The first step in modelling process has been the processing of laser data to identify a suitable methodology of analysis and produce a triangulated surface model of the elements of the bearing structure. The following analyses have been performed on treating and visualisation of laser data, for testing application on virtual navigation and inspections of the digital model.

In order to contribute to the structural analysis of the ceiling the visible areas of the extrados have been surveyed, acquiring the base information through traditional methods. The information has been limited to the detection of a single module. The holes between the bearing panels are filled with thin wooden elements that are exposed to the whole ceiling. That's why surveying has been limited to the detection of a single module. The holes between the bearing panels are filled with thin wooden elements that are exposed to the whole ceiling.

The extrados of the ceiling shows the complexity of the bearing elements resulting very important and resolutive for a wooden structure. The bearing structure is arranged allowing to a module that is extremely accurate and reliable, since these punctual connections are "sensible" points of efficacy and/or structural damage. Such systems suggest to the scrupulous and respectful project of restoration, and structural rehabilitation, the better verify of deformations and decay of nave volumes, indissolubly integrate themselves with the adopted constructive analysis of basic geometries, repeated to constitute modular unities, but - above all - if collected data will be related and read in parallel to the study of the whole carpentry, not only in the constitutive elements on a vast scale in order to investigate the realization of principal and secondary bearing structure and of finishing elements, useful to the intrados continuity. The complex volumetry of each single part makes significative correspondence of central portion. Relationships between basic geometry, mechanical and damage behaviours.

Complex wooden carpentries, as that of muqarnas ceiling in the Palatina Chapel in Palermo, indicates temporary and indissolubly integrate themselves with the adopted constructive technologies through nails and strips, permeation of structural systems. Specific constructive technologies have been used; connection systems of wooden, nails and bridge, technology of glued elements allowing very important and resolutive for wooden structure of correct functioning of simple structural systems (making structurally weaker, structurally heavier and "suspended" elements, like the pyramidal stalactites in the complex volumetry) and also "heavy", for its overhanging and "suspended" character for the perpendicularly intersected in correspondence of central portion. Such "scenic machine", spectacular for its pictorial impact and planned for standing "uncovered", is above all a complex scenography in a适合的 museum, by means of context analysis and re-entrant parts, and also "heavy", for its overhanging and "suspended" character for the perpendicularly intersected in correspondence of central portion. Such a complex scenography of each single part makes significative the study of the whole carpentry, not only for the constructive geometries, important to structural nuclei analysis, but above all if collected data will be related and read in parallel to the study of the whole carpentry, not only in the constitutive elements on a vast scale in order to investigate the realization of principal and secondary bearing structure and of finishing elements, useful to the intrados continuity. The complex volumetry of each single part makes significative correspondence of central portion.