

**REVIEWER'S FORM  
for thesis evaluation**



**1. Identification of the student**

Student:	Athina Papadiamanti
Thesis:	Evaluation of the Broumov parish house failure, its causality, and some ideas for remediation
1 <sup>st</sup> Institution:	Universidade do Minho
2 <sup>nd</sup> Institution:	Czech Technical University in Prague
Academic year:	2022/2023

**2. Identification of the reviewer**

Name:	Ing. Riccardo Cacciotti, Ph.D.
Institution:	ITAM
Position:	Researcher

**3. Fulfillment of thesis goals**

excellent <input type="checkbox"/>	above aver. <input checked="" type="checkbox"/>	average <input type="checkbox"/>	below aver. <input type="checkbox"/>	weak <input type="checkbox"/>
<p>Comments: this work aims at investigating the Broumov parish house's conditions and the factors contributing to its deterioration and at evaluating the causes of decay. Additionally, it attempts to outline recommendations for further investigations and monitoring strategies in order to endorse the ongoing preservation and maintenance of the building. Although the identification of damaging mechanisms remains in the hypothetical sphere, due to the inherent complexity and resource-demanding nature of the task, all the other goals are effectively fulfilled. Finally, the development of appropriate strategies for its preservation and restoration remains quite general and it would have perhaps required to provide deeper insights.</p>				

**4. Academic/scientific/technical quality**

excellent <input type="checkbox"/>	above aver. <input checked="" type="checkbox"/>	average <input type="checkbox"/>	below aver. <input type="checkbox"/>	weak <input type="checkbox"/>
------------------------------------	---	----------------------------------	--------------------------------------	-------------------------------

**REVIEWER'S FORM  
for thesis evaluation**



Comments: the thesis presents good scientific quality and adequate technical knowledge related to the analysis of cultural heritage assets. The methodological framework employed is clear and comprehensively presented. The visual inspection and photogrammetry provide remarkable results, in particular the 3D model. The annotation of such model with additional information (tags), even if only briefly mentioned, demonstrates the student's sensitivity to the beneficial application of technologies to cultural heritage protection. The model analysis, considering the multiple assumptions made and the variety of unknown parameters (e.g. material props, loading conditions, intrinsic heterogeneities etc.), even if a constant limitation when dealing with historic structures, leads to an abstract representation of the real conditions of the building, yielding consequently inconclusive results. The Italian code used for determining the material properties also factors in the "level of knowledge" concerning the material under investigation. It is not clear if this has been used in the research. Nevertheless, it should be underlined that uncertainty is duly addressed in the thesis and extensive discussion is provided related to the limitations of the model and its evaluation. On the other hand, the structural analysis enables to exclude improbable damaging scenarios, thus providing interesting clues about the possible causes of damage.

**5. Formal arrangement of the thesis and level of language**

excellent       above aver.       average       below aver.       weak

Comments: the thesis presents a clear structure and it is composed of well-defined sections, which makes it a pleasant read. The contents are comprehensive and well-presented. A more in-depth introductory section concentrating on the scope of the research in general, including research questions and goals and thesis structure, would have been perhaps beneficial to better set the context of the study. Minor typos and language errors are present.

**6. Further comments**

**REVIEWER'S FORM  
for thesis evaluation**



Overall, the thesis fulfills its research goals and it is of good scientific quality. The student exhibits to have achieved a very good knowledge in addressing appropriately typical problems related to historic structures applying adequate documentation, inspection and diagnostic procedures.

Some suggestions:

- Is there any impact of the ongoing damage mechanisms on the preservation of the frescoes? This, even if minimal, could have due to the relevant values of the artwork a significant effect on the risk management on this building.
- Damage in historic buildings is usually due to multiple co-existing causes and synergy among damage mechanisms. It remains blurred how the thesis addresses this issue.
- Recommendations in the form of a tailored action plan for the building would have been valuable.

**7. Grade: B**

Use the following scale

A (excellent)	B (very good)	C (good)	D (satisfactory)	E (sufficient)	F (fail)
---------------	---------------	----------	------------------	----------------	----------

Prague

July 20, 2023

The Reviewer,

Ing. Riccardo Cacciotti, PhD.