P4 Reflection - Matthew Tanti, 4252209

I believe that without the research in the initial phase, this design would have not been possible. The research gave me a good idea on what are the main parameters one has to consider when dealing with stone as a structural building material and robotic fabrication as the main production process. The methodology of the design was setup in the research period which gave me a clear idea on how the building information should flow and interact with specific aspects of the design. I would have loved to keep on researching and have focused more on the building system rather than expanding into a complex architectural project. In my case I always felt that the final product should be the design methodology and system itself, with the architecture project being a showcase of what the system is capable of accomplishing. In the transition zone between researching and designing a simpler architectural project might have left me more time and energy to focus on further detailing the system. This was a constant dilemma for me, as a simpler project would have left me more energy to focus on the system, whereas a complex project really challenged me and my system. This project raised new challenges which made me constantly redefine the methodology. These challenges and changes would not have emerged if a simpler project was chosen.

I consider myself lucky that I was allowed to chose a location (Malta) and a material (Limestone) which is not well know in the Netherlands and out of the comfort zone of my tutors and myself. I think exploring robotic fabrication for stone buildings is very in line in what architecture engineering claims to be. i.e. the integration of engineering with architecture. Although I believe that the integration of fabrication process to the architectural design is still not generally fully embraced in educational establishments, I was glad that such an exploration was approved.

I felt that my methodology was very different than the rest of the studio. I explored on the idea of having a bottom up design approach. I start from a material which developed into a building system which further developed into an architectural project. The material properties had huge impacts on the form and the aesthetics of the project. This method lead to alot of challenges in achieving a balance between architecture, material, structure and fabrication. Apart from all this, I think that it was a very interesting methodology to test and experiment.

Considering the challenges the design phase have given, I still think that it was a very satisfactory results in the time frame give. In the beginning of my studies I already made it clear for myself that it was not a matter of solving all the problems that this research would give, but mostly find the most important challenges and address them. Further research and testing would have to be done in order for this system to be fully implemented in the construction industry. Some decisions in the design are assumptions which would have to be tested in material lab and stone components would have to be cut and prototyped in order to really understand the fabrication and construction tolerances of the system. I would like to keep on research of this matter in the near future.