



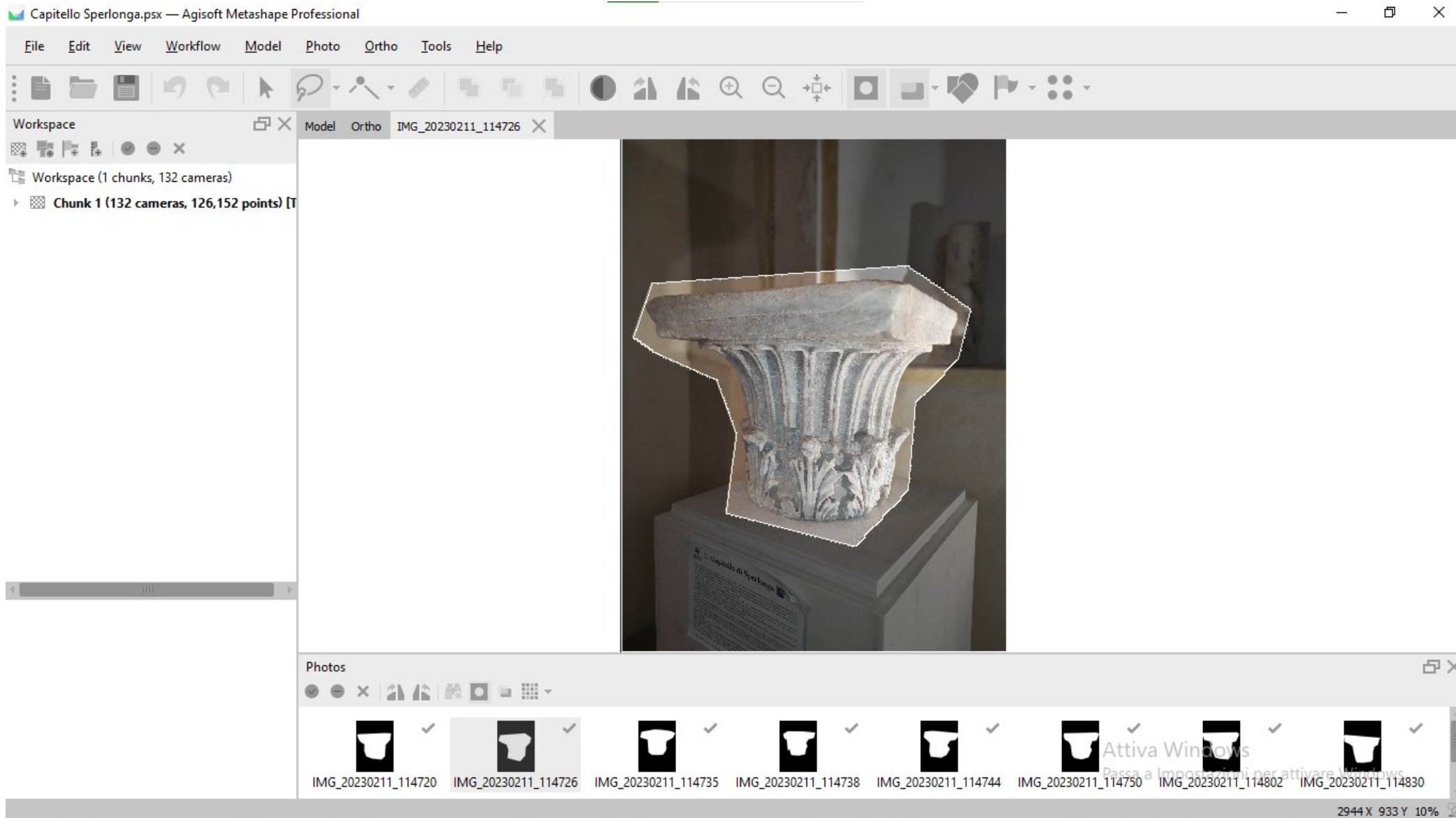
Corso di Fotogrammetria

A.S. 2022-2023

classe 3G “Design”

Prof. Federico Pesare





INSERIMENTO MASCHERA PER DELIMITARE L'AREA DI LAVORO DEL SOFTWARE METASHAPE



Workspace

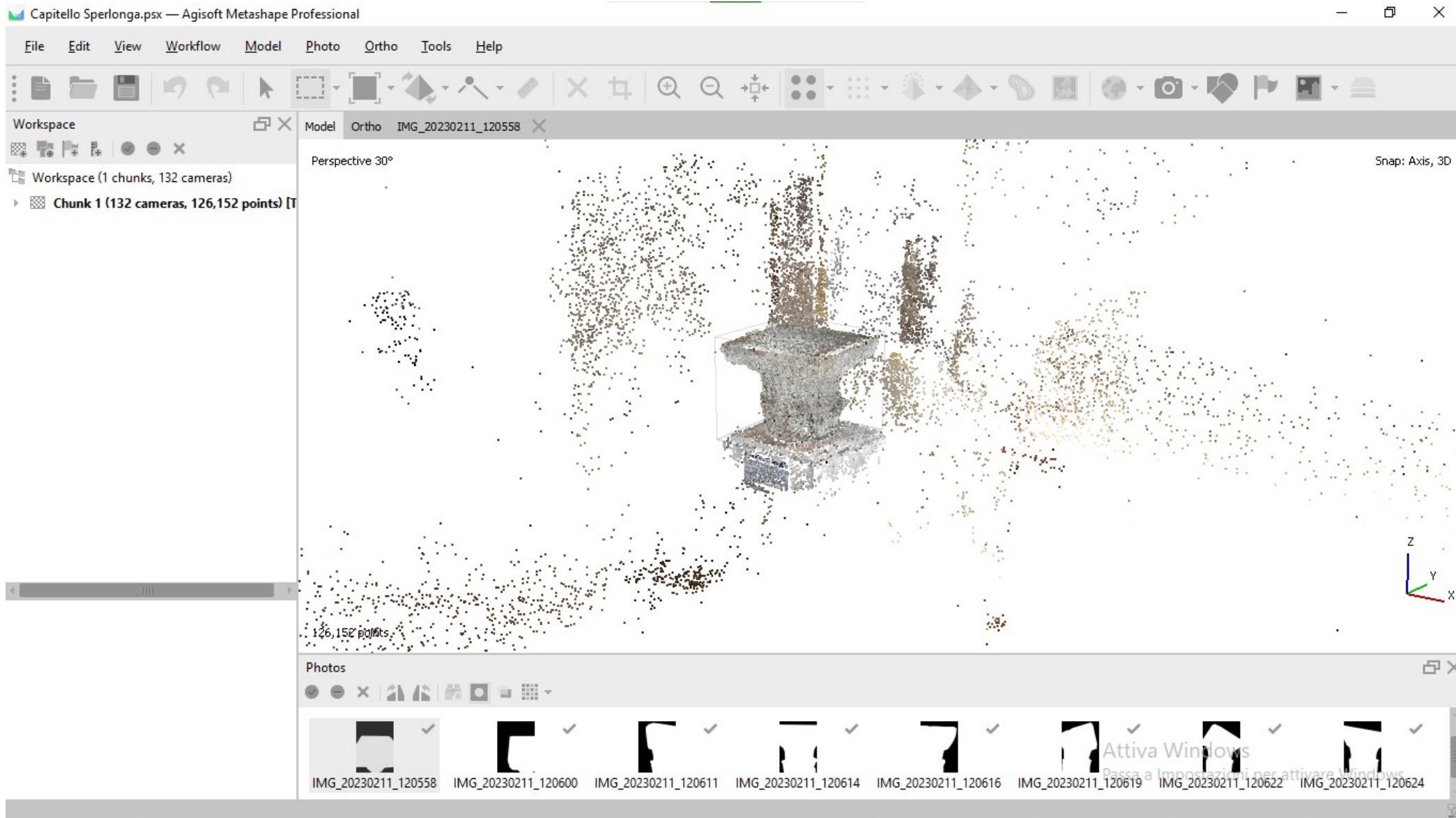
Model Ortho IMG_20230211_115305 X

Workspace (1 chunks, 132 cameras)

▶ Chunk 1 (132 cameras, 126,152 points) [T]



Thumbnail gallery showing a sequence of photos used for the 3D reconstruction. The thumbnails are arranged in two rows. The first row contains thumbnails for files: IMG_20230211_115156, IMG_20230211_115305, IMG_20230211_115308, IMG_20230211_115312, IMG_20230211_115318, IMG_20230211_115325, IMG_20230211_115329, and IMG_20230211_115331. The second row contains more thumbnails, some of which are partially obscured by a Windows watermark.



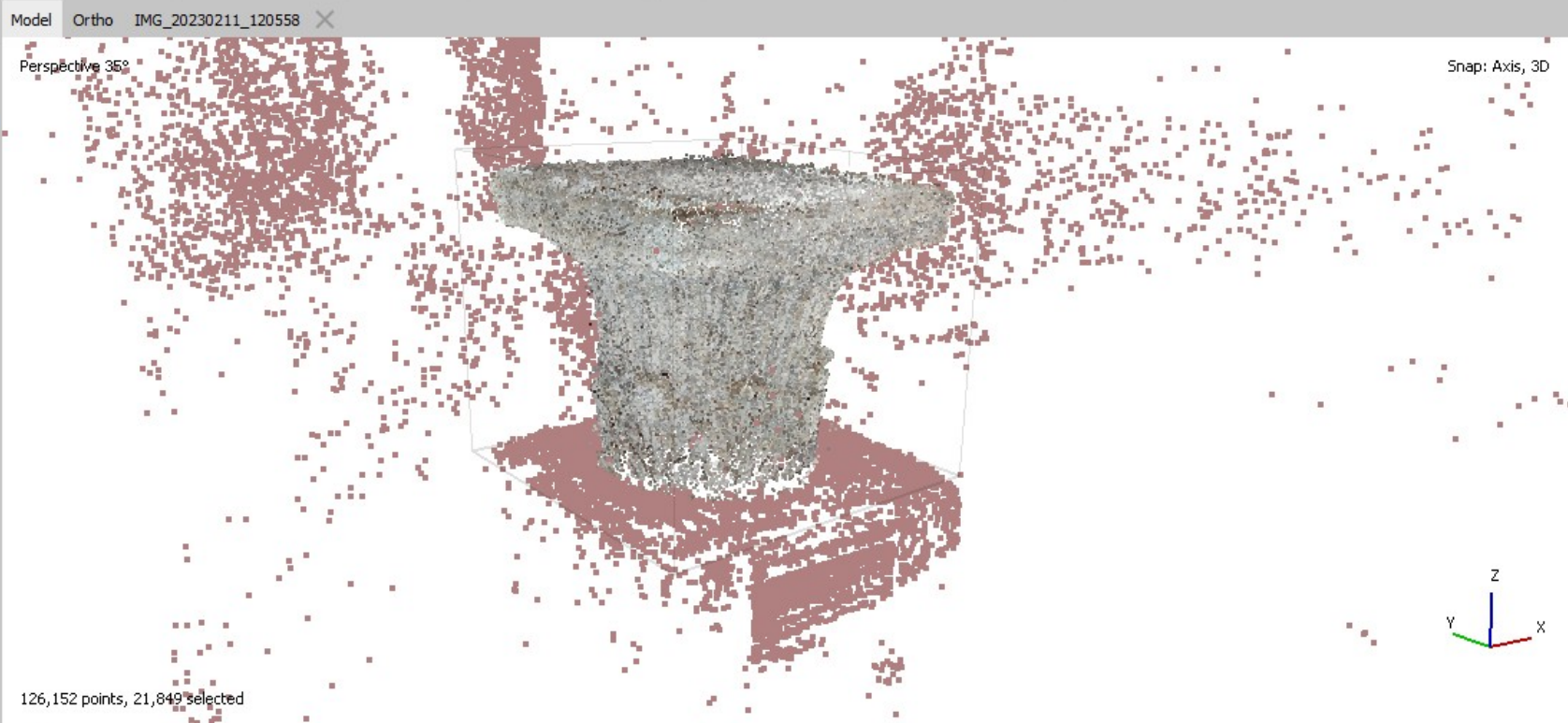
CREAZIONE DELLA PRIMA NUVOLA DI PUNTI



Workspace

Workspace (1 chunks, 132 cameras)

▶ **Chunk 1 (132 cameras, 126,152 points) [T]**



126,152 points, 21,849 selected

Photos

IMG_20230211_120558 IMG_20230211_120600 IMG_20230211_120611 IMG_20230211_120614 IMG_20230211_120616 IMG_20230211_120619 IMG_20230211_120622 IMG_20230211_120624

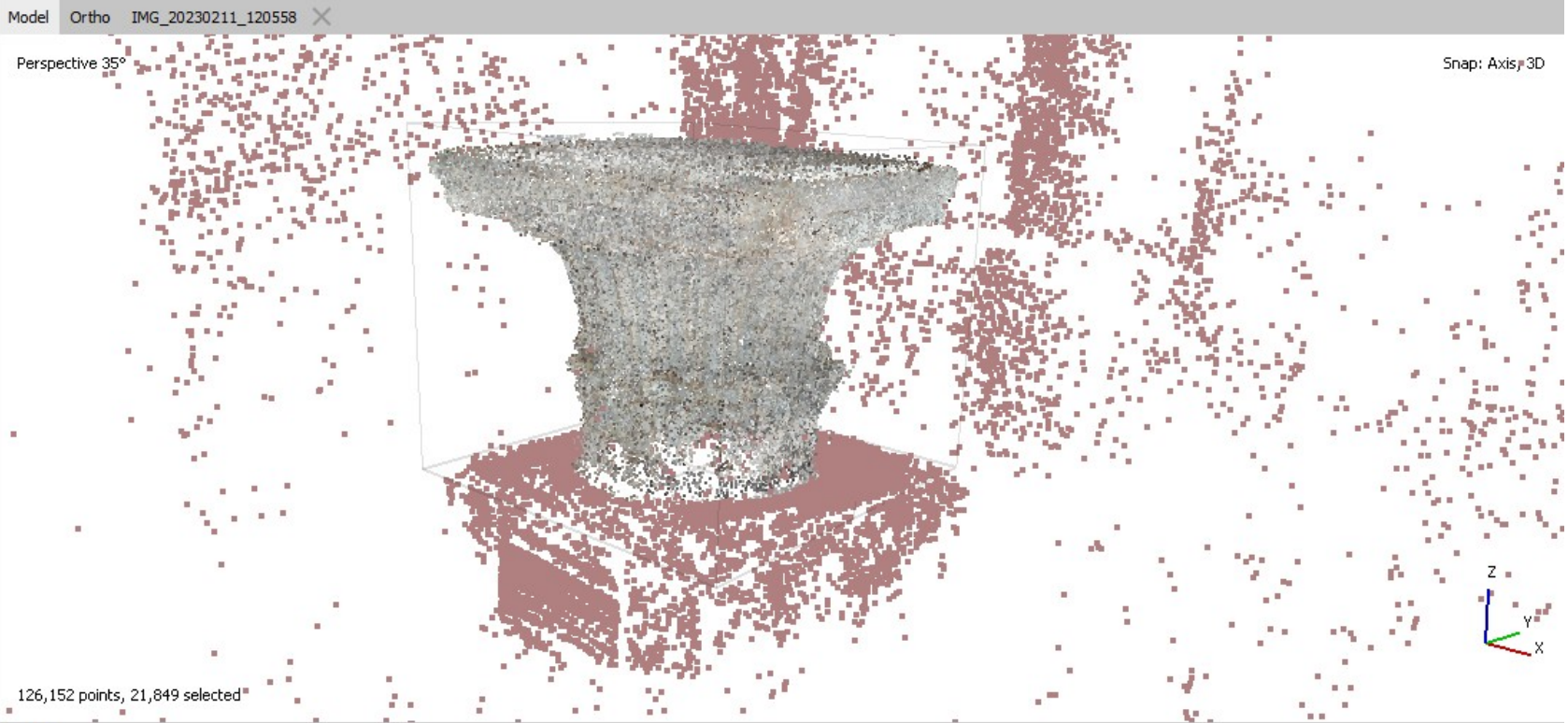
Attiva Windows
Passa a Impostazioni per attivare Windows



Workspace

Workspace (1 chunks, 132 cameras)

▶ Chunk 1 (132 cameras, 126,152 points) [T]

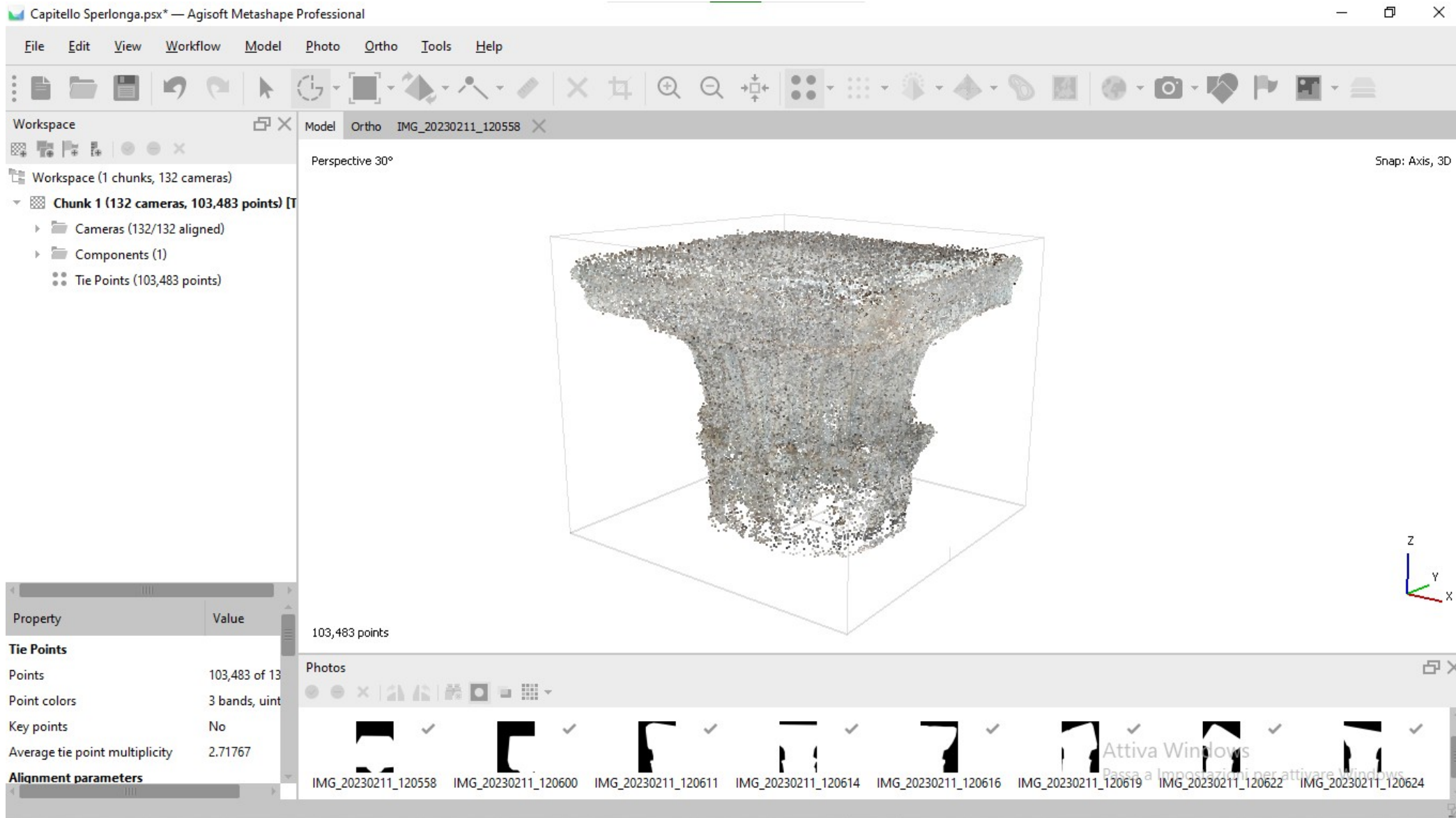


126,152 points, 21,849 selected

Photos



Attiva Windows
Passa a Impostazioni per attivare Windows



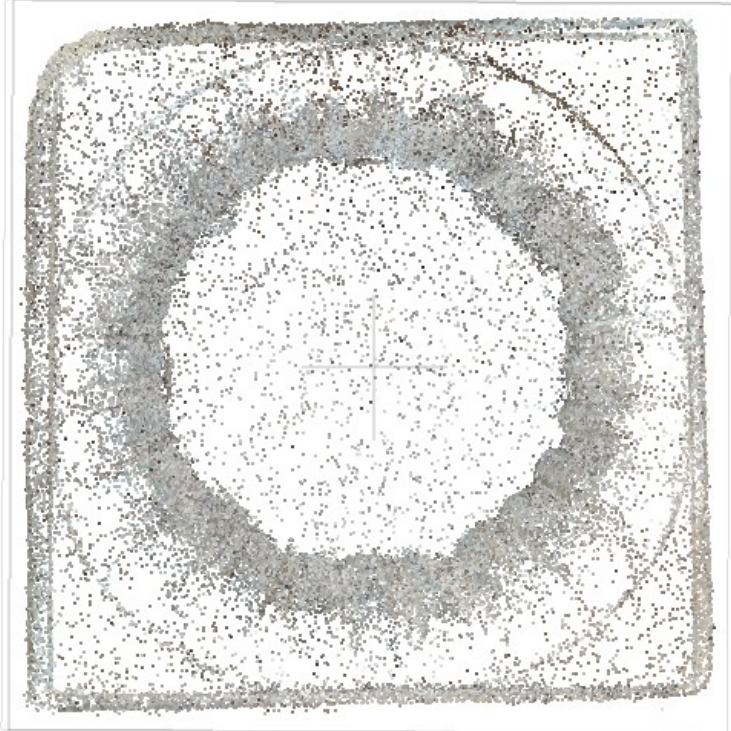
INTRODUZIONE DI ALCUNI FATTORI DI CORREZIONE DELLA NUVOLA



Workspace

- Workspace (1 chunks, 132 cameras)
- Chunk 1 (132 cameras, 103,103 points) [T]
 - Cameras (132/132 aligned)
 - Components (1)
 - Tie Points (103,103 points)

Orthographic



Snap: Axis, 3D

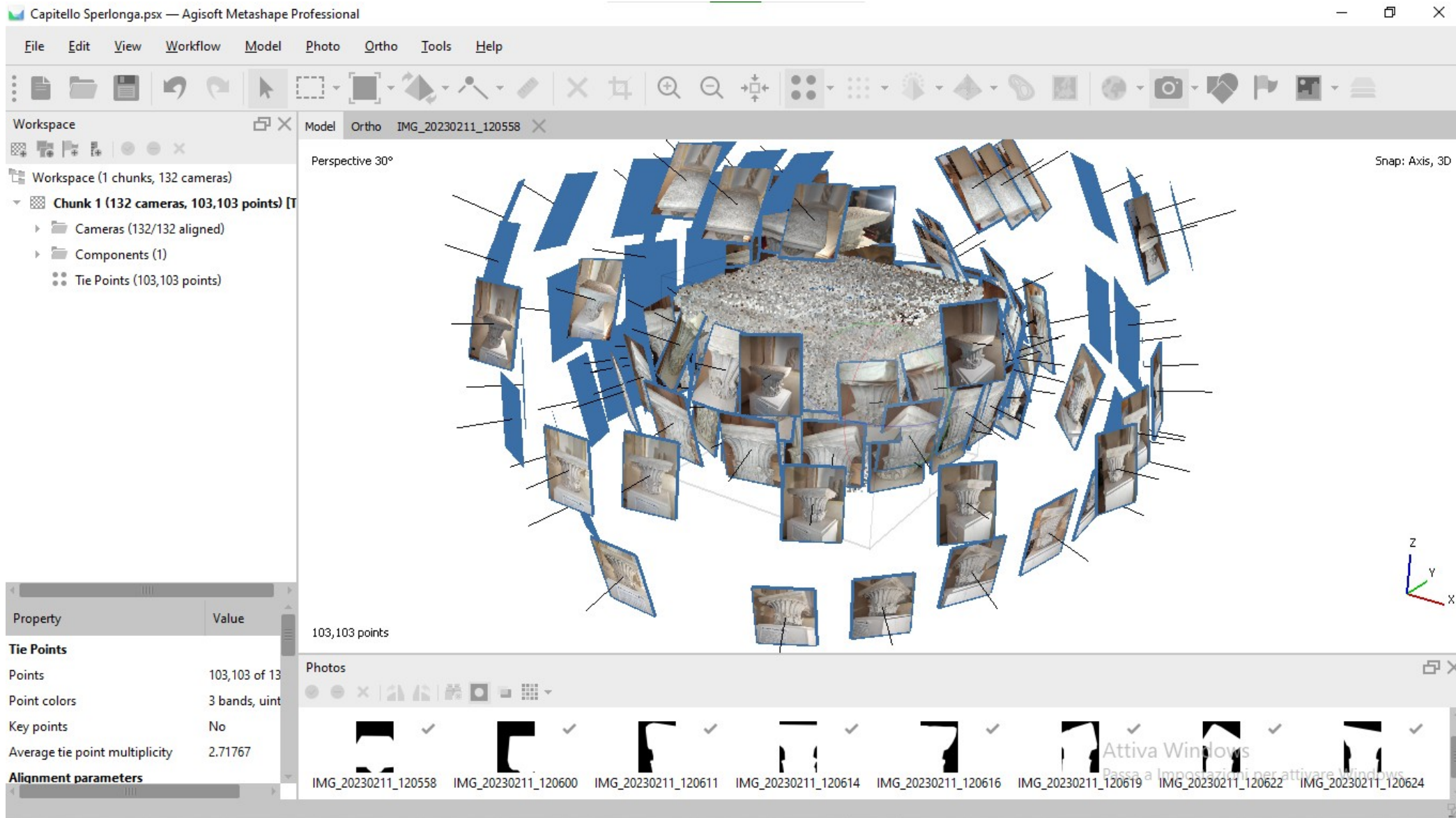


Property	Value
Tie Points	
Points	103,103 of 13
Point colors	3 bands, uint
Key points	No
Average tie point multiplicity	2.71767
Alignment parameters	

Photos

IMG_20230211_120558 IMG_20230211_120600 IMG_20230211_120611 IMG_20230211_120614 IMG_20230211_120616 IMG_20230211_120619 IMG_20230211_120622 IMG_20230211_120624

Attiva Windows
Passa a Impostazioni per attivare Windows



VISUALIZZAZIONE DELLO SCHEMA DI COLLEGAMENTO TRA NUVOLA DI PUNTI E IMMAGINI FOTOGRAFICHE



Workspace

- Workspace (1 chunks, 132 cameras)
- Chunk 1 (132 cameras, 103,103 points) [T]
 - Cameras (132/132 aligned)
 - Components (1)
 - Tie Points (103,103 points)



Property	Value
Tie Points	
Points	103,103 of 13
Point colors	3 bands, uint
Key points	No
Average tie point multiplicity	2.71767
Alignment parameters	

Photos

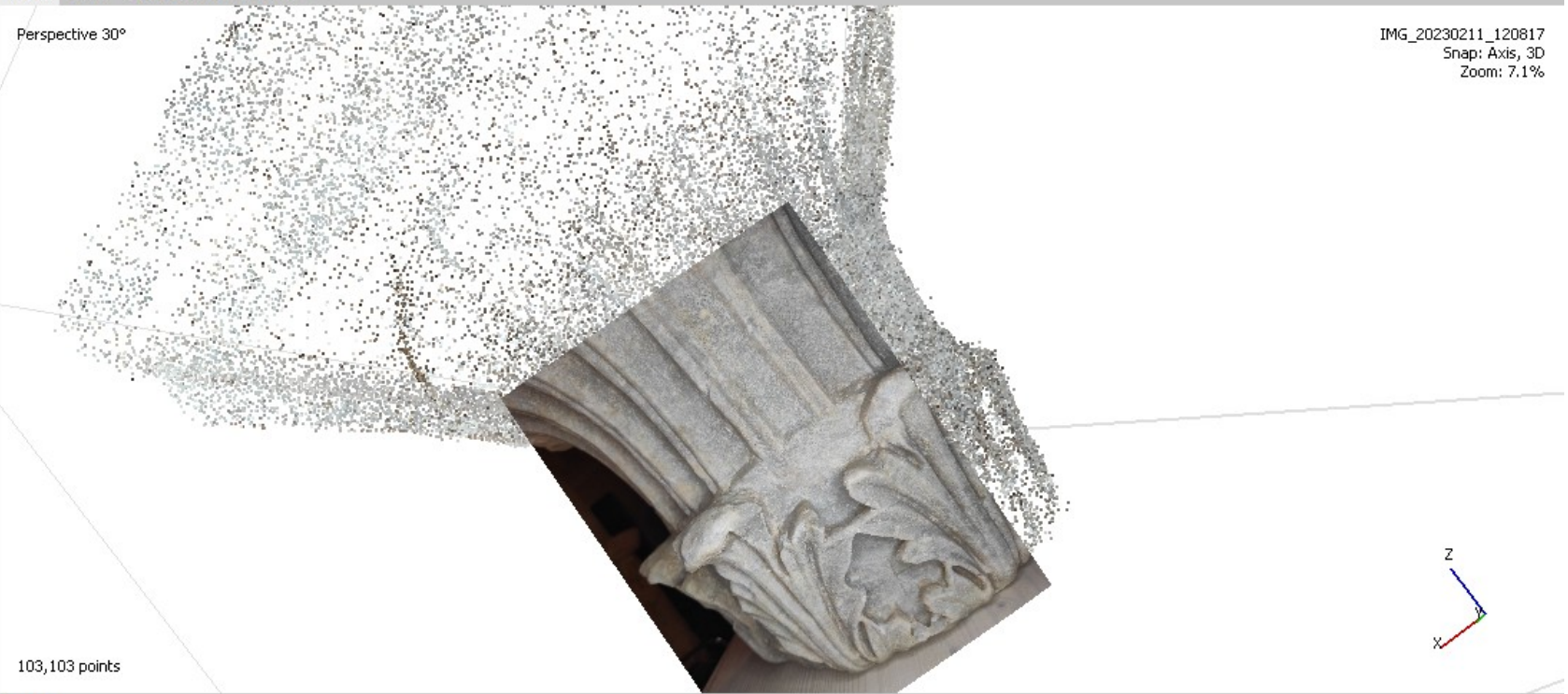
IMG_20230211_120558 IMG_20230211_120600 IMG_20230211_120611 IMG_20230211_120614 IMG_20230211_120616 IMG_20230211_120619 IMG_20230211_120622 IMG_20230211_120624

Attiva Windows
Passa a Impostazioni per attivare Windows



Workspace

- Workspace (1 chunks, 132 cameras)
- Chunk 1 (132 cameras, 103,103 points) [T]
 - Cameras (132/132 aligned)
 - Components (1)
 - Tie Points (103,103 points)



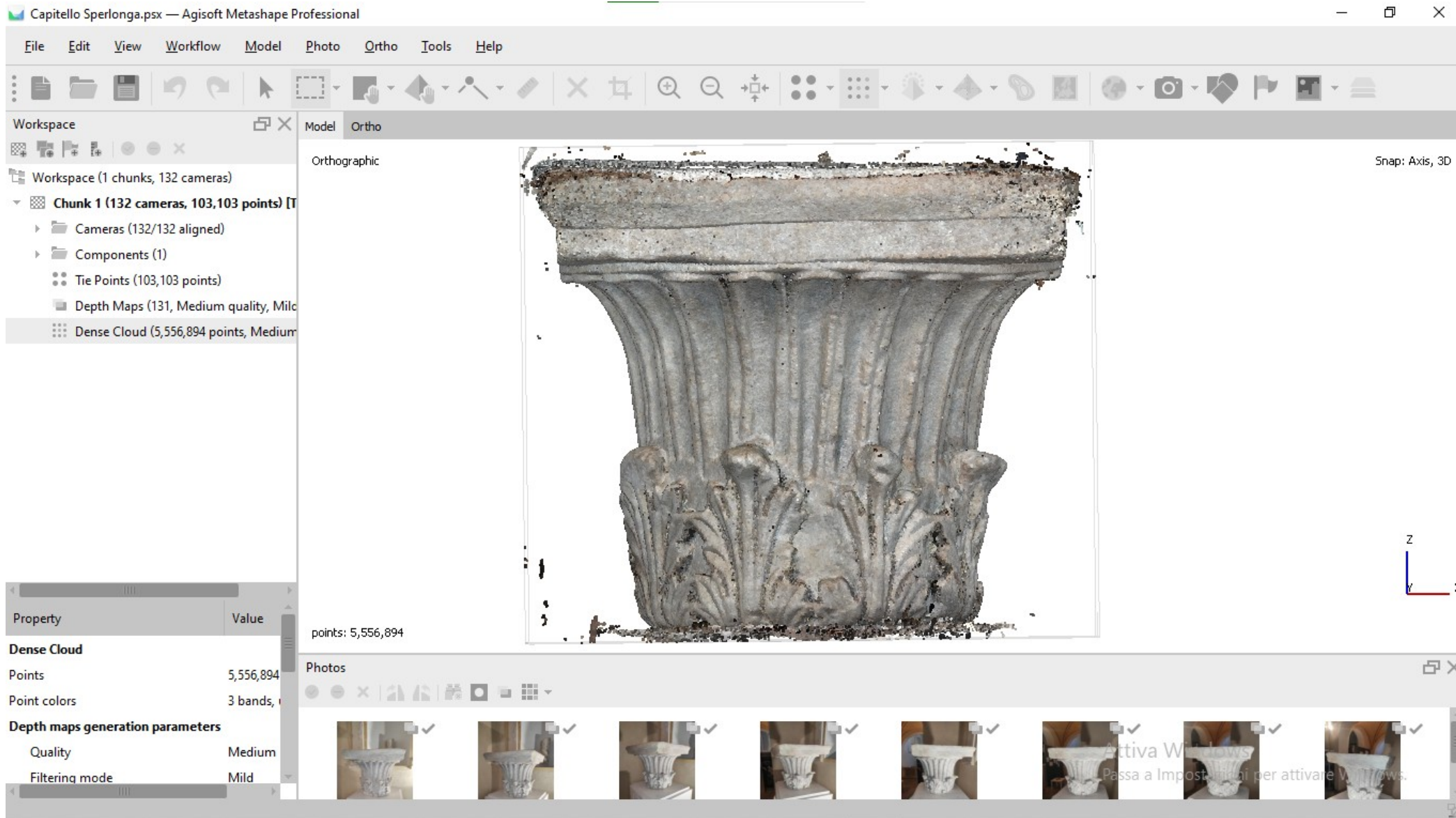
IMG_20230211_120817
Snap: Axis, 3D
Zoom: 7.1%

Property	Value
Tie Points	
Points	103,103 of 13
Point colors	3 bands, uint
Key points	No
Average tie point multiplicity	2.71767
Alignment parameters	

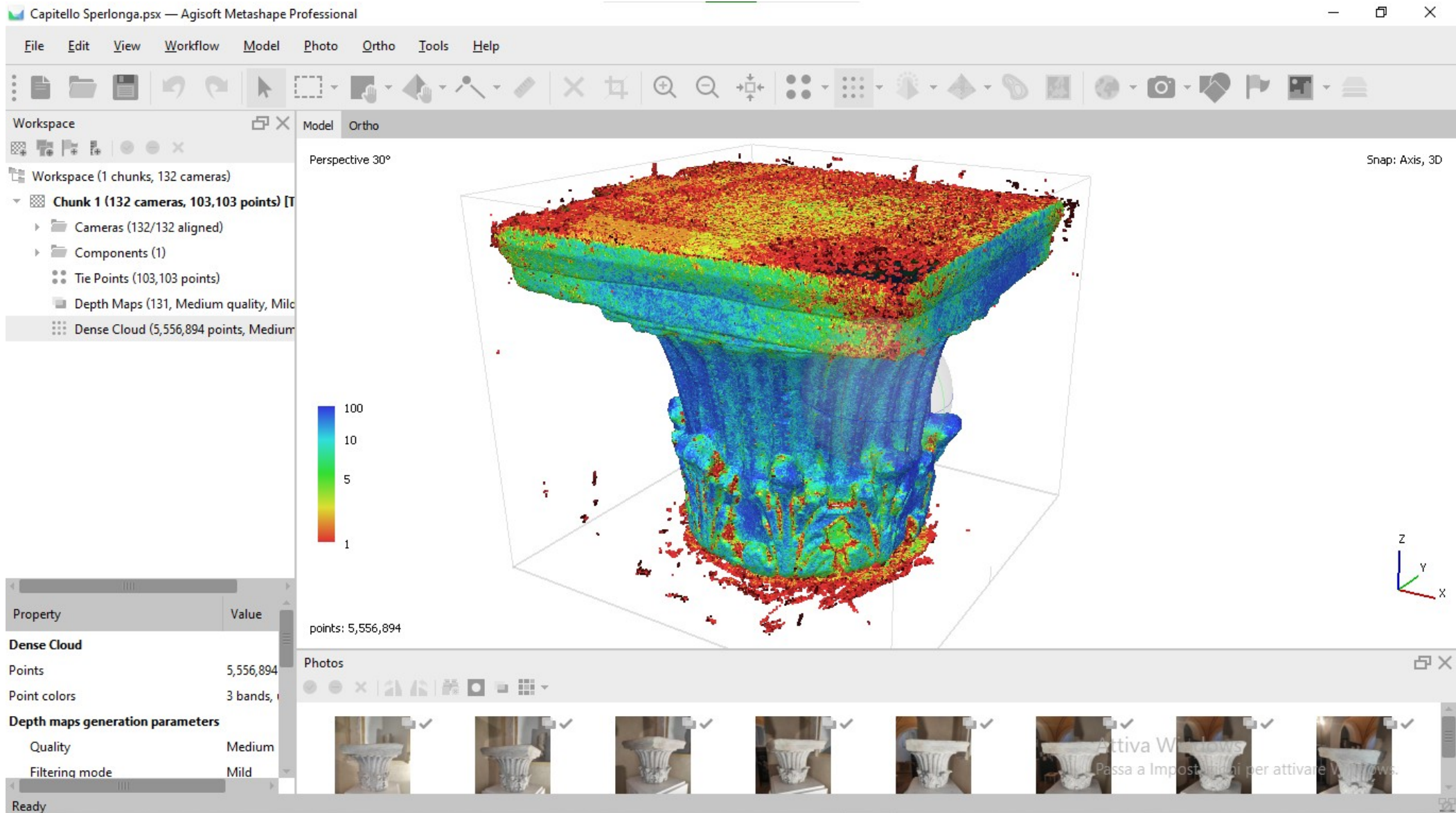
Photos

IMG_20230211_120558 IMG_20230211_120600 IMG_20230211_120611 IMG_20230211_120614 IMG_20230211_120616 IMG_20230211_120619 IMG_20230211_120622 IMG_20230211_120624

Attiva Windows
Passa a Impostazioni per attivare Windows



VISUALIZZAZIONE DEL MODELLO 3D DI QUALITA' MEDIA



ANALISI DEL MODELLO 3D



Workspace

Workspace (1 chunks, 132 cameras)

▶ Chunk 1 (132 cameras, 103,103 points) [T]

Perspective 30°

Snap: Axis, 3D

points: 4,449,222

Photos



Workspace

Workspace (1 chunks, 132 cameras)

▶ **Chunk 1 (132 cameras, 103,103 points)**

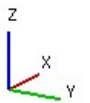
Model Ortho

Perspective 30°

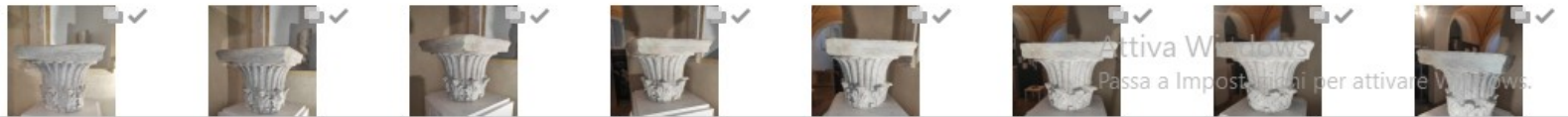
Snap: Axis, 3D



points: 4,449,222



Photos

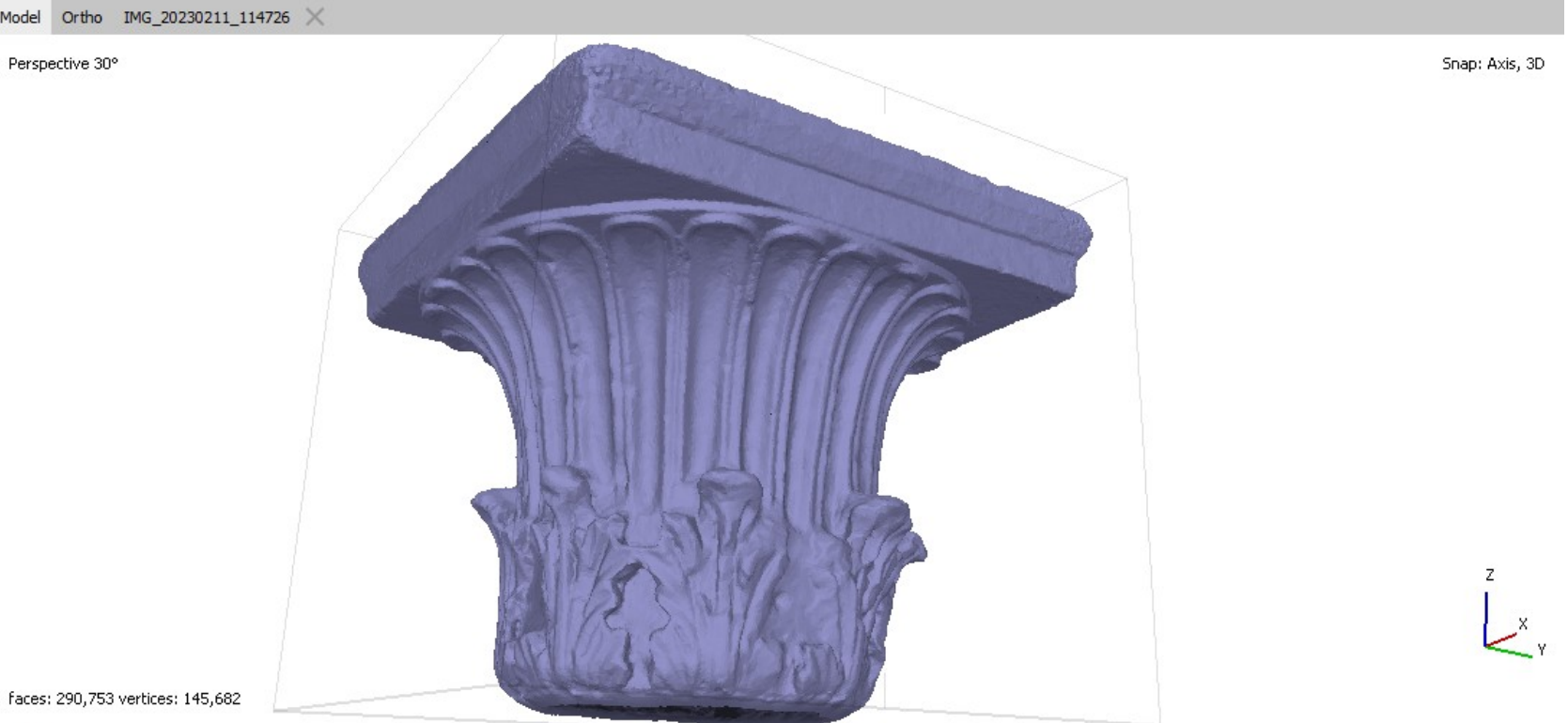


Attiva Windows
Passa a Impostazioni per attivare Windows.



Workspace

- Workspace (1 chunks, 132 cameras)
- Chunk 1 (132 cameras, 103,103 points) [T]
 - Cameras (132/132 aligned)
 - Components (1)
 - Tie Points (103,103 points)
 - Depth Maps (131, Medium quality, Mild)
 - Dense Cloud (4,361,319 points, Medium)
 - 3D Model (290,753 faces, Medium quality)



Faces: 290,753 vertices: 145,682

Property	Value
Dense Cloud	
Points	4,361,319
Point colors	3 bands, ...
Depth maps generation parameters	
Quality	Medium
Filtering mode	Mild

Photos



Workspace

- Workspace (1 chunks, 132 cameras)
- Chunk 1 (132 cameras, 103,103 points) [T]
 - Cameras (132/132 aligned)
 - Components (1)
 - Tie Points (103,103 points)
 - Depth Maps (131, Medium quality, Mild)
 - Dense Cloud (4,361,319 points, Medium)
 - 3D Model (290,753 faces, Medium quality)



Faces: 290,753 vertices: 145,682

Property	Value
Dense Cloud	
Points	4,361,319
Point colors	3 bands, ...
Depth maps generation parameters	
Quality	Medium
Filtering mode	Mild

Photos

Attiva Windows
Passa a Impostazioni per attivare Windows.



Workspace

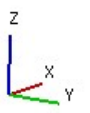
Workspace (1 chunks, 132 cameras)

▶ **Chunk 1 (132 cameras, 103,103 points)**

Model Ortho

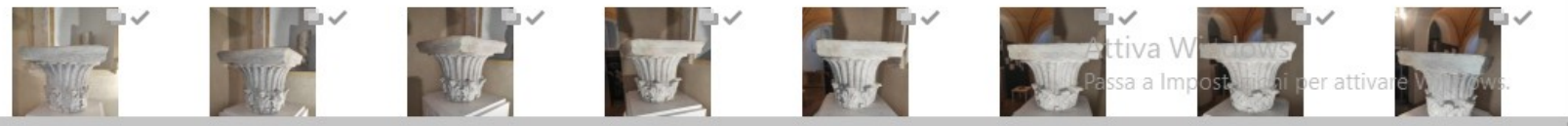
Perspective 30°

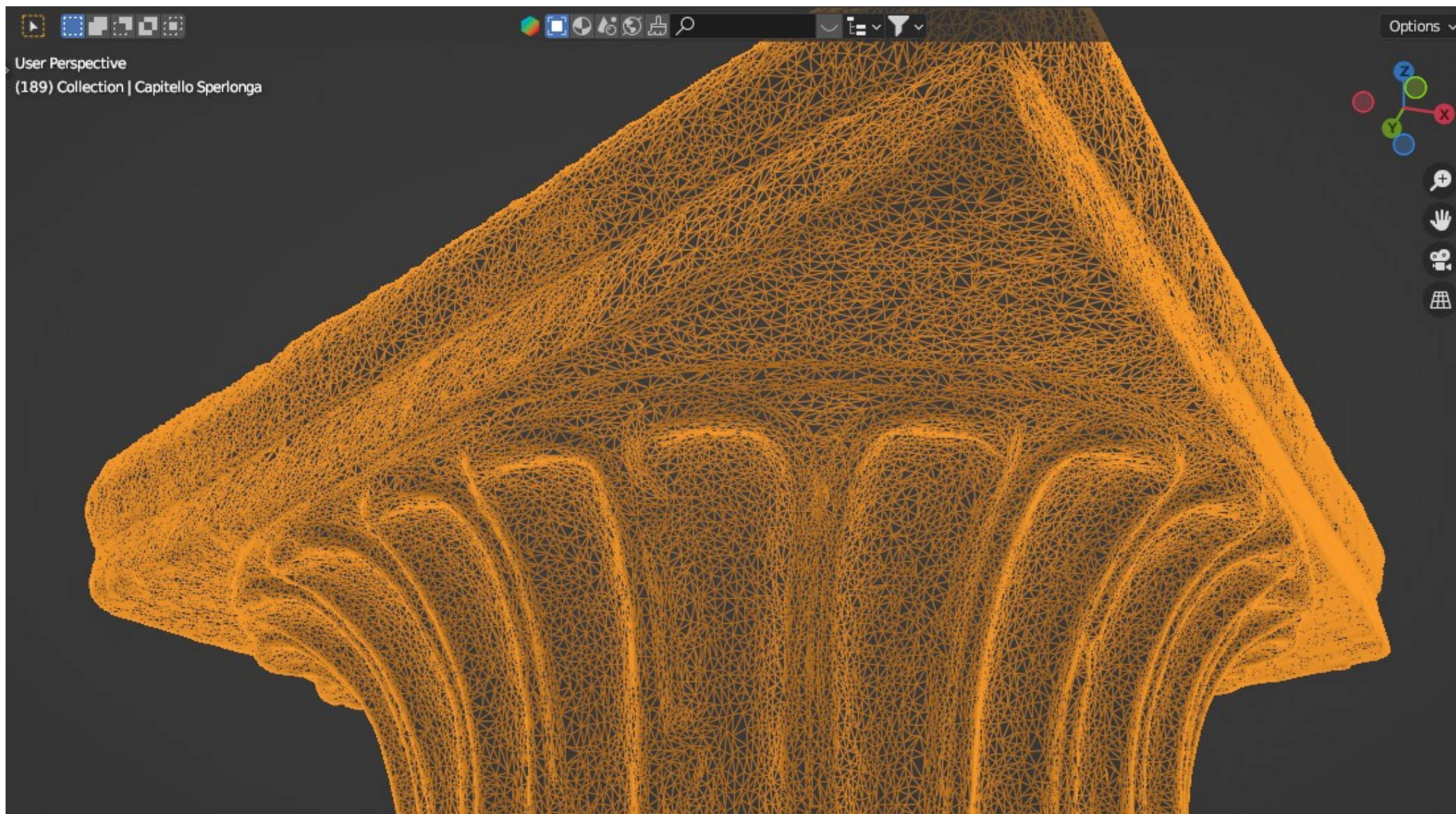
Snap: Axis, 3D



Faces: 711,262 vertices: 355,683

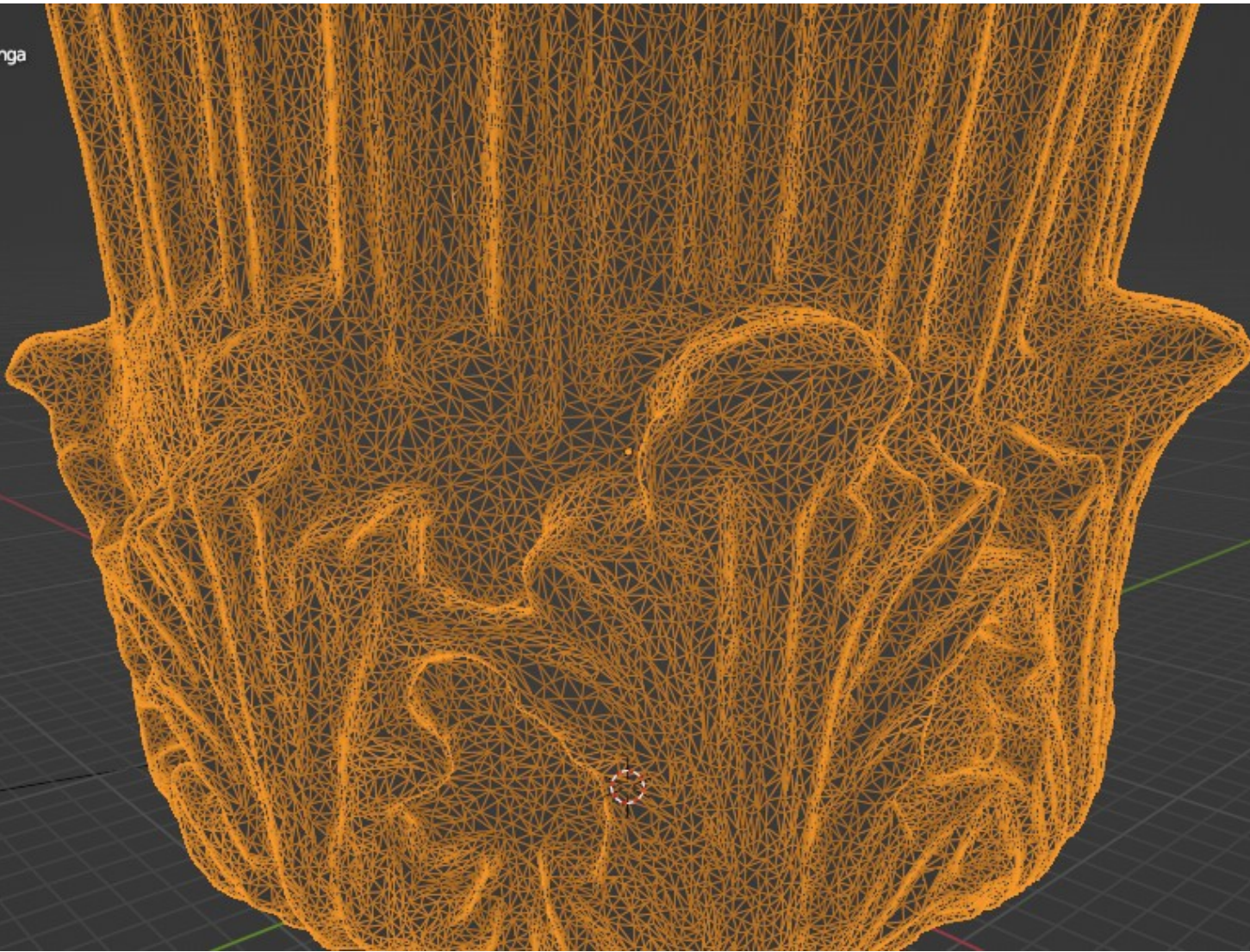
Photos

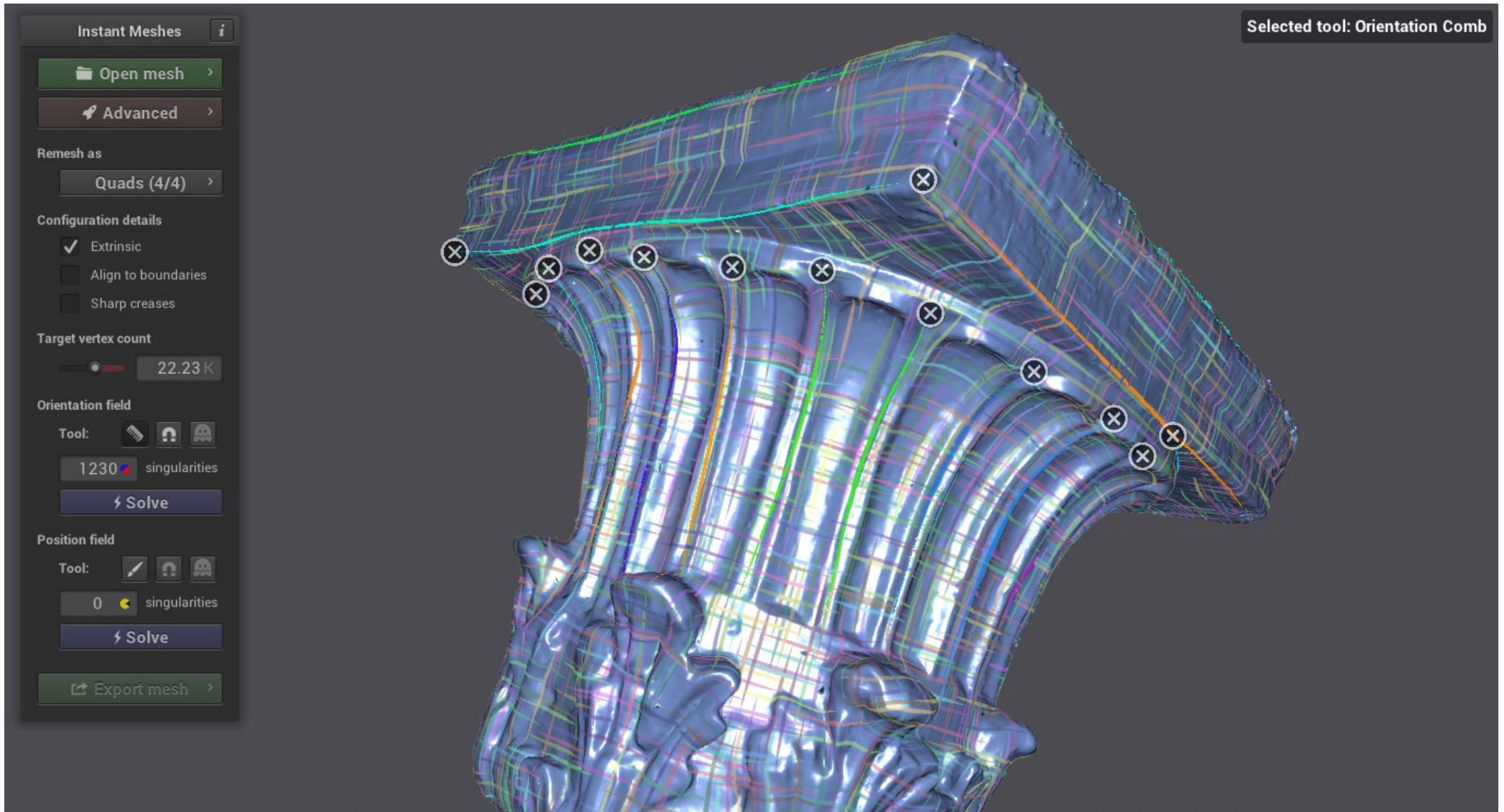




VISUALIZZAZIONE DEL MODELLO 3D COMPLETO DI FACCE TRIANGOLARI

User Perspective
(189) Collection | Capitello Sperlonga





EDITING DELLA FORMA PER ALLEGGERIRE IL MODELLO 3D

Instant Meshes i

Open mesh >

Advanced >

Remesh as

Quads (4/4) >

Configuration details

- Extrinsic
- Align to boundaries
- Sharp creases

Target vertex count

22.23 K

Orientation field

Tool:   

1230 singularities

Solve

Position field

Tool:   

0 singularities

Solve

Export mesh >

Selected tool: Orientation Comb

