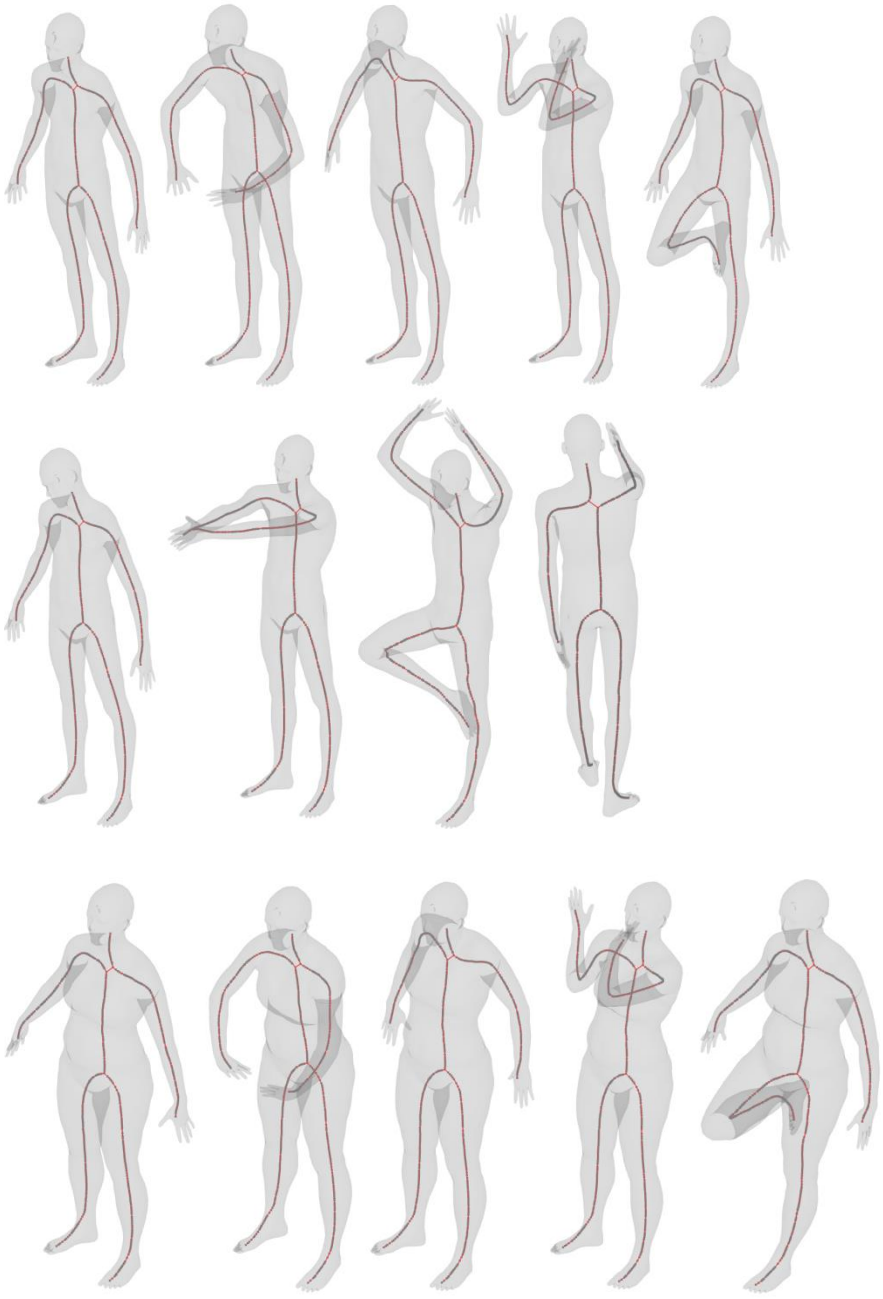
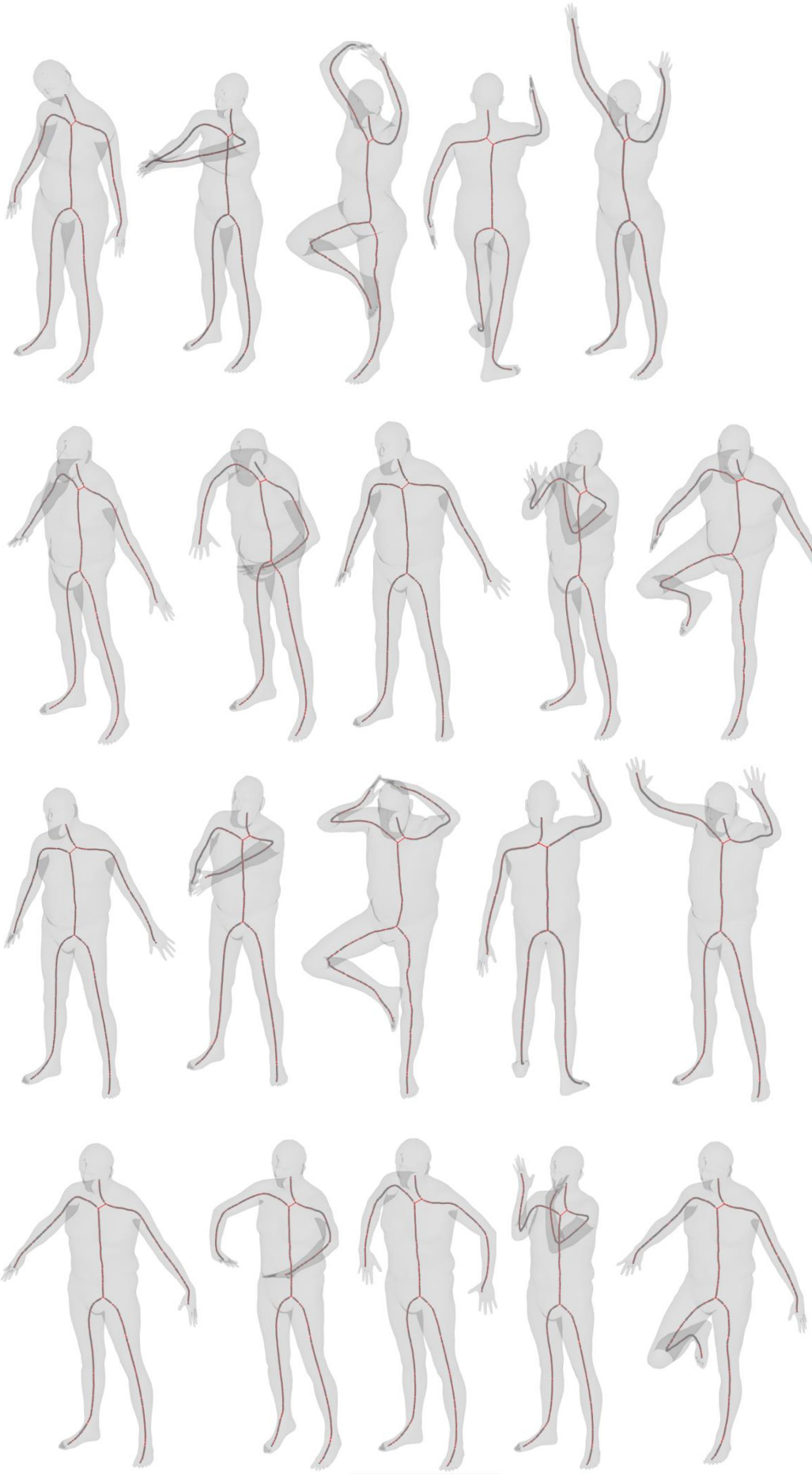
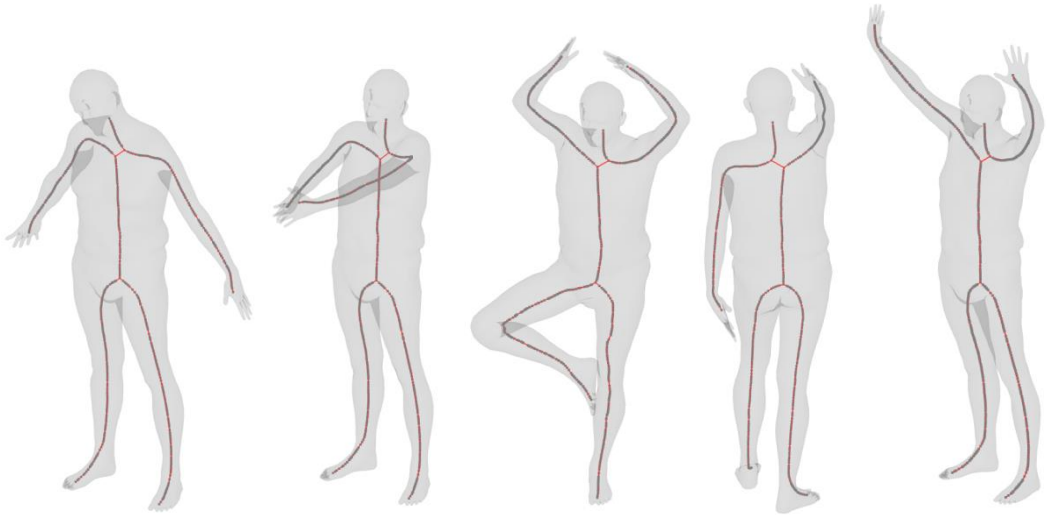
3D Skeleton Transfer for Meshes and Clouds

Supplementary File

1. Intra and Inter-Subject Skeleton Transfer Results for 39 Input Meshes from MPI FAUST Dataset

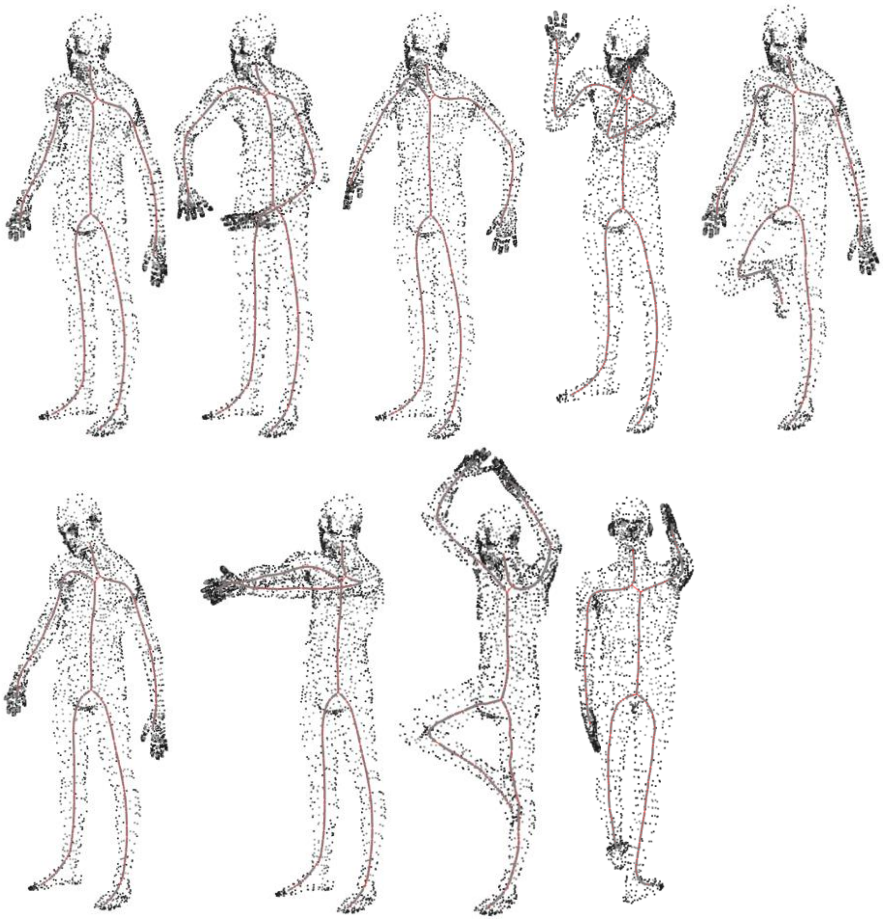


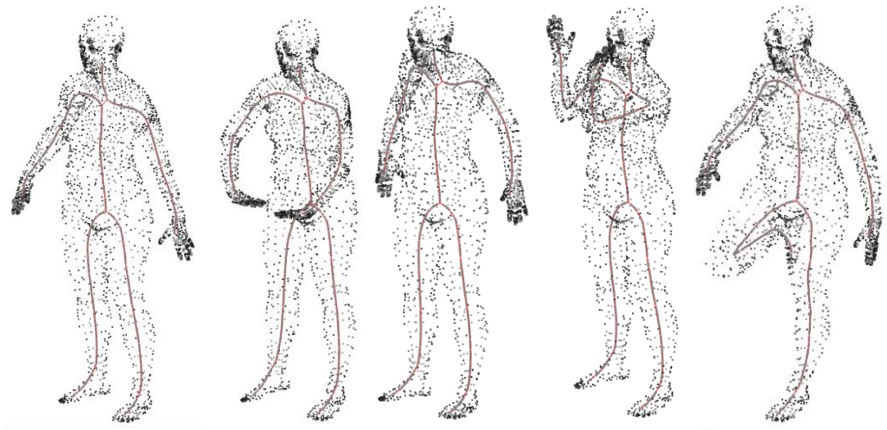


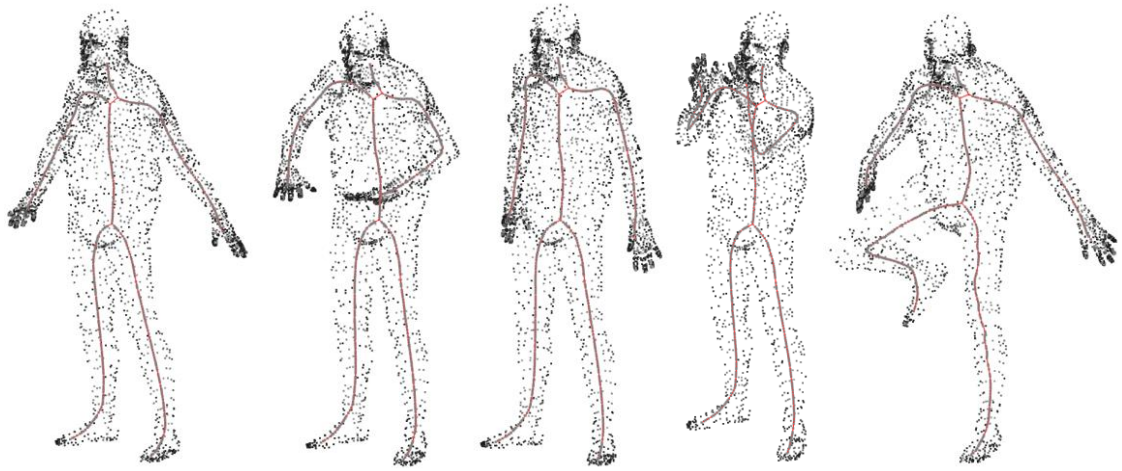


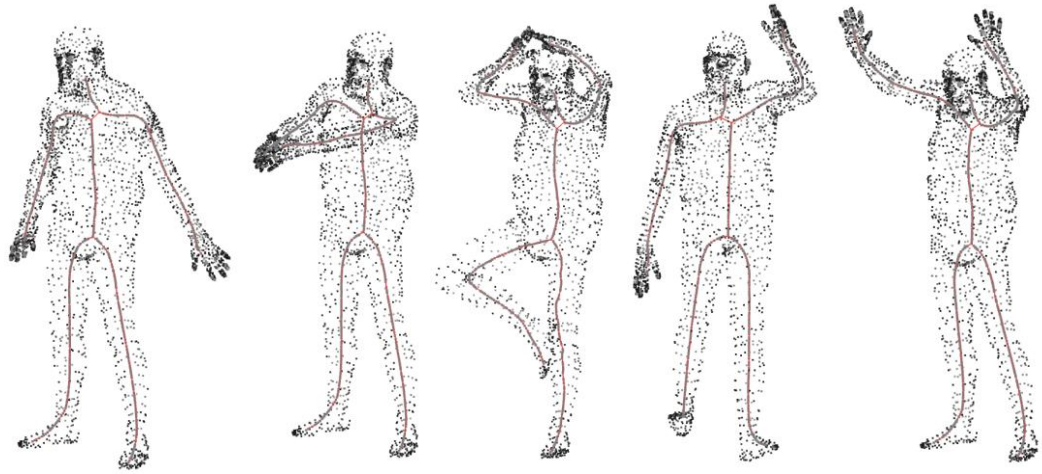
2. Intra and Inter-Subject Skeleton Transfer Results for 39 Downsampled Inputs from MPI FAUST Dataset

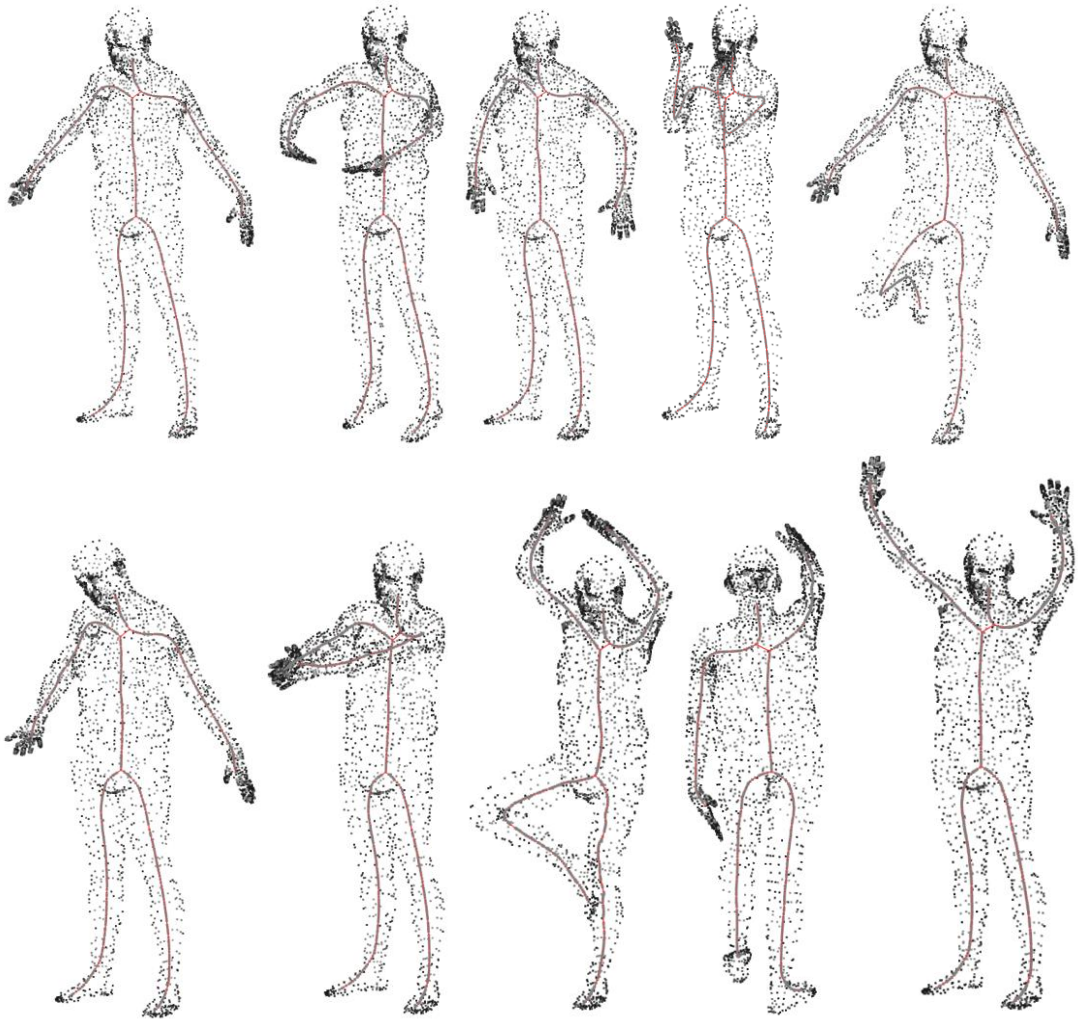
2.1. Removal of ~60% of Vertices (4000 out of 6890)



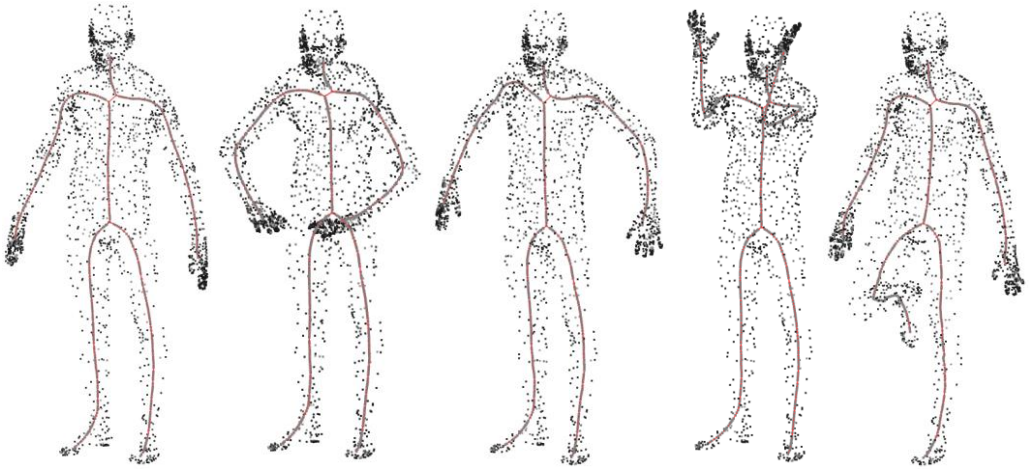


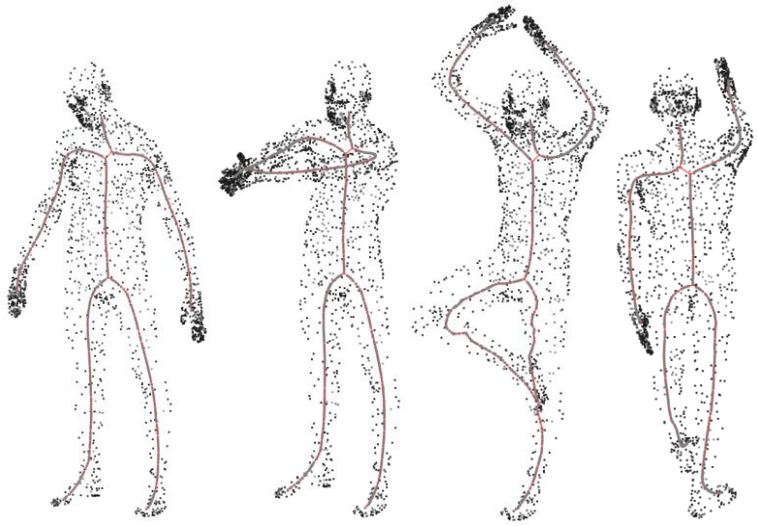


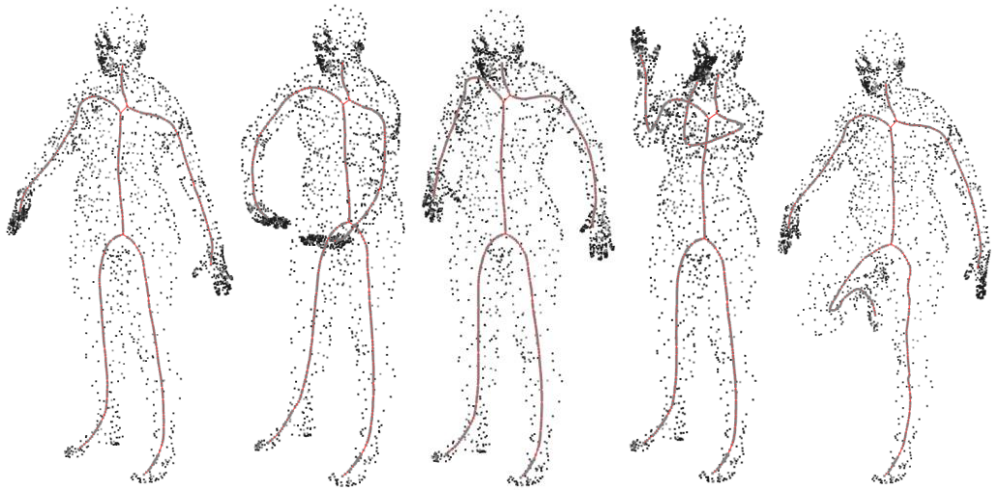


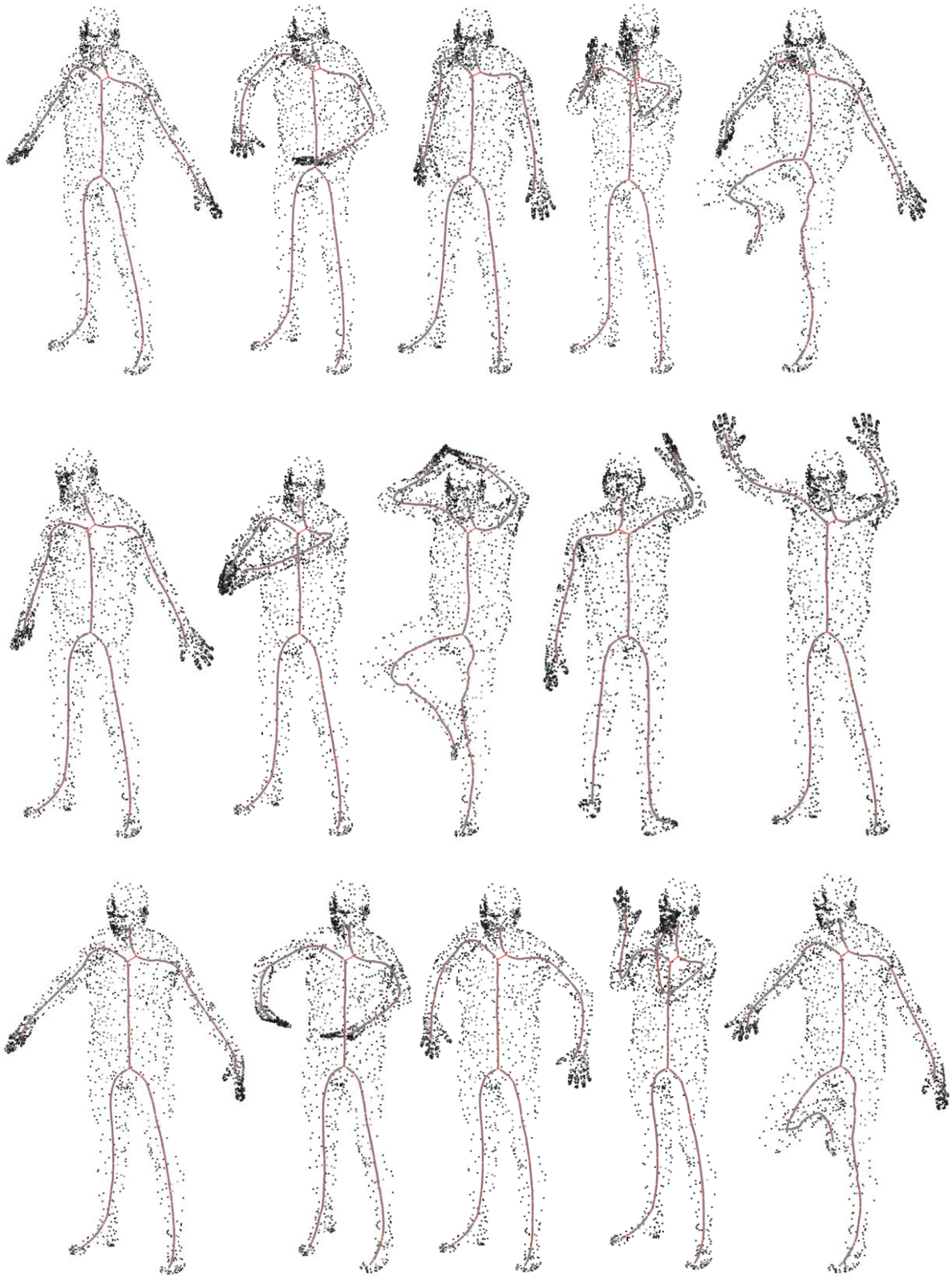


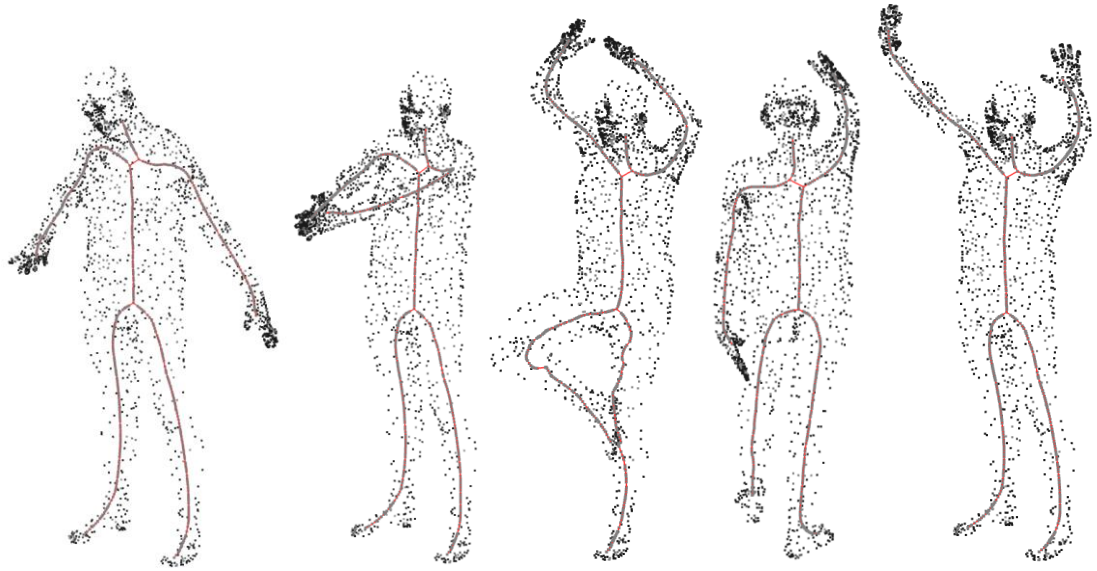
2.2. Removal of ~72.5% of Vertices (5000 out of 6890)



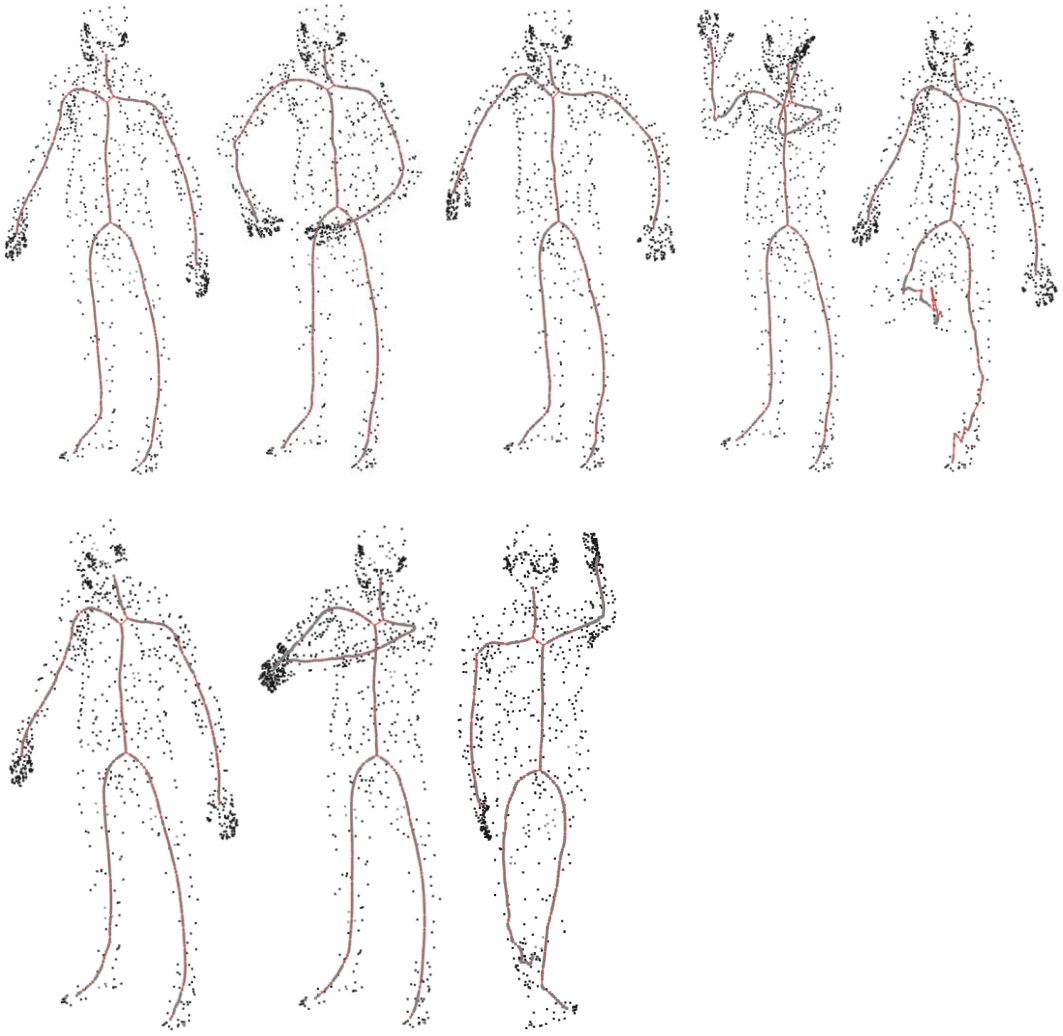


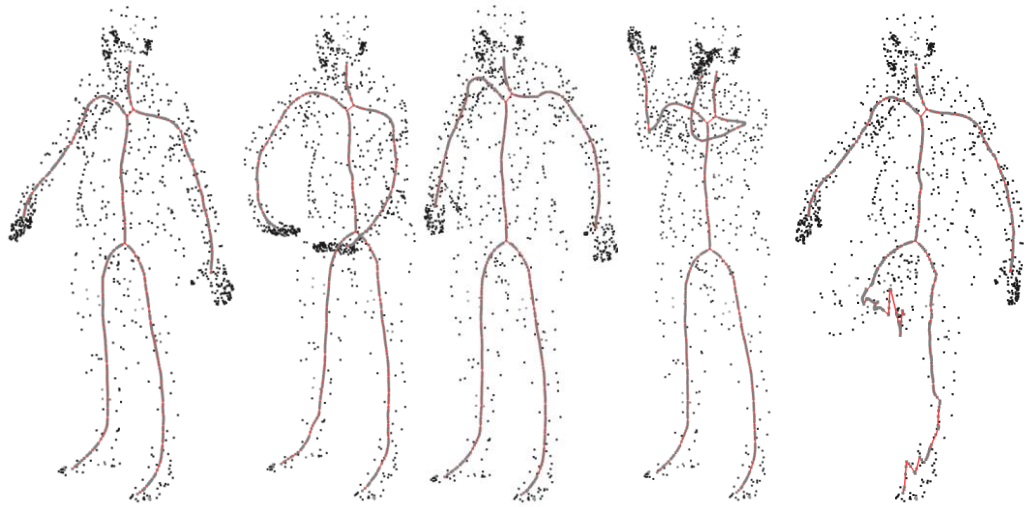


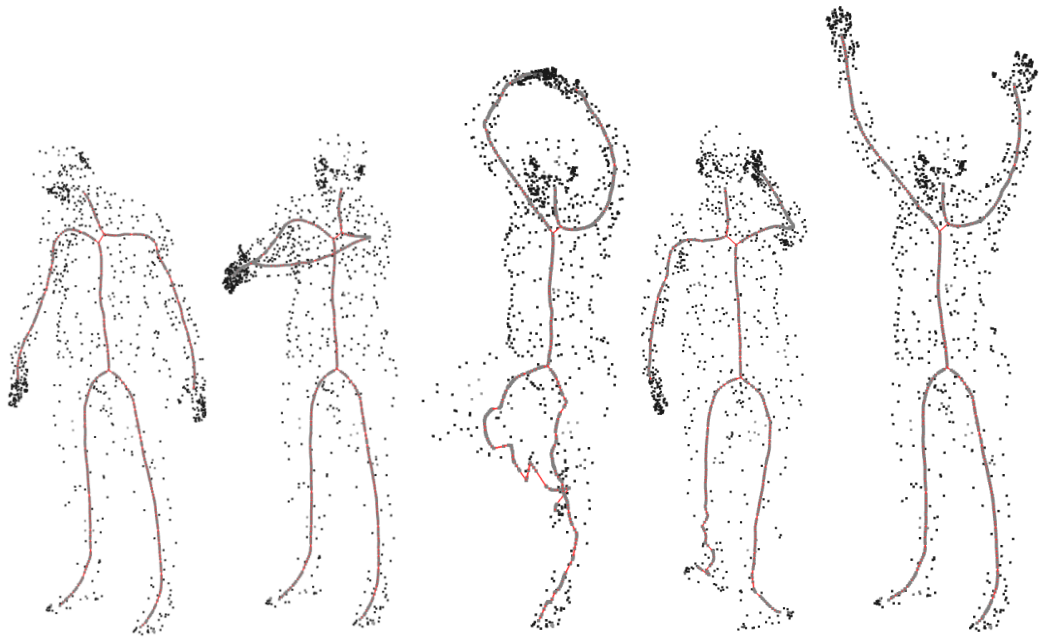


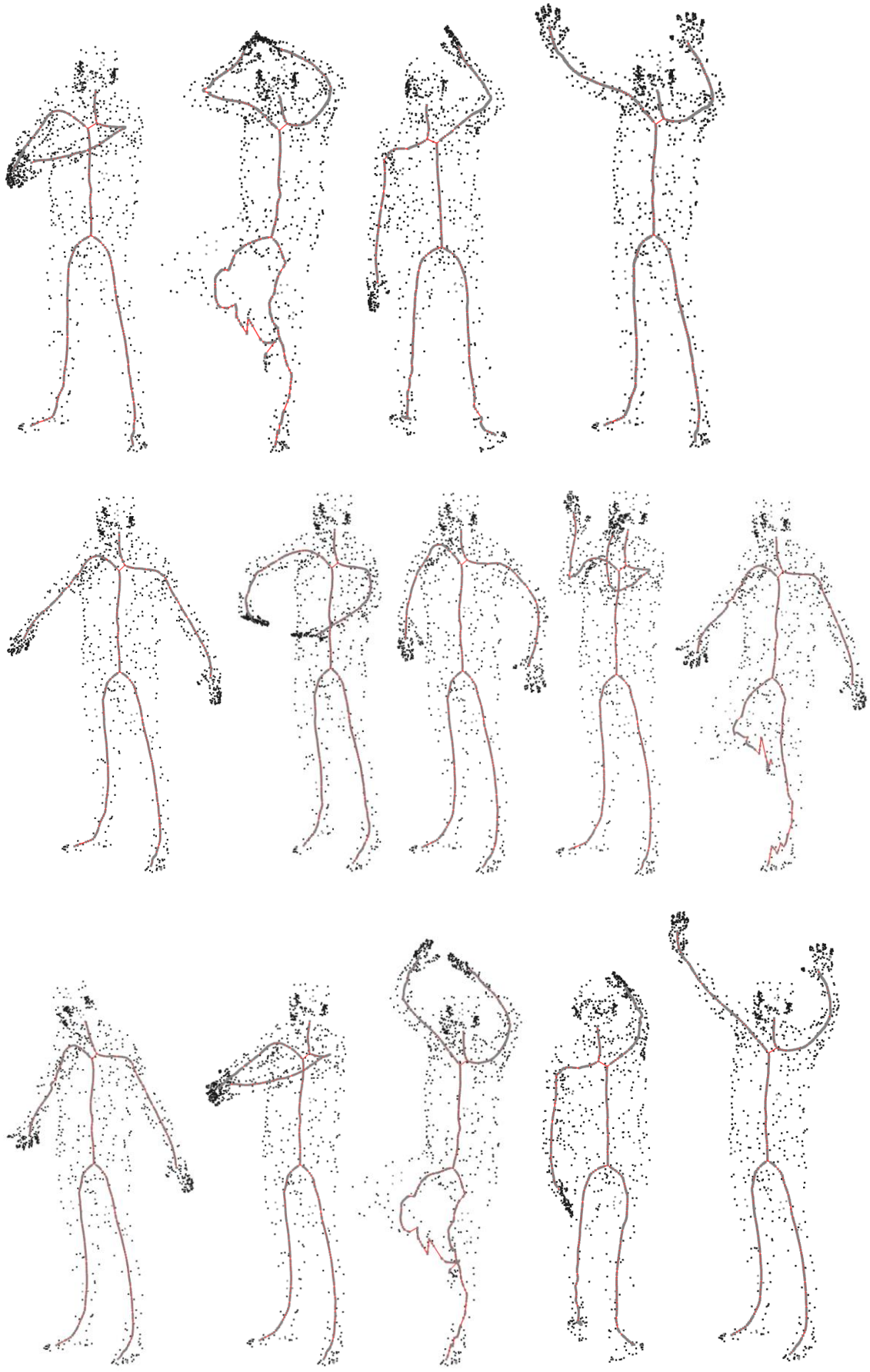


2.3. Removal of ~87% of Vertices (6000 out of 6890)



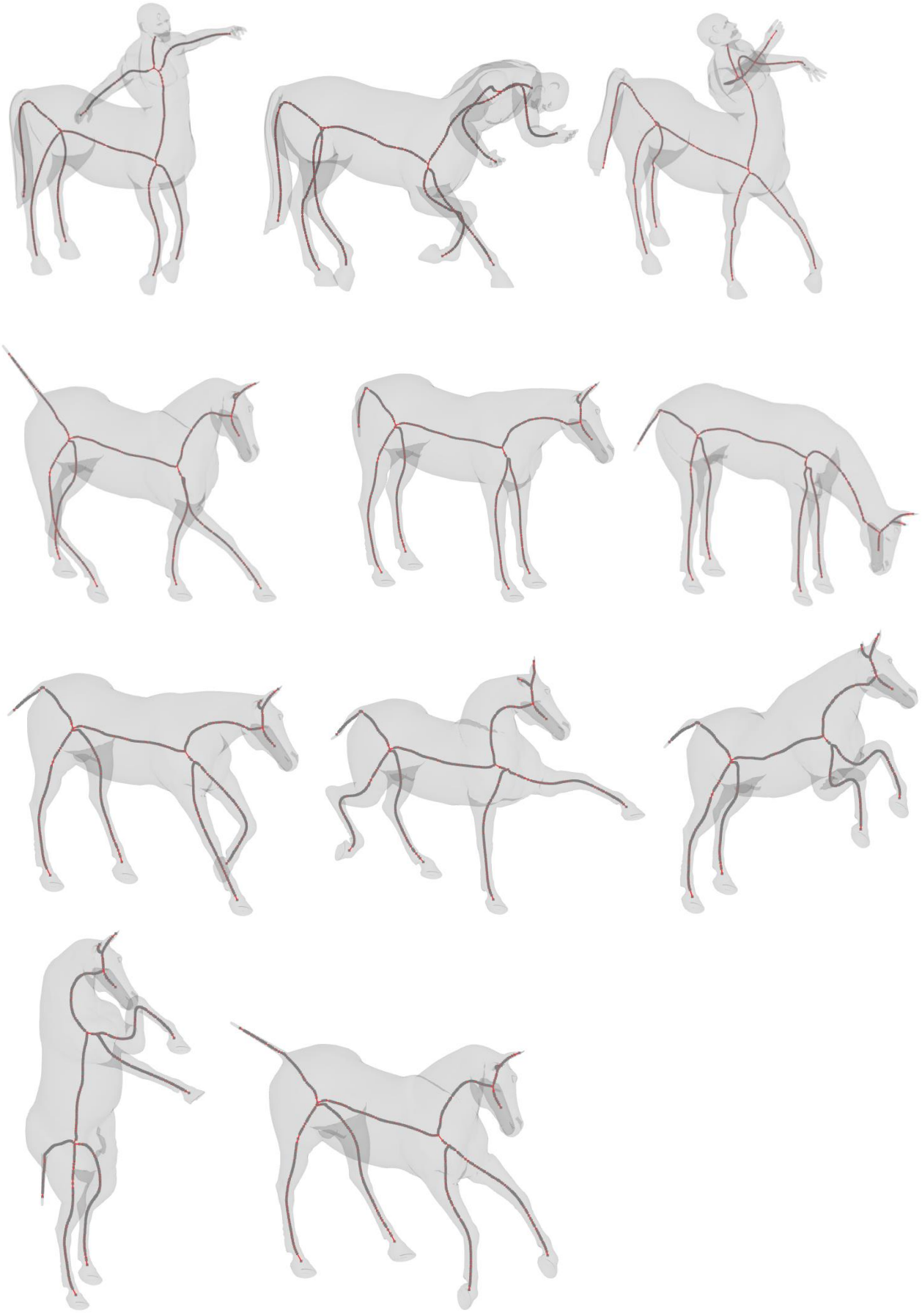


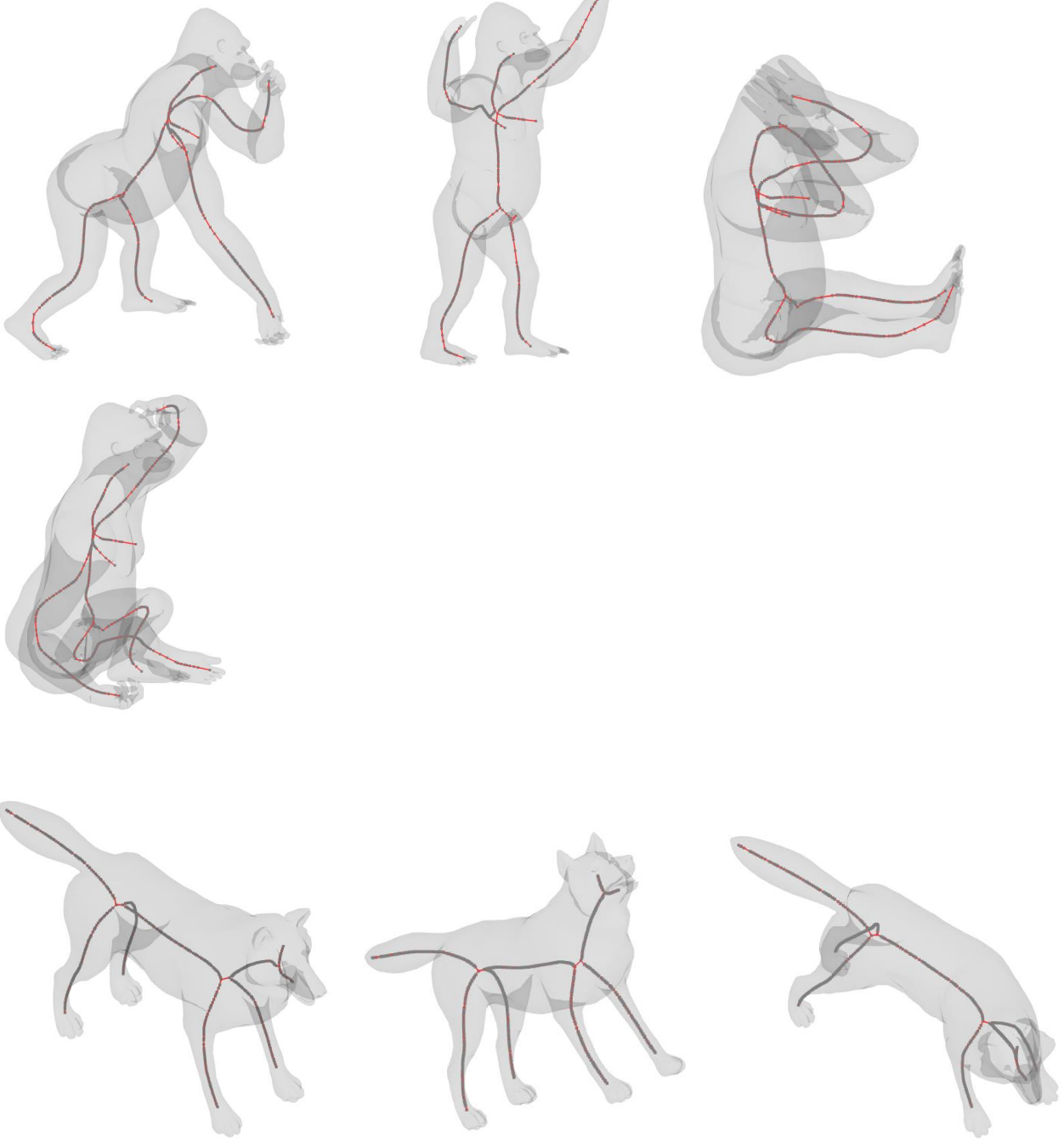




3. Skeleton Transfer Results for Inputs from TOSCA Dataset

Note: The first meshes and skeletons for each different models are source meshes and source skeletons.



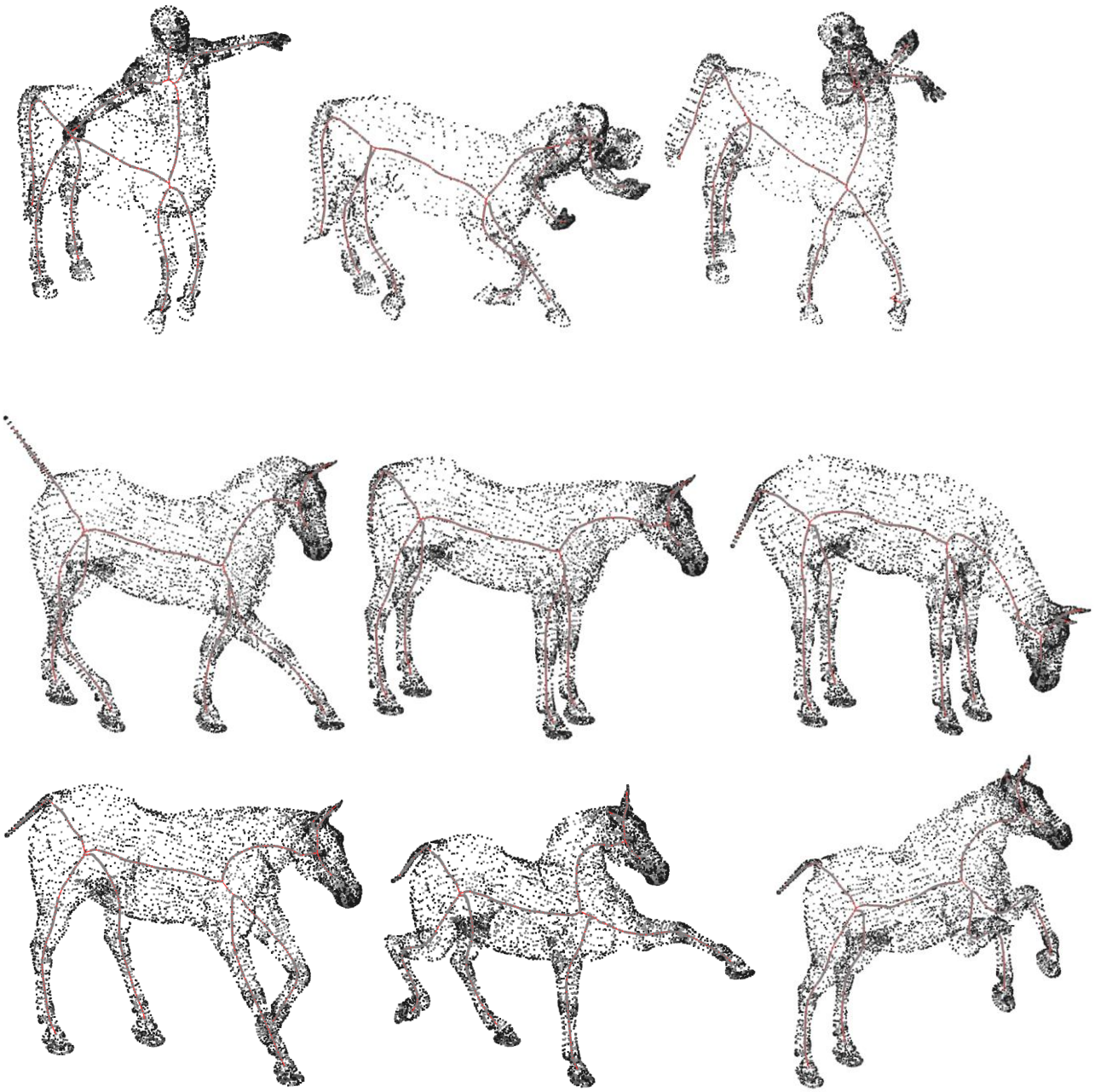


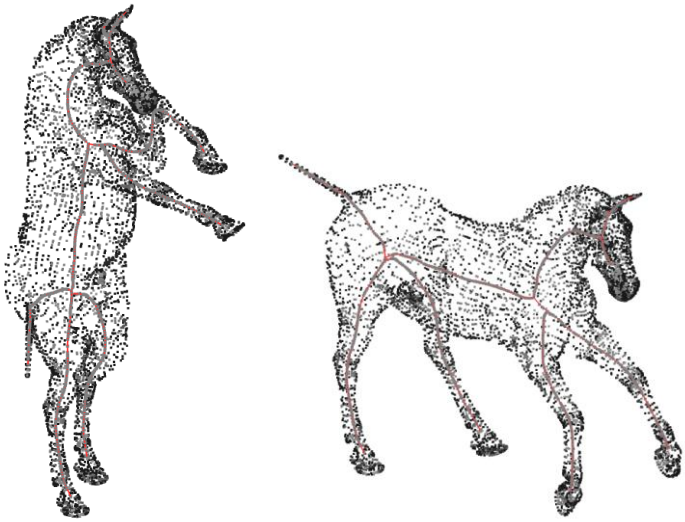
4. Skeleton Transfer Results for Downsampled Inputs from TOSCA Dataset

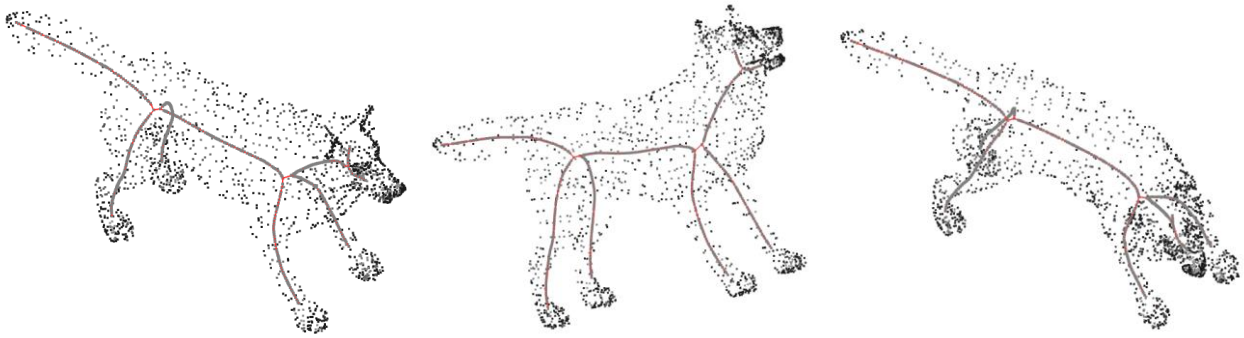
Note: The first meshes and skeletons for each different models are source meshes and source skeletons.

4.1. Removal of ~60% of Vertices

Note: 9500 out of 15768 vertexes were removed for the centaur model. 11500 out of 19248 vertexes were removed from the horse model. 15250 out of 25438 were removed from the gorilla model. 2600 out of 4344 vertexes were removed from the wolf model.

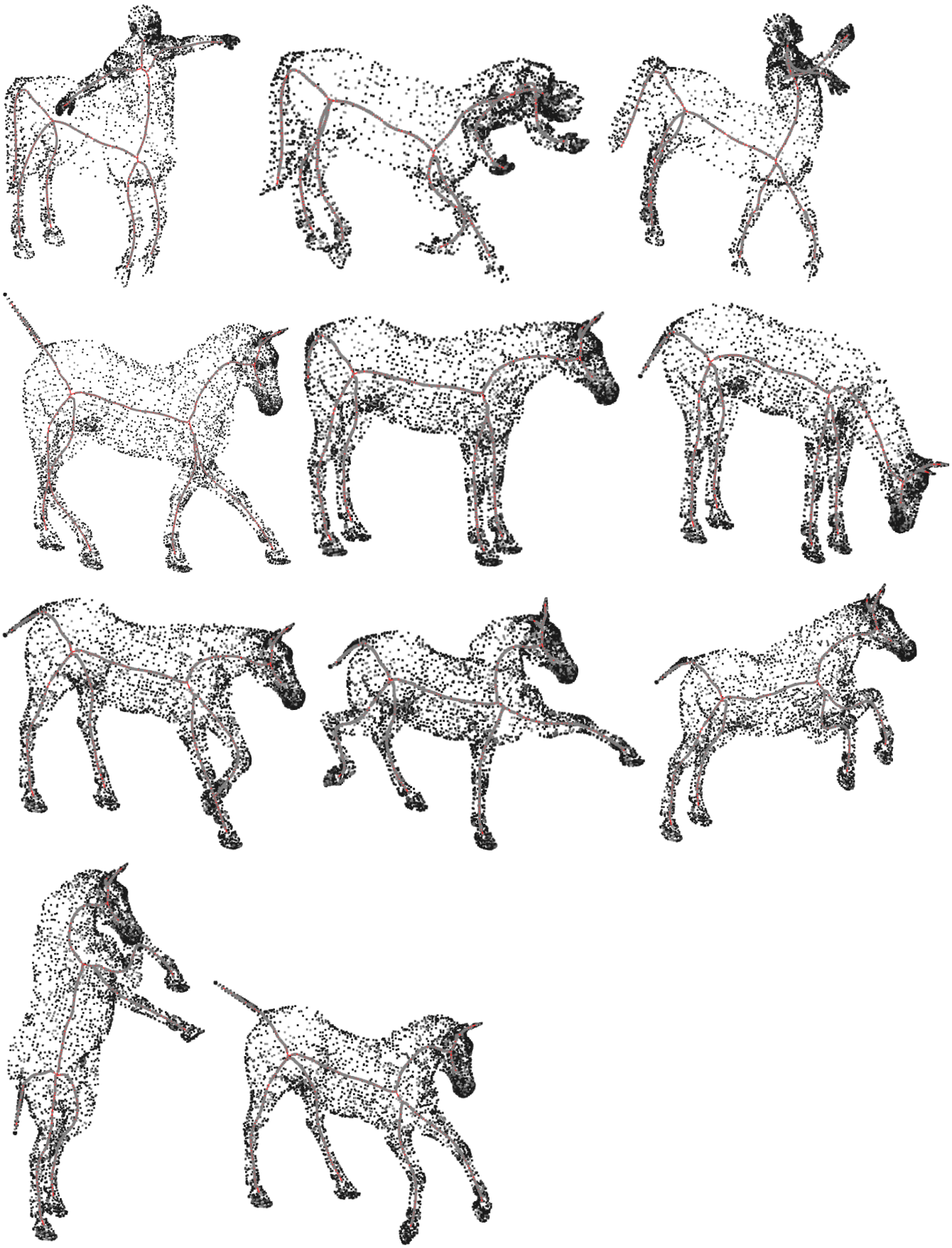


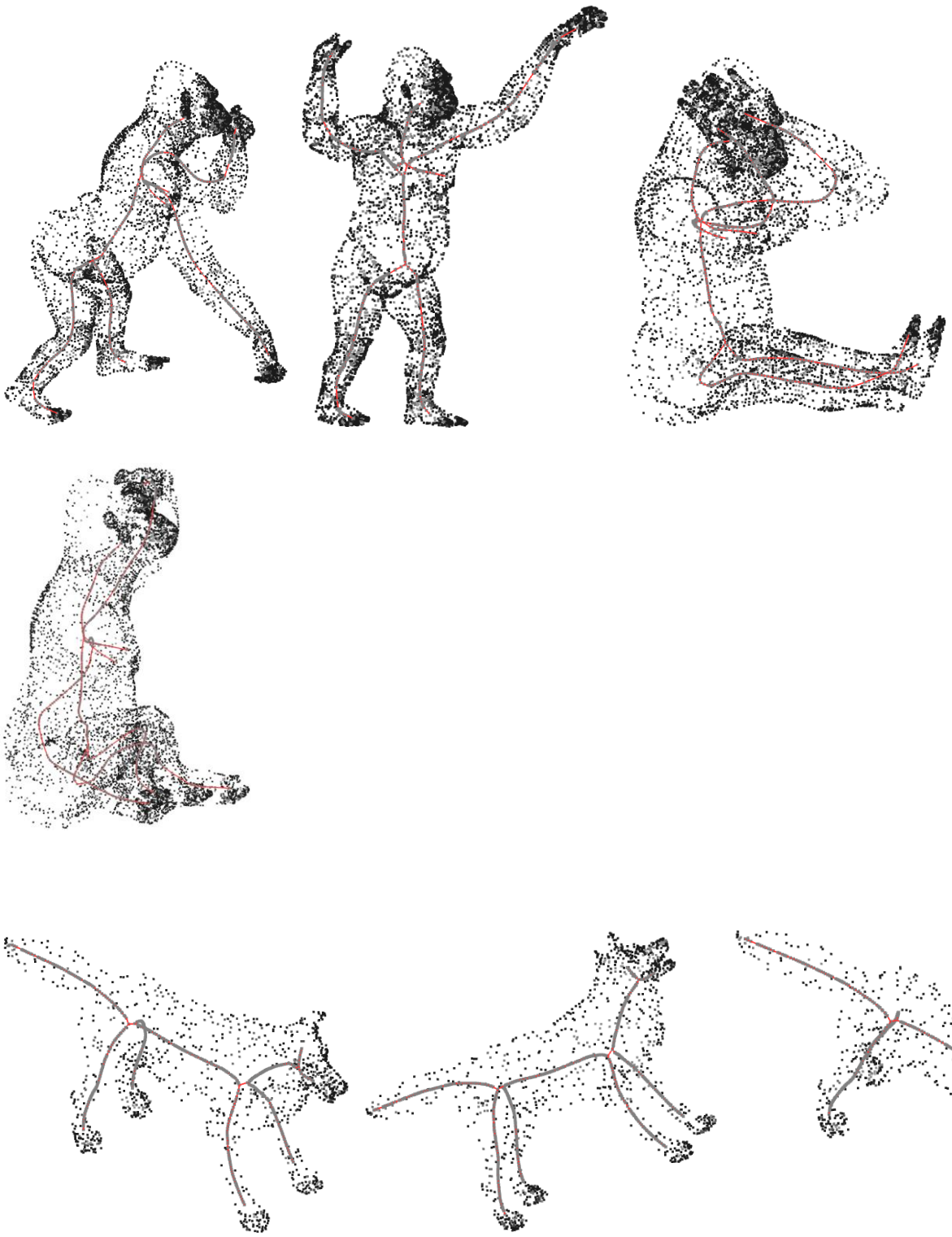




4.2. Removal of ~72.5% of Vertices

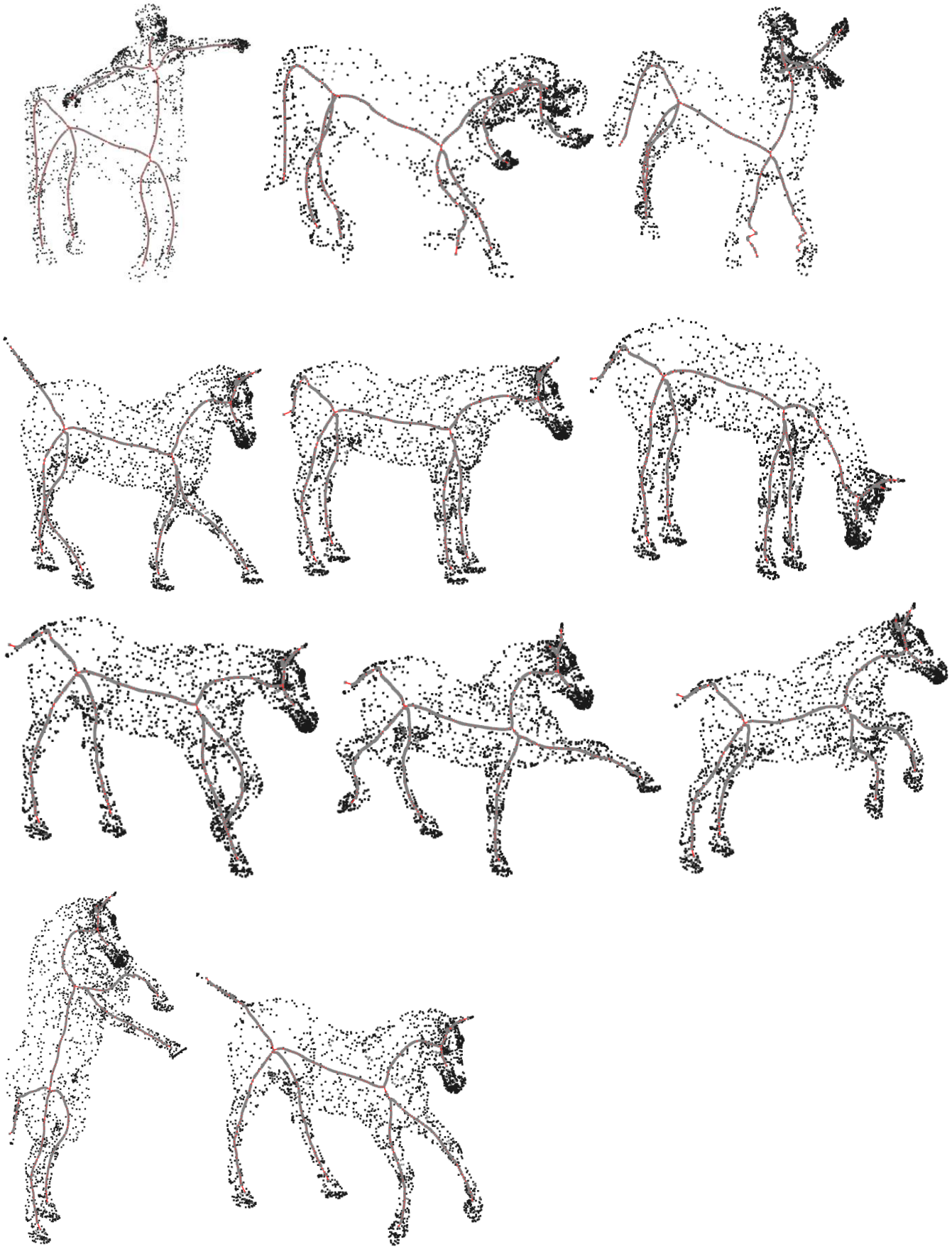
Note: 11450 out of 15768 vertexes were removed for the centaur model. 13950 out of 19248 vertexes were removed from the horse model. 18450 out of 25438 were removed from the gorilla model. 3150 out of 4344 vertexes were removed from the wolf model.





4.3. Removal of ~87% of Vertices

Note: 13700 out of 15768 vertexes were removed for the centaur model. 16750 out of 19248 vertexes were removed from the horse model. 22150 out of 25438 were removed from the gorilla model. 3800 out of 4344 vertexes were removed from the wolf model.

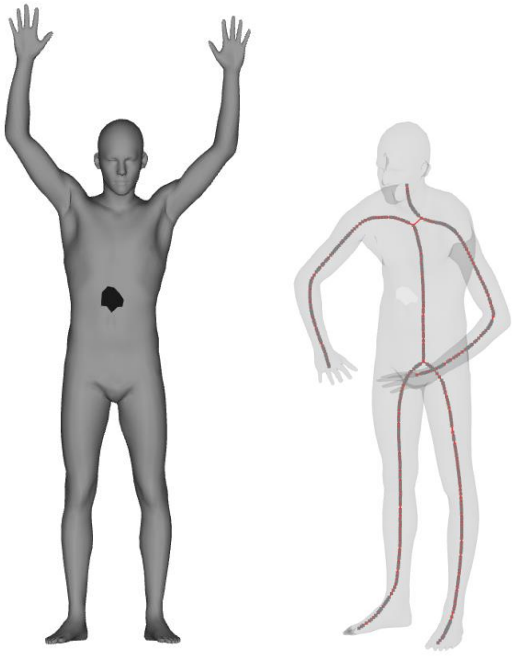


5. Skeleton Transfer Results for Punctured Inputs from FAUST Dataset

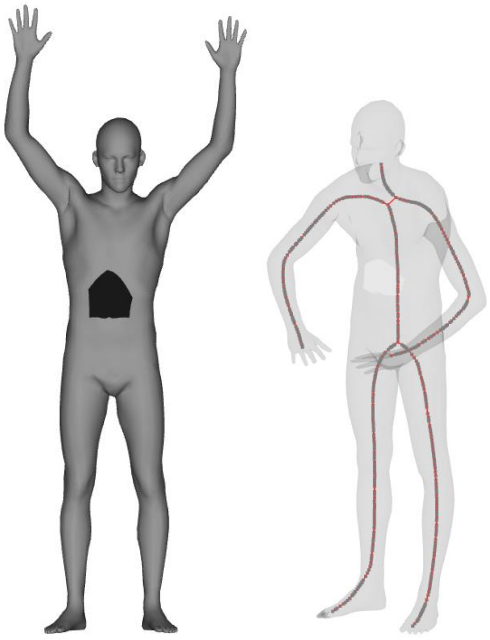
In these experiments, a specific area consisting a group of connected vertices are removed. In each step, the number of removed vertices are incremented. In the figures, the mesh at the right –shaded one- is the source mesh, the mesh at the left –transparent one- is input mesh with the transferred curve-skeleton inside.

5.1. Punctured Torso Sequence (FAUST)

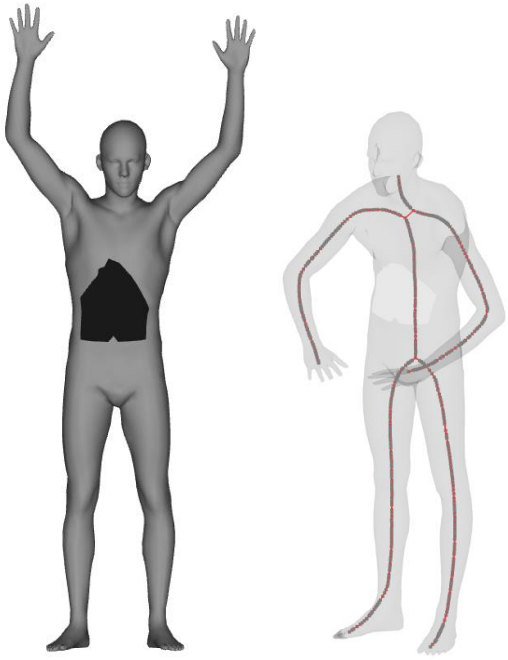
Number of Removed Vertices: 6



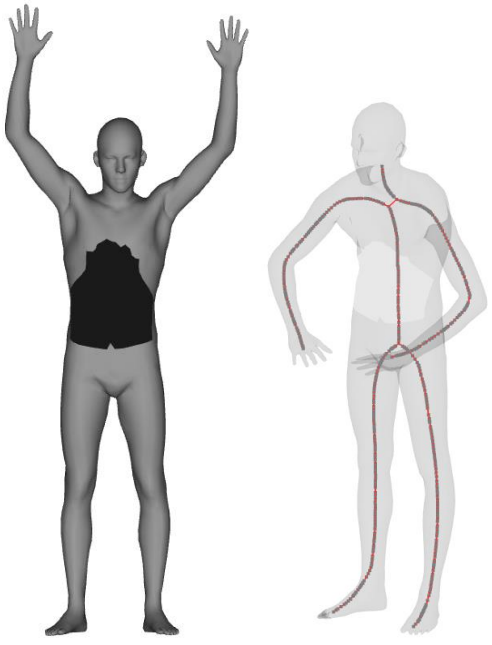
Number of Removed Vertices: 36



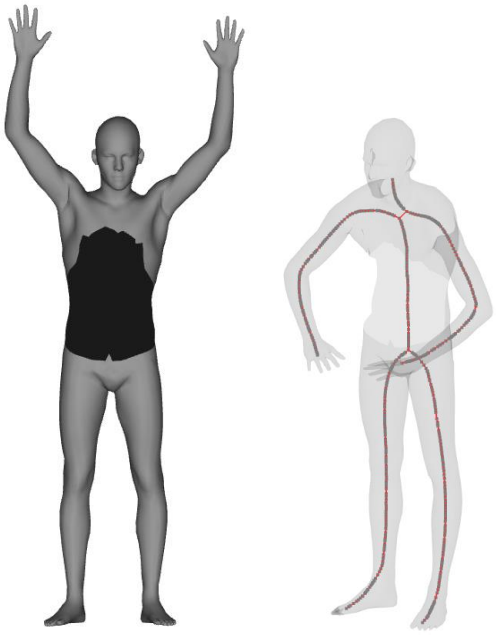
Number of Removed Vertices: 92



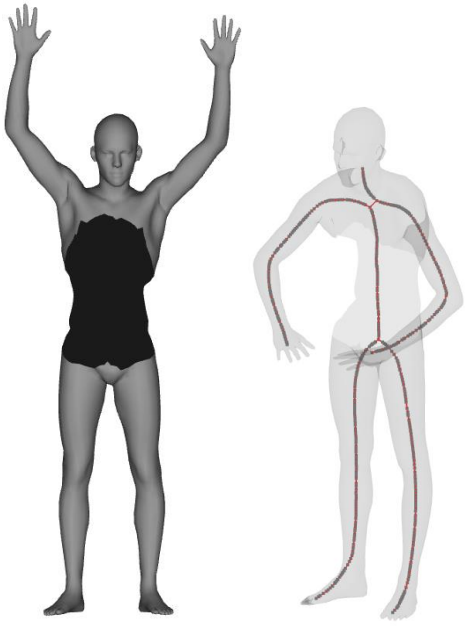
Number of Removed Vertices: 176



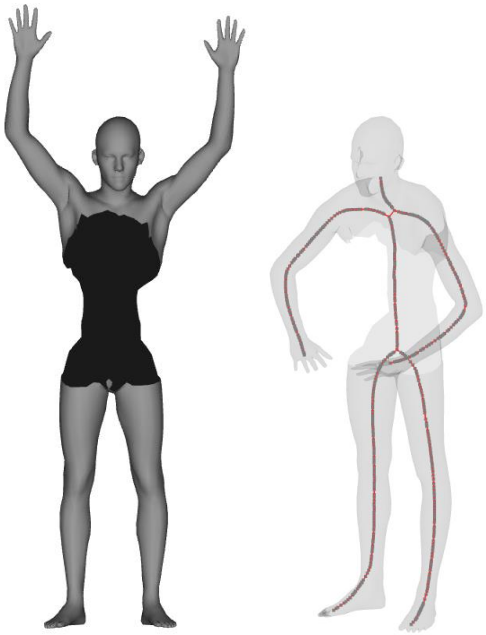
Number of
Removed
Vertices: 299



Number of
Removed
Vertices: 446

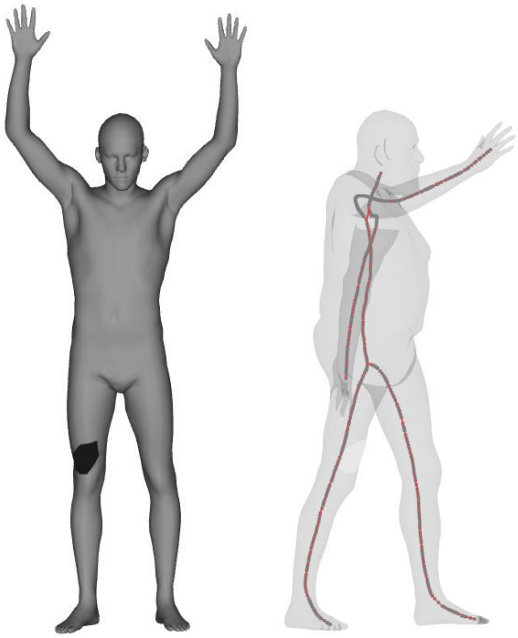


Number of
Removed
Vertices: 617

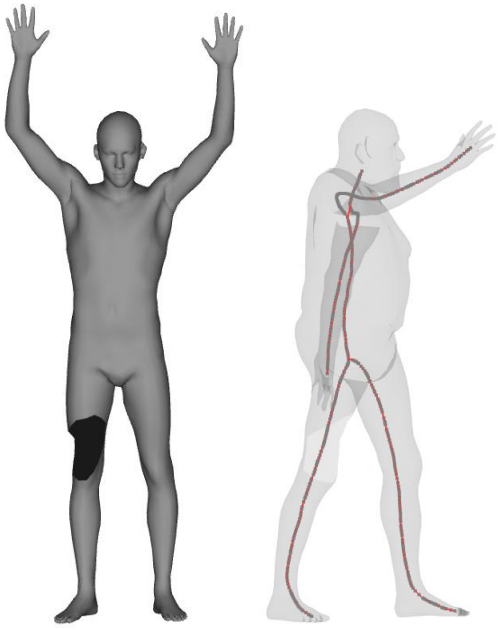


5.2. Punctured Leg Sequence (FAUST)

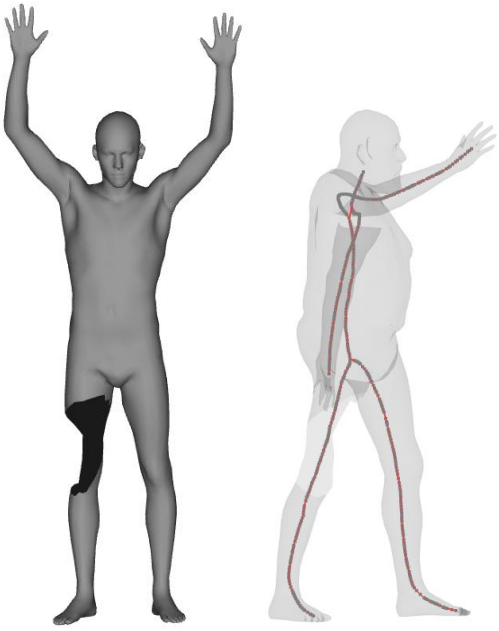
Number of Removed Vertices: 7



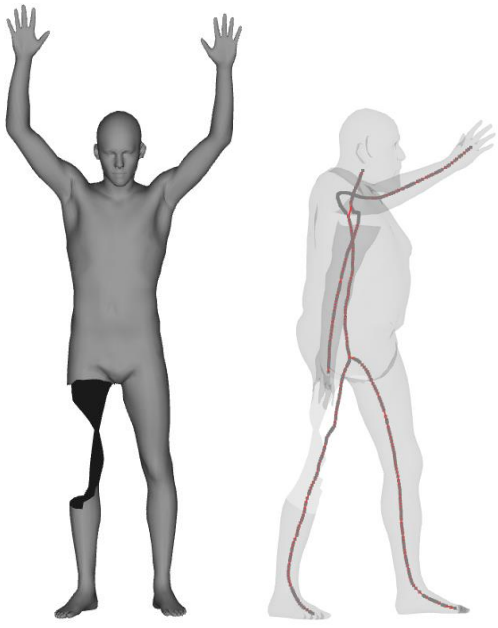
Number of Removed Vertices: 36



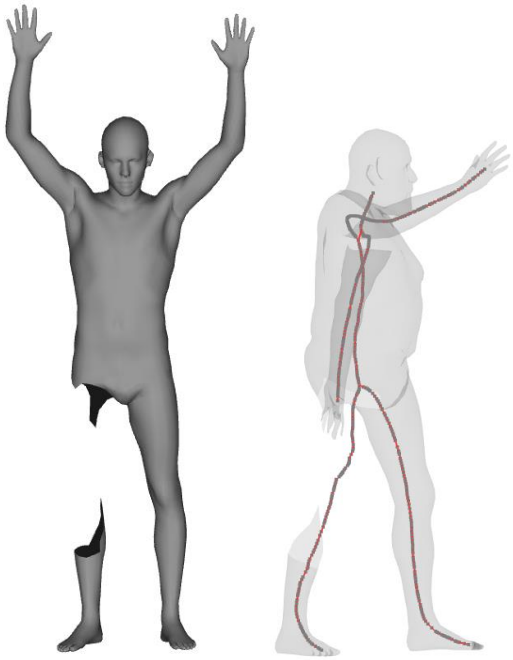
Number of Removed Vertices: 88



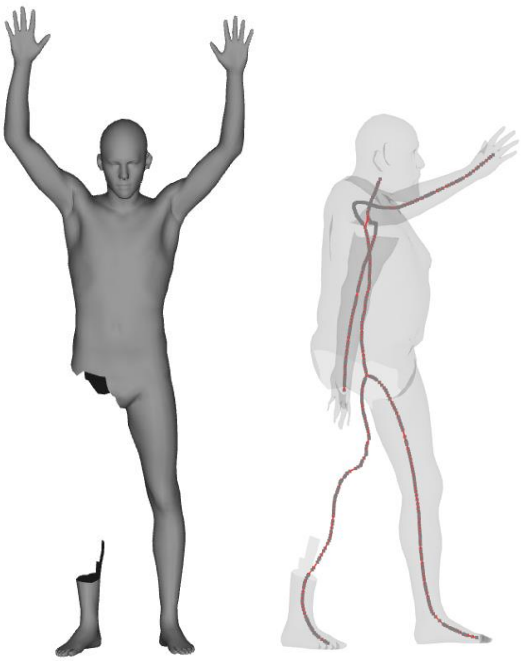
Number of Removed Vertices: 170



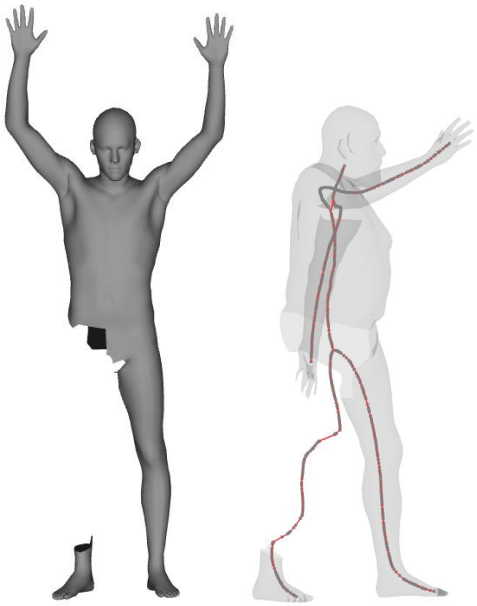
Number of
Removed
Vertices: 276



Number of
Removed
Vertices: 382

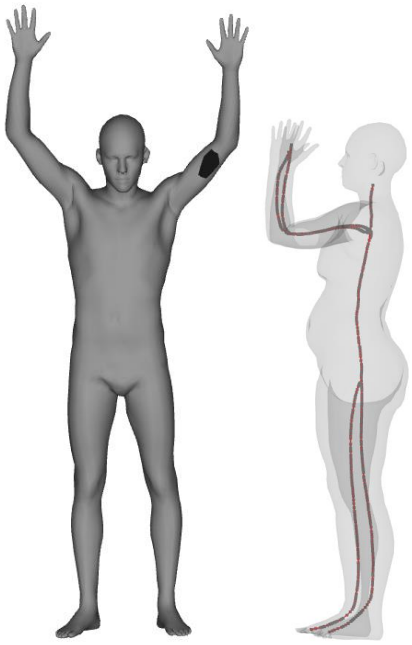


Number of
Removed
Vertices: 510

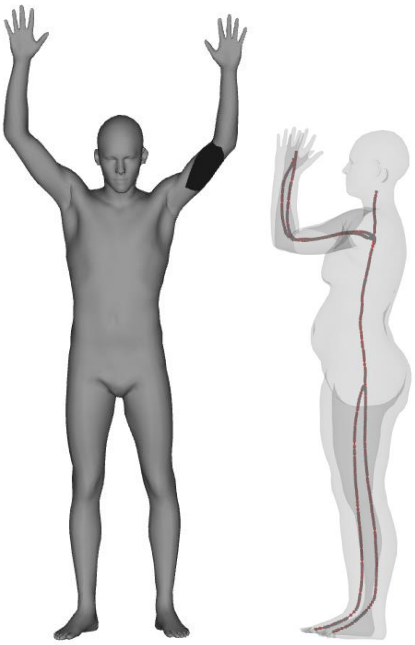


5.3. Punctured Arm Sequence (FAUST)

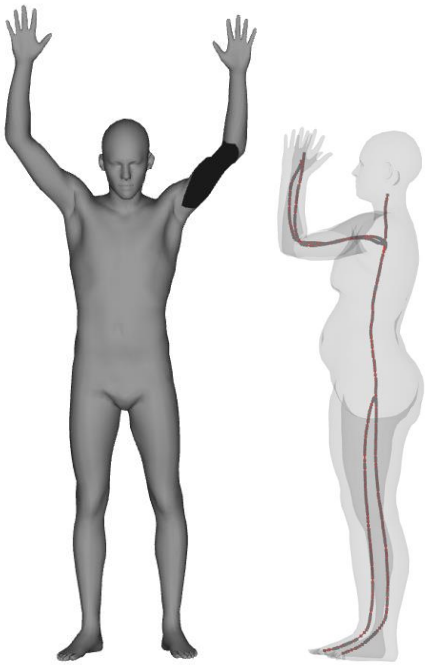
Number of Removed Vertices: 7



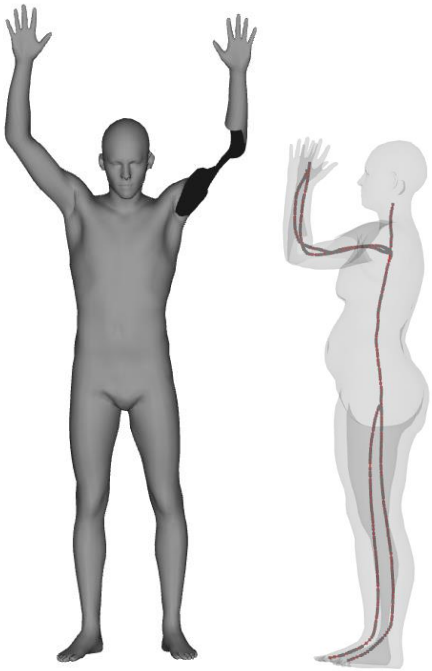
Number of Removed Vertices: 37



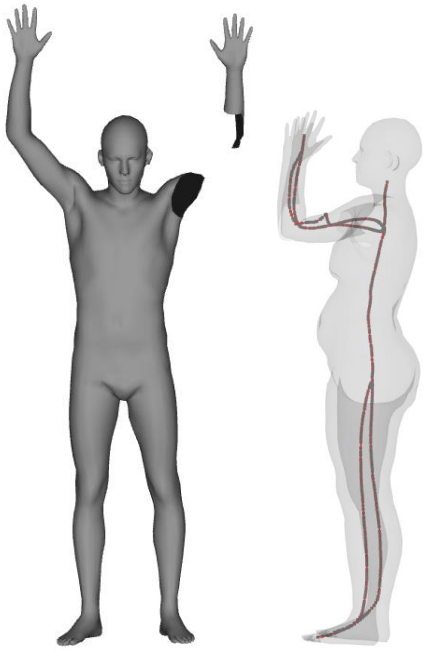
Number of Removed Vertices: 91



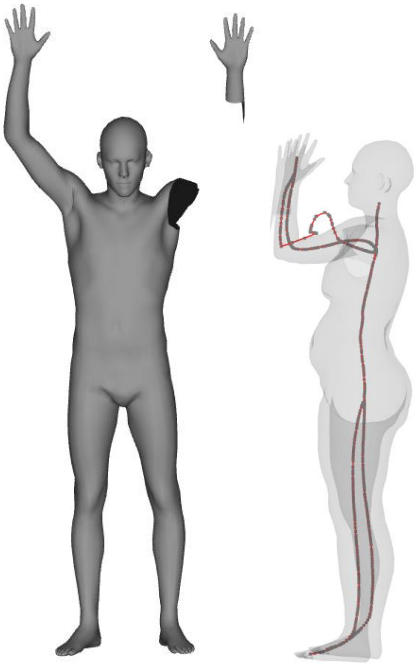
Number of Removed Vertices: 174



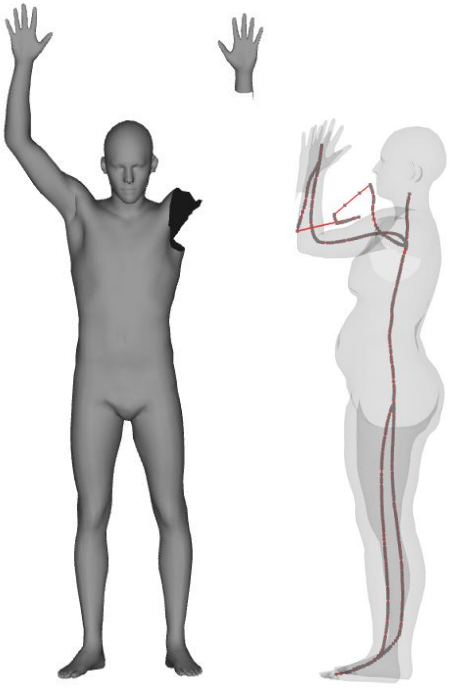
Number of
Removed
Vertices: 287



Number of
Removed
Vertices: 392

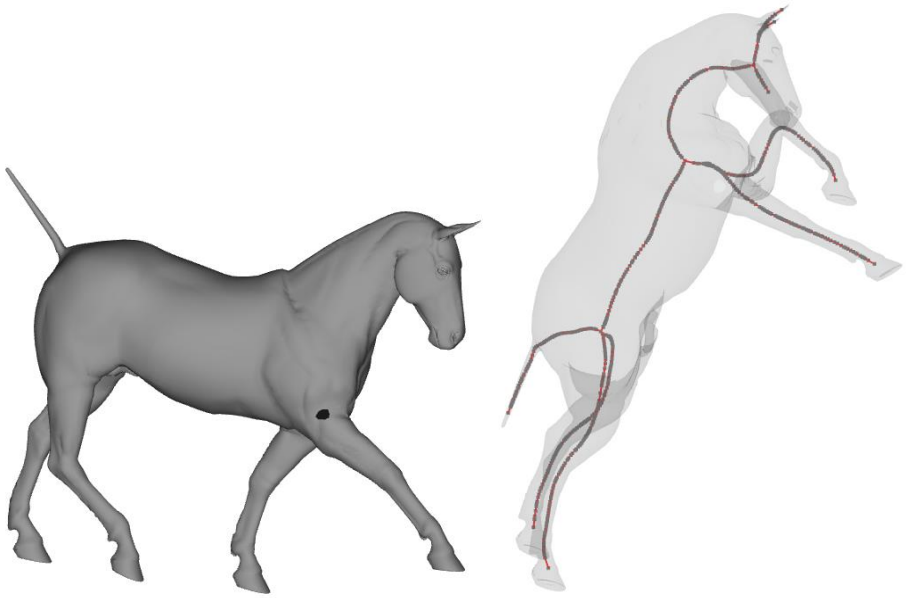


Number of
Removed
Vertices: 495

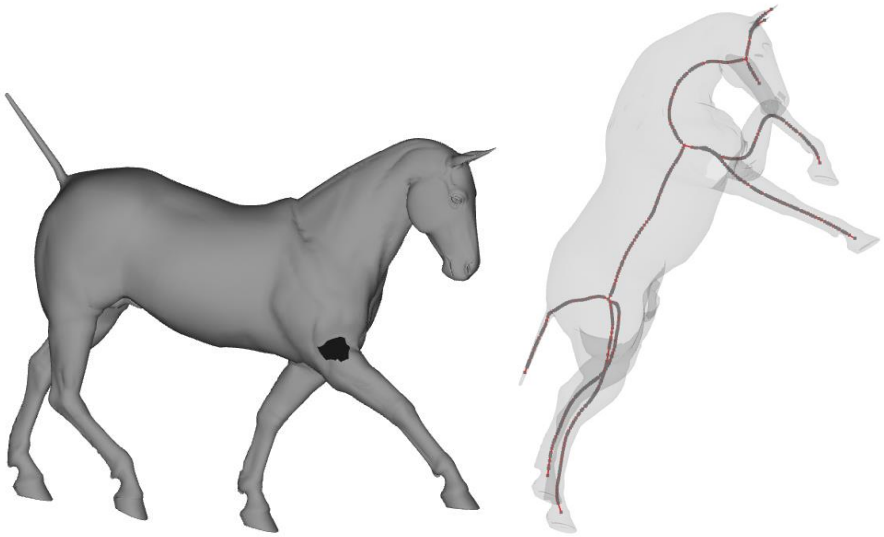


5.4. Punctured Horse Sequence (TOSCA)

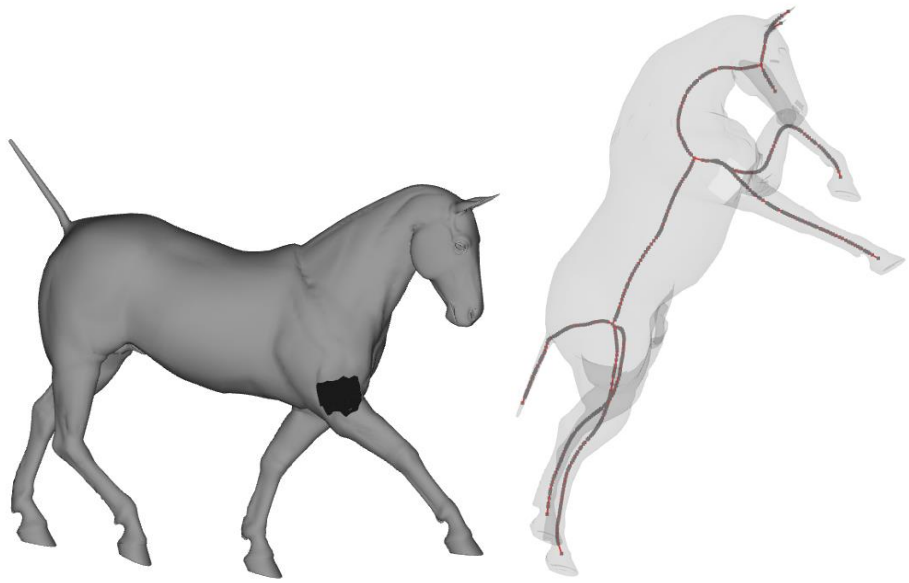
Number of Removed Vertices: 7



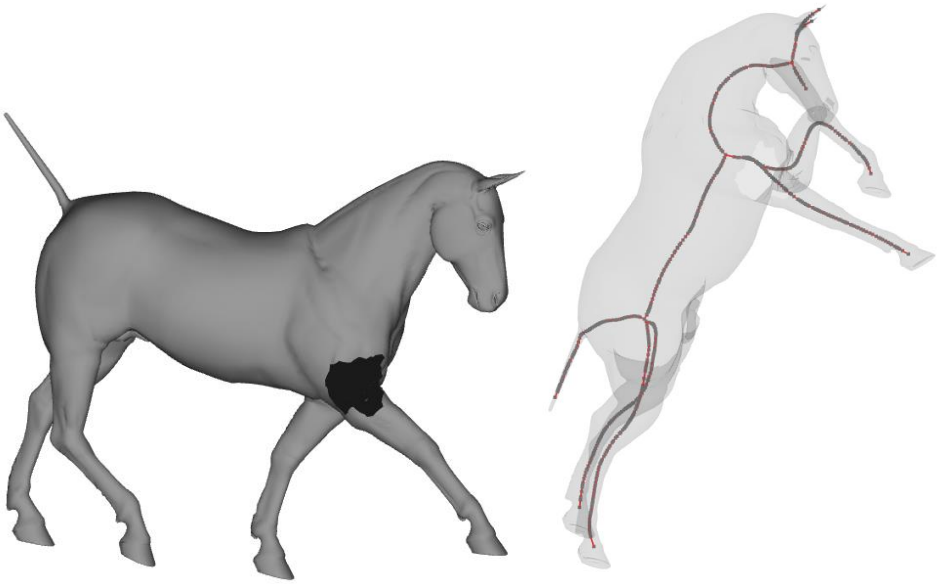
Number of Removed Vertices: 38



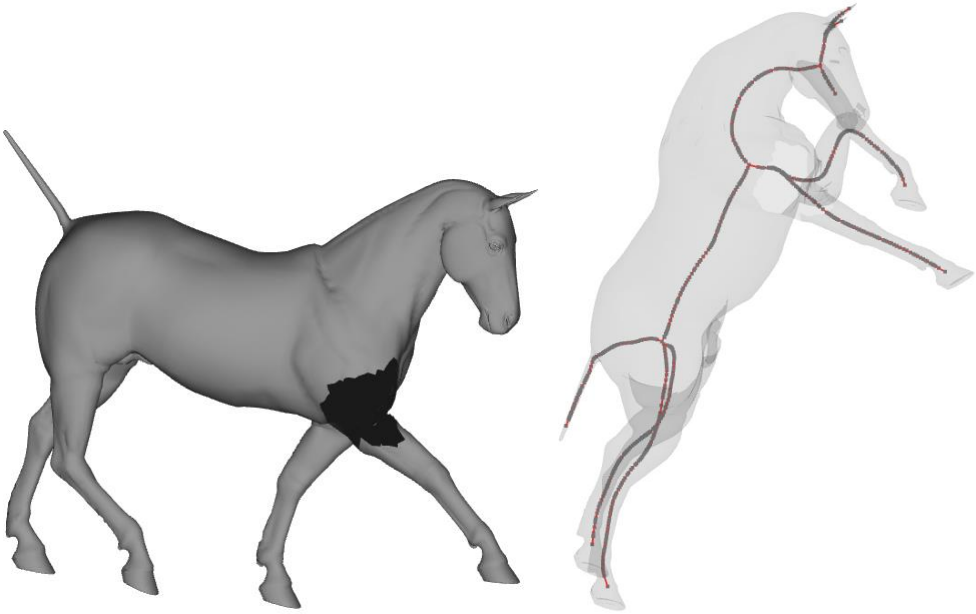
Number of Removed Vertices: 97



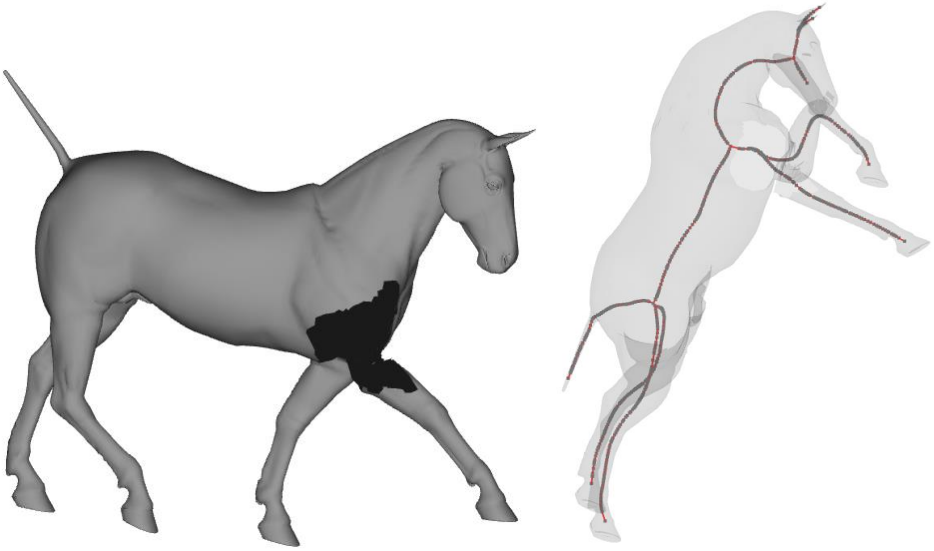
Number of Removed Vertices: 182



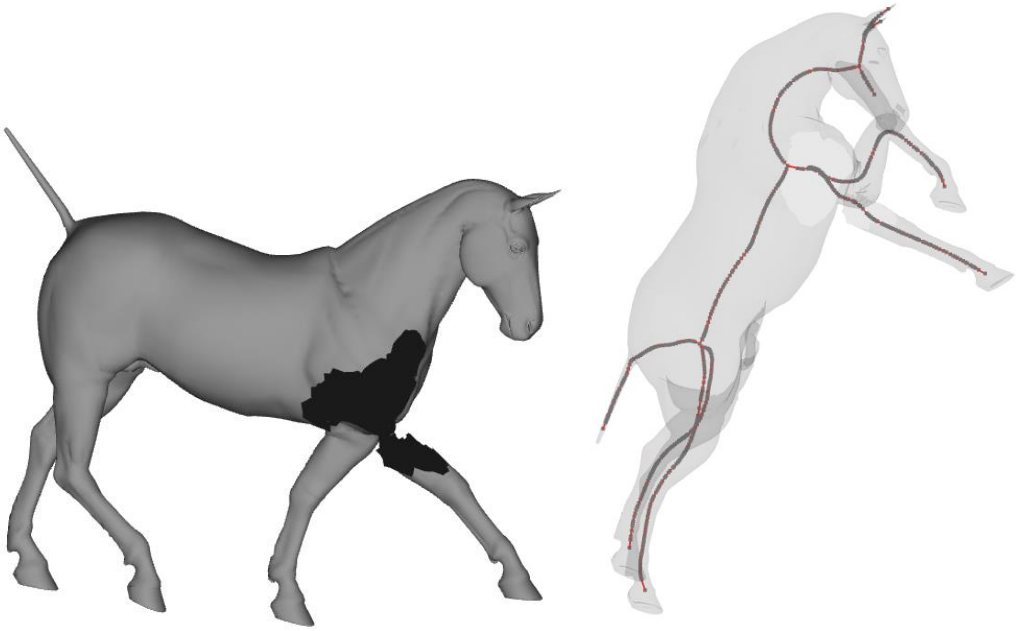
Number of Removed Vertices: 309



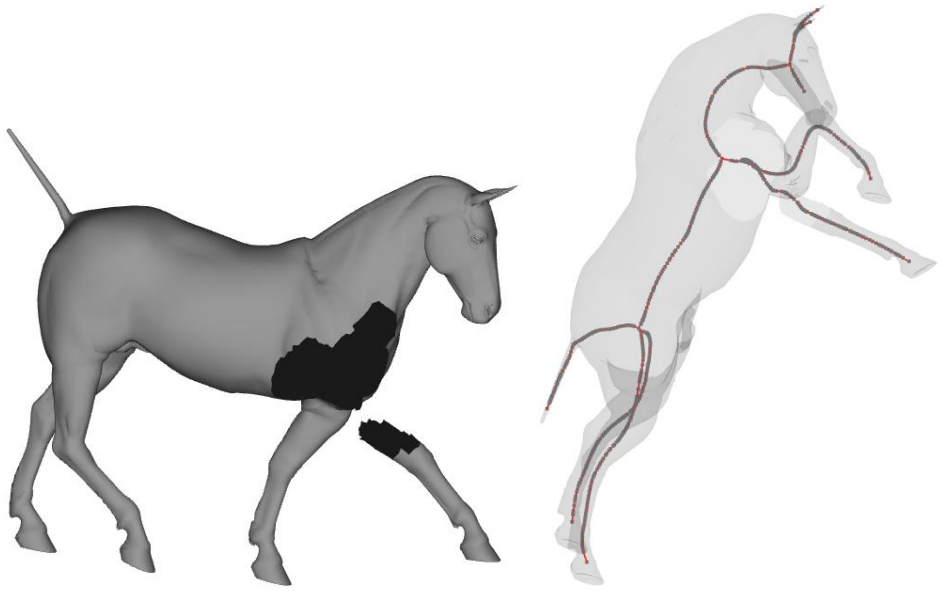
Number of Removed Vertices: 469



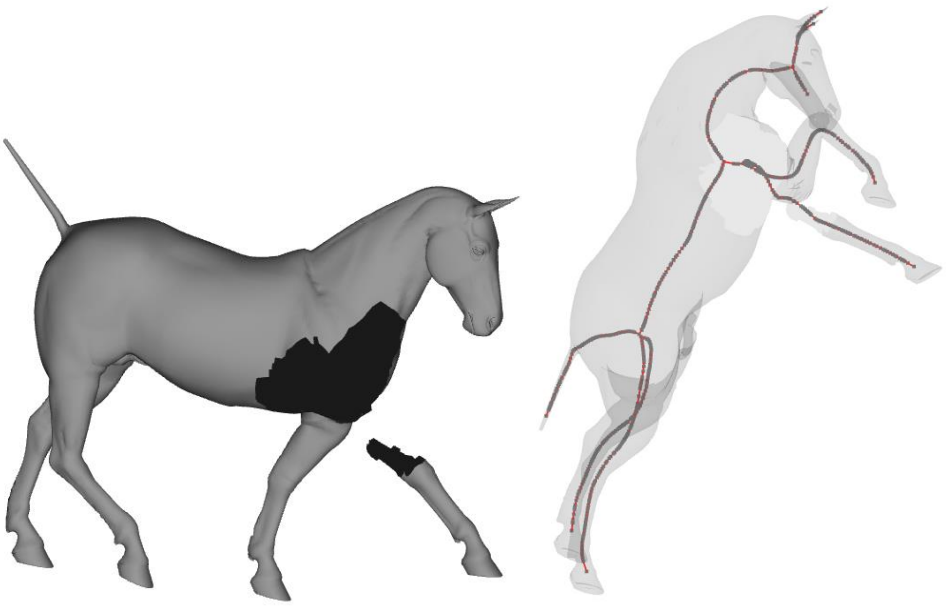
Number of Removed Vertices: 683



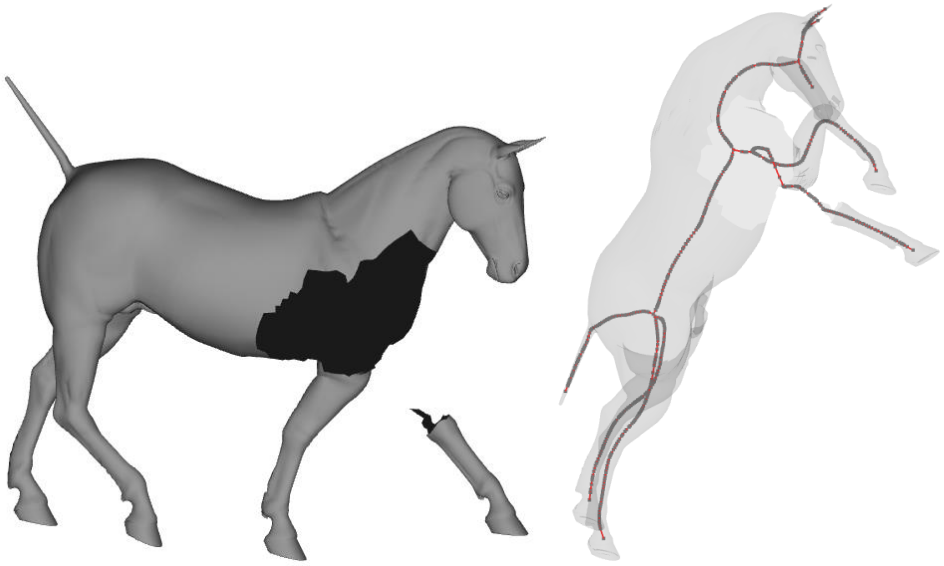
Number of Removed Vertices: 947



Number of Removed Vertices: 1250

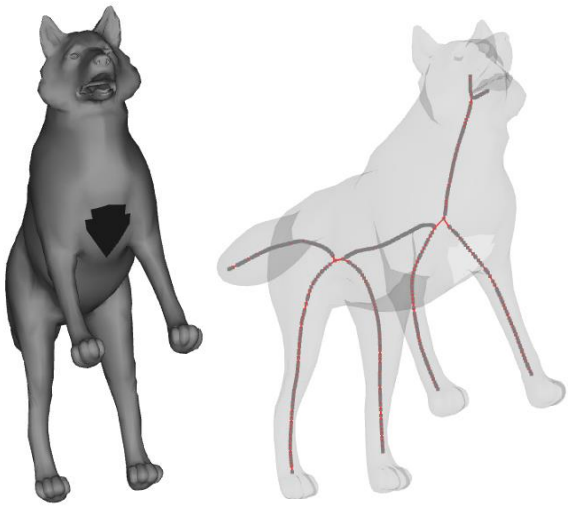


Number of Removed Vertices: 1547

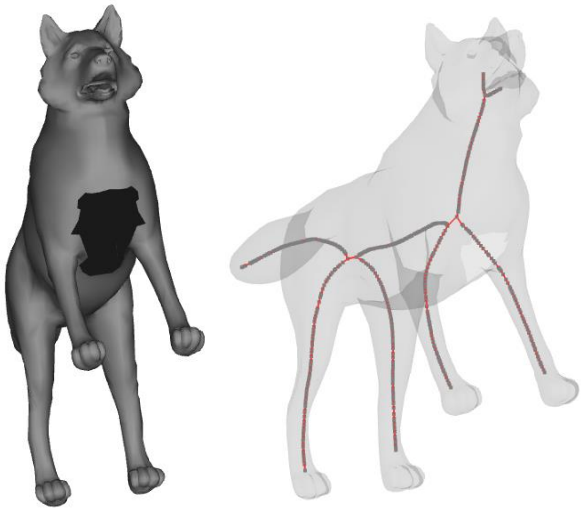


5.5. Punctured Wolf Sequence (TOSCA)

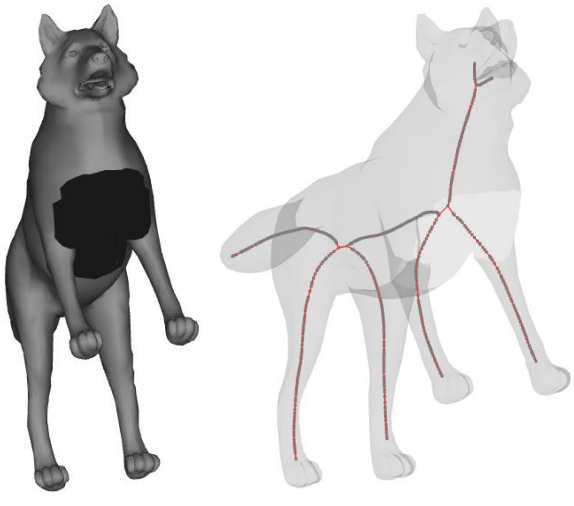
Number of Removed Vertices: 7



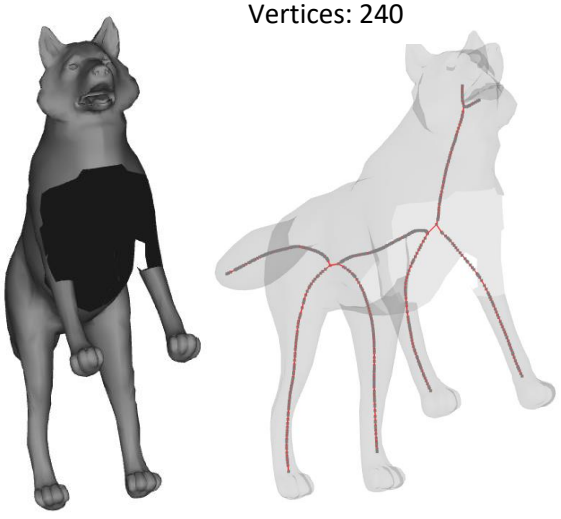
Number of Removed Vertices: 41



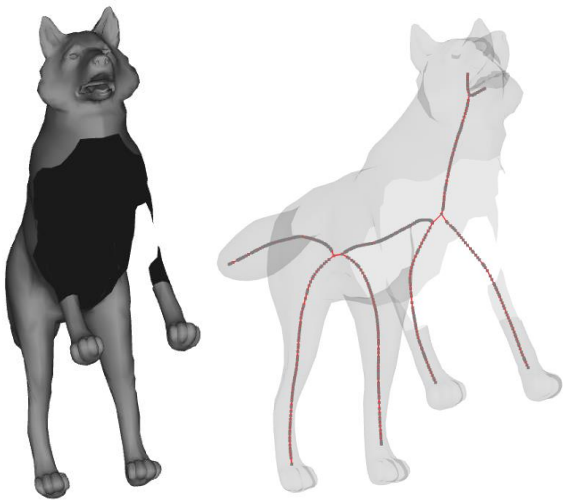
Number of Removed Vertices: 116



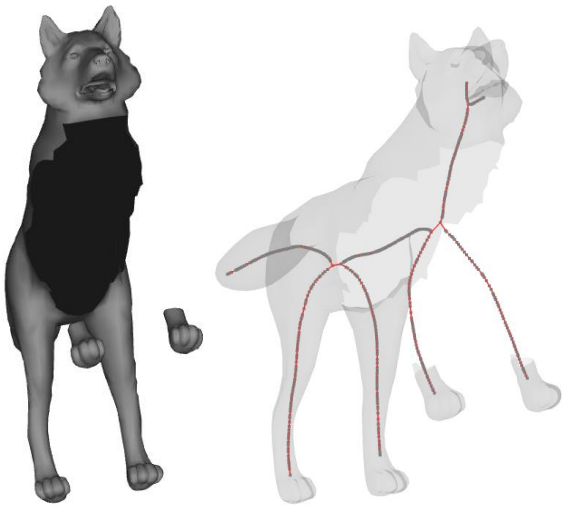
Number of Removed Vertices: 240



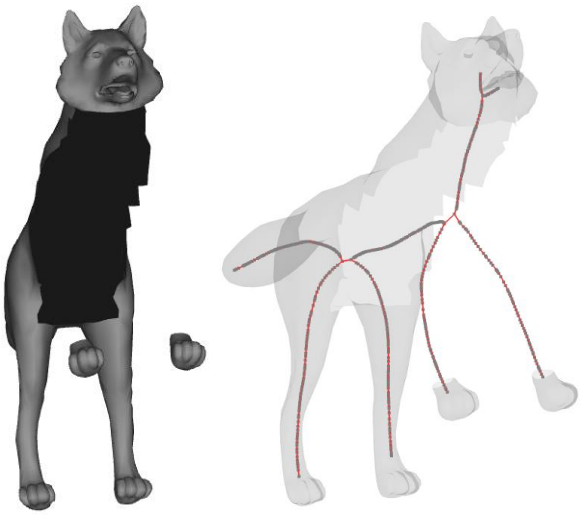
Number of
Removed
Vertices: 412



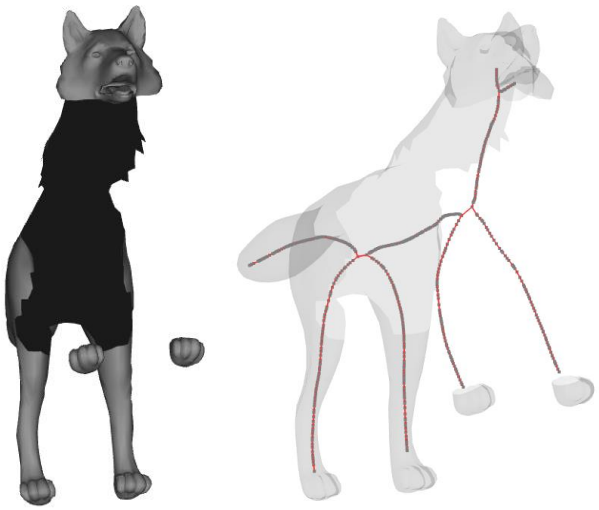
Number of
Removed
Vertices: 600



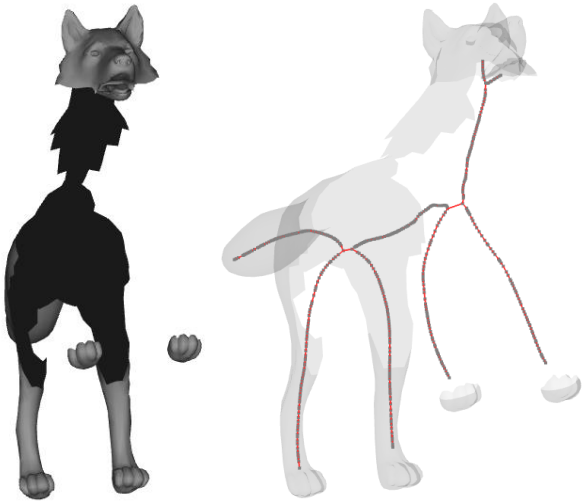
Number of
Removed
Vertices: 806



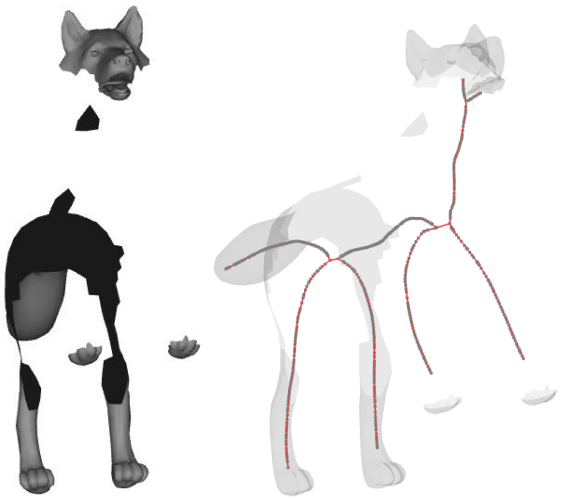
Number of
Removed
Vertices: 1052



Number of Removed Vertices: 1375



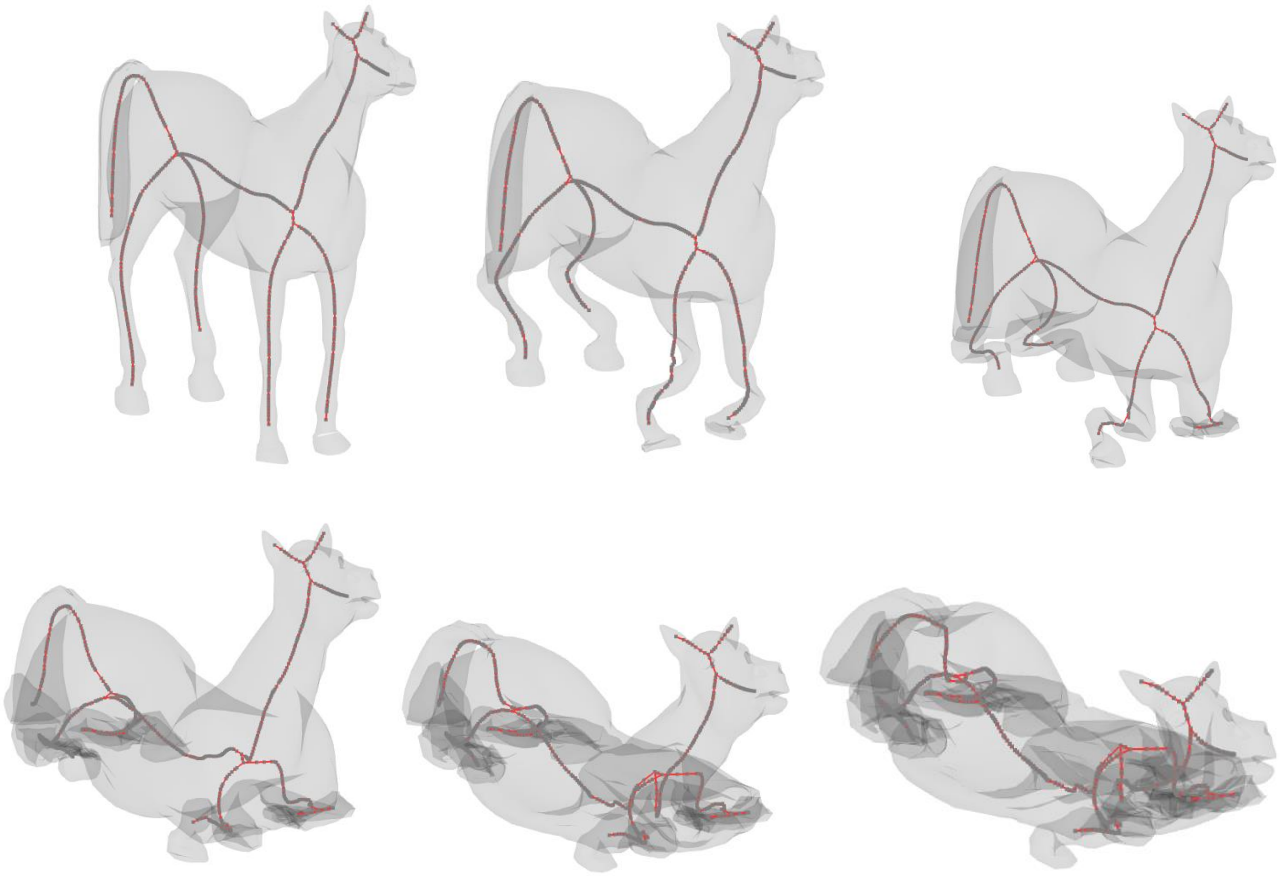
Number of Removed Vertices: 1777

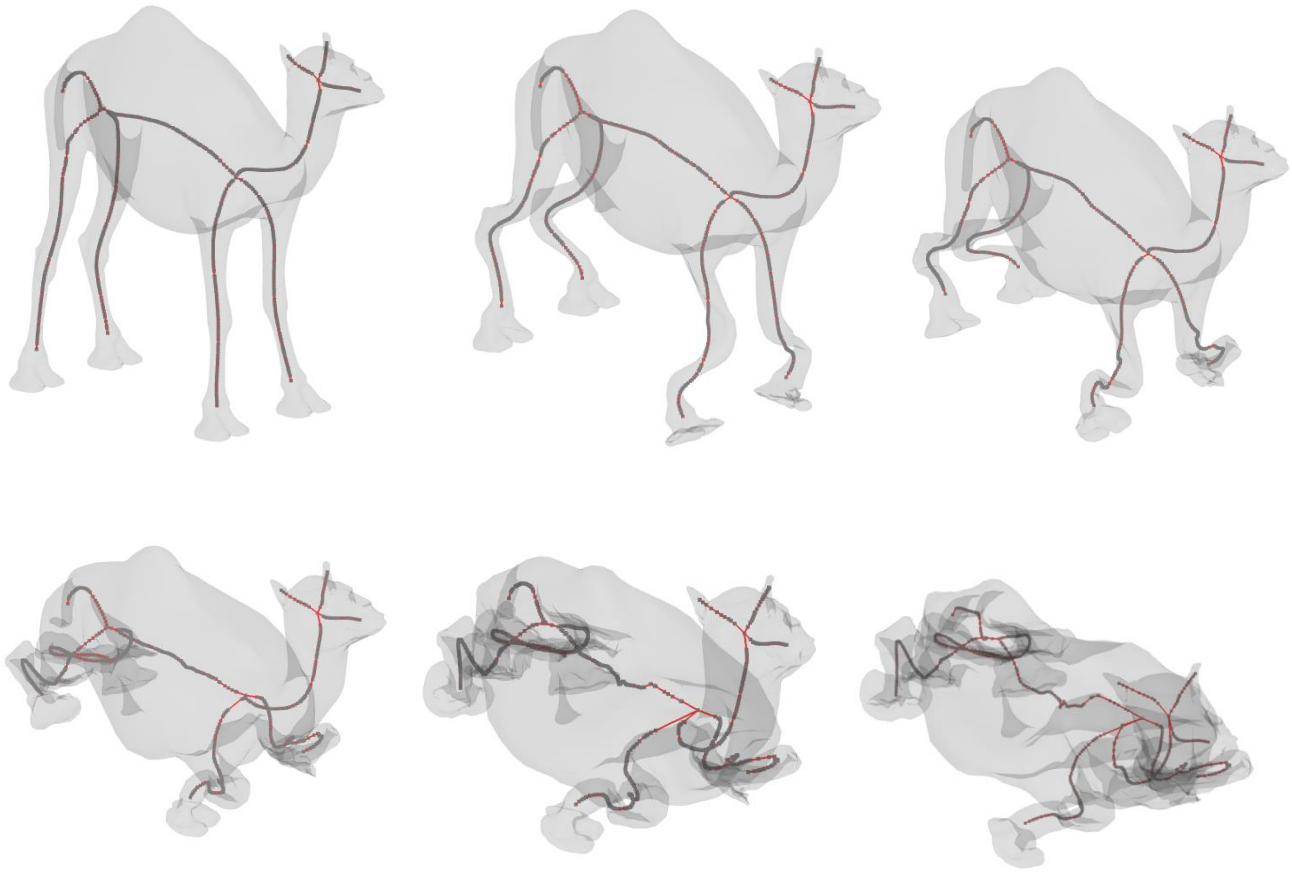


6. Collapse Sequences

6.1. Horse Collapse Sequence

Source Shape



6.2. Camel Collapse Sequence

Source Shape