

OPPONENT'S REPORT ON THE MASTER'S THESIS

Title of the Thesis: Hempcrete Construction Detailing & Specification

Architects, Builders & Specifiers

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Overview

In response to the thesis brief, it is apparent that the field of architecture today extends far beyond traditional boundaries valid just few years back. It intersects with historical discourse, operates on the urban scale, and engages directly with engineering principles. This diploma project sits at an intersection between architecture, engineering, and product design. These are domains that are increasingly interdependent, often driven by scientific reasoning and technical innovation.

Given the interdisciplinary nature of the themes explored, the project could benefit significantly from a multidisciplinary, collaborative approach. Bringing together architects, engineers, material scientists, and product designers would not only enhance the rigor of the outcomes but also better reflect the realities of contemporary architectural practice, where concept and execution are deeply intertwined. It is notable that brief for master thesis should reflect the brief more regular for architecture profession yet leverage the benefit of multidisciplinary approach.

Assessment

Innovation and Research:

The thesis demonstrates an innovative approach, particularly in its research depth. Exploration into alternative materials like hempcrete is commendable and suggests a willingness to push conventional boundaries.

Structure and Comprehensiveness:

While the guide adopts its own internal structure, it cannot be considered comprehensive. Nevertheless, the work shows considerable effort. For a practitioner particularly interested in using hempcrete, the document would provide a useful starting point.

Standards and Norms:

The thesis framing would benefit from constraint given by a particular market. The thesis quotes UK standards and references and some EU based references. As product usage needs to reflect market context there is a significant limitation is the absence of references to ISO standards and relevant norms. This lack of regulatory grounding limits the applicability of the project in a professional context. Achieving such rigor typically necessitates multidisciplinary collaboration.

Technical Parameters:

The thesis does list some standards, not sufficiently address parameters required to pass local codes

or material testing standards. Greater attention to this area would strengthen its viability as well as its concrete environmental impact and embedded carbon with concrete quantification

Detailing and Visualization:

While there is reference to traditional detailing, the project lacks innovative visualization methods such as BIM integration or the creation of a component library. These are now standard in both academic and professional settings and would have enhanced the technical communication of the design.

Format and Presentation

The format is adequate but could be elevated through the integration of advanced digital tools and BIM components and more precise referencing of technical standards. No specific comments on layout are needed beyond this.

Key Questions

How might the work evolve with technical collaboration and deeper engagement with digital workflows?

Summary and Recommendation

This project is an ambitious effort that engages relevant and forward-thinking topics in material innovation and architecture. However, it would greatly benefit from collaboration with technical experts to meet concrete industry standards and norms. As architectural practice becomes increasingly collaborative and technologically driven, the recommendation is to pursue future work in a team-based setting, embracing the integration of design with engineering and production.

I do recommend C grade because of my review and thorough consideration.

June 3rd 2025 in Prague.

A handwritten signature in black ink, appearing to read 'Vlad Masinsky', with a long horizontal stroke extending to the left.

Vlad Masinsky, MSc.