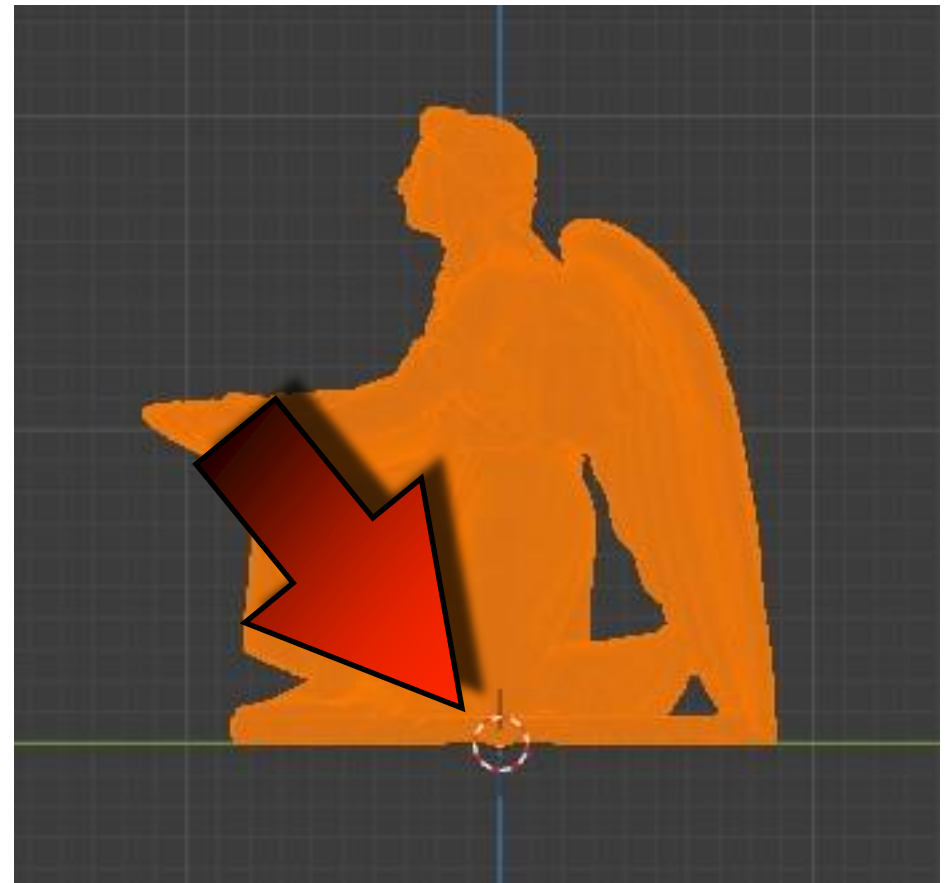
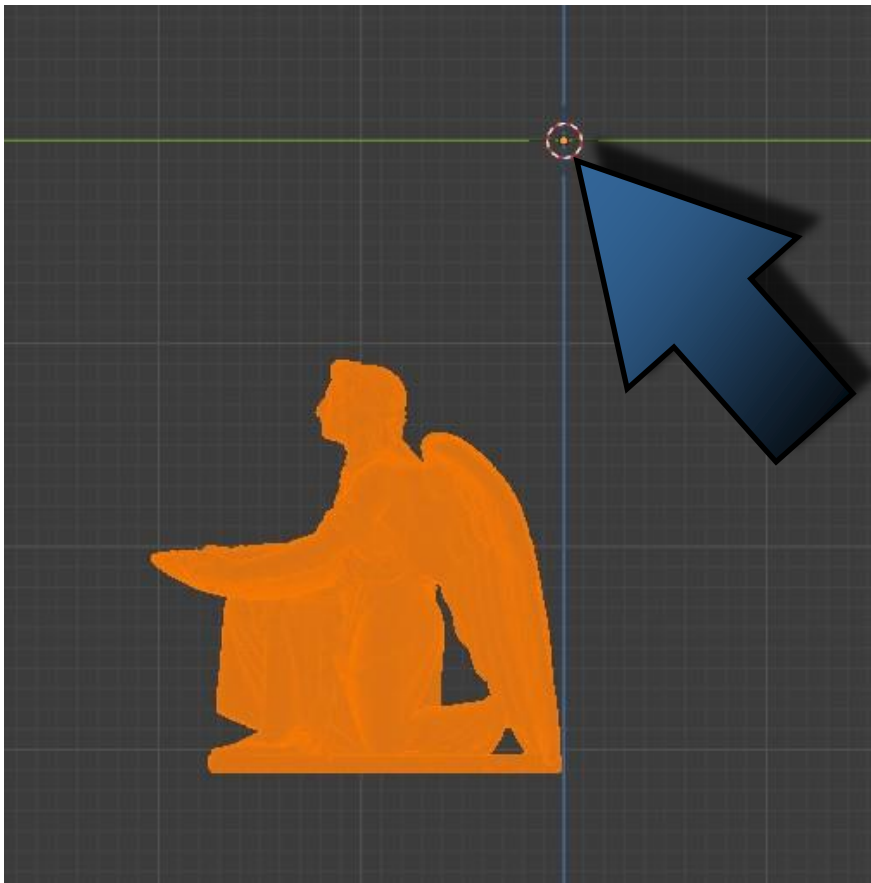


3D SCAN - FROM BLENDER TO UNITY

ROTATE AROUND X AXIS BY -90 DEGREES



IN EDIT MODE PLACE ORIGIN AT THE BOTTOM OF THE SCAN



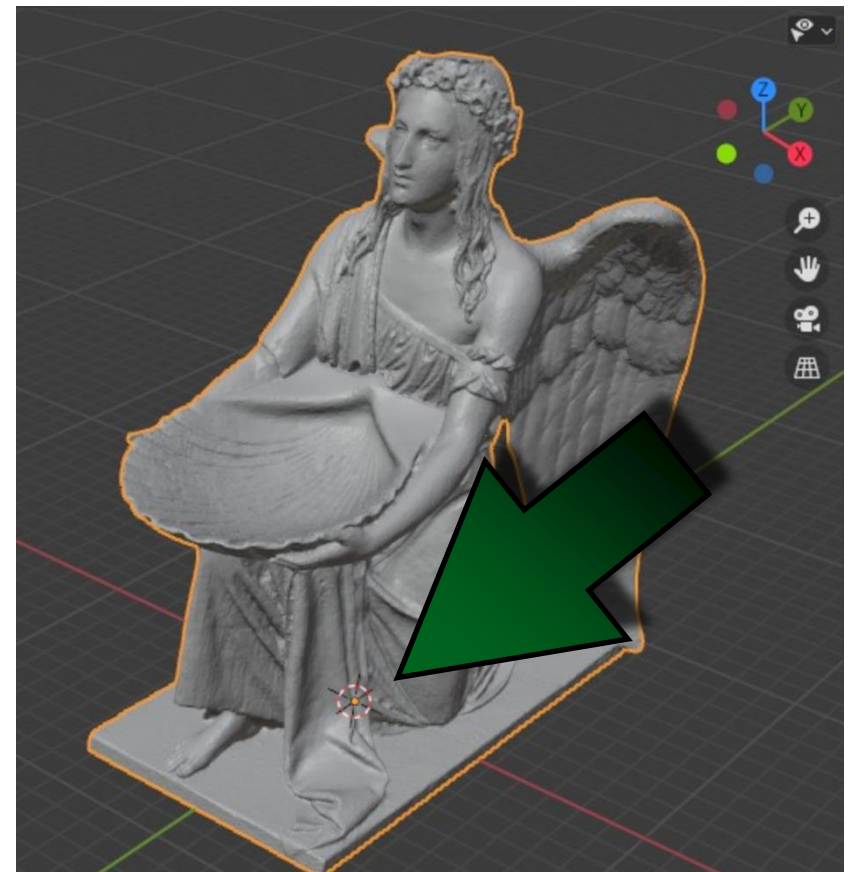
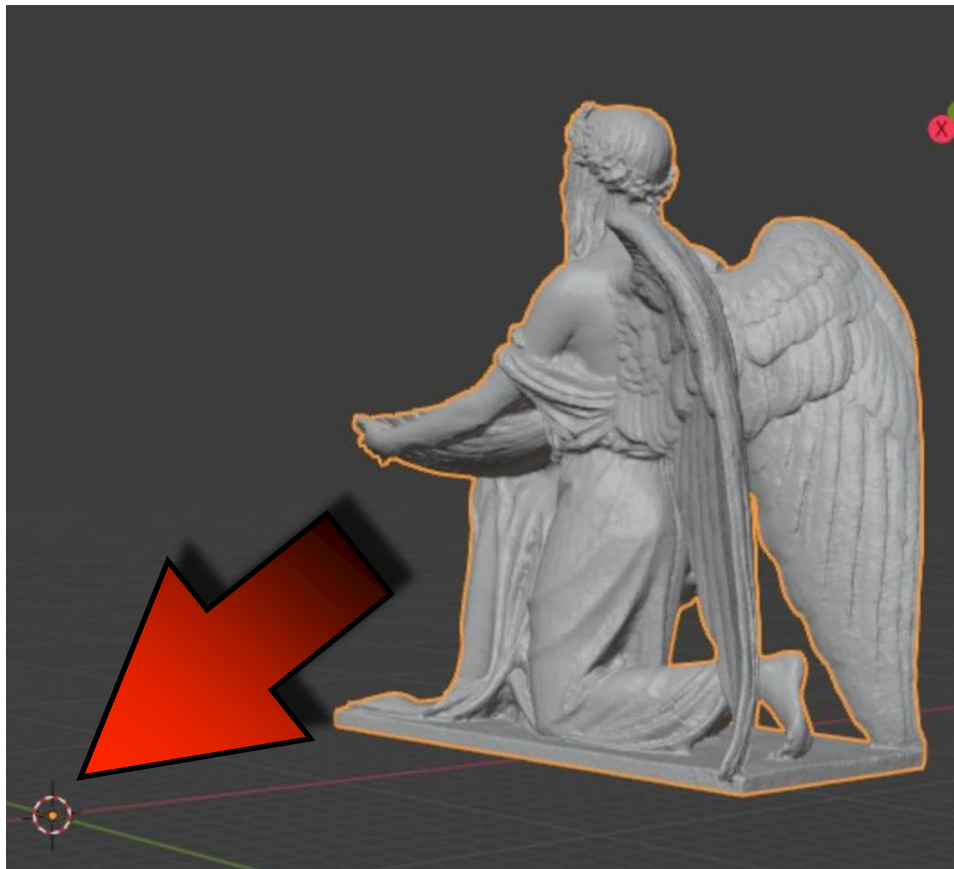
3D SCAN - FROM BLENDER TO UNITY

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CHECK ORIGIN IN OTHER AXES

BAD

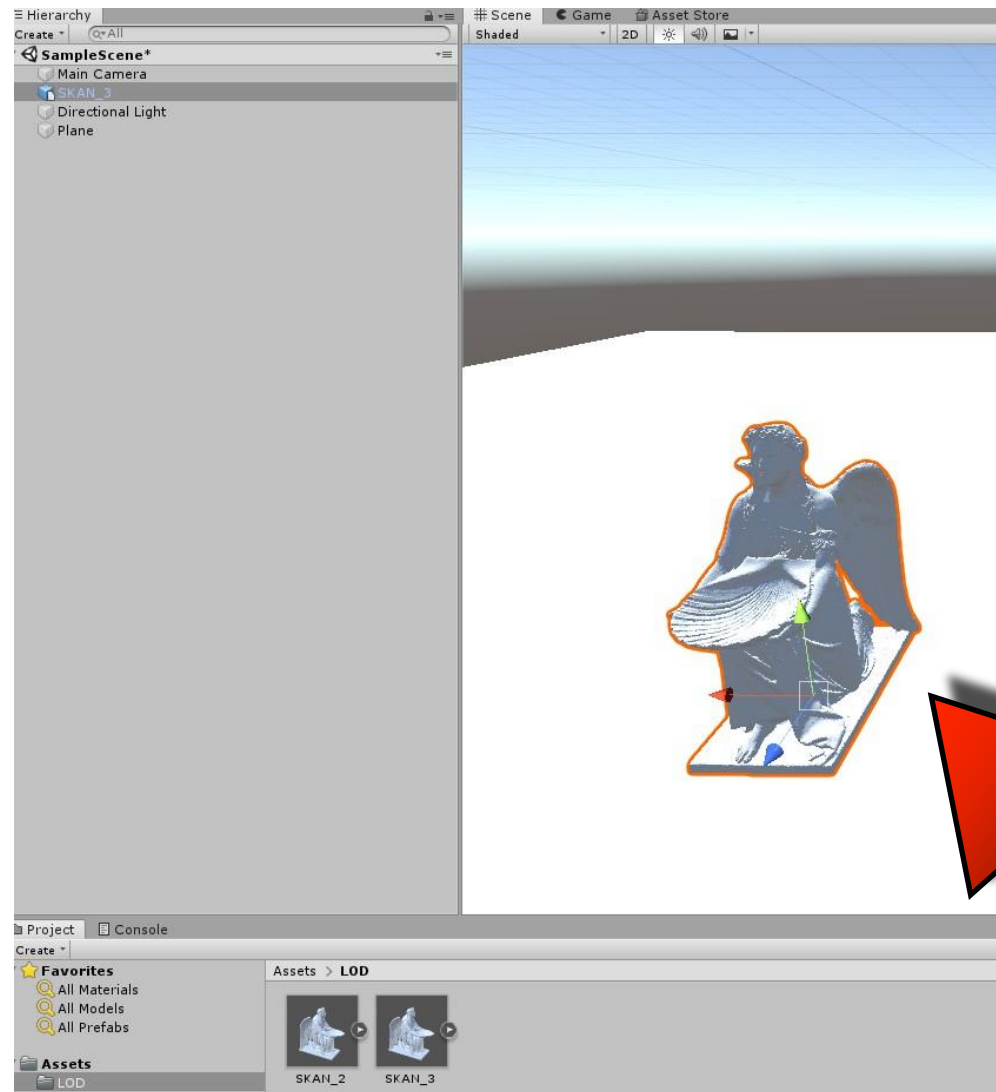
GOOD



3D SCAN - FROM BLENDER TO UNITY

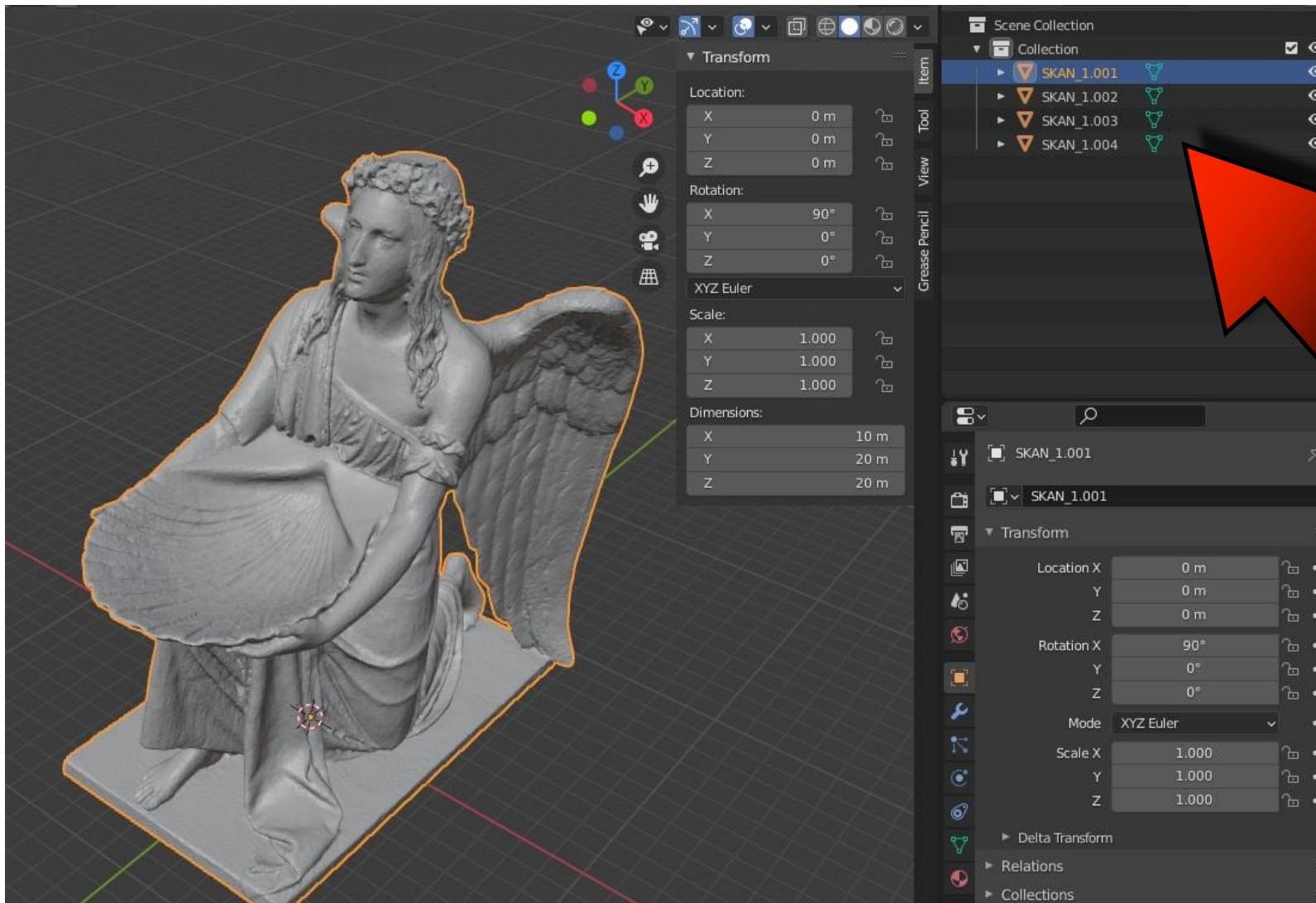
POWER OF AR AND VR

**AFTER IMPORTING TO UNITY
THE MODEL IS CORRECTLY SET**



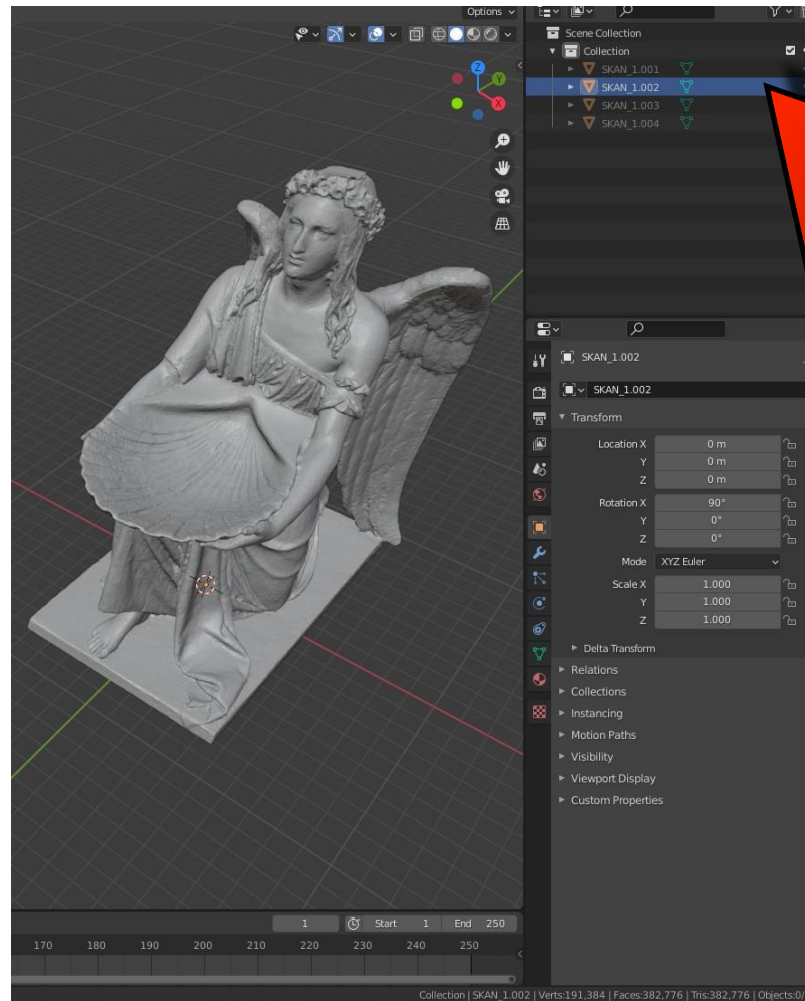
3D SCAN - FROM BLENDER TO UNITY

COPY MODEL 3 TIMES



POWER OF AR AND VR

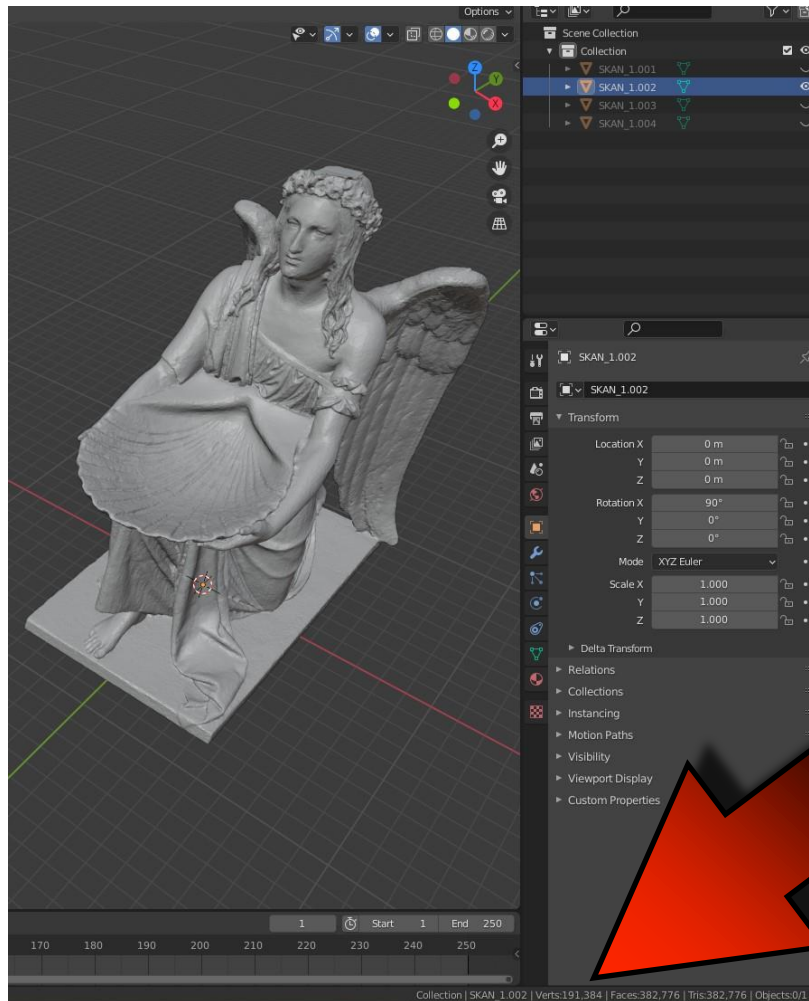
ENABLE AND SELECT SECOND MODEL VISIBILITY



3D SCAN - FROM BLENDER TO UNITY

POWER OF AR AND VR

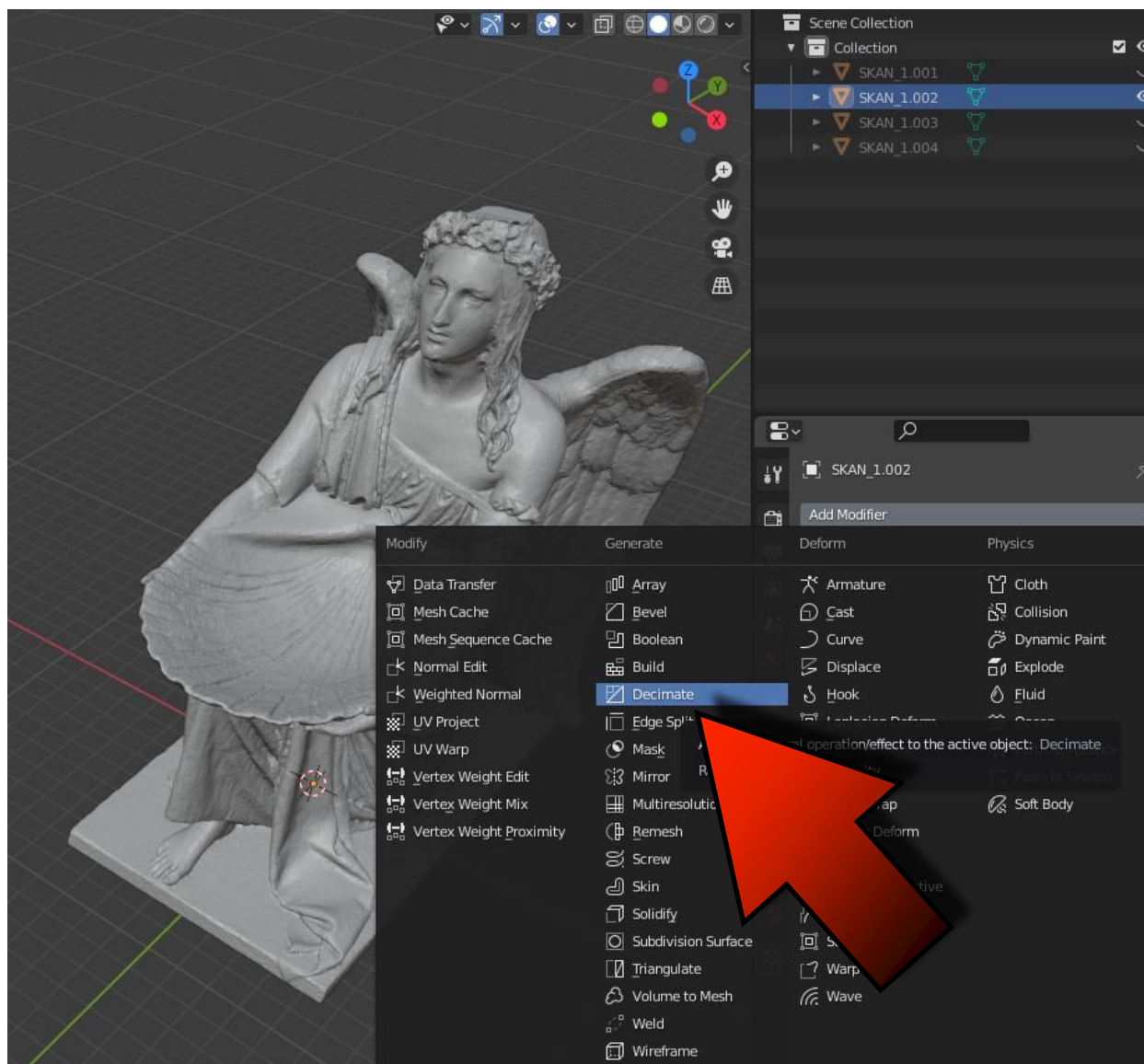
SEE HOW MANY WALLS THE MODEL HAS
FACES: 382776



THIS MODEL
IS NOT SUITABLE
FOR THE GAME

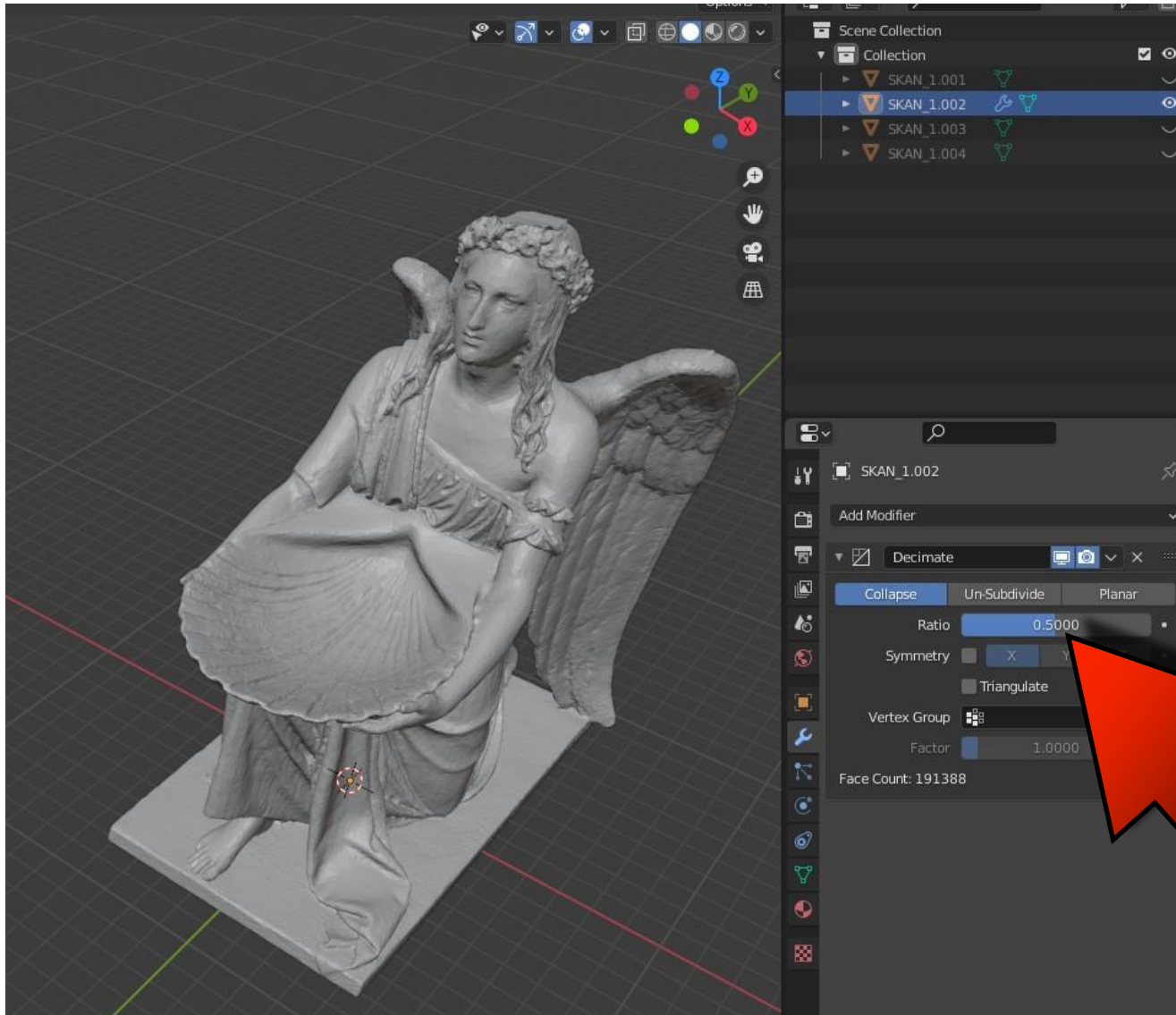
3D SCAN - FROM BLENDER TO UNITY

ADD **DECIMATE** MODIFIER



POWER OF AR AND VR

SET RATIO TO 0.5



3D SCAN - FROM BLENDER TO UNITY

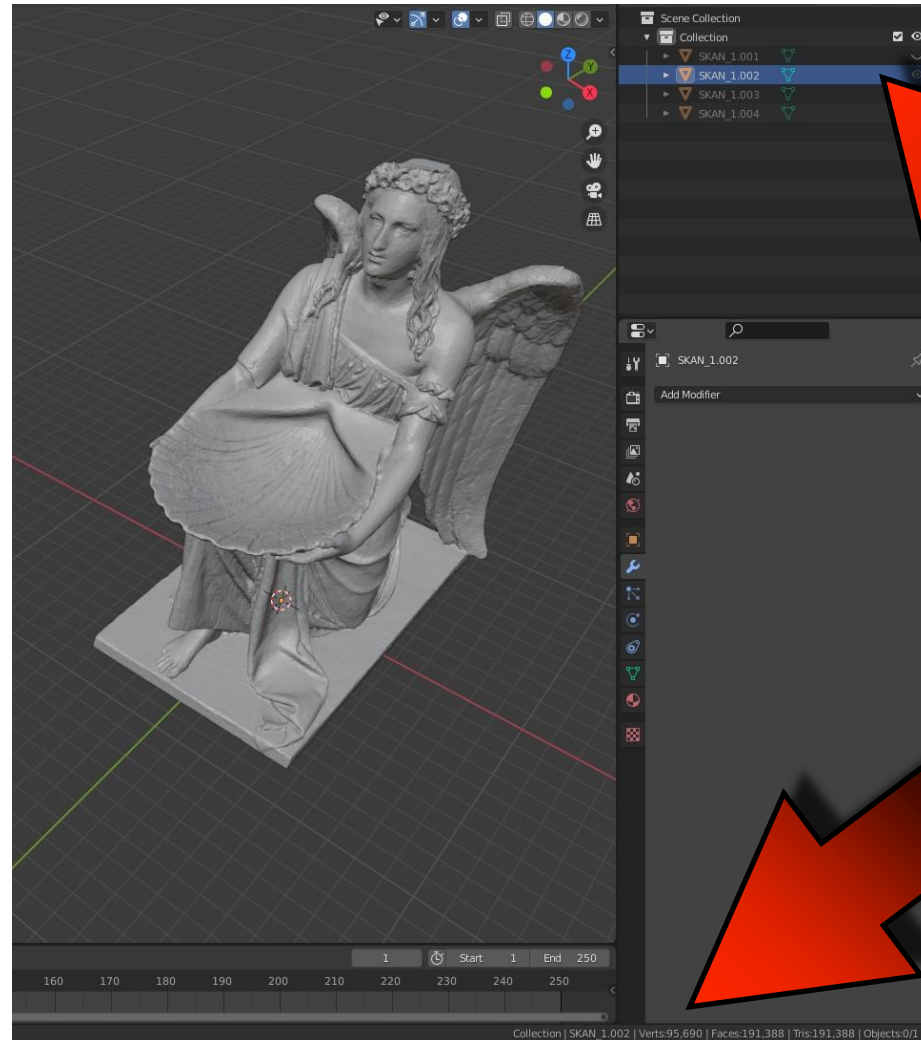


POWER OF AR AND VR



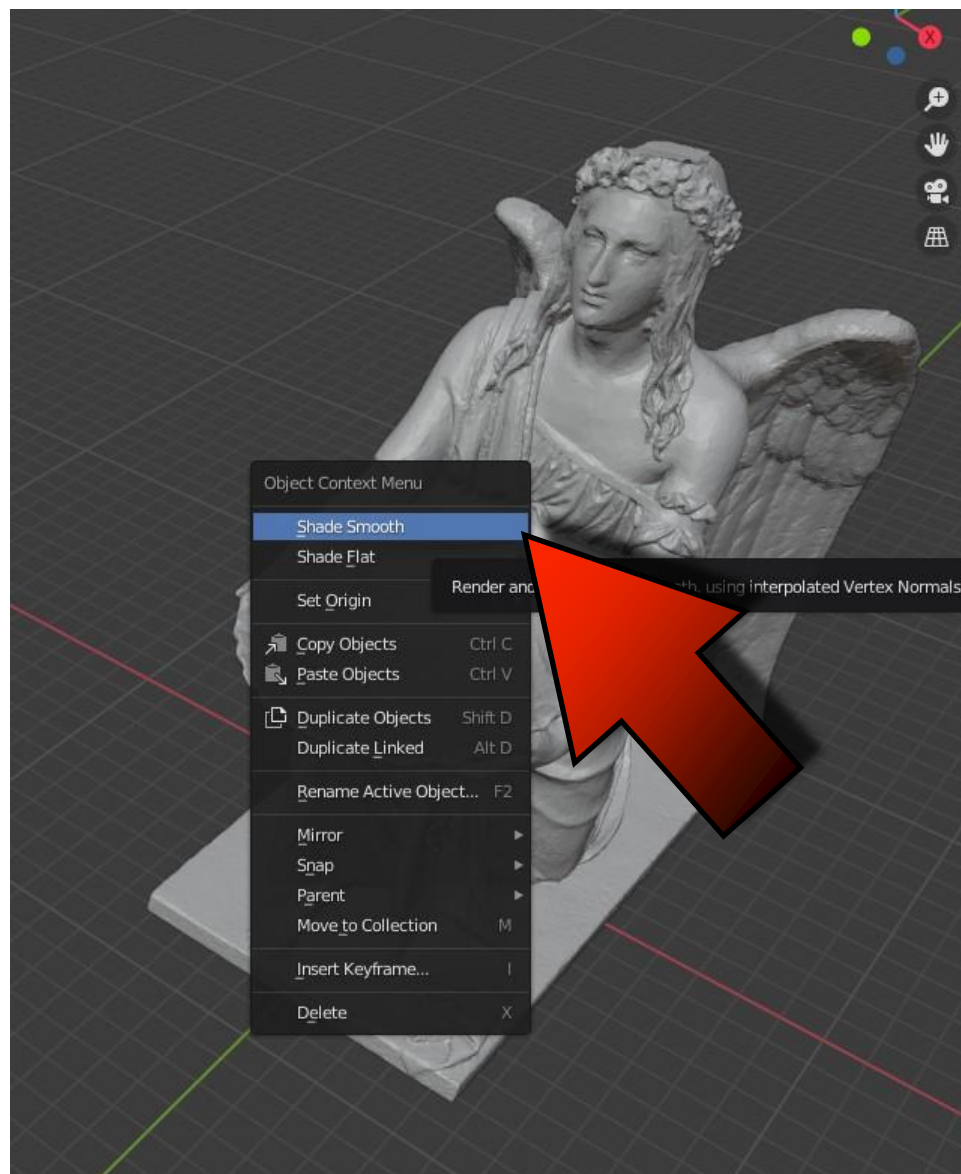
SEE HOW MANY WALLS THE MODEL HAS NOW

FACES: 191388



3D SCAN - FROM BLENDER TO UNITY

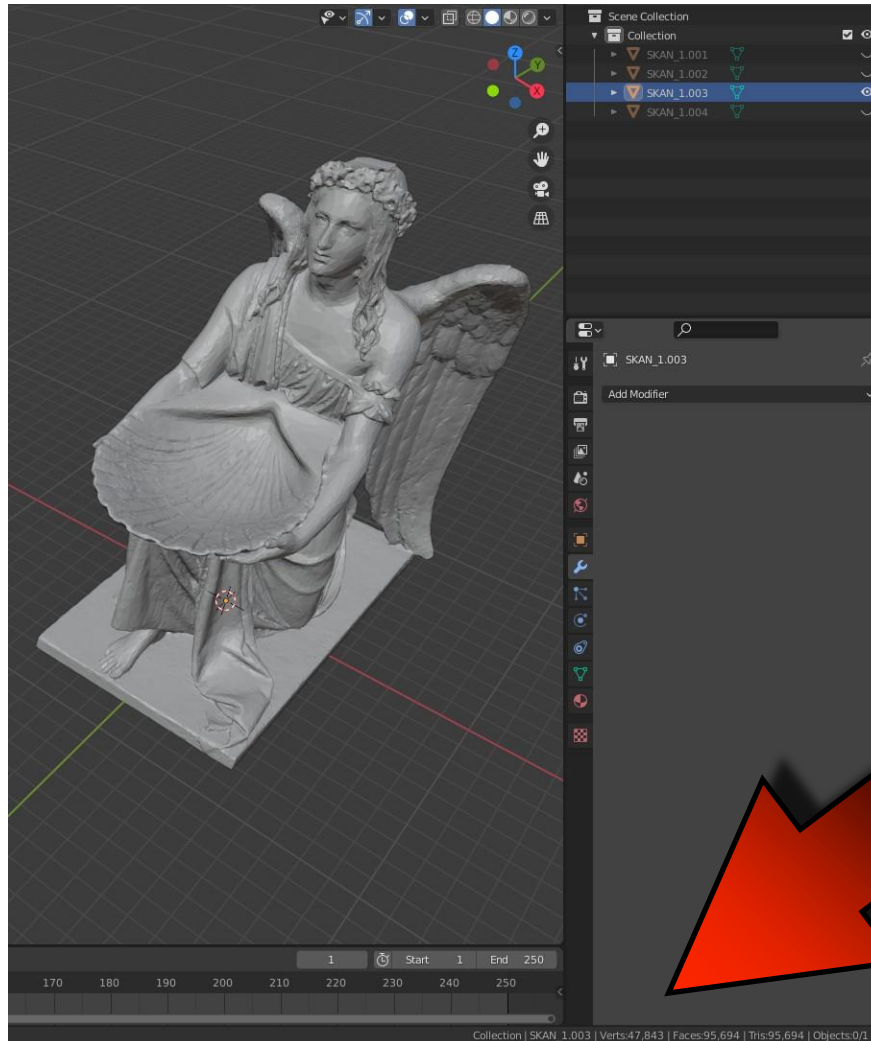
YOU CAN **SMOOTH THE MODEL**



POWER OF AR AND VR

THIRD MODEL

FACES: 95694

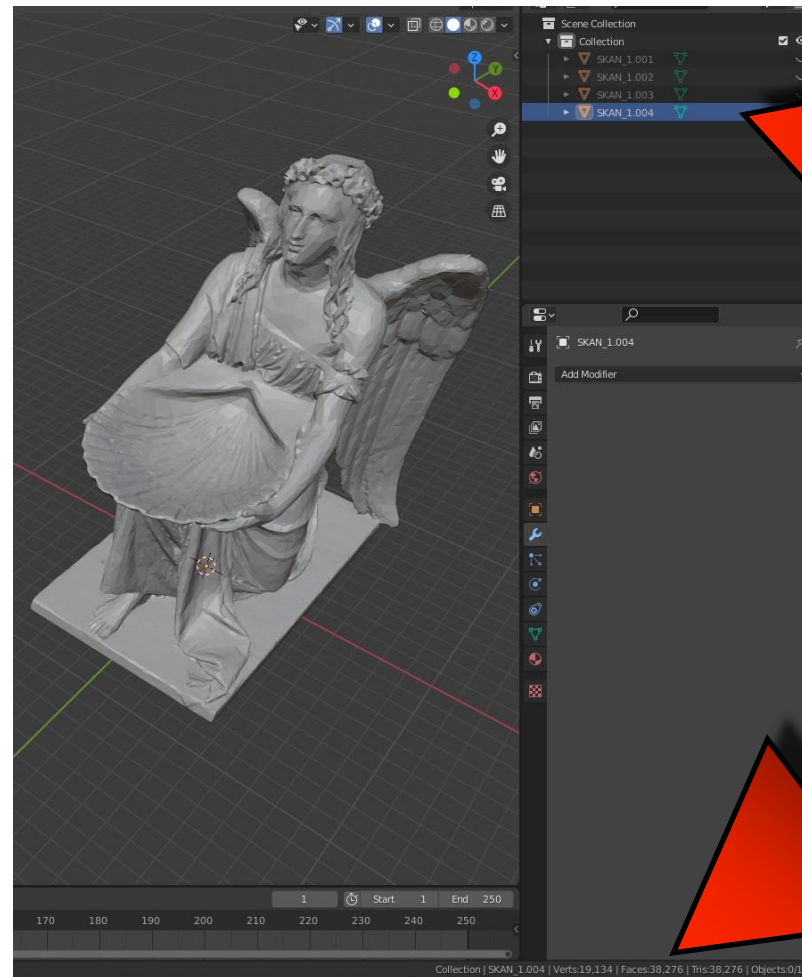


3D SCAN - FROM BLENDER TO UNITY

POWER OF AR AND VR

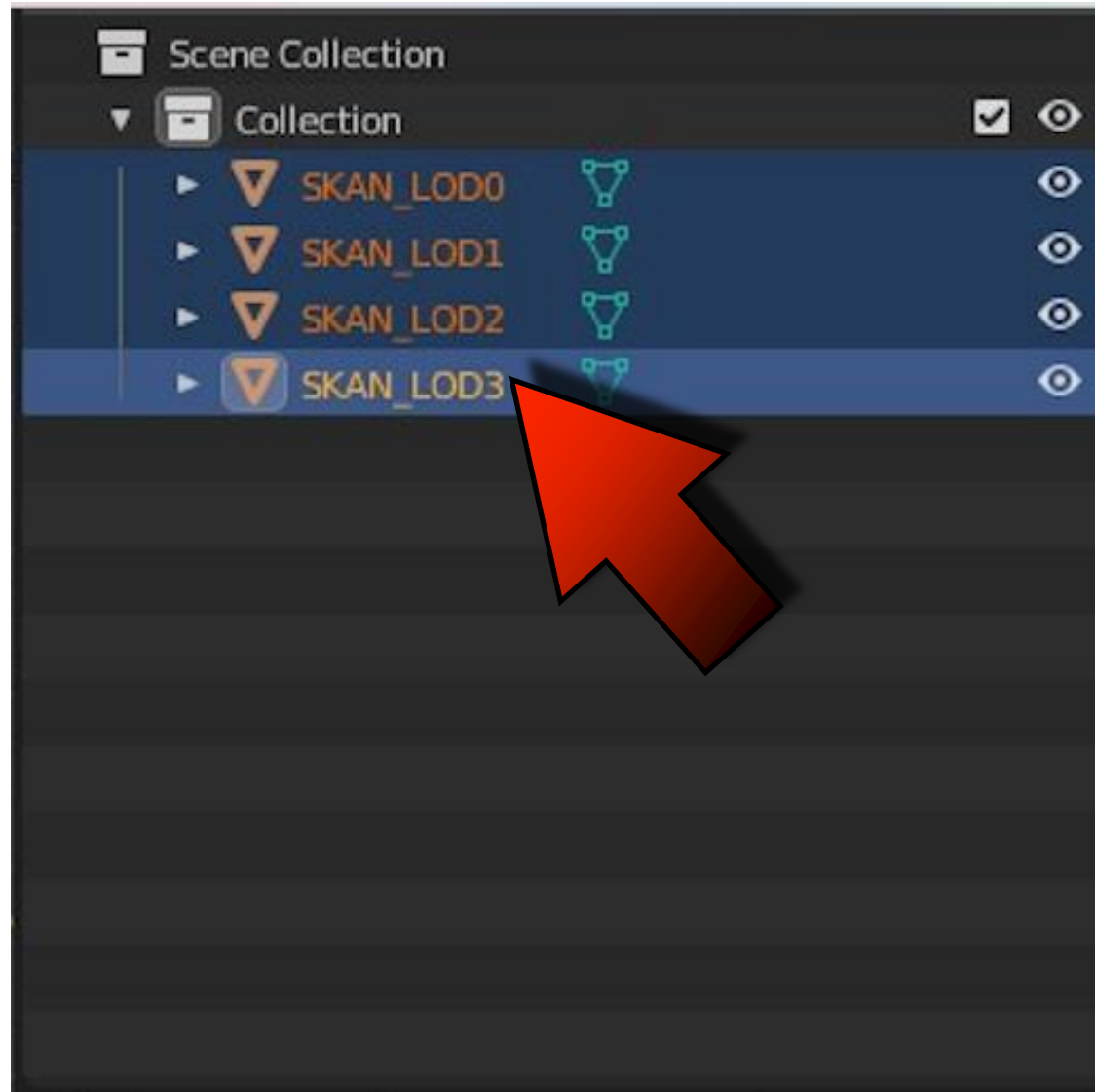
FOURTH MODEL

FACES: 38276

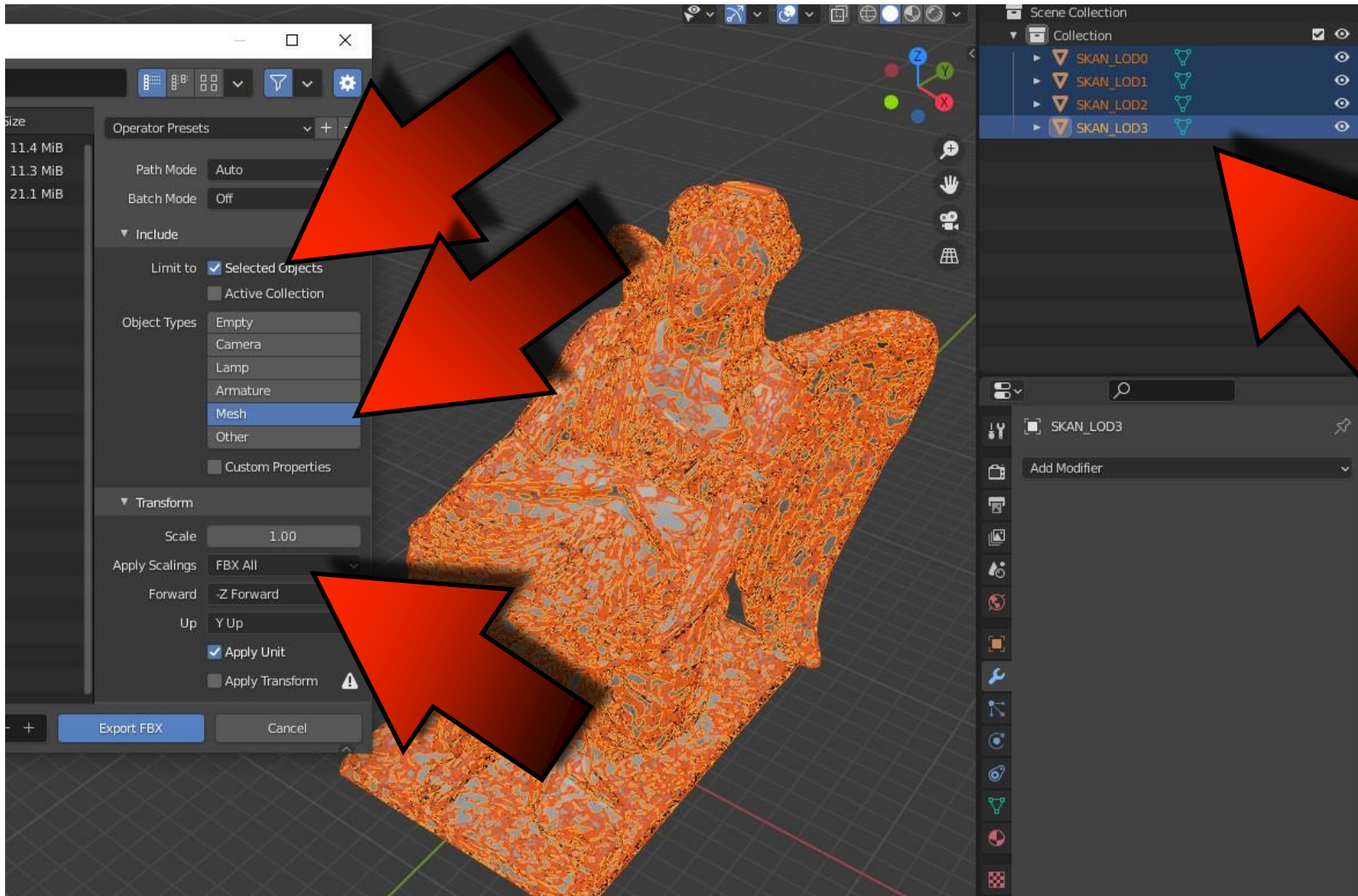


3D SCAN - FROM BLENDER TO UNITY

CHANGE NAMES AS PATTERN



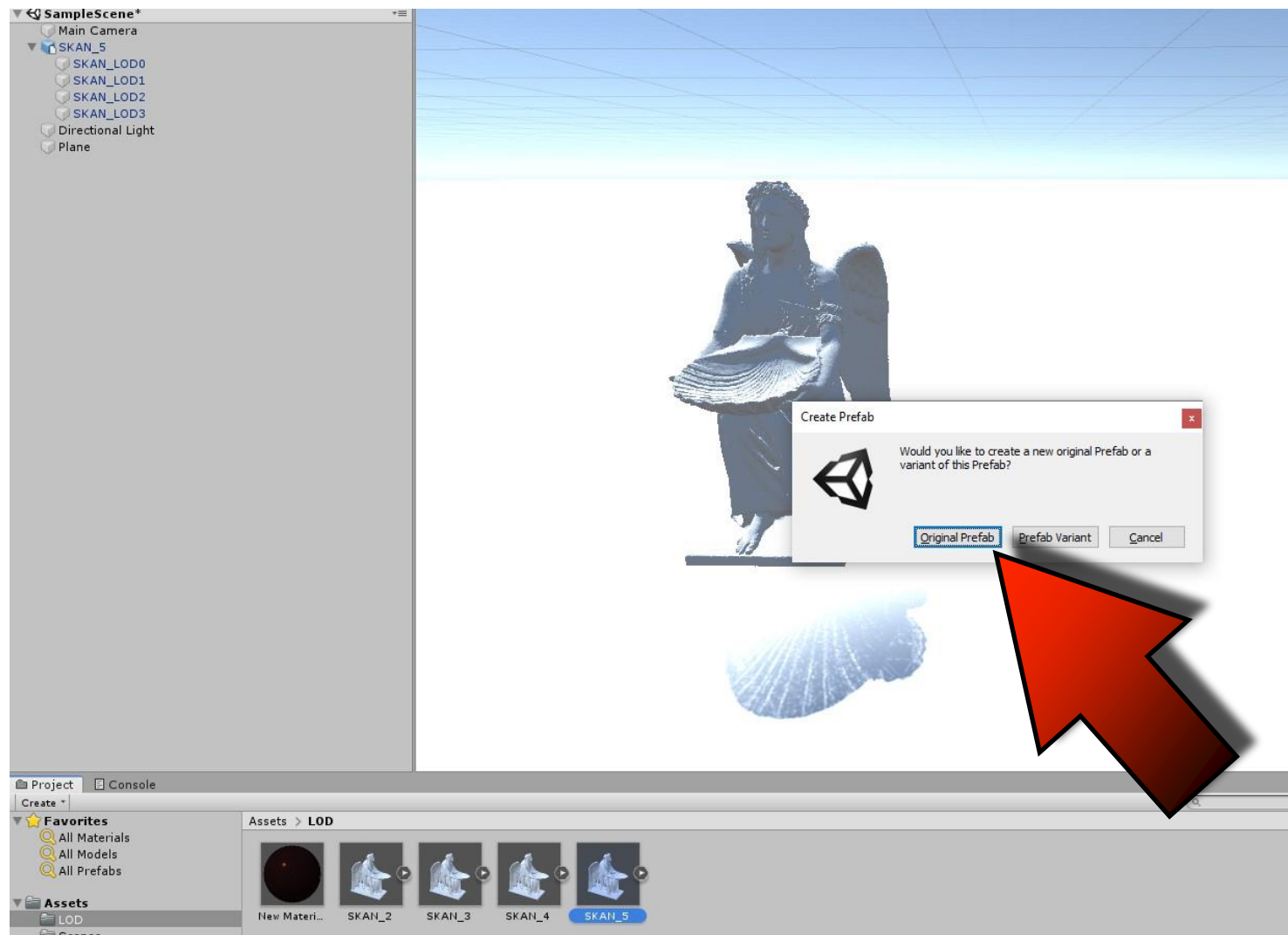
SELECT ALL AND EXPORT CORRECTLY TO FBX



3D SCAN - FROM BLENDER TO UNITY

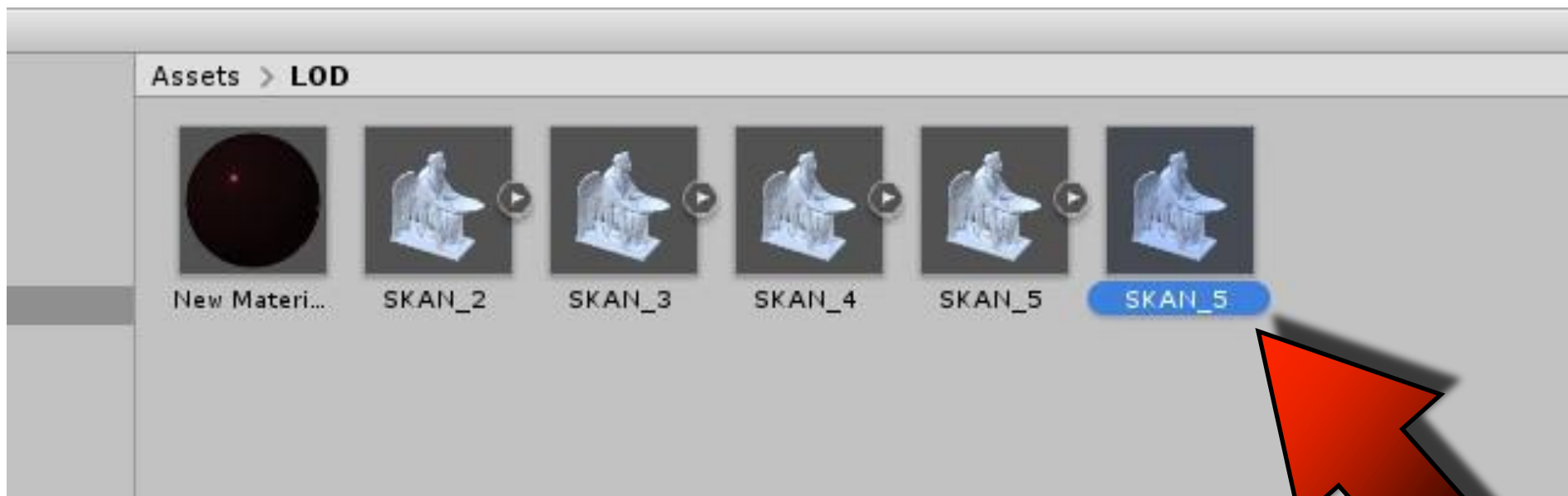
POWER OF AR AND VR

TRANSFER TO UNITY AND MAKE A PREFAB



3D SCAN - FROM BLENDER TO UNITY

DOUBLE CLICK ON THE PREFAB YOU HAVE CREATED



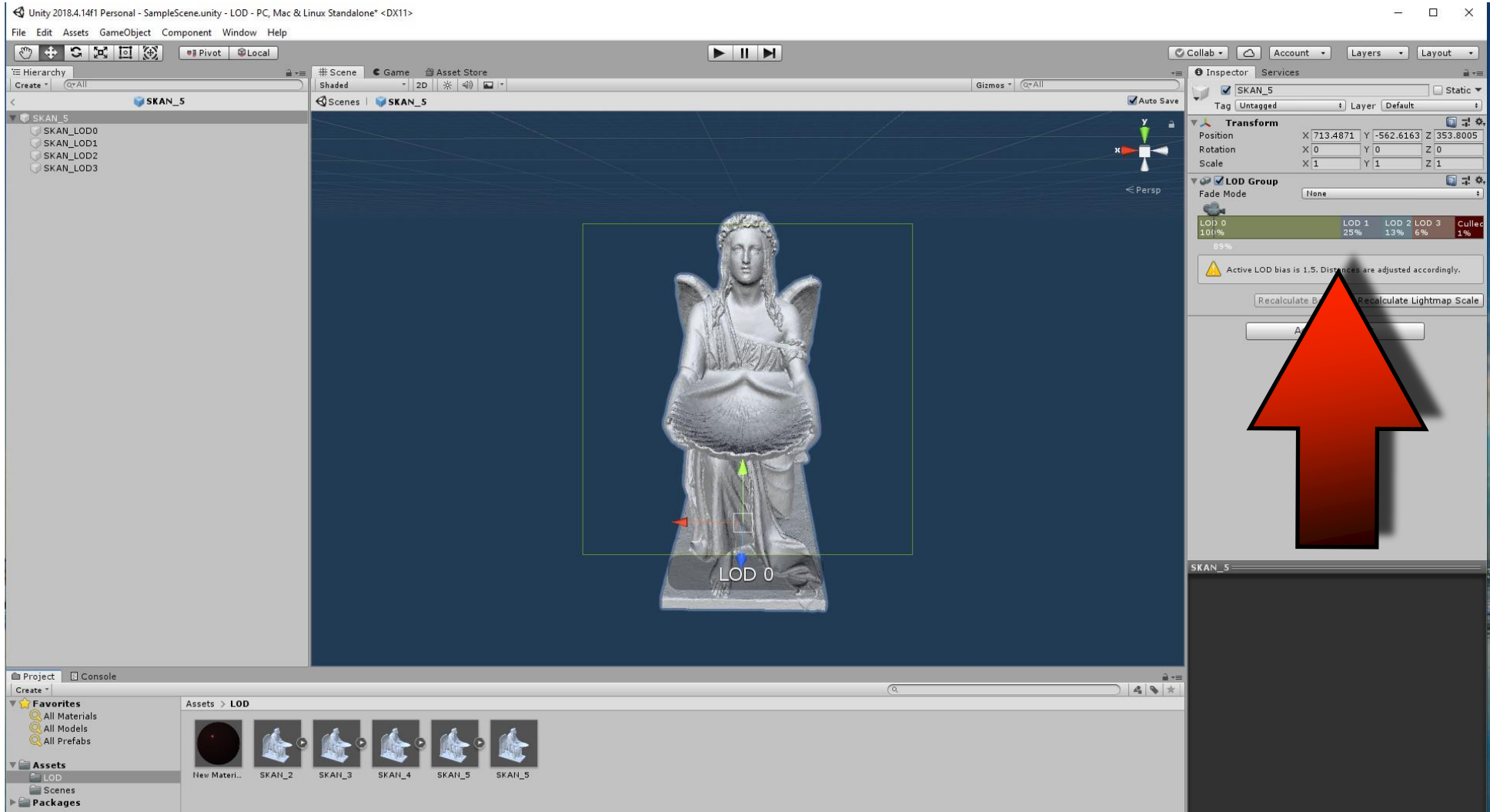


POWER OF AR AND VR



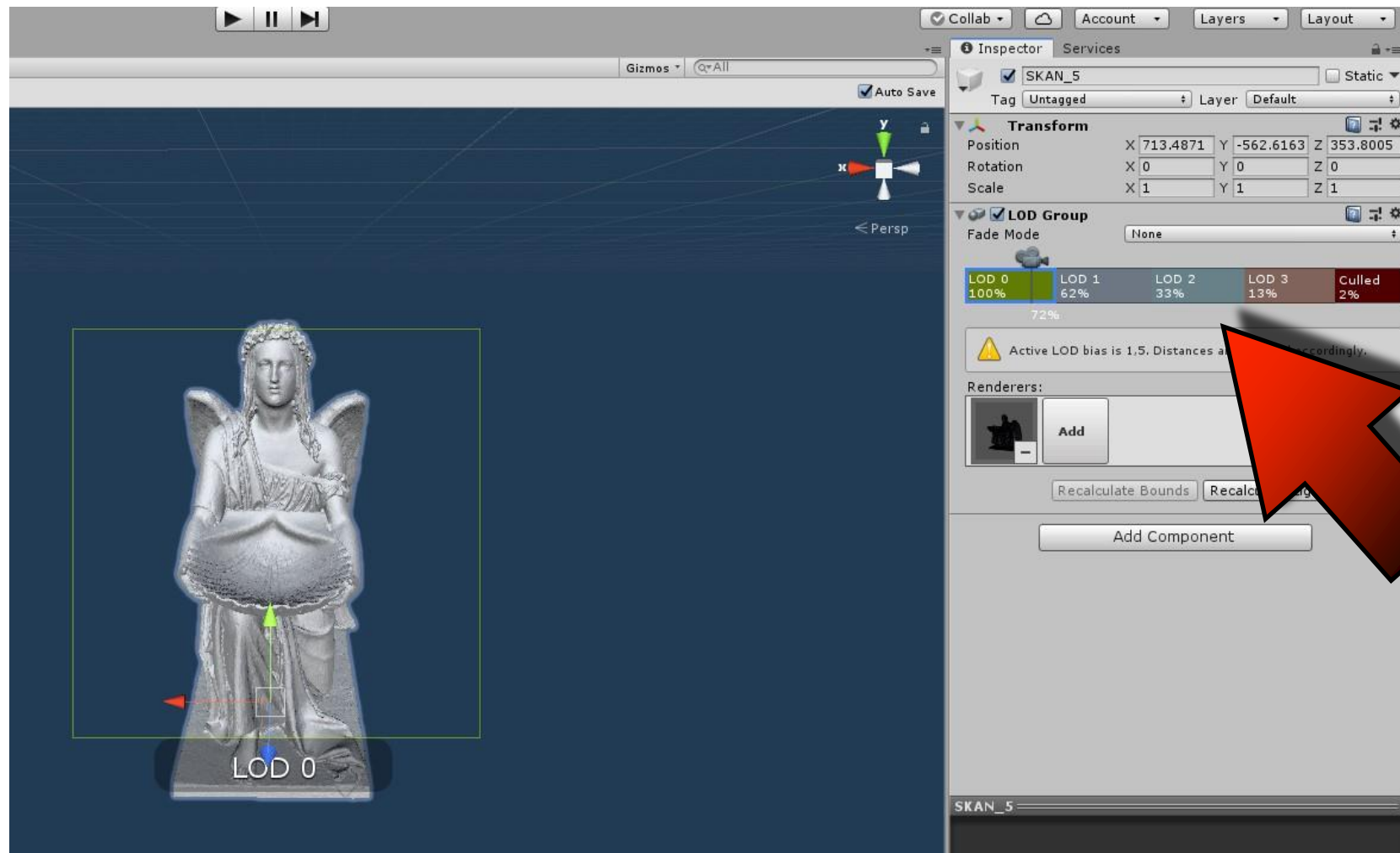
YOU WILL SEE

THE GRAPHICS SETTINGS DEPENDING ON THE DISTANCE FROM THE CAMERA

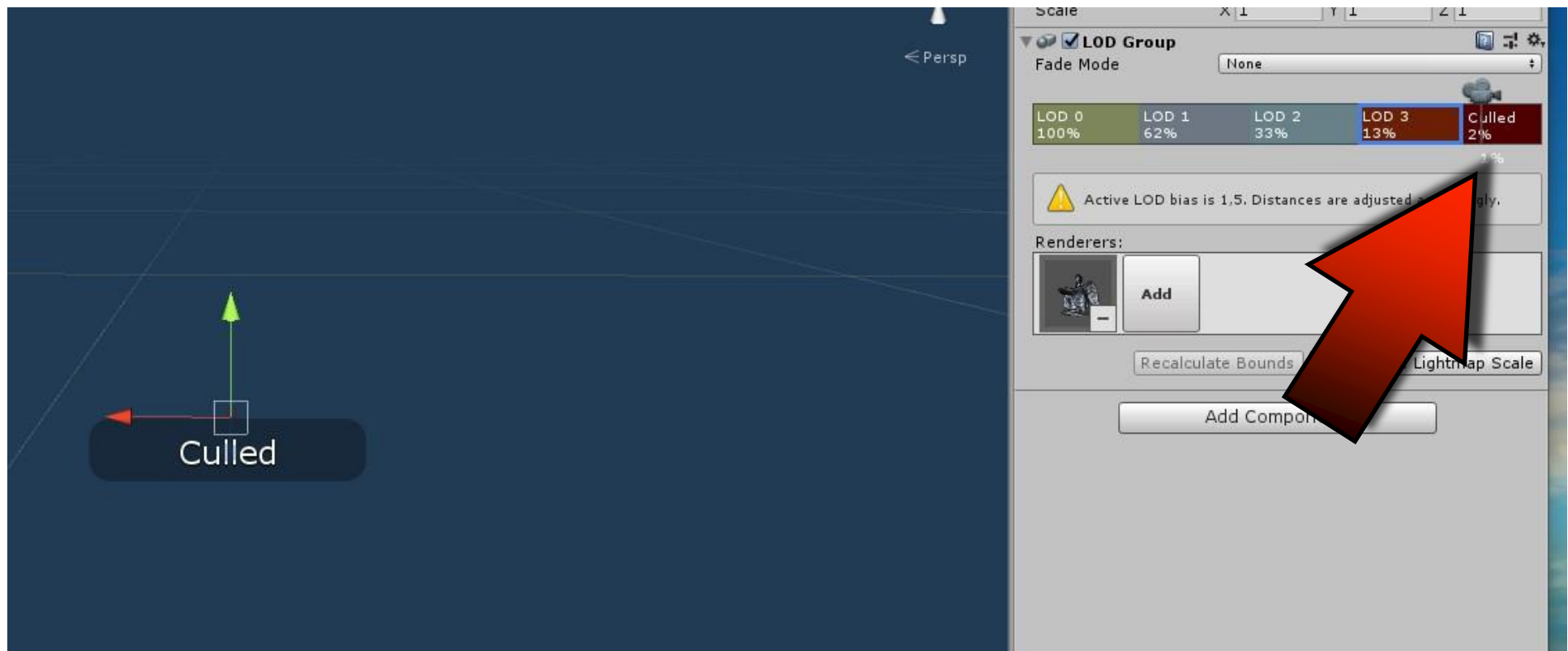


3D SCAN - FROM BLENDER TO UNITY

WE CAN CHANGE THE DISTANCE



CULLED WILL COMPLETELY TURN OFF THE VISIBILITY OF THE MODEL



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THANK YOU FOR YOUR ATTENTION



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