## ARCHITECTURE AND DENDROCRONOLOGY AT THE OLD CHURCH IN BREB, MARAMURES

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Keywords: dendrochronology, shingles, wooden church, carpenter tradition.

**Abstract:** In parallel with the design of the much-needed restoration works at the Wooden Church of Breb (Maramureş), several lines of research were initiated, generated by the complexity of this medieval church in Maramureş. In order to find answers, it was necessary to connect the field of architectural research with that of archaeological research, in some of its various methods: dendrochronology, wall investigations, non-invasive field research through geo-radar scanning and, last but not least, field research through archaeological surveys and excavations.

Of all these aspects of archaeology, the article presents only the dendrochronological research, spread over several stages: the one in 1997 by the Alexandru Baboş – Olafur Eggertsson team, and those in 2019, 2021, and 2023 carried out by the Anno Domini Dendrolab laboratory. The technical results of the dendrochronological research are presented, followed by their interpretation by correlating them with the architecture and history of the church.

This interdisciplinary research has brought a better understanding of the church's history and the techniques used by the craftsmen who built the church, and has provided solid arguments for the tradition of reusing shaped and healthy timber from previous constructions. It has revealed the role of the interior roof in the original architectural concept of the church built in 1623, which turned out to be taken from an earlier church dated to 1530, which in its turn took the shingles dated to 1479 from an earlier construction.

Rezumat: În paralel cu proiectarea lucrărilor de restaurare atât de necesare la Biserica de lemn din Breb (Maramureș), au fost demarate câteva linii de cercetare, generate de complexitatea acestei biserici medievale maramureșene. Pentru a afla răspunsuri, a fost nevoie să conectăm domeniul cercetării de arhitectură cu cel al cercetării arheologice, în câteva din feluritele sale metode: dendrocronologie, studiu de parament, cercetare de teren non-invazivă prin scanare geo-radar și nu în ultimul rând cercetare de teren prin sondaje și săpături arheologice.

Dintre toate aceste fațete ale arheologiei, articolul prezintă doar cercetarea dendrocronologică, întinsă pe mai multe etape: cea din 1997 a echipei Alexandru Baboș – Olafur Eggertsson, și cele din 2019, 2021 și 2023 realizate de laboratorul Anno Domini Dendrolab. Sunt prezentate rezultatele tehnice ale cercetării dendrocronologice, urmate de interpretarea lor prin corelarea cu arhitectura și istoricul bisericii.

Această cercetare interdisciplinară a adus o mai bună înțelegere a istoricului bisericii și a tehnicilor folosite de meșterii ce au construit biserica, și a adus argumente solide pentru obiceiul refolosirii lemnelor fasonate și sănătoase din construcții anterioare. A revelat rolul acoperișului interior în conceptul original al arhitecturii bisericii construite în anul 1623, ce s-a dovedit a fi preluat dintr-o biserică anterioară datată în 1530, care la rândul ei a preluat dintr-o construcție anterioară șindrilele datate în 1479.

The restoration project of the wooden church "Saints Archangels Michael and Gabriel" in Breb, starting with the first stages of the Historical Study and the Architectural Survey, raised up some questions and highlighted some curiosities of the church, which as we tried to understand and deepen them, revealed new attractive research paths.

In order to find answers, it was necessary to connect the field of architectural research with that of archaeological research, in several of its various methods: dendrochronology, wall investigations, non-invasive field research through geo-radar scanning, and last but not least, field research through archaeological survey and excavations. In the following, after a brief exposition of the elements of rarity and uniqueness of the old wooden church in Breb, we will present in detail the first of the four interdisciplinary architecture-archaeology research initiatives presented above: the architecture-dendrochronology connection. The second initiative was presented in the article "Archaeology of a 1479 Shingle" published in the yearbook of the Maramureş Museum in Sighetu Marmaţiei. The last two, the geo-radar scanning and the archaeological surveys, will be the subject of future articles.

Through these interdisciplinary explorations of the authors, the article also intends to open the appetite of archaeologists for the late Middle Ages and for the wooden churches erected in this period, invaluable legacies for our identity, which unfortunately are still insufficiently researched.

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Caiete ARA 16, 2025 pp. 155-166

<sup>&</sup>lt;sup>1</sup> Zaharia 2022, pp. 17-32.