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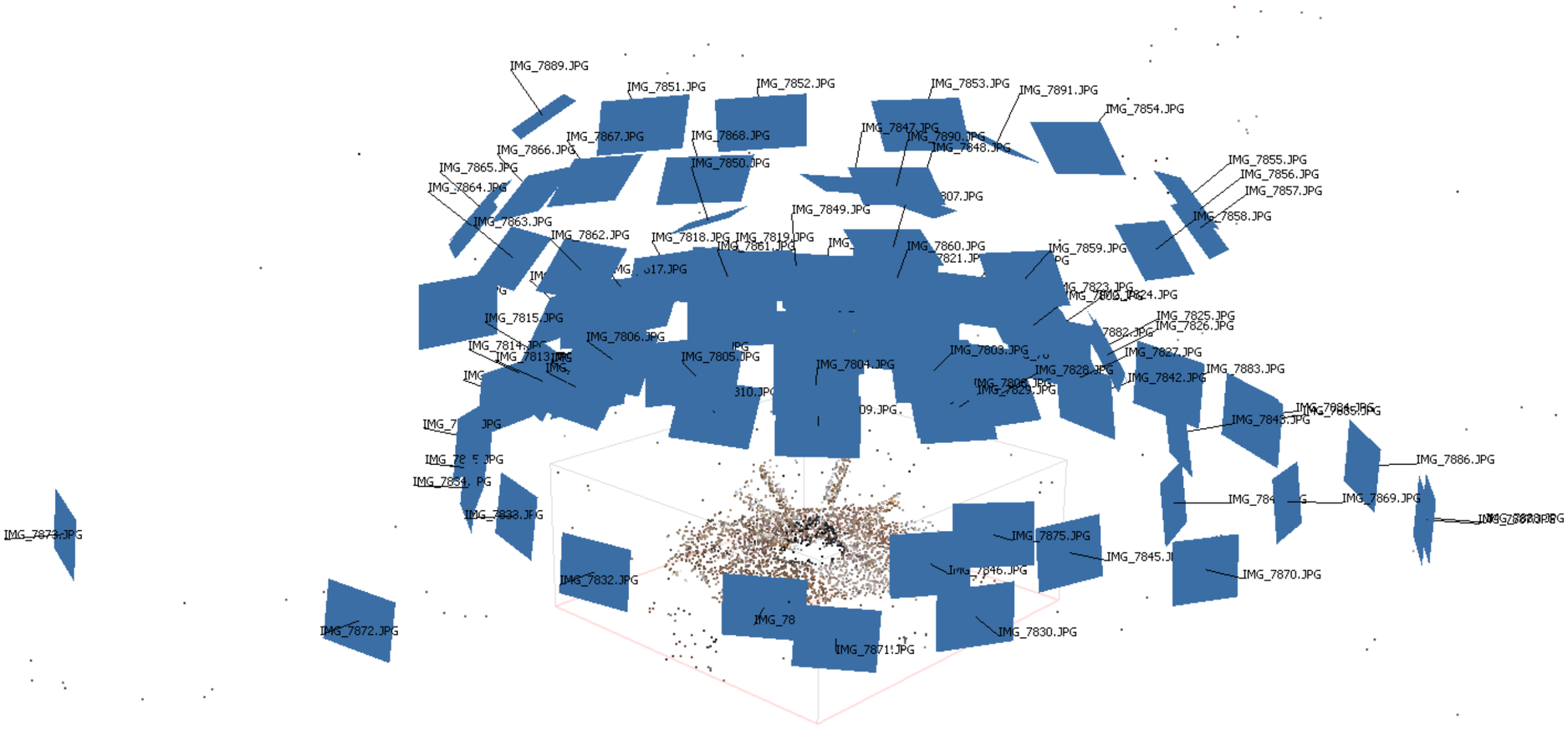
POINT CLOUD ANALYSIS

COLLECTING PICTURES

PhotoScan allows to generate and visualise a dense point cloud model. Based on the estimated camera positions the program calculates depth information for each camera to be combined into a single dense point cloud. Our students perfomed the picture collection in both exterior and interior environment. Those two processes resulted in positive or negative outocmes depending on the number and location of the photos taken.



BUILD POINT CLOUD

PhotoScan allows to generate and visualise a dense point cloud model. Based on the estimated camera positions the program calculates depth information for each camera to be combined into a single dense point cloud.

TOOLS

Agisoft PhotoScan is a stand-alone software product that performs photogrammetric processing of digital images and generates 3D spatial data

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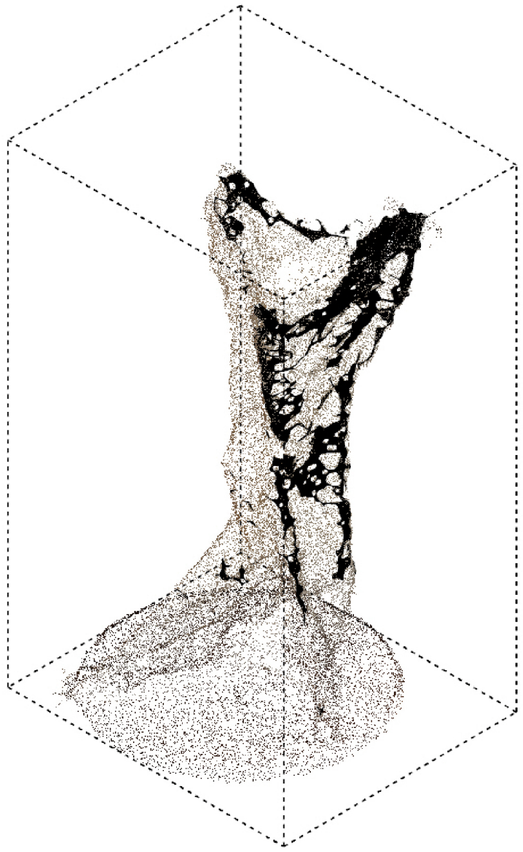
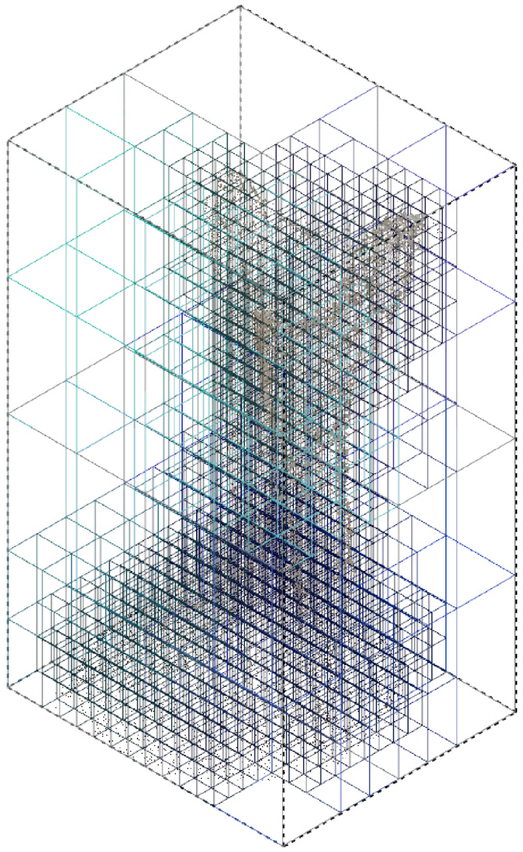


PARSING POINT CLOUD

extracting from the point cloud only the points included in a specific range of colours, relative to the mycelium colour gradient range.



RECURSIVE SAMPLING

extracting from the point cloud only the points included in a specific range of colours, relative to the mycelium colour gradient range.

GROWTH ORIENTATION

extracting from the point cloud only the points included in a specific range of colours, relative to the mycelium colour gradient range.

/// DATA EXTRACTION

total amount of points:
450219 PTS

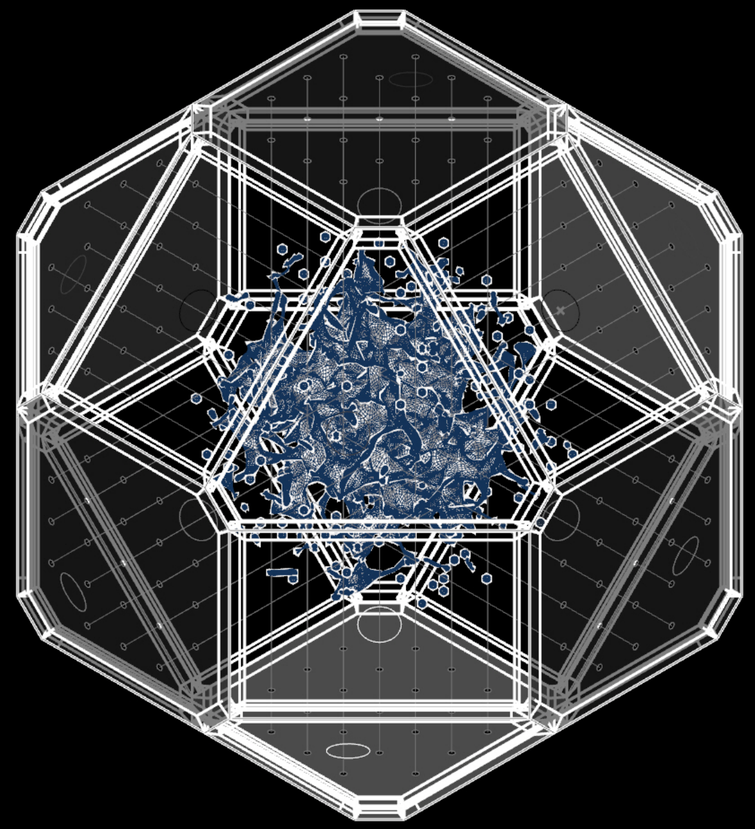
total points associated to mycelium:
15643 PTS

percentage of mycelium:
3.47 %

iteration number:
0

TOOLS

once the point cloud is collected we detect points associated to Mycelim from the original collection. The final outcome is numerically evaluating the impact / presence of mycelium in relation to the overall number of points. This process is meant to be iterative in order to extract growing patterns from the organism. WW



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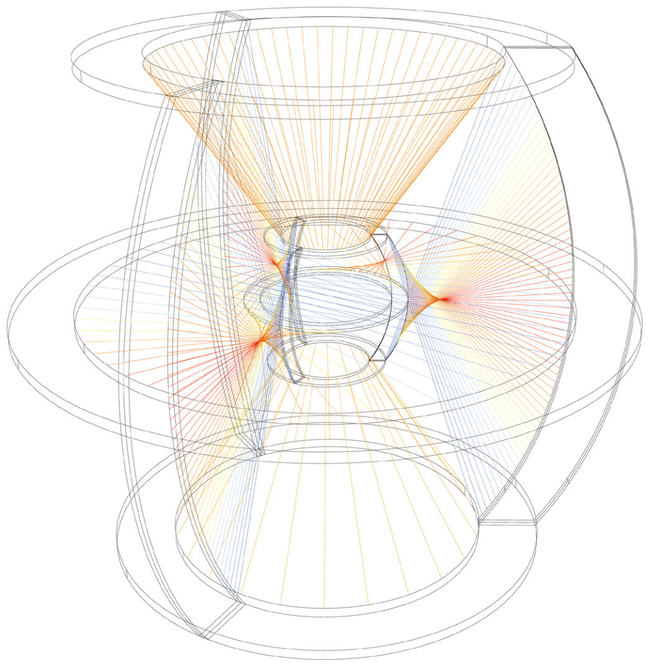

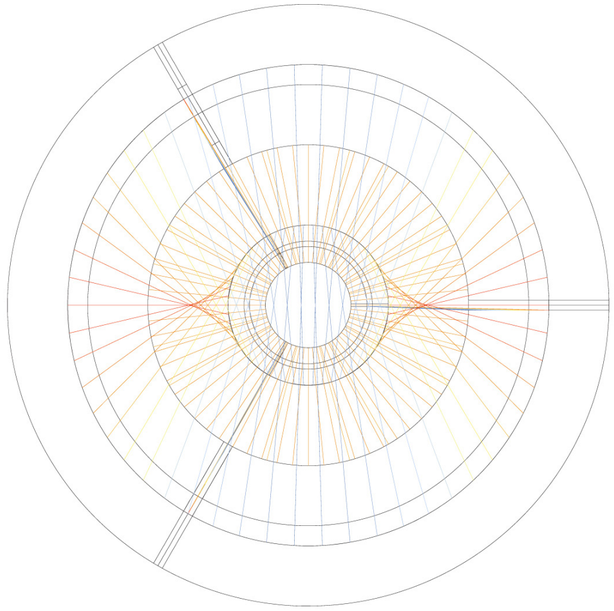

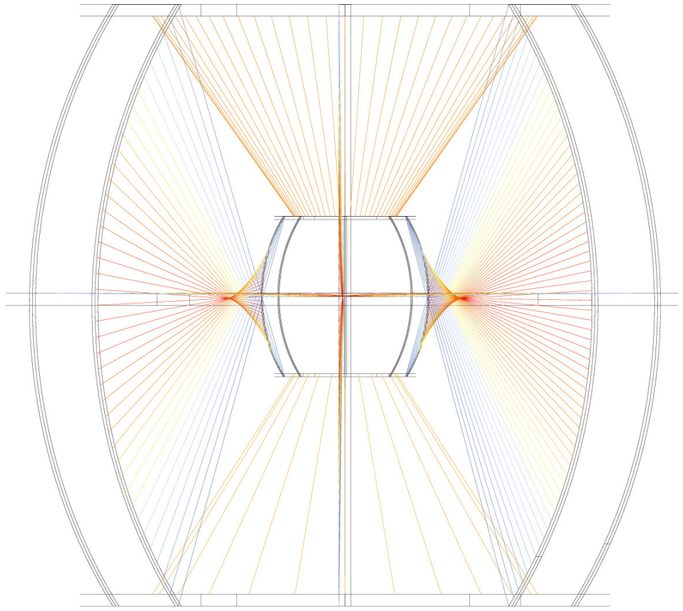

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