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Banat's Last Wooden Churches and How to Save Them

Using Crivina de Sus Wooden Church as a Case Study

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Abstract

Biserici Inlemnite din Banat/Wooden Churches of Banat is a project that had started from the desire of a small group of volunteers to save the oldest wooden church in Banat, the wooden church of Crivina de Sus. During its five years of existence, the extended team has come to study the other churches in Banat and try to build an intervention methodology on this type of architecture. In this article, two of the members of this team reveal the story of the construction of this approach, the history of the church from Crivina de Sus and the way in which this approach can become an example for the way in which the sacred architecture of Banat could be preserved. Many churches have lost valuable items after some restoration, at least questionable, partly due to lack of research. Indeed, it is not easy to take the best decisions when there is not enough information and the church risks collapsing, which is why the authors of this article are discussing some possible solutions. The project Biserici Inlemnite combines the old and new, in a an atempt to save Banat's last churches. The authors argue that technology and research could save the churches more than outdated heritage laws or intervention methods can.

Rezumat

Biserici Înlemnite din Banat/Wooden Churches of Banat este un proiect născut din dorința unui grup mic de voluntari de a salva cea mai veche biserică de lemn din Banat, biserica de la Crivina de Sus. De-a lungul celor cinci ani de existență al acestui proiect, echipa s-a extins considerabil, ajungând să studieze și celelalte biserici ale Banatului și să construiască o metodologie de intervenție pentru acest tip de arhitectură. În acest articol, doi dintre membrii echipei Biserici Înlemnite din Banat, descriu povestea construirii acestei abordări,istoria bisericii de la Crivina de Sus și felul în care această abordare poate fi folosită ca un exemplu în conservarea ultimelor biserici de lemn din Banat.Multe biserici au pierdut material original valoros, în urma unor restaurări cel puțin chestionabile, în parte datorită lipsei de documentare. Într-adevăr, este dificil să iei deciziile cele mai bune, atunci când nu ai suficiente informații iar biserica riscă să se prăbuşească.Tocmai de aceea, autorii încearcă să vină cu câteva soluții. Proiectul Biserici Înlemnite din Banat, împletește metode de cercetare noi, cu metode vechi, într-o încercare de a salva ultimele biserici de lemn din Banat. Autorii încearcă să scoată în evidență faptul că metodele moderne de documentare, pot ajuta procesul de salvare al bisericilor, mult mai mult decât legislația depășită sau intervențiile brutale de până acum.

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1. Introduction

Wooden churches are part of a category of monuments in danger, due to the perishability of the built material, but also due to an incomplete understanding of this particular type of edifices. This is largely due to the fact that, at the dawn of modernity, the details of ancient craftsmanship of less-demanded wooden churches have begun to be lost. Nowadays, the restoration work of wooden churches is often based on relatively brief documentation which, for various reasons, does not surpass the far less visible details (subtle if you want) but very important of a such a monument. In the absence of their understanding, those responsible for the restoration of the wooden churches have every chance of escaping the essential or at least a part of it, and the value of the historical document that such an edifice has to be irreversibly affected.

This lack of detailed knowledge of the carpenter's work, limits the perspective of the specialists of today on these constructions, which inevitably leads to proposals for inappropriate interventions, the result being that the historical monument is losing its value, being affected its authenticity. Beyond the apparent features of a wooden church: the tower over the church, their orientation from east to west, the separation of women's and men's spaces, the high roof, the categorization of different types of joints, or their inner ambiance, dominated by a faint light, architects and specialists involved in the restoration of these churches find it hard to capture the subtle features of these wooden buildings.

What do the dimensions of the wooden churches actually say? How were they raised, without drawings and sketches, but always with almost the same proportions? Where does the so incompatible visibility of new and newly built churches come from? What do today's carpenters not know about old craftsmanship and how the old constructive tradition can be recovered? Once these details of the craftsmanship of the past have been recovered, how should the restoration approach be changed in case of interventions on wooden churches?

In view of this perspective of the authors about the documentation of wooden churches, the present study aims to bring to the attention of those interested the experience gained in recent years in the workshops carried out around the rehabilitation of the wooden church in Crivina de Sus, pointing at the same way as today's ordinary technologies which were not available for several decades, helped considerably the work of the "Biserici Înlemnite din Banat/Wooden Churches of Banat" in order to get closer to the subtle features of this important historical monument.

2. Why Should We Preserve the last Wooden Churches in Banat

In today's Romania, the activity of maintaining and restoring historical monuments is confronted with a great deal of difficulty. In the middle of this, we have the owners of historical monuments who, in most cases, do not have the money to fund appropriate interventions on the historic monument and the necessary skills. The same owners/beneficiaries of the historical monument face another problem: the weight of adapting such a building to the needs of today. On the other hand, in many cases historical monuments have been invoked as a cause of the restraint of modern public projects of community interest. Other times, some historical monuments were considered to be no longer fit with the present taste. If we also bear in mind the constraints imposed by the regulations in force, we can easily conclude that historical monuments can be uncomfortable and that their maintenance is difficult and very expensive.

However, we choose to protect, repair and maintain these historical monuments, despite the

difficulties that have arisen, in order to perpetuate their value, regardless of their aestheticconstructive value, of the socio-economic value or of the historic document value.

The wooden churches, like other buildings on the historical monuments list, are no exception to the situation presented above. Their owner is usually a religious community, aged and without material possibilities. Decisions on the situation of the place of worship are taken by reaching agreement within the community, but usually these decisions are limited to requesting material and professional support to various local or regional authorities, secular or religious, for interventions on the monument. Virtually many communities that have historic monuments in the locality cannot afford, through their own resources, to carry out proper maintenance works for these protected buildings. Salutarily, over the last few years, more and more non-governmental organizations, educational institutions or professional associations have joined the community's efforts to rescue, repair and maintain the wooden churches.

However, the question remains: why should these wooden churches be saved? Well, we consider it sufficient to recall that articles and writings that have appeared since the second half of the nineteenth century to date. They have shown that this particular category of edifices are relevant to understanding the evolution of constructive activity, have aesthetic value, but it also expresses mentalities, provides details about social structures and tastes. They also mirror local natural conditions, knowledge, contacts and events of various eras. At the same time, wooden churches can have a pedagogical and an identity character. Last but not least, they are a very important documentary and scientific source for a very wide range of fields.

Particularly, in the Banat area, fewer wooden churches survived than in other parts of Romania. Once, the theater of rivalry between the East and the West, the historical territory of Banat was divided after the First World War, between Romania, Hungary and Serbia. The successive rulers: Ottoman, Habsburg, Austro-Hungarian and Romanian, have considerably influenced the evolution of the inhabited landscape, demographics and ethnic composition. Beyond the civilization role attributed to the Habsburg administration, it has contributed to a brutal transformation of the landscape, by building new roads to ensure control and quick access to resources, by clearing secular forests, by moving, systematizing and removing the old Romanian villages and last but not least by encouraging the abandonment of the vernacular wood architecture and its modernization through the construction of new, more "durable" buildings. As a result of these important transformations, the old rural communities of Banat, with their traditional architecture and their wooden churches, largely disappeared.

At the end of the 19th century, the Banat region had more than 200 wooden churches². In 1929 they were only 54, and today we have just over 20. Unfortunately this fragile patrimony is still endangered. The Berini wooden church towards the end of the 1980s was to be moved to Pişchia in Timiş county. Unfortunately, the transfer of this church was delayed so long that the church was already in an advanced state of degradation and could not be saved. In the case of another church, the one in Nemeşeşti, its wooden walls were replaced with masonry walls in the early 2000s. More recently, in the spring of 2015, the wooden church in Povergina burned, and with it one of the most beautiful and valuable pictorial themes in Banat was lost irremediably. The remaining ones are also in a poor state of preservation: some due to the passage of time and the lack of restoration interventions, others precisely because of them. Churches like Margina or Homojdia have been irreparably destroyed by abusive, brutal restorations, in fact true reconstructions.

The majority of the wooden worship edifices still here date back to the 18th-19th centuries. Only one, from the 17th century, is dated by an inscription: the wooden church of Crivina de Sus.

²Nicolae Săcară, *Bisericile de lemn ale Banatului*, Editura Excelsior, Timișoara, 2001, p. 8;

However, there are, according to tradition, other churches dating back to the 17th century³. As a proof of the constant evolution they have undergone, communities and churches, almost all of them have been moved (some even two or three times) have been transformed, enlarged, adapted to better serve the needs of parishioners and, presently, have been restored. Also, often valuable icons or pieces of furniture have been moved to museum in the cities.

Returning to the subtle features of the wooden churches, as Alexandru Baboş showed in the Maramures wooden churches, the number of edifices of this kind preserved in a certain area could significantly contribute to the determination of less obvious features of the wooden churches⁴. For example, in the case of the Maramureş wooden churches, also built in a time when the carpenters did not use technical designs or detailed sketches, their edification was made around an idealized model, prescribed by religious writings and the human body proportions, through the units of measurement used at that time: fathom, step, elbow, trace, palm and finger.

At present, all measurements taken in wooden churches are performed using the metric system. Greater attention given to the measurements made today and their correlation with units of measurement used in previous centuries could lead to further details about the main dimensions of the churches and their proportions, or the period of the church building. Determining the standard benchmark in which the church was conceived may, in our mind, lead to a better understanding of how the carpenter crafted the church or the variations that he allowed around the idealistic model he had in mind. These variations may provide clues about the particular conditions the craftsman had to adapt to, such as the material at his disposal or the community's preferences.

From this perspective, every piece of a wooden church can be extremely important to understand the entire edifice. We, therefore, advocate for minimum interventions, taking into account aspects such as those outlined above. From this perspective, replacement of the original pieces should be done with great discernment only where it is really necessary.

Mr. Baboş's conclusions about the subtle features and the proportions of the wooden churches⁵ were probably facilitated in their correlation with the exact period in which the church was built, using a totally new dating method for the Romanian space at that time, the dendrochronological dating of wooden churches. This aspect, relevant to perceiving the contribution of new technologies to the research of wooden churches, will be discussed into more detail in the following chapters.

From the Romanian regions that still preserve wooden churches, Maramureş has the largest number of such edifices dated by the dendrochronological method. In the other parts of the country, the dendrochronological dating used in the investigations of the wooden churches is sporadic. These dendrochronological studies are currently not mandatory and do not constitute a binding document for the restoration work file. In the Banat area, to our knowledge, only two churches have been investigated so far: the one from Crivina de Sus, Timiş County and the one from Ersig, Caraş-Severin County. The usefulness of these studies arises when the information obtained by this method reveals constructive stages that are otherwise impossible to date or, in the case of wooden churches without an inscription date, a first definite dating.

³The churches of Dragomirești, Bătești, Jupănești, Dăbești, Românești and Cebza are placed in the 17th century according to the oral tradition and by the analysis of the constructive techniques, cf. Nicolae Săcară, *Bisericile de lemn ale Banatului*, Editura Excelsior, Timișoara, 2001, p. 15;

⁴ The lecture entitled *Wooden Churches, Documentary and Scientific Sources in the Study of Transylvanian History*, held by Mr. Alexandru Baboş, architect, doctor in Architecture History, expert in Heritage, was presented on 19 March 2018 at the Faculty of History and Philosophy, Babeş-Bolyai University in Cluj-Napoca.

⁵See the work of Mr. Alexandru Baboş, *Tracing a Sacred Building Tradition, Wooden Churches, Carpenters and Founders in Maramureş until the turn of the 18th century.* Norrköping: Lunds universitet, 2004;

Perhaps more careful attention to all church details implies a longer time dedicated to documenting the monument. In some cases, a thorough research of the documents kept in various archive funds can bring important data for determining the evolution of the historic monument. If we add other types of investigations, such as archaeological, biological or compositional studies of different plasters, we find that today's technique provides restorers with a wide range of instruments through which they can get closer to the subtle features of wood churches.

3.A History of Documenting Wooden Churches in Banat and Transylvania

The documentation of wooden churches in Banat and Transylvania, began in the true sense of the word in the second half of the nineteenth century⁶. Prior to these first works, information or details about the Romanian wooden churches appeared in publications of a historical, geographical, ethnological or statistical nature, published in German, Hungarian or Romanian. Taking into account the limited character of our approach, we will try to point out the main stages recorded in the documentation of wooden churches in Transylvania and Banat, while also highlighting, as far as possible, the methods and techniques used at that time to carry out these researches.

The documentation of wooden churches and other buildings began with the research on popular architecture and with the first attempts to protect historical monuments. In particular, in the territories belonging to the Hungarian Kingdom, in order to arrange a ethnographic village for the Millennium Exhibition, in 1896, photographs, drawings, church plans were ordered with the intent to choose the appropriate model to be relocated within this ethnographic museum in Budapest. The great majority of the works obtained in this way are the results of the activity of the drawing professors at the time. Since the middle of the 19th century, they were the first to document the art monuments and the ethnographic heritage.

For example, in the brochure dedicated to the construction of the Church of *the Holy Mother of All Romanians, the Monastery of the Romanian Mother* in Şişeşti, Maramureş county, by Vasile Lucaciu, who wrote:"The Kunstverein Society in Vienna, years before, sent photographers artists, to eternalize the forms of our wooden churches. This is how the old wooden church of Seini, Apa and Giurgeşti, etc., was photographed"⁷.

At the beginning of the 20th century, Szinte Gabor, a professor of drawing and research of the popular architecture, undertook in 1912 and 1913 a series of documentary trips in the Land of Călata, in the Hills of Cluj area and further on, on Somes valley and to historical Maramureş. Part of the drawings and photographs taken on these occasions have been published in 1913⁸. Another part of the materials gathered during these documentary trips is still kept in the archive of the Ethnographic Museum in Budapest. Among these, some photos are particularly relevant to understanding the technical possibilities and methods used during these documentations. For example, one of the photographs taken in 1912 shows Szinte Gabor with his high boots, made from leather, with his stick and sketchbook under his arm⁹. On these trips, Szinte Gabor was accompanied by his son, Szinte Laszlo, who also made sketches¹⁰. The transportation between the localities was done with a horse cart.

⁶See in this regard the works: Fr. Haas și Franz Schulcz, *Die Holzkirchen im Bisthume Szatmár*. Mitheilungen der K. K. Central-Commission zur Erforschung und Erhaltung der Baudenkmale. 1866, XI: 1–14; Franz Kiesslinger *Deutsche Holzkirchen im europäischen Östen*, Ueber Land und Meer. Deutsche Illustrirte Zeitung, 1893-1894, (34): 703–704; János Ferencz Fetzer, *Régi fatemplomok Szilágymegyében*, Archaeologiai Értesítö, 1896,. XVI: 243–248.

⁷ Vasile Lucaciu, Biserica S. Uniri a Tuturor Românilor adecă Mănăstirea Maicei Românilor în Șișești. Schițe istorice și dare de seamă. Baia Mare, Tipografia lui Michail Molnar, 1892, p. 9;

⁸Szinte Gábor, A Kolozsmegyei fatemplomok, Értesítöje. 1913, IX (1-2): 1–31;

⁹ Néprajzi Múzeum F 17294;

¹⁰ Néprajzi Múzeum F 17312;

In the interwar period, the interest for Banat's wooden churches rises under the influence of Coriolan Petranu's efforts¹¹ who documented the Romanian folk art in Transylvania. During this period, in the Banat area, the actions of Ioachim Miloia should be noted, which, through the published articles, but especially through the documentation and the photographic material gathered on the wooden churches in Banat, made it possible today to have knowledge about the number of wooden churches that were still preserved at that time.

In the first pages of his work on the wooden churches in Bihor, Coriolan Petranu reports that in the summer of 1929, he traveled thru all of Bihor county by car and carriage, accompanied by photographer Iuliu Viragh. The architectural drawings, it is said, had been made by the chief engineer of the Bihor county, Mr. B. Viranyi. Coriolan Petranu, speaking about the documentary trip, stressed that it had been tough, tiring due to distances and bad roads, but especially due to the difficulties of hosting and food, issues that could not have been foreseen¹².

A series of photographs, kept in the archive of the Art History Seminar in Cluj, present Coriolan Petranu during documentary excursions. The photos, published a few years ago, capture very special features such as the vintage car parked in the immediate vicinity of the Picleu wooden church, Bihor county (1929) or those from the field research in Hunedoara County (1939), when Professor C. Petranu, with another vintage car probably crosses the Mureş River with a floating bridge or traveling by horses, with locals¹³.

After the Second World War, the contributions of some authors such as Nicolae Săcară¹⁴, Mircea Teleguț¹⁵, Ioana Cristache-Panaitand Florica Dimitriu¹⁶, Longhin Oprișa¹⁷ have to be noted for the research of the wooden churches in Banat. We cannot go any further without mentioning the fact that the last few years have brought other contributions, but in most of the cases they have been punctual and have, as a rule, targeted only the edifices of worship that are still preserved. Beyond the results of the work of these researchers, results worthy of praise, it remains valid that very little is known, in fact, about the wooden churches in Banat.

In conclusion of this brief chapter dedicated to the documentation of the wooden churches in Banat and Transylvania, we mention the contribution of Alexandru Baboş who, through some studies from the early 2000s, introduced in the Romanian wooden church research the dendrochronological dating method¹⁸.

¹¹In 1927, Coriolan Petranu published *the Wooden Churches in Arad County* and in 1931 *the Historical Monuments of the Bihor County. Volume 1. Wooden churches.* The two papers were to be the first scientific papers, based on field research and concrete observations, dedicated to the Romanian vernacular architecture in Transylvania. Later, his work at the Historical Monuments Commission, the Transylvania Department, as well as his published works on Romanian wooden churches, were models for a number of other young researchers from other parts of the country, cf,Nicolae Sabău, Marius Porumb, *Coriolan Petranu (1893-1945) – cercetător al artei transilvane,* în "Ars Transsilvanieae", V, 1995, p. 8;

¹²Coriolan Petranu, *Monumentele istorice ale județul Bihor. I. Bisericile de lemn.* Sibiu, 1931, p. 4;

¹³ Nicolae Sabău, Corina Simon, Vlad Țoca, Istoria Artei la Universitatea din Cluj, vol. I, Editura Presa Universitară Clujeană, Cluj-Napoca, 2010, p. 586-588, imaginile: 12,14, 15;

¹⁴Nicolae Săcară, *Bisericile de lemn ale Banatului*, Editura Excelsior, Timișoara, 2001; Nicolae Săcară, *Bisericile de lemn dispărute din Banat*, Editura Excelsior Art, Timișoara, 2002.

¹⁵Teleguț Mircea, Arhitectura bisericilor de lemn de pe Valea Begheiului, în Mitropolia Banatului, 1970, nr. 4-6;

¹⁶Cristache-Panait Ioana, Dimitriu Florica, Bisericile de lemn ale Banatului, în Mitropolia Banatului, 1971, nr. 10-12;

¹⁷Oprișa Longhin, *Bisericile de lemn monumente istorice din Arhiepiscopiei Timșoarei și Caransebeșului*, în *Mitropolia Banatului*, 1965, nr. 1-3;

¹⁸ Alexandru Baboş, Hans Linderson, *Mănăstirea veche de lemn a Putnei în arhitectura medievală românească*, înAnuarul Institutului de Istorie A. D. Xenopol, 2003,. XXXIX-XL: 43–59.

4. How Modern Technology Could Help Documenting and Saving The Wooden Churches in Banat

In the 19th century, when heritage conservation was at its eve, Europe was divided between the two antagonistic doctrines of Viollet-le-Duc and John Ruskin. Heritage Conservation was part of a national movement in a time when Europe was rewriting its borders. Historical monuments were used as a way to legitimize national identity.

In what is today Romanian territory and elsewhere, Violet-le-Duc's ideas found a fertile soil. Due to Lecomte de Nouy, le-Duc's apprentice, many of Walachia's and Moldavia's medieval monuments were demolished and rebuild in an arbitrary way. Nevertheless, even back then, several intellectuals, considered this manner of restoring historical monuments as abusive and disrespectful towards history.

Almost 150 years later, in Romania, many restorations seem to be tributary to Violet-le-Duc's doctrine. Several monuments in Romania have lost their original materials, after deplorable restorations. The historical patina, that noble touch of time on buildings, was viciously eliminated in many cases. Arbitrary reconstructions and loss of original material, seem to be the norm, rather than the exception. There are multiple reasons for the current situation: the lack of legislation, lack of experience and methodology, lack of skilled professionals, loss of craft tradition, etc. Some of these restoration projects have already caused irrecoverable damage to historical monuments.

When it comes to vernacular wooden heritage, the matter is even more complicated. Wood is a fragile material, prone to degradation. Wooden churches are a palimpsest of transformation, adaptation, renewal, repair. The majority of these churches were modified, moved, transformed, without any surviving documents. This is the reason why, intervention on this type of heritage should be done with great care. Most sources regarding the churches, as noted in the first part of this paper, date from the 19th and 20th century. In some cases, the only information before that, is preserved in their own skin. Each element holds a story, and being able to read it is the key to understanding ancient Romanian communities in Banat, their architecture, construction skills, their beliefs and way of life.

Contemporary restorations eliminate the traditional foundations built with local stones. Churches are lifted on concrete "boxes", changing the proportions of the church and the archaic relation with the surrounding landscape. The lack of research on traditional wood crafting, the loss of local craftsman set the path to a cheap copy of the Maramures style roof disregarding the local traditions. Gradually many wooden churches framing started to look like their Maramures counterparts, since this area preserved most craftsmen.

With wooden craft dying in Banat and lack of research, many restoration relinquished considerable amounts of valuable original elements, making their study challenging. When the original material is eliminated without subsequent research, substantial information is lost. Craftsmen's signs and inscriptions, can be the only sources of information.

Today, many of the churches in Banat are still a mystery. We have imprecise dating, we know little about the builders and next to nothing about their story. Nowadays, a serious research beforehand with non-invasive methods can offer a lot of information for the restoration process.

Today's access to countless libraries around the world and virtual archives, greatly relieves researchers' work. It is unacceptable that the basis of all the information about the wooden churches in Banat to originate from the studies of Ioachim Miloia dating back from the interwar period. A serious program of documenting these historical monuments is vital to having quality restorations.

Today, biological and dendrochronological studies can provide valuable information about dating and the state of preservation of churches.Through a dendrochronological dating project encompassing all churches in Banat, it is possible to provide accurate information regarding certain churches that have unknown build dates.

"Dendrochronology is a very accurate dating method that can be used to research historical monuments or archaeological sites. Compared to other methods (eg C14), dendrochronology can provide optimal dating with a half-year accuracy. This method is based on a few simple principles. The geographic principle is based on the observation that trees of the same species in a delimited region react to climatic influences (the most important factors being temperature and humidity) approximately in the same way, so the annual ring series will be similar. The sampling, which is done with a special drill having a diameter of 20-25 mm (or in special cases by cutting some 2 to 5 cm thick shears) does not affect the general condition of the beams studied."¹⁹

3D laser scanning and photogrammetric surveying could allow for a precise measurements that can reveal hidden building defects, missing parts, reconstructions, and various subsequent interventions. Most of the restoration projects in Romania start from a schematic survey that does not provide enough information. It is only an informative volumetric level report. Wooden churches have a dynamic structure due to wood transformation over time. We cannot start a restoration project with the assumption that the wooden churches have straight angles and all the walls are in the same plane.

This lack of documentation perpetuates the idea of the scarcity of information and the lack of value of this type of architecture. In reality a lot of precious information is lost due to the ignorance and the lack of interest of the restorers. Only linking all documentary information with different types of studies and good practice analysis and monitoring can lead us to a real protection of this type of architecture.

5. Crivina de Sus- A Possible Model

In 2013, when the interdisciplinary workshops at Crivina de Sus started, the 7 volunteers (architects, landscapers and anthropologists) who arrived by chance in the church cemetery did not know much about the wooden churches. One thing was certain, the oldest wooden church in Banat was in an advanced state of degradation and the financial means to save it had to be found. Year after year, however, along with volunteers, students, specialists in different fields, newer and newer perspectives have been generated about how a wooden church should be restored.

The first examinations of the Crivina de Sus church began considering the landscape, urbanism, vernacular architecture, and anthropological interviews. Yearly, these first aminations have been enriched with brand new perspectives of the church. The first surveys, manual and assisted by photogrammetry were done. Specialists from very different areas began to analyze the church, coming with correlative assumptions about the history of the place of worship, the way it was built, the hidden symbolism of its proportions and organization, and the story of the communities that built it.

¹⁹ Botár István și Tóth Boglárka, Raport de cercetare dendrocronologică, Biserica ortodoxă de lemn din Crivina de Sus (jud. Timiş), 2016



Figure 1. General view on the church of Crivina de Sus

Investigation of archives correlated with the detailed survey on the elements offered a series of unprecedented information relevant to this type of architecture. The complex history of transporting the church from Ilia, a phenomenon common to the wooden churches, was revealed. Most of the wooden churches in Banat have been moved, some two or even three times. The interdisciplinary perspective came with additional information and new ways to approach the restoration process. Surveys related to the landscape, village urbanism, anthropological interviews, architectural and historical studies, all provided unexpected information combined with the information discovered by studying the church. Every year, the interdisciplinary workshops of Crivina de Sus have gathered philosophers, philologists, artists, civil engineers, topographers, theologians, musicians, etc., each with their own perspective on the importance of this type of architecture.

The entangled road in advance of the restoration project led to the development of multiple studies, some not required by the specific legislation for a restoration project. The dendrochronological study²⁰ by collecting 34 samples from soles, beams, beads, tower boards, etc. revealed that the Crivina de Sus church still keeps a lot of original material. There is a lot of material from 1670, a year that is correlated with the inscription on the southern gate, after which the church was dated in 1677. Practically this study confirms that the church dates back to the end of the 17th century, there were some changes at the beginning of the 18th century, approximately 1730, when the vault changed, while the tower dates from the end of the 18th century when it is supposed that the church, but it gives us a series of clues about the transformations that have gone through. Thus, correlating the observations on-site with the information from the dendrocronological study, a series of unexpected

²⁰ Botár István și Tóth Boglárka, Raport de cercetare dendrocronologică, Biserica ortodoxă de lemn din Crivina de Sus (jud. Timiş), 2016

things related to the history of the church could be found. It must be considered that there are multiple churches in Banat, for example the one in Jupanesti, where the century in which it was built is unknown. Sources place it between the 17th and 18th centuries. Such questions can be answered by a simple dendrocronological study, which is the case for all the wooden churches in Banat and the country.

The archaeological study²¹, consisting of 3 surveys: on the northern wall, on the exterior and in the interior, and also on the altar axis, provided a series of conclusive information about the foundation system of wooden churches. It seems that the initial foundation pit was 0.5m deep (0.85m from the actual treading elevation) -0.7 m (1.15m from the actual treading elevation), not being constantly leveled along the soles contour. In the survey 3 area, the one perpendicular to the altar's apse axis, the foundation depth tends to be 20cm higher, the filler soil being clayey, compacted, with small clay deposits.

Inside the church, on the northern wall of the nave, where the survey 1 was made, under the current plank floor, a complex arrangement can be observed, that includes: anthropic stratifications that replaced the old treading level humus inside the church, gravel, clay, stone and vegetal soil (native nonantropic level). What we notice here is that the foundation system of the old churches was very complex, which is why the recent practice of placing the old church on new concrete foundations, extended with a tall base on which the church is raised, conflicts with the traditional way of church building.

The biological²², historical, dendrocronological, chemical plaster and archaeological studies, together with the technical expertise, can reveal what needs to be removed because it endangers the structural integrity of the church, but nothing more. At the Poieni church, for example, almost all the roof frame was changed after the restoration. What kind of degradation can justify the almost complete destruction of a 18-19th century roof frame? A frame, which, almost certainly, would be difficult to reconstruct with wood of the same quality, the same tools and the same type of craftsmanship. The forests no longer have the secular trees from which these churches were built, many tools that crafted the wood disappeared, and also the craftsmen know-how is lost. What could, in the era of laser scans, biological and dendrocronological studies, justify the removal of practically all of a historical frame?

The Crivina de Sus project also had a different component: building a tensioned membrane to protect the church until the money for the restoration project is collected. This membrane has made it possible for the shingle cover to be removed, allowing numerous studies to be made. Thus, a series of precious information were obtained, among which the fact that the church was probably painted at some point. This can be read in the church's attic, on the back of the tympanum separating the naos from the pronaos, where traces of paintings were discovered. Probably the original painting was damaged during the transport from Ilia to Crivina de Sus, but the painted planks were re-used. The attic of the church is full of elements that have been reused, rich with carpenter signs. One of the pillars that secures the tympanum plancks is, in fact, an old funeral column dating back to 1760, probably belonging to one of the first priests in Crivina, namely Ioan. If the roof frame in Crivina would have been changed like in Poieni, all this information would have vanished.

²¹ Archeological survey by archeologist Cristian Floca

²² Biological Study by dr. Livia Bucşa, SC. Bioharcom.SRL, 2016



Figure 2. Workshop under the tensioned membrane in Crivina de Sus.



Figure 1. View of the open roof framing in Crivina de Sus.

Perhaps the most important component of the Crivina de Sus project is the educational and social one. Each workshop was thought of as a summer school for students who came here to learn to appreciate the local heritage. Especially through anthropological surveys a collaboration with the local community was born. This is how the initiative to create a traditional craft center dedicated to the restoration of the local heritage, especially the wooden heritage, was born.

Several study trips were conducted at the other wooden churches in Banat, so a series of typological analyzes were carried out, comparing the church from Crivina de Sus with the other churches in Banat. Following these study tours, the state of preservation of all the wooden churches in Banat was measured. One of the conclusions of these study tours was that many churches were destroyed by problematic restorations. As mentioned before, the churches of Margina and Homojdia were basically rebuilt. On the one hand, the most authentic churches, that retain considerable original materials, are, luckily, overlooked by ill willed restauration projects. On the other hand, they are in a rather poor conservation state.

The churches of Dragomirești and Jupânești seem to be in severe condition. The Dragomiresti church needs a detailed restoration. This church could become the place where the membrane from Crivina de Sus can be moved once the restoration process has been completed.

Regarding the wooden church from Jupânești, it has a very degraded shingle cover. It's the same type of shingle as in Crivina de Sus.



Figure 4. The wooden church Cuvioasa Paraschiva from Jupânești

In Crivina, a craftsmen 's note was discovered in the attic shingle. It was written by one of the two craftsmen from Argeş that worked on the shingle shifting in 1981. It is believed that the shingle from Jupâneşti dates back to the same period. At Jupâneşti, the locals of the village placed a huge advertizing cover on the very degraded shingle to protect it temporarily. Unfortunately, frequent

raining in the summer of 2018 has shattered this improvised cover. The water infiltrated into the church interior. There is very little information about this church. Not even a precise build date is known (the researchers who studied it, believed it to be either in the 17th century or the 18th century). A dendrocronological study would resolve these dilemmas. The church appears to be one of the oldest in Banat as a typology of plan, volumetry and joints.

When the Wooden Churches of Banat Team visited this church in November 2017, the question of an emergency intervention was raised. Meanwhile, some of the team members have also been involved in another project funded by the OAR in 2018: Ambulanța pentru Monumente Banat. The Jupânești Church will be the first church in Banat on which an emergency intervention will be carried out to repair the damaged shingle roof.

6. Conclusions

The Wooden Churches of Banat Project/ Biserici Înlemnite din Banat is a bottom-up volunteer project that started from the premise that wooden churches need to be saved and protected. The churches need more than just protection against further degradation, they need also to be properly preserved. Through its educational component, this project aims to make future architects aware of the value of this type of architecture. It wants to make local communities aware of the value of their own heritage, but also to raise awareness among the heritage specialists regarding the richness of information that this wood heritage holds. This approach tries to emphasize to the local authorities that the goal is not to restore a monument at any cost, but to restore it cautiously, because every piece lost is irretrievable. Finally, it is not so important in this area that churches are restored, but the way it is done. These churches have lasted over 300 years, let's not destroy them with ignorance and turn them into the cheap replicas of what they once were.

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