

Figure 1: Typical ArcView window.

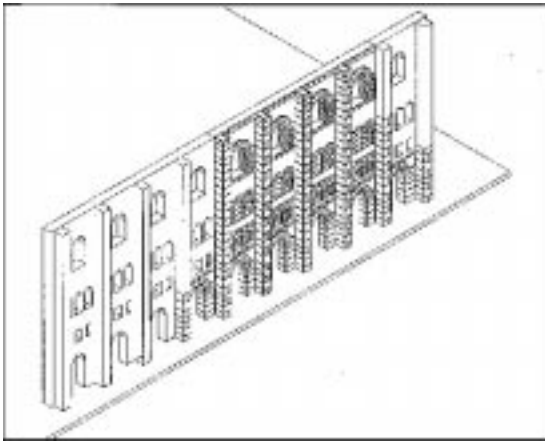


Figure 2: Topographical survey and CAD rendering of the entire facade (Studio Professionale Di Grazia of Rome).

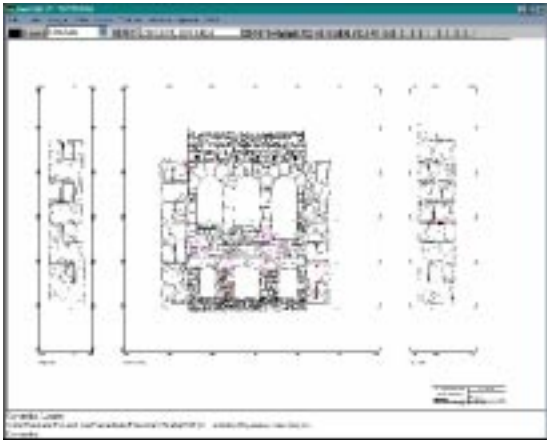


Figure 3: 6mx6m sector of the Theatre: photogrammetric survey (FO.A.R.T. of Parma).



Figure 4: ArcView Environment: material and grain data processing by GIS referring to 6m x 6m sector of the Theatre (photogrammetric survey).

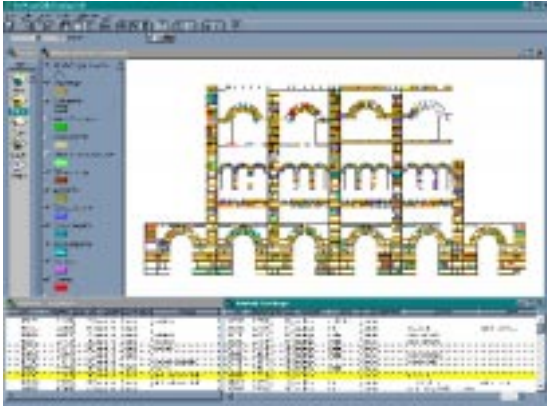


Figure 5: ArcView Environment: material and some degradation typology referring to the entire southern facade of the theatre (topographical survey: 2D geometrical reconstruction).

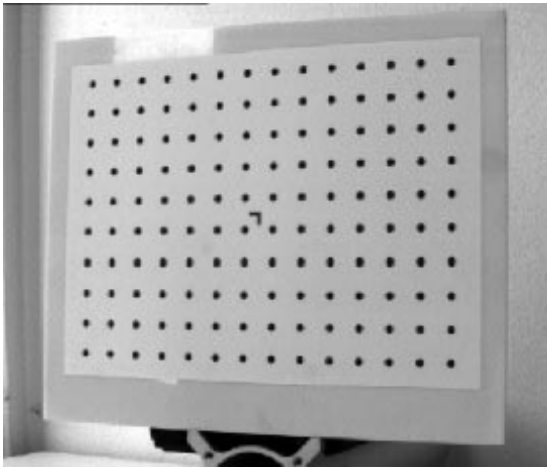


Figure 6: An example of planar target set used for calibration (a printed sheet of paper glued on a planar glass surface).

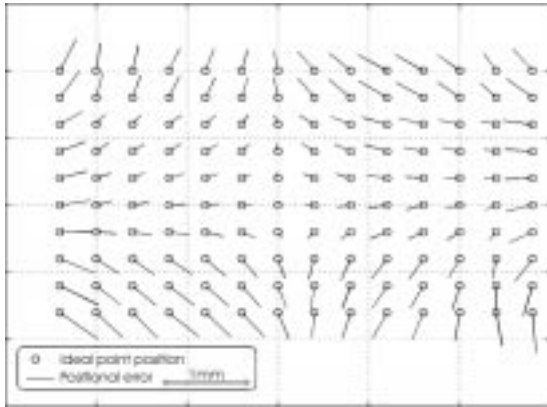


Figure 7: A-priori coordinates of the fiducial points of the target-set (laser-printed circles on a sheet of A4 paper, glued to a flat surface) and corresponding a-posteriori corrections estimated through self-calibration. The orientation of the (magnified) correction vectors denotes the deformation of the sheet of paper due to the action of the dragging mechanism of the laser printer.



Figure 8: Example of 3D reconstruction of a face from three calibrated views. One of the original views used for texture mapping purposes (up); one of the views used for 3D reconstruction (down), obtained through projection of artificial texture (pseudo-random noise).

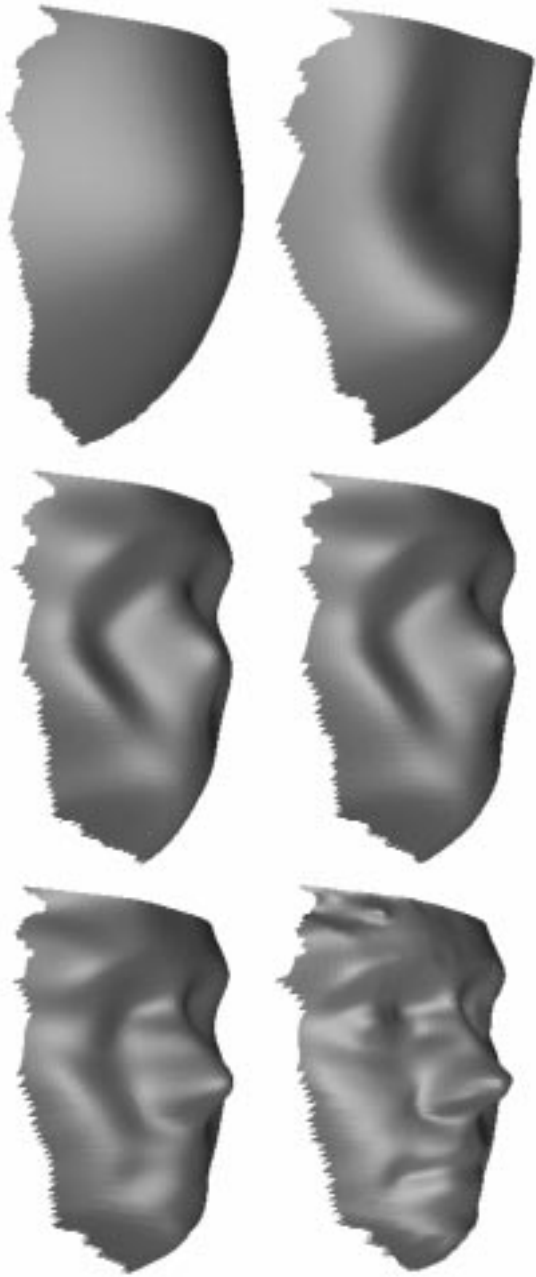


Figure 9: Progressive surface reconstruction of a face using multi-resolution area matching.



Figure 10: Final reconstruction of the face after texture mapping from the three available views without structured light.

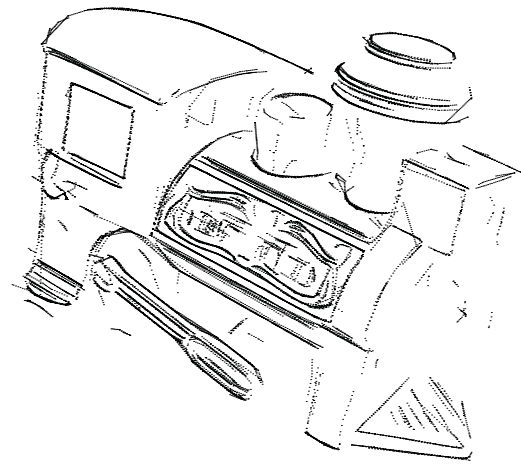


Figure 11: Example of camera motion estimation through optimal data fusion. One image of one of the available triplets of views (top). Optimal fusion of the 3D data extracted from several multi-views.



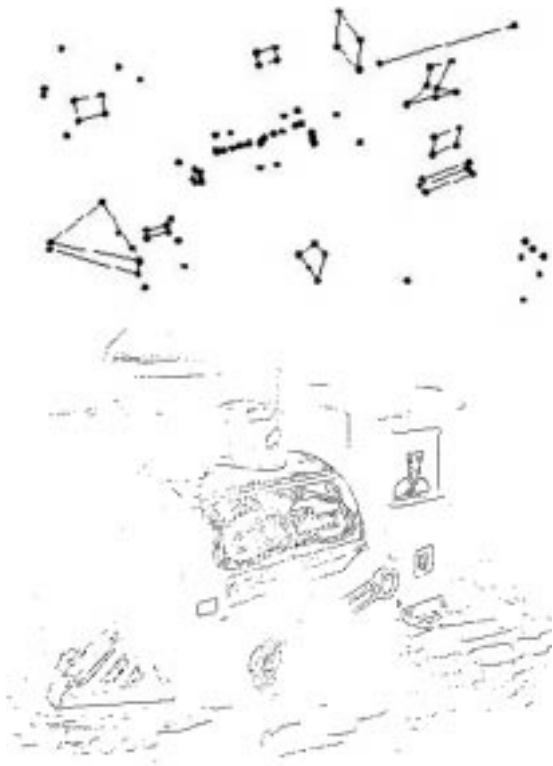


Figure 12: Example of local reconstruction from three uncalibrated views of a portion of a building. One of the three original views of the subject (up). Two views of the final densified cloud of 3D points after data refinement (middle and below).

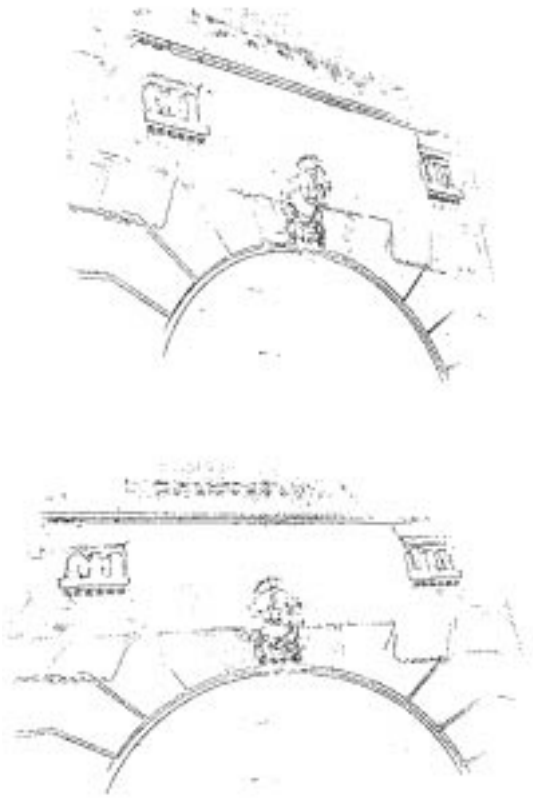


Figure 13: Example of local reconstruction from three uncalibrated views. One of the three original views of the subject (up). Reconstruction of a limited corner points in the 3D space, for tacking the viewpoint geometry (middle). Final densified cloud of 3D points after data refinement (below).