■ Sergiu NISTOR[1]

Protecţia monumentelor istorice din România la 50 de ani de la Carta de la Veneţia

Historic Building Protection in Romania 50 Years after the Venice Charter

■ ***Rezumat:*** *La 50 de ani de la adoptarea Cartei de la Veneţia, restaurarea monumentelor istorice din România este pusă în faţa unor presiuni importante generate de globalizare şi de acţiunea mediului economic. Globalizarea a înlocuit ideologizarea culturii petrecută înainte de 1989. În faţa acestor provocări, educarea, formarea şi perfecţionarea specialiştilor este una din soluţii.*

■ ***Cuvinte cheie:*** Carta de la Veneţia, protecţia patrimoniului construit, formarea în meseriile tradiţionale ale patrimoniului construit

■ Celebrăm în acest an 50 de ani de la elaborarea la Veneţia a Cartei internaţionale a conservării şi restaurării monumentelor şi este justificat a vedea cum se plasează conceptele şi practicile protejării patrimoniului construit din România în raport cu acest document de principii unanim acceptate pe plan mondial.

La Congresul de la Veneţia din 25-31 mai 1964, România a fost reprezentată la cel mai înalt nivel profesional. Au fost prezentate în expoziţia ce a însoţit Congresul lucrările de restaurare efectuate la bisericile cu frescă exterioară din Moldova, precum şi alte lucrări de restaurare la monumente din România, pe de o parte, iar la dezbateri au participat şi contribuit Grigore IONESCU,[2] la acea vreme şeful catedrei de Istoria Arhitecturii din Institutul de Arhitectură Ion Mincu – Bucureşti, precum şi cel care avea să-i fie succesor peste ani în această onorantă poziţie academică, Gheorghe CURINSCHI-VORONA.[3] Ca urmaşi ai celor care au deschis acum 50 de ani dialogul ştiinţific cu Occidentul pe linia restaurării suntem datori ca la jumătate de secol de la adoptarea Cartei de la Veneţia să evaluăm locul în care ne găsim în punerea în practică a principiilor sale. În acest sens, ne vom opri doar asupra unui singur aspect, şi anume la corecta interpretare şi aplicare a principiului din *Preambul* conform căruia „Este [...] esenţial ca principiile conducătoare ale conservării şi restaurării monumentelor să fie trasate în comun şi formulate pe plan internaţional, lăsând totuşi fiecărei naţiuni grija de a asigura aplicarea lor în cadrul propriei culturi şi conform tradiţiilor proprii” (foto 1).

În contextul unei comunicări profesionale internaţionale din ce în ce mai ample, inclusiv prin prisma globalizării economice şi cu precădere a

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2 Prezentarea lui Grigore IONESCU s-a numit: *Principi applicati al restauro di tetti e paramenti di alcune chiese moldave.* (nota autorului)
3 Prezentarea lui Gheorghe CURINSCHI-VORONA s-a numit: *Contributo di alcuni studi di restauro alla storia dell’architettura romena.* (nota autorului)

■ ***Abstract:*** *50 years after adopting the Venice Charter the historic buildings conservation in Romania is facing significant pressure caused by globalisation and by the action of the economic environment. Globalisation has replaced the ideologisation of culture that occurred before 1989. In the context of these challenges, one of the solutions consists in educating, training and lifelong learning of specialists.*

■ ***Keywords:*** Venice Charter, protection of built heritage, training in traditional trades of built heritage

■ We celebrate this year 50 years since the drawing up of the Venice International Charter for the Conservation and Restoration of Monuments and Sites. Therefore it is reasonable to have a look at the status of the concepts and practices in the area of built heritage protection in Romania with respect to the principles that are unanimously accepted worldwide.

Romania was represented at the Venice Congress on May 25-31, 1964 by achievements and professionals of highest level. The conservation works carried out on Moldavian churches with exterior frescos, as well as other conservation works on Romanian historic buildings were presented in the exhibition that accompanied the Congress and, on the other hand, personalities such as Grigore IONESCU,[2] who was head of the department of History of Architecture at “Ion Mincu” Institute of Architecture of Bucharest, as well as his successor to be in this honouring academic position years later, Gheorghe CURINSCHI-VORONA,[3] took part in and had contributions to the debates, opened the scientific dialogue with the Occident in the area of conservation 50

1 Architect, PhD, professor at the “Ion Mincu” University of Architecture and Urbanism, president of ICOMOS Romanian National Committee, Bucharest, Romania.
2 The presentation of Grigore IONESCU was intitled: *Principi applicati al restauro di tetti e paramenti di alcune chiese moldave.* (author’s note)
3 The presentation of Gheorghe CURINSCHI-VORONA was intitled: *Contributo di alcuni studi di restauro alla storia dell’architettura romena.* (author’s note)

years ago. As their followers, we have the duty to assess the status of the practical implementation of the principles in the Venice Charter a half-century after its adoption. In this respect, we shall only approach one aspect, namely the correct interpretation and application of the principle in the *Preamble* stating that "It is essential that the principles guiding the preservation and restoration of ancient buildings should be agreed and be laid down on an international basis, each country being responsible for applying them within the framework of its own culture and traditions" (Photo 1).

In the context of the increasingly professional international communication, and also in the light of economic globalisation, in particular in the area of construction, architecture and building techniques and materials, which is nowadays the cultural and traditional context we have to refer to? Upon adoption of the Charter – including through the votes of the Romanian delegation – the use and adaptation of its principles to the specificity of the national and local culture and traditions were subject to completely different constraints than they are today. The world was then divided into two ideological blocks, which miraculously met in Venice to debate on the issues of the built heritage, only 3 years after the famous "missile crisis" that could have brought the humanity in a situation where its built heritage would have had the fate of the famous Gembaku Dome in Hiroshima, but extended at global scale. It is attested by the Venice Charter that "people are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage". This part of the text is a predecessor of the 1972 Paris Convention of UNESCO concerning the protection of the world cultural and natural heritage, which resumes, in its preamble, the idea that "deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world". However, Romania's integration to the European Union, a process under progress today, will bring new themes and challenges related to the interpretation of the International Charter for the Conservation and Restoration of Monuments and Sites in the Romanian national and local cultural and traditional context. The European acquis forced the elimination of certain mechanisms that imposed a qualification, specialisation and certification process on the companies carrying out or willing to carry out conservation interventions. The EU Directive for Services has eliminated such a "constraint" today invoking as reason the freedom on the Single Market of goods and services. The Romanian politicians, in their turn, did not produce any arguments or reasons to oppose using the precedent of the "cultural exception" in the French policy. The effect may be beneficial at economic level – for the companies – but it is not for the historic buildings. The effect is certainly beneficial especially to foreign traders, which are not necessarily specialised in interventions on historic buildings and which are certainly far from knowing

■ ***Foto 1.*** *Biserică de lemn in județul Bihor*
■ ***Photo 1.*** *Wooden church in Bihor County*

celei din domeniul construcţiilor, arhitecturii, tehnicilor şi materialelor de construcţii, care este astăzi contextul cultural şi al tradiţiilor la care trebuie să ne raportăm?

La momentul adoptării sale – şi prin voturile delegaţiei României – folosirea şi adaptarea principiilor Cartei la un specific cultural şi al tradiţiilor naţionale şi locale era supusă unor cu totul altor constrângeri decât cele de astăzi: lumea era împărţită în două blocuri ideologice, ce miraculos se întâlneau la Veneţia pentru a discuta problemele patrimoniului construit. La doar 3 ani de la celebra „criză a rachetelor" ce ar fi putut aduce omenirea în situaţia în care patrimoniul său construit să reia la scară globală celebrul Gembaku Dome din Hiroshima, se atesta prin consensul adoptării Cartei de la Veneţia că „umanitatea [...] devine tot mai conştientă de unitatea valorilor umane, [şi] le consideră patrimoniu comun". Textul este un predecesor al Convenţiei UNESCO de la Paris din 1972 privind protejarea patrimoniului cultural şi natural mondial care, în preambulul său, reia ideea că „degradarea sau dispariţia unui bun al patrimoniului cultural şi natural constituie o diminuare nefastă a patrimoniului tuturor popoarelor lumii".

Integrarea României în Uniunea Europeană, proces pe care îl traversăm astăzi, este însă de natură să aducă noi teme şi provocări interpretării

■ ***Foto 2.*** *Casă în Saschiz*
■ ***Photo 2.*** *House in Saschiz*

■ ***Foto 3.*** *Casă renovată în Saschiz*
■ ***Photo 3.*** *Renovated house in Saschiz*

Cartei internaţionale a conservării şi restaurării monumentelor în contextul cultural şi tradiţional naţional şi local din România. Acquis-ul european a impus eliminarea unor mecanisme ce obligau antreprizele care desfăşoară sau doreau să desfăşoare intervenţii de restaurare să parcurgă un proces de calificare, specializare şi atestare. Astăzi, directiva servicii a UE a eliminat o astfel de „constrângere" pe motivul libertăţii pieţei unice a bunurilor şi serviciilor. Nici politicienii români nu au găsit argumentele sau disponibilitatea de a se opune folosind precedentul „excepţiei culturale" din politica franceză. Efectul poate fi benefic în plan economic pentru firme, dar nu şi pentru monumente. Efectul este cu siguranţă benefic mai ales pentru firme din străinătate, nu neaparat specializate în intervenţii pe monumente istorice, şi cu siguranţă departe de a cunoaşte şi înţelege spiritul culturii şi tradiţiilor patrimoniului românesc.

Modelele arhitecturale, ca de altfel şi materialele ce le pun în operă au o circulaţie ce urmăreşte un fenomen fizic (şi cultural) binecunoscut: forţa şi presiunea economică îşi impun modelul cultural sau modelul pseudo-cultural. Puţinele linii de forţă ale tradiţiei din domeniul arhitecturii vernaculare ce au supravieţuit socialismului sunt victime ale cimentului sau ale tencuielilor prefabricate (foto 2), ca să nu vorbim de impactul culorilor astrale produse de mari concerne chimice transnaţionale (foto 3). Construcţiile prestigioase ale trecutului, ce au rezistat în structura şi materialul lor tradiţional secolelor, inundaţiilor şi cutremurelor, sunt supuse pe zi ce trece unor din ce în ce mai constrângătoare norme ce le transformă cu fiecare intervenţie din ce în ce mai mult în cazemate de ciment şi beton armat (foto 4).

În faţa unor astfel de abordări ce sunt împotriva spiritului nu doar al Cartei de la Veneţia, dar şi al convenţiilor UNESCO şi ale Consiliului Europei pe care România le-a semnat, există o cale sigură de protecţie şi de (re)întoarcere a cursului lucrurilor pe calea pe care ne-au arătat-o înaintaşii: un sistem de formare a specialiştilor, o încercare de regăsire a spiritului unui *nou Bauhaus* în cadrul restaurării monumentelor istorice, ce poate să reunească abordarea teoretică şi academică cu cea de cercetare ştiinţifică, dar şi cu abilitatea şi simţirea materialului tradiţional pe care doar meşterul experimentat şi preţuit o poate aduce (foto 5). Şi dacă vrem să spunem unde se poate îndrepta cu inteligenţă efortul de descentralizare şi de partajare a atribuţiilor statului cu colectivităţile locale, atunci acest loc este în zona creşterii capacităţilor locale de fructificare economică şi culturală şi în sporirea competenţelor autorităţilor administrative locale în sprijinirea, prin organizare şi finanţare, a formării specialiştilor

and understanding the spirit of the culture and traditions of the Romanian heritage. The architectural process, similarly to the building materials implies a rationale that follows a well-known physical (and cultural) phenomenon: the economic pressures impose their cultural or pseudo-cultural model. The few traditional areas of vernacular architecture that have survived the Socialism are victims of the cement or of the precast plastering (Photo 2), not to mention the impact of the glowing colours produced by big transnational chemical corporations (Photo 3). The prestigious buildings of the past, built in traditional materials and structural systems, which have resisted over centuries to floods and to earthquakes, are now subject to more and more restricting rules that transform them with each intervention into blockhouses made of cement and reinforced concrete (Photo 4).

Such approaches are contrary to the spirit not only of the Venice Charter, but also contrary to the conventions of UNESCO and of the Council of Europe that Romania has signed. There is only one way of protection the authenticity of the vernacular buildings: a specialist training system, an attempt to retrieve the spirit of a *new Bauhaus* in the historic building conservation, which could join the theoretical and academic approach with the scientific research, and also with the know-how and spirit of the traditional material that can only be brought in by the experienced and valued craftsmen (Photo 5). And if we have to mention a direction for the efforts to a decentralisation and shared responsibility of the State and of the local communities this would be towards increased local capacity for economic and cultural development and towards an increased capacity for the local administration in supporting, through organisation and financing, the training of specialists in the area of heritage in order to promote the values of the cultural landscape and of the locally and regionally built tradition.

■ ***Foto 4.*** *Foişorul Palatului Potlogi şi efectele mortarului de ciment*
■ ***Photo 4.*** *Porch of the Potlogi Palace and the effects of cement mortar*

The opportunity of this process resides fundamentally in the low human resource that is still available in the technical and academic area of training skills in conservation (Photo 6). Also in the examples – fewer and fewer – of unaltered preservation of the constructive and technological models that have not been mutilated (yet) by unauthorised or uninspired interventions, which are preserved "in the full richness of their authenticity" "for future generations".[4] Actually, the two resources – the human resources and the historical model – are complementary and potentiate each other: no professional expertise can be reached without the transfer of knowledge between generations, just like it cannot be reached without testing it through examples of human achievements: the historic buildings.

In a context where the heritage, either material (historic buildings still preserved in their authentic status) or immaterial (available technical and traditional expertise), are under intense pressure and suffering permanent crises, where the governmental funds have reached a really "historical" minimum, it is more than ever the moment for the professionals in the area of cultural, built, ethnographic or mobile heritage to cooperate. It is high time for the entities where these professionals work to come into synergy and target the awareness raising and the training of the young professionals on the heritage, and for the principles and the spirit of the Venice Charter to be imposed in practice. The *Heritage Code* (repeatedly announced, but without finality, at least so far) might be both a means to bring back to the attention of the stakeholders the theoretical bases of conservation and a useful customization of the principles of the Venice Charter in Romania.

4 According to the Preamble of the Venice Charter for the Conservation and Restoration of Monuments and Sites, 1964.

din domeniul patrimoniului în scopul promovării valorilor peisajului cultural şi a cadrului construit local şi regional.

Energia acestui proces rezidă fundamental în redusa resursă umană ce mai este disponibilă în domeniul tehnic şi academic al formării competenţelor în restaurare (foto 6), dar şi în exemplele – din ce în ce mai puţine – de păstrare nealterată a modelelor constructive şi tehnologice ce (încă) nu au fost mutilate de intervenţii neautorizate ori neinspirate, păstrate „cu toată bogata lor autenticitate" pentru „generaţiile viitoare".[4] În fapt, cele două resurse, cea umană şi cea a modelului istoric, se completează şi se potenţează reciproc: nu se poate atinge o expertiză profesională fără transferul de cunoştinţe între generaţii, cum nu se poate nici fără a-l proba prin exemplele realizărilor umane: monumentele istorice.

În condiţiile unui patrimoniu material (monumente istorice încă păstrate în starea lor autentică) şi imaterial (expertiza tehnică şi tradiţională disponibilă) aflat sub o intensă presiune şi într-un proces de continuă diminuare, în contextul unor fonduri guvernamentale ce au atins un minim într-adevăr „istoric", este poate mai mult ca oricând momentul unei colaborări a profesioniştilor în domeniul patrimoniului cultural, construit, etnografic sau mobil, al unei sinergii a entităţilor în care aceştia îşi desfăşoară activitatea, având ca ţintă sensibilizarea şi formarea tinerilor profesionişti pentru patrimoniu, impunerea în practică a principiilor şi a spiritului Cartei de la Veneţia. Anunţatul (în mod repetat, dar fără finalitate, cel puţin până acum) *Cod al patrimoniului* poate să constituie atât o readucere în atenţia celor interesaţi a fundamentelor teoretice ale restaurării, cât şi o utilă precizare a sensurilor pe care trebuie să le capete principiile Cartei de la Veneţia în aplicarea lor în România.

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4 Conform *Preambul*, Carta de la Veneţia a conservării şi restaurării monumentelor şi siturilor, 1964.

■ ***Foto 5.*** *Prelevare de mostră de mortar*
■ ***Photo 5.*** *Mortar sampling*

■ ***Foto 6.*** *Curs practic postuniversitar*
■ ***Photo 6.*** *Postgraduate course*

■ FEJÉRDY Tamás[1]

Kortárs kihívások a műemlékvédelemben

■ ***Kivonat:*** *A XIX. század közepe óta, amikor Európaszerte megszülettek és elterjedtek a műemlékvédelmi törekvések, mindig is jelentkeztek újabb kihívások, amelyek többé vagy kevésbé tovább alakították, formálták a kezdeti gondolatokat, elveket. Tanulságos lenne ezeket a változásokat a teljes történeti folyamatukban áttekinteni, ez azonban talán mégsem szükséges, hiszen meglehetősen ismertek a főbb elemek: a műemlékek védelmére és ezen belül még inkább a restaurálásukra vonatkozó elvek, valamint azok fejlődésének fontosabb állomásai. Ez utóbbiakra vonatkozóan az Athéni, majd az azt 1964-ben (tehát 2014-ben lesz 50 éve, hogy elfogadták) „felváltó" Velencei Charta iránymutatásai hosszú évtizedeken keresztül meghatározták a követendő szabályokat – vagy azok nagy részét – „a műemlékek és műemlék helyszínek" körét illetően.*

■ ***Kulcsszavak:*** kulturális örökség, műemlékek és műemlék helyszínek, Velencei Charta, Burra Charta, örökségértékek, Faró Egyezmény

Előzmények

■ A napjainkban egyre inkább érzékelhető, sőt, egyes vonatkozásaikban már uralkodóvá is váló változások gyökereit az 1970-es években kereshetjük: amikor megjelent és elkezdett kibontakozni a „kulturális örökség" (*patrimoine, heritage*) fogalma. Ez a műemlékek és műemlék helyszínek alapján indult, de látványos dinamizmussal gyorsan átlépte annak tudományosan meghatározott kereteit, kritériumrendszerét. Nem véletlen, hogy az UNESCO 1972-es egyezményét *A világ kulturális és természeti örökségének védelméről* címmel és mögöttes tartalommal fogadták el, jóllehet a megalkotásakor (és azóta is) az emberiség legkiemelkedőbb közös örökségébe „beválogatott" kulturális örökségi helyszínek: műemlékek, műemlék helyszínek. Ez azonban csak a jéghegy csúcsa, az „örökségesedés"[2] folyamata szélesebb körben mutatkozik meg. Számos írás, elemzés, könyv foglalkozik a jelenséggel, annak kibontako-

1 Építész, doktor, az ICOMOS Magyar Nemzeti Bizottság főtitkára
2 A kifejezés gyakorlatilag minden nyelven neologizmus: patrimonializáció = „örökségesedés", patrimonialisation, heritageisation, stb.

Contemporary Challenges in Built Heritage Protection

■ ***Abstract:*** *Since the middle of the 19th century, when all over Europe built heritage protection endeavours were born and spread, new challenges appeared continuously, which more or less shaped the initial concepts and principles. It would be instructive to review all these changes from a historic perspective. This is not necessary though, since the main elements are quite well known: the principles related to built heritage protection, more precisely conservation, and the main phases in the evolvement of these principles. In this respect the guidelines of the Athens Charter and of the successive Venice Charter (it was issued in 1964, thus in 2014 it would be 50 years since its adoption) determined for many decades the rules to be followed, or most of them concerning the range of "monuments and sites".*

■ ***Keywords:*** cultural heritage, historic buildings and sites, Venice Charter, Burra Charter, heritage values, Faro Convention

Preliminaries

■ The transformations nowadays increasingly perceptible, even becoming predominant in certain aspects originates in the 1970s: this was the period when the concept of "cultural heritage" appeared and started to emerge. It first referred to historic buildings and sites, but with a rather spectacular dynamism it quickly stepped over their scientifically defined framework and criteria. It was not accidental at all that the *Convention Concerning the Protection of the World Cultural and Natural Heritage* of the UNESCO, signed in 1972, had this title and content. Although cultural heritage sites "selected" at the creation of the convention (in fact ever since then), as those which are part of the most outstanding common heritage of mankind, are in fact historic buildings and sites. This is only the tip of the iceberg, as the process of "heritageisation"[2] mani-

1 Architect, PhD, general secretary of the ICOMOS Hungarian National Committee
2 The term is in fact a neologism in every language: "patrimonializáció" (Hungarian), "patrimonialisation" (French) etc.

fests itself in a much wider sphere. A series of writings, analyses, books discuss the phenomenon and its unfolding, pointing to its various constituents and features – among others to the close connections with the postmodern and post-industrial social concepts.

On the other hand, primarily through the representatives of non-European regions' cultural heritage, the so-called "spiritual heritage" is given an increasing emphasis, confirmed by a new UNESCO convention as well (having a similar importance than that of the 1972 World Heritage Convention). These two conventions were initially intended to manage two different fields of the cultural heritage. However, the sudden advance of the so-called immaterial heritage's valuation and of the set of tools proposed for its management/preservation has a tangible effect on the fields of the materialized, which is built heritage. Obviously, the analysis and acknowledgement of these connections is important for those engaged in built heritage protection. Yet the major issue is what answers can and should be given to the challenges arisen in relation with historic buildings due to "heritageisation".

Evidently, these challenges are present particularly intensely in the life and professional debates of the ICOMOS[3], which is the biggest (one would not perhaps exaggerate to add that also the most prestigious) professional association in this field. The increase of the criticism addressed relatively early and since then almost continuously concerning the Venice Charter, which is engaged, contrary to the common belief, not in built heritage protection, but "only" in one of its fields (true, which is the most visible and spectacular), the principles of historic building conservation, can be also imputed to this. A good example of this is the questioning and search for answers related to the concept of authenticity. Although the Charter uses this term, moreover, it stresses upon its importance as a mandatory viewpoint to be taken into account, it fails to give its definition. Presumably it did not omit the definition out of forgetfulness or negligence (although the text was compiled in quite a short time), but first of all because it did not seem necessary to define it, considered as unambiguous and almost axiomatically acknowledged by the persons present then and there, respectively the specialists of that time. The fact brought up several times since then, namely that most of the authors of the Charter were European (and/or had European education), certainly had a role to play, as at that time global participation was not that characteristic – at least not in this respect.

After thirty years, in a context globalized by the World Heritage Convention too, the Nara Document[4] (1994) did not – could not and did not want to – give a

3 International Council on Monuments and Sites – it was founded in 1965 in Warsaw, according to the decision of the Venice Congress in 1964, which also adopted the Venice Charter.

4 The Nara Document on Authenticity, drafted by the 45 participants to the Nara Conference on Authenticity in Relation to the World Heritage Convention, held at Nara, Japan, on November

zásával, rámutatva annak különféle összetevőire és jellegzetességeire – egyebek között a posztmodern, illetve posztindusztriális társadalmi felfogással való szoros összefüggésekre.

Másrészről – elsősorban a nem európai régiók kulturális örökségének képviselői révén – egyre nagyobb hangsúlyt kapott és kap az ún. „szellemi örökség", (az 1972-es Világörökség Egyezményhez hasonló jelentőségű)) 2003-as UNESCO Egyezménnyel is alátámasztva. Ez a két egyezmény eredetileg a kulturális örökség két eltérő területét hivatott kezelni, az ún. nemanyagiasult örökség megbecsülésének az előretörése és a kezelésére/megőrzésére javasolt eszköztár megjelenése mégis kitapintható hatással van az anyagiasult épített örökségre is. Ezeknek az összefüggéseknek az elemzése és ismerete fontos a műemlékvédelem és az azzal foglalkozók számára, az igazi nagy kérdés viszont, hogy milyen válaszokat lehet és kell adni az „örökségesedés" folytán a műemlékekkel kapcsolatosan jelentkező kihívásokra.

Ezek a kihívások erőteljesen megjelennek az ICOMOS[3]-nak, mint ezen a területen a legnagyobb (és talán egyben a legtekintélyesebb) szakmai civil szervezetnek az életében, illetve szakmai tanácskozásain. A közhiedelemmel ellentétben nem a műemlékvédelem egészével, hanem „csupán" annak egyik – igaz, a leginkább látható és látványos – területével, a műemlékek restaurálásának elveivel foglalkozó Velencei Charta kapcsán viszonylag korán, és azóta folyamatosan megfogalmazódó kritikák felerősödése is ezzel hozható összefüggésbe. Ennek példájaként említhető a hitelesség fogalmával kapcsolatos kérdésfelvetés és válaszkeresés. A charta, bár használja a fogalmat, sőt, megkövetelendő-követendő szempontként hangsúlyozza fontosságát, adós marad a definíciójával. Valószínű nem feledékenységből vagy hanyagságból (bár annak idején rövid idő alatt készült el a szöveg), hanem azért, mert nem volt szükséges definiálni az akkor és ott jelenlévők, illetve az abban a korban praktizáló szakemberek által egyértelműnek, szinte axiomatikusan elfogadott fogalmat. Ebben az a későbbiekben gyakorta emlegetett tényező is közrejátszhatott, hogy a dokumentum megfogalmazói között többségük európai (és/vagy európai végzettségű) szakemberek voltak; akkoriban még nem bontakozott ki a világméretű részvétel – ebben a vonatkozásban biztosan nem.

Harminc évvel később, már a Világörökség Egyezmény által is „globalizált" közegben az 1994-es Narai-dokumentum[4] viszont nem adott – nem tudott, illetve

3 International Council on Monuments and Sites = Műemlékek és Műemlék helyszínek Nemzetközi Tanácsa – alapítva 1965-ben Varsóban, a Velencei Chartát is elfogadó 1964. évi velencei konferencia határozata alapján.

4 A Narai-dokumentum a hitelességről, a narai konferencia 45 résztvevőjének vázlata. A konferencia tematikája A hitelesség a világörökségi egyezmény tükrében, amelyre Narában, Japánban került sor 1994. novermber 1–6. között. A narai konferenciát az UNESCO, ICCROM és az ICOMOS közreműködésével megszervezték meg.

nem is akart adni – általános érvényű definíciót a hitelességre, hanem a kulturális örökség sokféleségét hangsúlyozva, a nagy kulturális régiók számára érvényes definíciók megfogalmazását sürgette, jeleként annak, hogy egyfajta pluralizmust e területen is el kell tudni fogadni.

„11. Az örökség értékeinek megítélése, de éppúgy a rájuk vonatkozó információs források hihetősége kultúráról kultúrára változhat, sőt, ez előfordulhat még azonos kultúrán belül is. Az érték és hitelesség megítélését ennélfogva nem lehet merev követelményekre alapozni. Ellenkezőleg: a kultúrák sokaságának[5] tisztelete azt követeli meg, hogy az örökséget annak a kultúrának az összefüggésében határozzuk és ítéljük meg, amelyhez az tartozik.

12. Ebből eredően különlegesen fontos és sürgős, hogy elismerjük minden kultúrában azokat a sajátos jellegzetességeket, amelyek az örökség értékeire utalnak."

Ez a megközelítés hozzájárult a(z európai) műemlékvédelmi szakmai körökben korábban fenntartásokkal kezelt Burra Charta[6] (a Velencei Charta elveinek ausztráliai helyi értelmezését, helyi gyakorlatra történő átültetését tartalmazó, időről időre megújított kiadásban megjelenő dokumentum) elfogadásához, és az ilyen jellegű helyi értelmezések lehetőségének, esetleg szükségességének elismeréséhez. A műemléki helyszínek helyett a hely (*place*) mint átfogó örökségi értékfogalom, és a megőrzés helyett a „változások menedzselése", mint követendő gyakorlat egyre nagyobb hangsúlyt kapott az egymást követő, különböző szintű tanácskozásokon. Ugyanakkor a műemlékek és műemlék helyszínek „feloldása" a kulturális örökség egyre dagadó tengerében számos riasztó jelenséggel is járt és jár, amelyek napjainkra a kulturális örökség területén jelentkező vagy talán már be is következett paradigmaváltásra utalnak.

Mint minden hasonló súlyosságú változásnál, ez esetben is időnként túlfűtött indulatokkal járó viták bontakoztak ki, egyrészt a hagyományos műemlékvédelmi elvek érvényességét hangsúlyozók, másrészt az új kihívásokra adandó új válaszokat sürgetők képviselői között.

Kétségtelen: a műemlékek és műemlék helyszínek korlátozott (és megválogatott) köréhez képest gyakorlatilag határtalanná váló örökségi értékek halmaza eltérő eszközök alkalmazását indokolja. Úgy tűnik, hogy éppen a műemlékörökség közötti váltásnak az eredmé-

generally valid definition, instead it stressed upon the great variety of the cultural heritage, and urged the formulation of definitions applicable to distinct large cultural areas, as a sign that a certain degree of pluralism has to be accepted in this field too.

"11. All judgments about values attributed to cultural properties as well as the credibility of related information sources may differ from culture to culture, and even within the same culture. It is thus not possible to base judgments of values and authenticity within fixed criteria. On the contrary, the respect due to all cultures requires that heritage properties must be considered and judged within the cultural contexts to which they belong.

12. Therefore, it is of the highest importance and urgency that, within each culture, recognition be accorded to the specific nature of its heritage values and the credibility and truthfulness of related information sources."

This approach contributed to the acknowledgement of the Burra Charter[5] (document which adopts the Venice Charter principles to Australia, and specifies the ways of putting them into practice; it is revised and re-issued from time to time), treated with certain reservations by heritage protection specialists, consequently to the acknowledgement of the possibility or even of the necessity of such local interpretations. During the successive debates on various levels, the place as a comprehensive term for heritage value, instead of heritage site, and the "management of changes" as the practice to be followed, instead of preservation, gained more and more emphasis. Yet, the "dissolving" of historic buildings and sites in the swelling sea of cultural heritage entailed and entails many alarming phenomena, which point to the paradigm shift emerged in the field of cultural heritage, or which eventually has already ensued.

Like other changes of similar weight, this shift too provoked sometimes much too passionate disputes between those who claimed the validity of traditional protection values, and those who urged the formulation of new answers to new challenges.

Undoubtedly, the multitude of heritage values, which, compared to the limited (since well selected) circle of historic buildings and sites, becomes practically boundless, calls for the use of different tools. Apparently this is exactly what was not carried out, or is under process, namely the successful shift from

5 Itt inkább a „sokféleségének" szóhasználat adná jobban vissza az eredeti szöveg értelmezését.

6 A Burra charta meghatározza az alapvető elveket és folyamatokat, amelyeket követni szükséges az örökség helyszínek helyreállításában. 1979-ben, a kulturális jelentőségű helyek védelme tárgyáról szóló ausztráliai ICOMOS chartát egy, a dél-ausztráliai történeti bányavárosban, Burrában megrendezett találkozáson fogadták el. Röviden a Burra Karta nevet kapta. A Burra Karta elfogadta a Velencei Karta filozófiáját és koncepcióit, azokat viszont az ausztrál gyakorlatiassághoz és hasznossághoz igazodó formába öntötte. [szabad fordítás – szerk. megj.] Forrás: http://www.teachingheritage.nsw.edu.au/section01/burra.php, letöltve 2014. január.

1-6, 1994. The Nara Conference was organized in co-operation with UNESCO, ICCROM and ICOMOS.

5 The Burra Charter defines the basic principles and procedures to be followed in the conservation of heritage places. In 1979, the Australia ICOMOS charter for the conservation of places of cultural significance was adopted at a meeting at the historic mining town of Burra Burra in South Australia. It was given the short title of The Burra Charter. The Burra Charter accepted the philosophy and concepts of the Venice Charter, but wrote them in a form which would be practical and useful in Australia. Accessed on http://www.teachingheritage.nsw.edu.au/section01/burra.php.

historic building to heritage, which would ensure the preservation of values in a proportionate and effective manner. This "twofold challenge" could be described also as it follows: "One should think here to (existing) voluntarist approaches, which on one hand sustain that if something is considered a value, it has to be treated just as like historic buildings; which is of course an exaggeration, and is an obvious impossibility from many aspects. Perhaps the other extreme is even more dangerous, which says that 'enough with the detachment into their ivory tower of historic buildings and their protectors', and they should be treated like any other heritage property. That is to say the 'inheritor' themselves – private individual, local authority, parish, in a wider sense: the investor, the developer – knows best how this heritage should be dealt with, or to put it softer and more euphemistic: how should it be 'efficiently utilised'?"[6]

Where are we now?

■ The integrated view, in which heritage is considered as a means for use/development serving both value protection and the maintenance or improvement of the quality of life of the concerned individuals and communities, can be considered by today as a generally accepted approach, which also means that this inevitably requires certain changes, respectively the free pass for certain modifications. However, many examples warn us that in most cases this principle is not implemented with the desirable and expected equilibrium. In a significant part of the developments targeting historic buildings/built cultural heritage, those interventions, modifications are favoured to the detriment of existing values, which would ensure the conditions for so-called sustainable development/use, and which are in some cases much too extensive.

Social expectations and the fundraising system both point into this direction. Whenever the protection of existing values would hinder a more extended restructuring or modification, the standpoint or refusal of those who argue for value protection, or of specialist bodies intending to make use of existing, legitimate value protection means, is labelled as "impeder of development, backward-looking".[7]

6 FEJÉRDY Tamás, "Örökség, védelem – ma, holnap," in *Tanulmányok az örökségmenedzsmentről*, ed. BASSA Lia, vol. 1 – A világörökség kezelése. (Információs Társadalomért Alapítvány, Alma Mater series, 2009).

7 The Hungarian decree on built heritage protection 1/1967 (31 January, Article 15.2) offers an interesting, perhaps surprising possibility for comparison with the ideological background of the regulation valid during the time of socialism in Hungary: "The historic buildings and those which are significant constituents of the townscape should be maintained within the limits of economy and its adoptability into urban planning. When the cost-effectiveness of the maintenance is assessed, one should ponder the proportion between the expectable costs related to works to be carried out on the protected building, and the costs related to rebuilding, the extent of the probable increase of the

nyes és az értékek megőrzését arányos és eredményes módon biztosító feldolgozása nem történt még meg, illetve még folyamatban van. Ez a „kettős kihívás" úgy is megfogalmazható: „a (létező) voluntarista megközelítésekre kell itt gondolni, amelyek egyik oldalról azt szorgalmazzák, ha valamit értéknek ismerünk el, azt kivétel nélkül úgy kell kezelni, mint ahogyan a műemlékeket; ami természetesen túlzás, és több szempontból is nyilvánvaló képtelenség. Ha lehet, akkor viszont még veszélyesebb az ellenkező véglet, amely szerint »elég volt a műemlékek és a műemlékvédők elefántcsonttoronyba vonult« elkülönüléséből, és a műemlékeket is úgy kell kezelni, mint bármely más örökségi elemet. Azaz maga az »örökös« – magánszemély, önkormányzat, egyházközség […] tágabb körben: a beruházó, fejlesztő – tudja legjobban, hogy hogyan is kell (el)bánni ezzel az örökséggel, vagy kicsit finomabban, eufemisztikusabban megfogalmazva: hogyan kell azt »hatékonyan hasznosítani«".[7]

Hol tartunk most?

■ Az integrált szemléletű, tehát az örökségnek az értékvédelmet és az érintett személyek, közösségek életminőségének megtartását, emelését szolgáló használatot/fejlesztést egyidejűleg szolgáló kezelése napjainkra általánosan elfogadott megközelítésnek tekinthető, beleértve azt is, hogy ehhez bizonyos változások tudomásul vétele, illetve változtatások megengedése is szükséges. A gyakorlatban a példák arra figyelmeztetnek, hogy ez az elv legtöbbször nem a kívánatos és elvárható kiegyensúlyozottsággal valósul meg. A műemlék/épített kulturális örökség alapú fejlesztések jelentős részében a meglévő értékek hátrányára, az úgymond fenntartható fejlesztés/használat feltételeit biztosító, egyes esetekben bizony igen jelentős beavatkozások, változtatások javára billen el a mérleg.

A társadalmi elvárások és az anyagi források rendszere is ebbe az irányba mutat. Amennyiben a meglévő értékek védelme akadályt gördítene egy mélyebbre ható átalakítás, változtatás elé, az értékvédelem érdekében érvelők, illetve az egyébként létező legitim értékvédelmi eszközökkel élni kívánó szakma állásfoglalása, elutasító határozata hamar megkapja a „fejlődést akadályozó, visszahúzóan maradi" címkét.[8]

7 FEJÉRDY Tamás: Örökség, védelem – ma, holnap. In BASSA Lia szerk.: *Tanulmányok az örökségmenedzsmentről.* 1. kötet – A világörökség kezelése. 2009, Információs Társadalomért Alapítvány (Alma Mater sorozat).

8 Érdekes és talán kissé meghökkentő összevetés kínálkozik a „létező szocializmus" idején Magyarországon, a szabályozás ideológiai hátterével (1/1967. (I. 31.) ÉM rendelet a műemlékvédelemről, 15. § (2): „A műemlék jellegű és a városképi jelentőségű építményeket a gazdaságosság és a rendezési tervekbe illeszthetőség határain belül kell fenntartani. A fenntartás gazdaságosságának megállapítása során mérlegelni kell a védett építményen elvégzendő munkálatok várható költségeinek az építmény újra-előállítási költségéhez viszonyított arányát, az azok során várható műemléki értéknövekedés mértékét, ennek kultúrpolitikai jelentőségét, továbbá az esetleges idegenforgalmi vagy más

Egyrészrt az örökség, mint fejlesztési potenciál felés elismeréséhez nem kapcsolódik az adott örökségi elem fizikai – és nem anyagi – adottságai által determinált teherbírási képességének (*carrying capacity*) az elfogadása, még kevésbé a tiszteletben tartása. Másrészt az értékvédelem oldaláról ugyancsak indokolt egy lelkiismeret-vizsgálat elvégzése a tekintetben, hogy valóban csak annyit és csak úgy követelnek-e meg a megőrzés érdekében, amennyi és ahogyan az valóban elengedhetetlenül szükséges.

A kulturális örökségi értékek turisztikai felértékelődése mint lehetséges turisztikai vonzerő, éppúgy hatással van ezen objektumokra, mint a települések funkcionalitásának átrendeződése az urbanizációs folyamatok következtében. A városok növekedése – mind az intenzitás, mind területi bővülés tekintetében –, illetve a kisebb települések, falvak népességvesztése súlyos következményekkel járhat az örökségi értékek életét, megmaradását illetően. A társadalmi és gazdasági változások történeti funkciók visszaszorulásával járhatnak, járnak – talán elég itt az egyházi/vallási épületek[9], illetve számos ipari épület helyzetére, példájára utalni.

Tehát a műemlékek, történeti épületek fenntartása sokszor csak komoly, fizikai változásokkal is járó beavatkozások, vagy azok elviselése révén lehetséges. A változások lehetőségének kizárása – legyen az az értékőrzés legnemesebb szándékával kimondva – legtöbbször nem tartozik a reálisan megvalósítható választási lehetőségek közé, hiszen még a folyamatosan fenntartott, továbbélő, alkalmas és jó rendeltetésekkel bíró műemlékek esetében is jelentkezhetnek különféle mértékű, szükséges és indokolt változtatási igények.[10]

Ezek alapján került előtérbe a műemlékvédelemmel, és ezen belül a műemlékek restaurálásával és helyreállításával foglalkozó szakma keretében – elsősorban az angolszász gyakorlatra támaszkodva – annak a megfogalmazása, hogy a műemlékek (örökségi értékek) konzerválásának a legjobb és leghatékonyabb módszere a „változások menedzselése". A változást el kell fogadni, de úgy, hogy az adott műemlék „szubsztanciája", az értékeit hordozó attribútumai ne sérüljenek. Ezáltal nem csorbul sem a hitelessége, sem az integritása, azaz fennmarad az értékeinek a „teljes körű" sértetlensége: azt biztosítva, hogy a műemlék a változások ellenére is saját maga tudjon maradni.

A 2000-es évek elején elfogadottá vált ennek a megközelítésnek a helyénvalósága, amelyet erősíthetett az a tény is, hogy az UNESCO Világörökség Listáján

közcélú hasznosításból származó bevételeket". Egyenes beszéd: a gazdasági szempont dominál, az értékvédelem pedig addig élhet, ameddig azt nem keresztezi.

9 Vö. az angol szóhasználatban gyakorta megjelenő *redundant religious buildings* kifejezéssel.

10 A 2013. augusztus 20–24. között Besztercén (Bistriţa, Románia) Kortárs komfort történeti épületekben témában megtartott 16. *Az épített örökség felújításának elméleti és gyakorlati kérdései nemzetközi konferencia-sorozat – TUSNAD* bőségesen foglalkozott ezzel a kérdéssel, számos példával alátámasztva a megállapításait.

Since, unfortunately the recognition and admission of the heritage entailing a potential for development do not imply the acknowledgement of the carrying capacity of the heritage element, as determined by its physical (not material) conditions, even less its respect. On the other side, namely from the point of view of value protection, it is of course justified to scrutinize their conscience to see whether they claim only what is indispensable indeed for the sake of preservation.

The appraisal of cultural heritage items, as touristic attractions, have an impact on these objects, like the restructuring of the functions within a settlement caused by the apparently still ongoing urbanization processes. The expansion of towns both in terms of intensity and spatial growth, and the decrease of the population in smaller settlements, villages, both can lead to serious consequences concerning the existence and survival of heritage values. Social and economic changes can bring about the diminishing of different historic functions – perhaps it would be illustrative enough to refer to the situation of the majority of religious[8] and industrial buildings.

Therefore the maintenance of monuments and historic buildings in many cases seems possible only through the carrying out or the toleration of considerable interventions implying physical changes. Undoubtedly, the exclusion of any possibility of change – should it be claimed with an outmost noble-minded intention of value preservation – in most cases doesn't represent a real option, since even in the case of permanently used, maintained, suitable historic buildings with an appropriate function demands for necessary and justified changes may arise.[9]

That is how the view (based primarily on Anglo-Saxon practices) that the best and most efficient method for historic building (heritage value) preservation consists in the "management of change" became predominant among specialists engaged in built heritage protection, more precisely historic building conservation. The change needs to be accepted, but in such a way, that the "substance" of the historic building and its attributes encompassing its values do not suffer any harm. Thus neither its authenticity nor integrity suffers any damage, and the "comprehensive" intactness of its values remains: assuring that despite changes the historic building can remain authentic.

At the beginning of the 2000s this concept became increasingly acknowledged as a proper view, greatly due to the fact that in case of items included on the

historic building value, its cultural politics significance, and the incomes resulted from touristic or other public use." This is pretty straight talk: economic considerations prevail, value protection is permitted to exist while it doesn't cross the former.

8 See the frequently used expression "redundant religious buildings".

9 The 16th Conference Series on Theoretical and Practical Issues on Built Heritage Conservation – TUSNAD with the topic *Contemporary Conveniences in Historic Buildings*, and held in Bistriţa, Romania in August 20-24, 2013 treated the issue in large, illustrating the findings with many examples.

UNESCO World Heritage list, the guarantee for a proper management (management plan and management organization) became compulsory. At the same time the built heritage protection principles formulated earlier and still valid stressed upon the obligation to preserve unchanged the existing values, thus it was unavoidable that the divergence between these two views sooner or later would produce a professional conflict. It is not accidental either that this conflict appeared within the world-wide organization ICOMOS, respectively it was best articulated within its framework.

The development of the cultural heritage concept, which by now implies the above-mentioned components and the increasingly prevailing elements of the non-material heritage as heritage dimension, meant and still means a challenge to face with for the organization including in its name the "monuments and sites" terms[10]. All these considerations appeared as initiatives questioning partly the historic building valuation and value definition considered so far unquestionable, or at least they pointed to the necessity to reconsider these. Again it was within the framework of world heritage related cooperation – in which the ICOMOS is one of the designated advisory body listed in the 1972 Convention – that the divergence of opinions intensified, mainly in the course of the debates related to the "conservation status reports"[11] of the listed sites, and of the formulation of the related ICOMOS standpoints. Similar questions arise concerning the nomination of different new world heritage sites as well.

Perhaps in a much too simplifying formulation the difference between the two diverging viewpoints can be resumed in the following: while the previous, "conservative" approach gives priority to the unaltered preservation of existing values as much as possible, the "new" approach transfers the emphasis to the utilization of the existing values, and to the objective of use as a means for ensuring its sustainability. Unfortunately the latter is often thought of as being the same as a state or use within "self-maintenance", which can be a real target in a very few cases with respect to historic buildings and sites. It is not accidental for example that in the case of "manor houses", which became almost a synonym for "historic buildings", one cannot stress enough that they were built from the incomes of its owners obtained elsewhere, and their maintenance (on a mostly luxury level) was again ensured through other sources, so these buildings (which are now historic buildings) "did not produce, but consumed money". It would be an erroneous approach to expect from these buildings and complexes (which out of historic reasons are tragically damaged in most cases) to produce the costs needed for their refurbishment, maintenance, functioning, and the

10 See note no. 2: „Monuments and Sites".

11 In time the so-called SOC *(Status of Conservation)* reports gained an increasing significance in the work of the World Heritage Committee.

szereplő javak esetében kötelezővé vált a megfelelő kezelés[11] (kezelési terv és kezelő szervezet) garantálása. A műemlékek megőrzésének korábban meghatározott és érvényben lévő elvei ugyanakkor a meglévő értékek változatlan megőrzésének a kötelezettségét hangsúlyozták, így elkerülhetetlenné vált, hogy e kétféle szemlélet ütközése előbb-utóbb szakmai konfliktussá is válhat. Ez a konfliktus az ICOMOS szervezetén belül is megjelent, illetve e kereteken belül artikulálódott a legjobban.

A „műemlékek és műemlék helyszínek"[12] fogalmakat a nevében is hordozó szervezet számára feldolgozandó és ma is fennálló kihívást jelentett a kulturális örökség fogalmának az előzőket is magába emelő kibontakozása, majd a nemanyagiasult örökség mint örökségi dimenzió egyre határozottabban megjelenő tényezője. Mindezek úgy is jelentkeztek, mint az addig megingathatatlannak tartott műemléki értékelést, értékmeghatározást részben alapjában is megkérdőjelező, de legalábbis azok újragondolásának szükségességét jelző kezdeményezések. Megint csak a világörökségi együttműködés keretében – amelyben az ICOMOS az 1972-es egyezményben az egyik nevesített tanácsadó testület – éleződtek ki az eltérő nézetek, elsősorban a már a Világörökségi Listán szereplő helyszínek „megőrzési állapotjelentéseinek"[13] vitái, illetve az ezekkel kapcsolatos ICOMOS állásfoglalások megfogalmazása során, és hasonló kérdések merültek fel egyes új világörökségi helyszínek jelölése kapcsán is.

Leegyszerűsítő megfogalmazásban, a két eltérő nézőpont abban foglalható össze, hogy míg a korábbi „konzervatív" megközelítés a meglévő értékek változatlan megőrzését tekinti elsődlegesnek, az „új" megközelítésben ez a hangsúly áttevődik a meglévő értékek hasznosítására, illetve fenntarthatóságát biztosító használatának elérésére. Sajnos ez utóbbit gyakran azonosnak gondolják az „önfenntartó" állapot, illetve használat elérésével, amely a műemlékek és műemlék helyszínek vonatkozásában csak kevés esetben tűzhető ki reális célként. A „műemlékek" fogalmának már szinte szinonimájává vált „kastélyok" esetében azok (többnyire luxusszintű) fenntartását más forrásokból biztosították, azaz ezek az épületek (ma már műemlékek) „nem hozták, hanem vitték a pénzt". Ezektől a történeti okokból napjainkra többségükben tragikusan leromlott épületektől, épületegyüttesektől elvárni, hogy bármilyen jól megválasztott funkcióval megtermeljék a felújításuk, fenntartásuk, működtetésük költségét, téves megközelítés, amelynek érvényesítése az eredeti értékek megőrzése ellenében hat.

11 A „kezelés" itt a *management* értelemben használatos; ld. a kezelési terv a *Management Plan*, a kezelő szervezet a *Management Structure, Management Body* vagy esetleg a *Site Manager* megfelelője.

12 Ld. a 2. sz. lábjegyzetet: *Monuments and Sites*.

13 Az úgynevezett SOC *(Status of Conservation)* értékelések a Világörökség Bizottság üléseinek munkájában egyre nagyobb jelentőséget kaptak az idők folyamán.

Az ICOMOS egyik legfontosabb szakmai fóruma a Tanácsadó Testület (Advisory Committee), amelynek a 2009-ben Máltán megtartott éves ülésén napirendre került az előző évben megválasztott új nemzetközi elnök, ARAOZ Gustavo előterjesztésében[14] az *Örökségi helyek megőrzése az új örökségi paradigma alapján és ez utóbbinak a változásokkal kapcsolatos toleranciahatárai* című vitaanyag. Főleg ez utóbbi kitétel, a változások elfogadhatóságára vonatkozó határok megállapításának felvetése igencsak heves, és indulatoktól, esetenként személyeskedésektől sem mentes vitát váltott ki. A téma azóta is napirenden van, ami egyrészt bizonyítja a felvetés időszerűségét, és azt, hogy ez az összetett kérdés a műemlékek értékeinek megőrzését meghatározó jelentőségű. Az ICOMOS elnök felvezetésében provokációs szándék is volt, azzal a céllal, hogy rámutasson a változó körülmények között esetleg új vagy újraértelmezett válaszok keresésére, kidolgozására.

A Máltán megkezdett vita utóéletének egyik legközelebbi, fajsúlyos szakmai folytatása az akkori vitában is a „konzervatív" oldal fő szószólójának, PETZET Michaelnek – az ICOMOS-t három cikluson át, a szervezetet összesen kilenc évig vezető előző nemzetközi elnökének – a Német Nemzeti Bizottság akkori elnökének a munkája. A Német Nemzeti Bizottság támogatásával megjelenő *Monuments and Sites* ICOMOS kiadványsorozat XX. köteteként[15] *International Principles of Preservation* címmel megjelent kiadvány[16] színvonalas, hasznos és időszerű összefoglalása a „megőrzés nemzetközi elveinek"; első fejezetében külön és célzottan is foglalkozik az előzőkben bemutatott kérdéssel. A vitairat jellegű megfogalmazást indokolja ezen írás megjelenésének dátuma, 2009. december 1., vagyis az ugyanazon év októberében tartott ICOMOS Tanácsadó Testületi ülés közelsége – igaz, ezt akár fordítva is értelmezhetjük, azaz a kötet válasz kíván lenni a Máltán felvetett kérdésre. Ez a „hozzászólás" teljesen elutasítja a „változások menedzselésének" a hagyományos eszközök és elvek helyébe emelését a műemlékek megőrzésében. Ez a meglehetősen merev elutasítás, bár egyértelműen tükrözi PETZET professzor határozott egyéni véleményét, egyáltalán nem tekinthető elszigeteltnek, azaz számos nagy tekintélyű és elismert műemléki szakember egyetértő támogatását tudhatja maga mögött.

14 Előadás a *Protecting heritage places under the new heritage paradigm & defining its tolerance for change* címmel.

15 Michael PETZET: *International Principles of Preservation – Monuments and Sites XX.* ICOMOS, 2009.

16 „In some respect, this volume XX of the Monuments and Sites series is also a considerably extended new edition of the *Principles of Monument Conservation / Principes de la Conservation des Monuments Historiques* (ICOMOS – Journals of the German National Committee, vol. XXX) and, at the same time, a revised version of the *Principles of Preservation – An Introduction to the International Charters for Conservation and Restoration 40 Years after the Venice Charter*, which can be found in the second edition (2004) of Monuments and Sites, vol. I, *International Charters for Conservation and Restoration*." (Idézet a kiadvány szerzői előszavából)

application of such an approach has a negative impact on the preservation of their authentic values.

One of the most important professional forums of the ICOMOS is the Advisory Committee. On its annual meeting held in 2009 in Malta, the discussion paper of the recently elected new international president, Gustavo ARAOZ entitled *Protecting Heritage Places Under the New Heritage Paradigm & Defining Its Tolerance For Change: A Challenge For ICOMOS* offered a solid ground for debate. Especially the latter, namely the definition of the tolerance degree for change provoked heated debates charged with temper and even personal remarks. The topic is still on the agenda, which confirms the timeliness of the topic, but also that the issue is very complex and significant, and it determines basically the preservation of built heritage values. In all probability the ICOMOS president did have the intention to provoke the specialists with this formulation, in order to point to the necessity for new or at least reinterpreted answers to changing circumstances.

One of the most recent and weighty professional continuation of the debate initiated in Malta is the work of the main representative of the "conservative" side in the debate, Michael PETZET. He had been the previous international president of ICOMOS for nine years and the president of the German National Committee at that time. His book entitled *International Principles of Preservations*[12] issued with the support of the German National Committee as the 20th volume[13] of the *Monuments and Sites* ICOMOS series is a high-quality, useful and timely review of the "international principles of preservations". Its first chapter treats separately and expressly the above presented issue. The debate paper character is due to the date of publication, the December 1, 2009, namely the proximity of the ICOMOS Advisory Committee Meeting held in October the same year – true though that this could be interpreted inversely too, namely that the book intends to give an answer to the question raised in Malta. Perhaps it is needless to point out that this "contribution" refuses entirely the replacement of traditional methods and principles in built heritage preservation with the "management of change". This rather rigorous refusal, although reflects the firm personal opinion of Professor PETZET, cannot be regarded as an isolated view, as it enjoys the support and approval of many illustrious and well-known built heritage specialists.

12 "In some respect, this volume XX of the *Monuments and Sites* series is also a considerably extended new edition of the Principles of Monument Conservation / Principes de la Conservation des Monuments Historiques (ICOMOS – Journals of the German National Committee, vol. XXX) and, at the same time, a revised version of the Principles of Preservation – An Introduction to the International Charters for Conservation and Restoration 40 Years after the Venice Charter, which can be found in the second edition (2004) of Monuments and Sites, vol. I, International Charters for Conservation and Restoration." (Fragment from the author's foreword to the volume)

13 Michael PETZET, *International Principles of Preservation – Monuments and Sites XX.* (ICOMOS, 2009).

During the professional conferences of the international scientific committee of the ICOMOS engaged in the theory and philosophy of preservation and conservation held in recent years in various places (2009: Firenze, 2010: Prague and Ćeský Krumlov)[14] the issues related to conservation versus management of changes were discussed in quite a large perspective and in detail. These conferences in fact emphasized the necessity, and what is more important, the priority of preservation, although did not reject the legitimacy and rightfulness of compliance with contemporary needs. According to an ingenious formulation to be followed, the participating specialists suggest that in the future – admitting the importance and usefulness of management compliant with contemporary cultural climate – not the "management of change", but the "management of preservation" could be the right solution, which could ensure both the due preservation of built heritage values at all times, and its maintenance and use. This thought leads us to the question which concerns all those engaged and interested in built heritage (and other properties belonging to other, wider categories of cultural heritage) protection, care, and in the preservation and transmission of their values, namely: which way to go?

Which way to go?

■ Present practices and experiences do not really confirm the general acceptance of the theoretical standpoint and principal presented above, and there are many signs in Europe and world-wide, that paradoxically the successful "promotion" of the appreciation of historic buildings and sites gave ground to the growth of endeavours endangering these values. On one hand the prevalence of the exclusively success and profit-oriented approach, on the other hand a series of social difficulties caused by poverty and the uneven distribution of goods, the daily problems most of the people and communities are facing cause that values previously acknowledged as unquestionable become relative. In the course of this restructuring of values (to avoid the term crisis of values), while the built heritage and the cultural heritage values in general are irreplaceable, irretrievable documents and resources of history, the basis and carriers of the identity of individuals and communities, even though: they too loose their absolute appreciation.

To a different extent in different countries and regions, but this change of valuation, the weakening of heritage value acknowledgement is also due to the change of communities creating the heritage, their re-

14 ICOMOS ISC for the Theory and the Philosophy of Conservation and Restoration. Conservation turn – Return to conservation. Tolerance for change – Limits of change. Proceedings of the International Conferences of the ICOMOS International Scientific Committee for the Theory and the Philosophy of Conservation and Restoration, 5-9 May 2010, Prague/Cesky Krumlov, Czech Republic / 3-6 March 2011, Florence, Italy. Ed. by Lipp, Wilfried and Stulc, Josef. Florence: Edizioni Polistampa, 2012. 350.

Az ICOMOS-nak a megőrzés és restaurálás elméletével és filozófiájával foglalkozó tudományos szakbizottsága[17] az elmúlt években megtartott konferenciáin, pontosabban szakmai tanácskozásain (2009: Firenze, 2010: Prága, illetve Ćeský Krumlov) széles kitekintéssel és részletesen tárgyalta a konzerválás versus a változások menedzselése tárgyában felmerült kérdéseket. E konferenciák lényegében a megőrzés szükségességét és elsődlegességét hangsúlyozták, jóllehet nem utasítva el a kortárs igények kielégítésének jogosságát és indokoltságát. Egyik szellemes, és megszívlelendő megfogalmazásuk szerint a jövőben – teljes mértékben elfogadva a korszellemnek megfelelő kezelés (menedzselés) fontosságát és hasznosságát – azt javasolják, hogy nem a „változások menedzselése", hanem a „megőrzés menedzselése" lehet a megoldás, amely biztosítani tudja a műemléki értékek mindenkori méltó fenntartását, használatát és bemutatását. Felmerül a kérdés, ami a műemlékek (és persze a kulturális örökség minden egyéb, tágabb halmazába tartozó javak) védelmével, gondozásával, a bennük felhalmozott értékek megőrzésével és továbbadásával foglalkozó valamennyi érintettet és érdekeltet foglalkoztatja, ez pedig, hogy merre tovább?

Merre tovább?

■ A jelen gyakorlata és tapasztalatai nem feltétlenül igazolják az előző rész végén szereplő elvi, elméleti állásfoglalás általános elfogadását, és számos jel mutat arra Európában, illetve világszerte, hogy a műemlékek és műemlék helyszínek megbecsülésének eredményes „felfuttatása" napjainkra paradox módon az ezen értékeket veszélyeztető törekvéseket „nevelt fel". Egyik oldalról a kizárólag siker- és haszonorientált megközelítés uralkodóvá válása, másik oldalról számos társadalmi nehézség – a szegénység, a javak egyenlőtlen felosztása miatt – az emberek és közösségek nagy többségénél jelentkező napi gondok a korábban egyértelműen elfogadottnak hitt értékek viszonylagossá válásához (relativizálódásához) vezetnek. Ebben az értékátrendeződésben (hogy ne használjuk az értékválság kifejezést) a műemlékek és tágabb körben, a kulturális örökség értékei annak ellenére veszítik el abszolútnak tartott minősítésüket, hogy továbbra is mással nem pótolható, „meg nem újuló", az egyének és közösségeik identitását megalapozó és hordozó dokumentumai és forrásai a történelemnek.

Országonként és régiónként eltérő mértékben, de hozzájárul ehhez az értékelésváltozáshoz, az örökségi értékek elfogadottságának gyengüléséhez az örökséget

17 *ICOMOS ISC* for the Theory and the Philosophy of Conservation and Restoration*. Conservation turn – Return to conservation. Tolerance for change – Limits of change. Az ICOMOS International Scientific Committee for the Theory and the Philosophy of Conservation and Restoration nemzetközi konferenciájának kiadványa, 2010. május 5–9., Prága/ Cesky Krumlov, Csehország/ 2011. március 3–6., Firenze, Olaszország. Szerkesztette: Wilfried LIPP és Josef STULC. Firenze, Edizioni Polistampa, 2012. 350.

létrehozó közösségek kicserélődése vagy összetételének megváltozása. A globalizálódó világban korábban nagymértékű migráció folytán kialakuló zárványközösségek vagy éppen közösséget vesztett egyének nem tudnak, és gyakorta nem is akarnak azonosulni az őket körülvevő környezet értékeivel – azért, mert az csupán idegen és érthetetlen a máshonnan hozott kultúrájukhoz képest, vagy szándékos, ideológiai megfontoláson alapuló elutasítás miatt.

Ebben a „környezetben" jelentősnek látszik az Európa Tanács keretében kidolgozott *A kulturális örökség értéke a társadalom számára* címmel 2005-ben elfogadott Európa Tanácsi keretegyezmény[18], az ún. Farói Egyezmény. Számos más elemével is érdemes lenne foglalkozni, most azonban a következő két cikkelyében foglaltak a legfontosabbak:

„9. cikk – A kulturális örökség fenntartható használata

A kulturális örökség fenntartása érdekében a Felek kötelezettséget vállalnak arra, hogy:

a) előmozdítják a kulturális örökség sértetlenségének tiszteletben tartását azáltal, hogy biztosítják, hogy bármilyen változtatásról szóló döntés magában foglalja az érintett kulturális értékek megértését;
b) meghatározzák a fenntartható kezelés elveit és szorgalmazzák azok alkalmazását, valamint buzdítanak a folyamatos fenntartásra;
c) biztosítják, hogy minden általánosan érvényes műszaki szabályozás során számolnak a kulturális örökség megőrzésének sajátos követelményeivel;
d) előmozdítják a hagyományos anyagok, technikák és gyakorlati megoldások használatát és kiaknázzák a bennük rejlő lehetőségeket a mai kor általi használat során is;
e) előmozdítják a magas színvonalú munkát egyének, vállalkozások és intézmények szakmai minősítési és akkreditációs rendszerei útján."

és a

„10. cikk – Kulturális örökség és gazdasági tevékenység

A kulturális örökség, mint a fenntartható gazdasági fejlődés tényezője nyújtotta lehetőségek teljes körű kihasználása érdekében a Felek kötelezettséget vállalnak arra, hogy:

a) növelik a társadalmi tudatosságot, és felhasználják a kulturális örökségben rejlő gazdasági lehetőségeket;
b) tekintetbe veszik a kulturális örökség sajátos jellegét és érdekeit a gazdasági célzatú politikák kialakításakor; és
c) biztosítják azt, hogy ezek a politikák tiszteletben tartsák a kulturális örökség integritását úgy, hogy benne rejlő értékei ne sérüljenek."

Egyre nyilvánvalóbb napjainkban, hogy a „merre tovább" kérdésre csak olyan megközelítésben adható érdemi válasz, amely egyszerre és egyenrangúan veszi figyelembe a társadalom, a közösségek átfogó, illetve

placement or the significant change of their composition. The enclave communities formed as a result of the migration intensified in the globalized world to an unseen extent, or the individuals losing their communities cannot and often will not identify themselves with the values of their environment – either because it is foreign or meaningless compared to their own culture, either due to a deliberate refusal based on ideological considerations.

The Framework Convention on the Value of Cultural Heritage for Society elaborated and signed by the European Council in 2005, the so-called Faro Convention bears a special significance in this "environment". It would be worthy to discuss many of its other elements, but for the purpose of this study the following two articles are the most important:

"Article 9 – Sustainable use of the cultural heritage

To sustain the cultural heritage, the Parties undertake to:

a) promote respect for the integrity of the cultural heritage by ensuring that decisions about change include an understanding of the cultural values involved;
b) define and promote principles for sustainable management, and to encourage maintenance;
c) ensure that all general technical regulations take account of the specific conservation requirements of cultural heritage;
d) promote the use of materials, techniques and skills based on tradition, and explore their potential for contemporary applications;
e) promote high-quality work through systems of professional qualifications and accreditation for individuals, businesses and institutions.

Article 10 – Cultural heritage and economic activity

In order to make full use of the potential of the cultural heritage as a factor in sustainable economic development, the Parties undertake to:

a) raise awareness and utilise the economic potential of the cultural heritage;
b) take into account the specific character and interests of the cultural heritage when devising economic policies; and
c) ensure that these policies respect the integrity of the cultural heritage without compromising its inherent values."

Thus it is perceptible that by today it became more and more evident that the question "Which way to go?" can be answered properly only through an approach, which takes into account simultaneously and in an equal proportion the overall needs of the society, of communities, which sometimes favour other considerations, and the need for the preservation of heritage values. Therefore not the principles are lacking, we are rather facing challenges in the implementation of a complex approach. It is still to be assessed and analyzed in what these challenges consist.

18 Council of Europe Framework Convention on the Value of Cultural Heritage for Society, no. 199, adopted in Faro (Portugal) 2005.

In conclusion...

■... but without attempt to comprehensiveness and finality, it is worth to take account of those most important – or maybe most frequently raised? – facts, phenomena, the knowing and efficient management of which could guide us out from the uncertain present situation of heritage protection to the long-term insurance of its future.

One of the general factors of negative impact is certainly the prevalence of short-term approach. Paradoxically the democratization of community decision-making, more precisely the cyclic election (most often in every fourth year) of decision-makers undoubtedly has an important role in this. In most cases built heritage-related activities – should they be preservation or rather development oriented, or ideally balanced between these too – hardly can be finalized within a single parliamentary term. The consequence is that generally preparation (research, planning) is compromised, and the "unexpected" situations arisen during implementation works (the discovery of hidden values can never be excluded in the case of monuments and historic buildings, thus such situations cannot be considered unexpected, but not known in advance) are highly often managed through decisions which result in loss of values.

The range of difficulties resulting from the *rigidity of financing regulations* jeopardizing the preservation of heritage values[15] is directly linked to the previous aspect. This is manifested in the fact that – for example in case of works carried out through a public procurement procedure – decisions are taken almost exclusively on the basis of financial considerations, both with respect to the award of the contract, and the problems to be solved during the implementation. While the former puts in a disadvantageous situation the professional institutions, which do have the appropriate expertise and experience (references), but – right because of that – work at a higher price, the latter might result even in direct loss of values, if, due to the fixed budget, the surplus works generating surplus costs, which arise during the implementation and are indispensable for the sake of value protection, are not approved.

A further complex challenge in historic building conservation is related to *the issue of the current specifications and regulations*, which on one hand become mandatory due to the new function the built heritage is assigned, on the other hand are generally valid, but which can't always be observed in historic value protection. At this point the use of "modern materials"[16]

15 This applies to other projects as well than projects carried out from EU Cohesion Fund, although it is certain that most of such perils are entailed by Cohesion Fund-financed projects.

16 Unfortunately different plastic materials and structures are considered as such, which are far from being compatible with historic materials and with carriers of aesthetic and other values.

Befejezésül...

■…de a teljesség és a véglegesség igénye nélkül, inkább csak címszavakban érdemesnek látszik számba venni azokat a legfontosabb – vagy csak leggyakrabban felmerülő? – tényezőket, jelenségeket, amelyek ismerete és hatékony kezelése közelebb vihet a műemlékvédelem jelenlegi, elbizonytalanodni látszó helyzetéből való kibontakozáshoz, jövőjének hosszabb távra szóló biztosításához.

Az egyik, általánosan jelentkező negatív hatású tényezőt a *rövid távú szemlélet* térhódításában határozhatjuk meg. Ebben jelentős szerepe lehet – paradox módon – a közösségi döntéshozatal demokratizálódásának, egészen pontosan a döntéshozók ciklikus (többnyire 4 évenkénti) megválasztásának is. A műemlékekkel kapcsolatos tevékenységek – legyenek azok inkább megőrzés vagy inkább fejlesztésirányultságúak, vagy éppen ideálisan kiegyensúlyozottak e kettő között – az esetek többségében nehezen szoríthatók be egy-egy ciklus időszakába. Következmény: általában az előkészítés (kutatás, tervezés) szenved csorbát, illetve a megvalósítás folyamatában felmerülő „váratlan" helyzetek (rejtett értékek előkerülését műemlékek, történeti épületek esetében sohasem lehet kizárni, tehát ilyen értelemben nem tekinthetők váratlannak, csak előzetesen nem ismertnek) kezelésében születnek gyakorta értékvesztést eredményező döntések.

Rögtön ide kapcsolható *a finanszírozási szabályok kötöttségéből következő nehézségek*, illetve az örökségi értékek megőrzését illetően jelentkező veszélyek köre.[19] Ez egyrészt abban mutatkozhat meg, hogy – például közbeszerzési eljárás keretében megvalósuló munkáknál – csaknem kizárólag a pénzügyi szempontok alapján születnek döntések, mind a munkába adást illetően, mind pedig a megvalósítás során felmerülő kérdések esetében. Míg az előbbi a megfelelő szakértelemmel és gyakorlattal (referenciával) rendelkező, de – éppen ezért – drágábban dolgozó szakintézményeket hozza hátrányos helyzetbe, az utóbbi akár közvetlen értékvesztést is eredményezhet, ha a folyamatban felmerülő, az értékvédelem miatt szükséges, ugyanakkor a költségnövekedést eredményező többletmunkák a kötött költségvetési keret miatt nem kapnak jóváhagyást.

További, összetetten jelentkező kihívás a műemlékekkel kapcsolatos felújítási, hasznosítási munkák

19 Mindez nemcsak az EU kohéziós alapokból történő támogatással megvalósuló projektek esetében van így, bár kétségtelen, hogy legnagyobb mértékben azok esetében érhető tetten.

során egyrészt az új funkció miatt szükségessé váló, másrészt az általánosan érvényes, de a történeti értékek megőrzésekor nem mindig követhető *hatályos előírások, szabályozások érvényesítésének kérdése*. Ebbe a körbe tartoznak a „korszerű anyagok”[20], amelyek használatát gyakran nemcsak kiváló (vagy annak hirdetett) tulajdonságaik miatt, de a mögöttük álló csoportok (gyártók, forgalmazók) lobbiereje miatt is szorgalmazzák. Ide tartoznak a fogyasztói társadalmakban megmutatkozó egyéb olyan „külső” tényezők is, mint például *a reklámok által is gerjesztett/terjesztett divatok, divatos megoldások*, amelyek alkalmazásának szándéka gyakran kerül összeütközésbe a megőrzés megkövetelte visszafogottabb, hagyományos megoldásokkal.

Az egyébként indokolt, és lehetőség szerint a műemlékek esetében is követendő új szempontok, elvárások esetében is el kell kerülni az átgondolatlan, valamilyen okból felkapott megoldásokat. Példa erre az energiahatékonyság fokozásának egyre erőteljesebben jelentkező igénye, amelynek a kielégítésekor a lehetséges hatások figyelembevétele arra is rámutat, hogy a fenntarthatóság tiszteletre méltó és fontos szempontjainak az örökségi értékek megőrzése iránti érzéketlenséggel és/vagy közömbösséggel párosuló érvényesítése komoly veszélyeztető tényező lehet.

Fennebb esett már szó az adott műemlék *terhelhetőségi korlátairól*, pontosabban arról, hogy azok figyelmen kívül hagyása súlyos következményekkel járhat, akár műemléki értékek teljes elvesztését is eredményezheti. A turisztikai vonzerő növelése és a műemlékben rejlő fejlesztési potenciál kiaknázása „legitim” törekvés, de csak addig, amíg a műemlék identitása megmarad, és nem csupán ürügyként vonultatják fel egy hangzatos projektben, hogy annak elkészültével az újonnan megvalósított fejlesztés sikeres működésére összpontosítva már senki se törődjön a projektet a „hátán cipelő” műemlék további sorsával.

Ez az „utógondozás” az, ami az előzőkben részletezett tényezőkön túl, pontosabban azokkal együtt továbbra is a legnagyobb „kortárs kihívás”. Egyre inkább érvényes az a Velencei Chartában lakonikus tömörséggel megfogalmazott állítás, amely (a szerző által javasolt új fordításban) így hangzik: „4. cikkely: A műemlékek megőrzésében létfontosságú azok folyamatos karbantartása, gondozása”.[21]

Arra kell tehát törekedni, hogy a műemlékeinknek, műemléki együtteseinknek, amelyek különösen a mi közép-európai régiónkban már oly sok mindenen keresztülmentek (vagy: oly sok minden ment keresztül rajtuk…) az eddigi történetük során, minél kevesebbszer kelljen „új életet kezdeniük”. Ennek az elvárásnak a teljesülését pedig nem az időnként megismételt – költsé-

20 Sajnálatos módon ebbe a körbe tartozónak tekintik a különféle műanyagokat és olyan szerkezeteket is, amelyek korántsem kompatibilisek a történeti anyaghasználattal, esztétikai és más értékhordozókkal.

21 A korábbi magyar fordításban: „4. cikkely: A műemlékek konzerválása elsősorban állandó karbantartásukat teszi szükségessé.” Az angol változat ennél többet mond, illetve pontosabban fogalmazza meg a lényeget: „Article 4. It is essential to the conservation of monuments that they be maintained on a permanent basis”.

can be mentioned, which is often fostered not only due to their excellent qualities (or propagated as having good features), but also by the lobby potential of groups behind them (manufacturers, distributors). But this includes other “external” factors typically present in consumer societies, like *the fashions, fashionable solutions generated and disseminated by advertisements*, the application of which often conflicts more restricted and traditional solutions imposed by preservation.

The ill-advised solutions fashionable for whatever reason should be avoided even when new aspects and expectations are endorsed, which are otherwise justified and ought to be followed in case of historic buildings as well. An example to this could be the growing demand for energy efficiency. If we try to conform to this demand and therefore take into account the possible effects, we see that if the implementation of the important and respectable aspects of sustainability is coupled with an insensitiveness and/or indifference against heritage value preservation, this could seriously endanger heritage preservation.

I have already touched upon the *carrying capacity* of a historic building, the ignorance of which could have serious consequences, eventually causing the loss of the historic building’s values. The enhancement of the touristic attractiveness and for this purpose the utilization of the development potential of historic buildings is of course a “legitimate” objective, but only to an extent which preserves the historic building’s identity, and provided that it is not displayed as a pretext in a fancy project, so that when the project is accomplished, and everybody is focused on the successful functioning of the building, the condition of the historic building “carrying the project on its back” would be neglected.

Yet the “after-care” is one of the greatest “contemporary challenges” besides, more precisely together with the factors above-presented. The statement formulated laconically in the Venice Charter is not a novelty; on the contrary, it is becoming more and more valid: *“Article 4. It is essential to the conservation of monuments that they be maintained on a permanent basis.”*

The aim should be thus that our historic buildings would be constrained to “start a new life” as few times as possible, as, especially in our Central-European region, they underwent so many things during their history (or rather: so many things passed them through...). Yet, it is not periodically repeated rehabilitation (which is costly, and despite all care always implies differing value loss), which *ensures the fulfilment of this demand*, but *the coexistence of sustainable and sustaining function and permanent maintenance*, which serves the real interests of the community, communities[17] connected to the historic

17 See the definition given to “cultural heritage” and “heritage community” in the already mentioned Faro Convention: “Article 2 – Definitions

building, and of the individuals pertaining to that community, and *which suits in a decent manner to the intransigent particularities of the built heritage in the largest sense.*

For the purposes of this Convention,
a) cultural heritage is a group of resources inherited from the past, which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time;
b) a heritage community consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations." *(Emphasis by the author)*

ges, és a legnagyobb gondosság mellett is mindig kisebb-nagyobb mértékű értékvesztéssel járó – helyreállítás, hanem *a fenntartható és egyben fenntartó*, az örökséghez tartozó szűkebb-tágabb közösség, közösségek[22] és az azokat alkotó személyek valós érdekeit szolgáló, ugyanakkor *a műemlék legszélesebben értelmezett intranzigens adottságaihoz méltó módon illeszkedő rendeltetés és a folyamatos gondozás együttes jelenléte tudja biztosítani.*

22 Lásd: a már említett Farói Egyezmény szerinti „kulturális örökség" és „örökség-közösség" meghatározást:
2. Cikk – Meghatározások
A jelen Egyezményben
a) a kulturális örökség azon múltból örökölt értékhordozó források együttese, amelyeket az emberek – függetlenül a tulajdonviszonyoktól – a saját állandóan fejlődő értékeik, hiedelmeik, hitük, tudásuk és hagyományaik tükröződéseként és kifejeződéseként határoznak meg, magában foglalja a környezet mindazon vonatkozásait is, amelyeket az idők folyamán az ember és az egyes helyszínek közötti kölcsönhatás eredményezett;
b) egy örökségközösség azon személyek összessége, akik valamely kulturális örökség bizonyos aspektusait értéknek tekintik és közösségi cselekvés keretében kívánják fenntartani és a következő nemzedékeknek továbbadni. (kiemelés a szerzőtől)

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■ FURU Árpád[1]

Népi építészeti kutatások Erdélyben 1989-től napjainkig

■ ***Kivonat:*** *a sajátosan alakult erdélyi népi építészet kutatása nem mindenben követte a nyugati példákat, és sok szempontból lemaradt a magyarországi kutatási eredmények rendszeressége, feldolgozottsága mögött. A rendszerváltás után megélénkült a népi építészet iránti érdeklődés, ám ennek a mértéke az ezredfordulóra jelentősen csökkent, gyakorlati eredményeket főként a szabadtéri muzeológia és a műemlékvédelem mutatott fel. Annak ellenére, hogy az erdélyi népi építészet kutatástörténete több mint száz éves múltra tekint vissza, a folyamat egyáltalán nem tekinthető lezártnak. Az irányzat rendszerváltás utáni történetének összefoglalójából kiderül, hogy a felgyorsult társadalmi és gazdasági átalakulás a népi építészetet létrehozó és fenntartó életforma gyökeres megváltozását eredményezte, és az adatfelvétel, a terepmunka elsődleges fontosságára helyezte a hangsúlyt.*

■ ***Kulcsszavak:*** erdélyi népi építészet, szabadtéri múzeum, műemlékvédelem, néprajz

■ Erdély a Kárpát-medencéhez szervesen hozzátartozó földrajzi táj, ám történelmi pályája, társadalmi, nemzetiségi tagoltsága, földrajzi elszigeteltsége eredményeként a népi építészet fejlődése nem mindenben követte a tőle nyugatabbra fekvő területek példáját. Sajátosan alakult Erdély népi építészetének kutatása is. Erdély népi építészetéről készültek az első néprajzi igényű leírások, a székely ház eredetelmélete váltotta ki az egyik első nagy szakmai vitát, és gazdag erdélyi anyagot tartalmaznak az első szabadtéri kiállítások is. A lendületes kezdet után viszont, minden bizonnyal a jól ismert politikai változások miatt, nem következett megfelelő folytatás, és ezért összességében az erdélyi kutatás sajnos sok szempontból lemaradt a magyarországi kutatási eredmények rendszerességétől, feldolgozottságától. BALASSA M. Iván méltán jegyzi meg, hogy Erdély, vagy legalábbis Erdély néhány kis- és nagytája

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Vernacular Architecture Research in Transylvania since 1989

■ ***Abstract:*** *The particularly evolved Transylvanian vernacular architecture research did not follow in every aspect the western examples and from multiple points of view dropped behind compared to the systematic processing of Hungarian research results. After the change of regime the vernacular architecture manifested an upswing, although at the turn of millennium was followed by an intense decline, practical results were brought about mainly by open air museums and built heritage protection. Even though the history of research on Transylvanian vernacular architecture has more than a century, the process is far from being concluded. From the synthesis-like evaluation of the tendency's post-transition history, turns out that accelerated social and economic transformation resulted in the radical change of the lifestyle creating and maintaining vernacular architecture and highlighted the outmost importance of field work.*

■ ***Keywords:*** Transylvanian vernacular architecture, open air museum, protection of built heritage, ethnography

■ Transylvania is a geographic area, part of the Carpathian Basin. As a result of its history, social and ethnic composition, geographic delimitation, the development of its vernacular architecture did not follow in every aspect the pattern of western areas. Research on its vernacular architecture also evolved particularly. The 1st ethnographic descriptions were written on Transylvania's vernacular architecture, the theory on the origins of the Szekler house initiated the first great professional debate, and the 1st open air exhibitions included a rich Transylvanian material. Despite the promising beginning, presumably due to the well-known political changes, there was not an appropriate continuation, thus research in Transylvania dropped behind to the systematic processing of Hungarian research results. Iván BALASSA M. was right to notice that Transylvania or at least a few smaller or larger regions were either in the centre of Hungarian eth-

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nographic vernacular architecture research, either they were completely neglected.[2] The intricacy of the situation is increased by the ethnic distribution, along with the cleavages caused by political storms of the 20th century, the peace treaty concluding I WW and the new frontiers, then their closing during the communist regime. The evolution of ethnography resulted in approaches formulated in 3 languages and according to different scientific paradigms or even political interpretations – works on the Transylvanian vernacular architecture were published in Romania and Hungary in Romanian, Hungarian and German languages alike.

The first sciencentific historical synthesis about the research results and tasks on Hungarian vernacular architecture in Transylvania was written by Károly KÓS in 1979.[3] The following review was the study of Iván BALASSA M. written for the 1st conference on vernacular architecture from 1999 following the change of regime in 1989, in which he presented the achievements in the research on Transylvanian vernacular architecture.[4] The article aims at highlighting the results achieved following 1989 in the research of Transylvania's vernacular architecture, without avoiding the theses of the 2 above mentioned studies.

After 1989 research on the Transylvanian vernacular architecture could gain a new impulse. National built heritage protection was re-organized and NGOs were established. The Kriza János Ethnographic Society's mission consists in the promotion of Hungarian ethnographic research; its rich library holds the work of outstanding scientists,[5] and the large photography archive ensures basic resources to the researchers; the organization regularly hosts different events, presentations and exhibitions. Among NGOs engaged in built heritage protection, initially the Keöpeczi Sebestyén József Association for Built Heritage Protection (Sfântu Gheorghe), then the Transylvania Trust Foundation (Cluj-Napoca) and the Association for Built Heritage (Ciuc), finally the Entz Géza Foundation for Cultural History carried out programs for the assessment, research and value protection of the vernacular architecture.

On both sides of the border, interest toward this field augmented, due to the village destruction plans of the communist regime.[6] A high number of scientists started to collect data frequently in Transylvanian villages, mostly without publishing them or making them ac-

2 BALASSA M., *Erdély népi építészete*, 5.
3 KÓS, *Eredmények és feladatok*, 193-215.
4 BALASSA M., *Erdély népi építészete*, 5-32.
5 Károly KÓS, Géza VÁMSZER.
6 One of the results of the announcement of the village destruction program was that in the 1980s attempts for the survey of villages intensified. One of the most significant achievements was the survey of the vernacular architecture of Covasna, Baraolt, partly Mureş, Salt Region, Ciuc, Ghimeş and the dispersed Hungarian villages in South-Transylvania carried out by Attila ZAKARIÁS, Sándor BENCZÉDI, László MÁTHÉ and Árpád KOVÁCS, architects from Sfântu Gheorghe. Their initiative, like the survey work carried out by Csaba MIKLÓSI-SIKES in Kalotaszeg, later joined the official survey coordinated by Călin HOINĂRESCU, which assumed the assessment of the vernacular architecture of certain areas precisely on the pretext of the new villages planning.

egyszerre volt a magyar néprajzi, népi építészeti érdeklődés központjában, és volt teljesen elfelejtett terület.[2] A helyzet összetettségét fokozza Erdély etnikai tagoltsága, törést okoztak a XX. század politikai viharai, az első világháborút lezáró békeszerződés és az új határok, majd ezek átjárhatatlansága a kommunizmus éveiben. A néprajzi érdeklődés nemzetiségi viszonyok szerinti alakulása háromnyelvű, sokszor más-más tudományos paradigmák vagy akár politikai interpretációk szerinti megközelítést eredményezett, Erdély népi építészetéről pedig Romániában és Magyarországon, magyarul, románul és németül egyaránt publikáltak.

Az erdélyi magyar népi építészet kutatásának eredményeiről és feladatairól korábban KÓS Károly 1979-ben írt tudománytörténeti összefoglalót.[3] Ezt követően BALASSA M. Iván az 1999-ben megrendezett, az 1989-es változások utáni első nagy népi építészeti tanácskozás alkalmával megjelent tanulmányában röviden újra összefoglalta az erdélyi népi építészetre vonatkozó kutatások addigi eredményeit.[4] A magunk részéről az alábbiakban arra törekszünk, hogy Erdély népi építészeti kutatásának az 1989-es fordulat után elért eredményeit világítsuk meg, anélkül, hogy a fent említett két kiváló dolgozat tételeit megkerülnénk.

Az 1989-es változás utáni években az erdélyi népi építészet kutatása is új lendületet kaphatott. Újraszervezték a román állami műemlékvédelmet és megjelentek a civil szervezetek is. A magyar néprajz kutatását célul kitűző Kriza János Néprajzi Társaság gazdag, több jeles kutató[5] hagyatékát is magában foglaló könyvtára, folyamatosan bővülő fotótára az erdélyi népi építészet búvárainak is alapvető forrásokat biztosít, ugyanakkor a szervezet számos rendezvénynek, előadásnak, kiállításnak is rendszeresen teret ad. A műemlékvédelmi civil szervezetek közül kezdetben a sepsiszentgyörgyi Keöpeczi Sebestyén József Műemlékvédő Társaság, majd a kolozsvári Transylvania Trust Alapítvány és a Csíki Műemlékvédő Egyesület, végül az Entz Géza Művelődéstörténeti Alapítvány végzett népi építészeti felmérő, kutató és értékmentő programokat.

Felerősödött az érdeklődés a határ mindkét oldalán, amit bizonyára fokoztak a rendszerváltás előtti évek diktatúrájának falurombolási tervei.[6] Egyre többen és egyre gyakrabban kezdtek Erdély különböző falvaiban gyűjteni, jobbára anélkül, hogy ezeket az eredménye-

2 BALASSA M. 1999. 5.
3 Dr. KÓS Károly 1979. 193–215.
4 BALASSA M. 1999. 5–32.
5 KÓS Károly, VÁMSZER Géza.
6 A falurombolás meghirdetésének egyik következményeként a nyolcvanas években felerősödtek a falvak építészeti örökségének felmérésére tett próbálkozások. Az egyik legnagyobb eredmény Háromszék, Erdővidék és részben Marosszék, Sóvidek, Csík, Gyimes és a dél-erdélyi szórvány népi építészeti átfésülése és felmérése ZAKARIÁS Attila, BENCZÉDI Sándor, MÁTHÉ László és KOVÁCS Árpád sepsiszentgyörgyi építészekhez kötődik. Kezdeményezésük, hasonlóan MIKLÓSI-SIKES Csaba kalotaszegi felmérő munkájához, később a Călin HOINĂRESCU által koordinált, ezúttal hivatalos felméréshez csatlakozott, amely pontosan az új falvak megtervezése ürügyén vállalta egyes vidékek népi építészetének felmérését.

ket publikálták vagy a nagyközönség, esetleg a tudományos érdeklődés számára hozzáférhetővé tették volna. Érzékelhető, hogy a népi építészet kutatása, legalábbis magyar szempontból is a Kárpát-medencei magyar összefogás jegyében történt.

A népi építészeti érdeklődés 1989 utáni kezdeti élénkülését, amely leginkább korábbi gyűjtések feldolgozásában volt érzékelhető, az ezredforduló közeledtével erős lankadás követte. A gyakorló építészek körében sajnálatosan csekély a népi építészeti érdeklődés, de a néprajzos szakma fiatalabb generációjának képviselőit is, az alábbiakban felsorolt néhány kutató kivételével, a korábban nem kutatható, elsősorban társadalom-néprajzi témák vonzzák. Gyakorlati eredményeket a szabadtéri muzeológián kívül ezért elsősorban a műemlékvédelem hozott.

A nyolcvanas évek gyűjtésére alapozva legkorábban BÍRÓ Gábor építész publikált Magyarországon. Sóvidék népi építészetéről írt tanulmánya gazdagon illusztrált, tömör összefoglaló, mely a szentendrei Szabadtéri Néprajzi Múzeum Magyar Népi Építészeti Archívum sorozatában, BALASSA M. Iván szerkesztésében jelent meg.[7]

MIKLÓSI-SIKES Csaba szintén a kilencvenes években törekedett a rendszerváltás előtt gyűjtött kalotaszegi anyag feldolgozására, majd publikálására szintén Magyarországon. Komoly levéltári kutatásra alapozott szakdolgozata nagy terjedelemben foglalkozik az egyházi örökséggel, és címe ellenére szűkebb teret szentel a tulajdonképpeni népi építészetnek. A munka érdekessége – talán a Călin HOINĂRESCU csapata által meghatározott munkamódszernek köszönhetően – a legújabb kori típustervek, és az ezekből körvonalazódó, integrálódó népi építészeti alkotások részletes ismertetése. A szakdolgozat kivonatolt megjelenésére 1999-ben került sor.[8] Itt említjük meg SEBESTYÉN Kálmán 1998-ban publikált, levéltári forrásokat feldolgozó kalotaszegi tanulmányát is.[9] Sajnálatosan a ZAKARIÁS Attila, BENCZÉDI Sándor, KOVÁCS Árpád és MÁTHÉ László nevével fémjelzett, 1989 előtt hasonló körülmények között zajló háromszéki, csíki és pontszerűen Székelyföld más területeit is célzó felmérés anyaga mindeddig csak kiállítás formájában került a nagyközönség elé. Megjegyezzük, hogy az anyagból készült látványos, igényes és kiváló minőségű, több országban is bemutatott vándorkiállítás igen nagy visszhangot váltott ki, ezért nagy kár, hogy a ZAKARIÁS Attila által több éve elkészített összegfoglalás megjelentetése még mindig várat magára.

Szintén a diktatúra idején, a hetvenes években gyűjtött széki fénykép- és felmérési anyagot egészítette ki és publikálta WAGNER Péter budapesti építész 2005-ben.[10]

BÁRTH János magyarországi néprajzkutató ebben a periódusban az udvarhelyszéki magashegyi szállások és hegyi települések kialakulását, fejlődését és telepü-

7 BÍRÓ 1992.
8 MIKLÓSI 1999.
9 SEBESTYÉN K. 1998.
10 WAGNER 2005.

cessible for public or science. It is presumable that vernacular architecture research, from a Hungarian point of view, was carried out in the name of the Hungarian collaboration within the Carpathian Basin.

The initial upswing of vernacular architecture research after 1989, which manifested on the processing of previous research, was followed later by a decline. There are just a few architects who are interested in vernacular architecture; moreover, the younger generation of ethnographers, with the exception of a few researchers enumerated below, are attracted by topics of social ethnography, which could not be researched before. Therefore, besides open-air museums, practical results were brought by built heritage protection.

The first published works' author in Hungary was architect Gábor BÍRÓ, who relied on data collected in the '80s. His study on the micro-region called Salt Region (Sóvidék)[7] is a richly illustrated one, edited by Iván BALASSA M. and published in the Hungarian Vernacular Architecture series of the Szentendre Ethnographic Open-air Museum.[8]

Csaba MIKLÓSI-SIKES attempted to process and publish, also in the '90s, the material collected prior to the change of regime in Călata Region (Kalotaszeg), again in Hungary. Despite its title, his work based on archive research deals mostly with religious heritage, but it treats also vernacular architecture. Due to the working method defined by Călin HOINĂRESCU's team, it presents the most recent type plans and the related vernacular architectural products. The extract of the thesis was published in 1999.[9] The study of Kálmán SEBESTYÉN on Călata Region was published in 1998 and it is based on archive data.[10] The assessment carried out by Attila ZAKARIÁS, Sándor BENCZÉDI, Árpád KOVÁCS and László MÁTHÉ before 1989 in Covasna, Ciuc and in some locations of the Szekler Land was revealed only in form of an exhibition. The spectacular, demanding travelling exhibition arranged from this material and presented in several countries produced a significant reaction, but the study written by Attila ZAKARIÁS several years ago is still unpublished.

In 2005 Péter WAGNER, an architect from Budapest completed and published his photo and survey material collected in the '70s in Sic.[11]

Hungarian ethnographer János BÁRTH carried out research related to alpine cottages and the evolvement and layout of mountain settlements.[12] A study was pub-

7 The ethnographic regions were determined by the national ethnographic research schools, therefore the Romanian and Hungarian approach is not perfectly overlapping. Acknowledging the scientific challenges and inevitable misinterpretations, not having the space to delimitate precisely each region, in the English text we tried to use the official Romanian geographical name or if this was not possible an English translation for the Hungarian region names [translator's note].
8 BÍRÓ, *Sóvidék népi építészete*,.
9 MIKLÓSI, *A kalotaszegi falvak népi építészetéről*.
10 SEBESTYÉN K., *Kalotaszeg népi építészete a 18. században*.
11 WAGNER, *Feneketlen a múltnak kútja*.
12 BÁRTH, *Szállások, falvak, városok*, BÁRTH, *A varsági hegyi tanyák múltja és településrendje*.

lished by Pál BINDER on the alpine properties of Saxons of Transylvania.[13]

Following 1989 conferences were organised on vernacular architecture in Transylvania and Hungary, and it ensured the possibility to publish articles and research reports in this field.

The one-week meeting organised in 1999 of the Built Heritage Protection Conference Series from Tuşnad ensured a full overview of the field for the entire Carpathian Basin. The lectures were published in 2 volumes, one issued in Cluj-Napoca and one in Szentendre.[14] The authors of the latter are: Iván BALASSA M., István PÁLL, Csaba MIKLÓSI-SIKES, Nándor GILYÉN, Tünde ZENTAI, Tibor SABJÁN, János BÁLINT, Miklós BUZÁS, Miklós CSERI, Klára K. CSILLÉRY, György BALÁZS, Zsófia VAJKAI, Gábor Dániel OZSVÁTH, Péter KECSKÉS, József SEBESTYÉN and Margit KISS, and its Romanian authors were T. Octavian GHEORGHIU, Corneliu GAIU and Şerban POPESCU-DOLJ. In the Cluj-volume, besides the above-mentioned, Árpád FURU wrote on Transylvanian issues, Constantin Juan PETROI, Valer DELEANU, Ovidiu CĂLBOREANU, Alexandru VÂRTEJ and Remus IANCU wrote on Romanian vernacular architecture, the 4 latter as collaborators to the Ethnographic Museum in Sibiu. Within the same conference series in 2009, organized in Colţeşti, vernacular architecture was in focus again: the topic was *The Vernacular and the Multicultural Dialogue*. Despite its ample program proposal, due to the decrease of enthusiasm towards vernacular architecture, it did not manage to give a comprehensive overview of the results in the field. The authors of the studies published in the conference proceedings[15] were: Elek BENKŐ and Árpád Töhötöm SZABÓ, and the Romanian authors were: Ana BÂRCA, Adriana STROE, Ligia FULGA, Iosefina POSTĂVARU and Aurelian STROE. The volume did not include several lectures, some of them were published in the *Transsylvania Nostra* Journal, Volume III, 2009, no. 2.

Lectures on vernacular architecture were presented sporadically at other conferences, but we do not have knowledge of any other scientific event in Transylvania dedicated exclusively to this topic. It is to note that the biannual vernacular architecture conferences in Békés, though ensured the review of research carried out in Hungary, invited lectures with Transylvanian topics as well. The lectures and the proceedings of these conferences represent the research, the similarities despite insufficient material and spiritual resources.

Between 1994 and 1996 the vernacular houses inventory program carried out by beginner engineers grouped in the workshop of Bálint SZABÓ functioned at back burner. The program was commissioned by the Vernacular Group of the Cultural Heritage Protection Authority (OMvH)[16] in Budapest, to the initiative of Béla SISA. Data

13 BINDER, *Az erdélyi szászok havasbirtokai*.
14 MAKAY, *Tusnád 1999*, BALASSA – CSERI, *Népi építészet Erdélyben*.
15 SZABÓ B., *Többnemzetiségű régiók népi építészete*.
16 Today Forster Gyula Nemzeti Örökséggazdálkodási és Szolgáltatási Központ, meaning Gyula Forster National Centre for Cultural Heritage Management [ed. note].

lésszerkezetét kutatta.[11] Hasonló tematikájú, az erdélyi szászok havasbirtokairól készült tanulmány BINDER Pál tollából.[12]

Az 1989 után kialakuló új helyzetet tükrözték az Erdélyben és Magyarországon rendszeresen megszervezett tematikus népi építészeti konferenciák, amelyek kötetei teret adtak a szakmával kapcsolatos közléseknek, kutatási beszámolóknak.

A tusnádi műemlékvédelmi konferenciaként ismertté vált rendezvénysorozat keretében 1999-ben Tusnádfürdőn megrendezésre kerülő egyhetes tanácskozás a szakma teljes Kárpát-medencei seregszemléjének helyt adott. Az elhangzott előadásokat egy Kolozsváron és egy Szentendrén kiadott kötetben publikálták.[13] A Szentendrén kiadott kötet szerzői: BALASSA M. Iván, PÁLL István, MIKLÓSI-SIKES Csaba, GILYÉN Nándor, ZENTAI Tünde, SABJÁN Tibor, BÁLINT János, BUZÁS Miklós, CSERI Miklós, K. CSILLÉRY Klára, BALÁZS György, VAJKAI Zsófia, OZSVÁTH Gábor Dániel, KECSKÉS Péter, SEBESTYÉN József és KISS Margit, román részről pedig Teodor Octavian GHEORGHIU, Corneliu GAIU és Şerban POPESCU-DOLJ. A konferencia hazai kötetében a fentieken kívül erdélyi témában FURU Árpád, román részről pedig Constantin Juan PETROI, Valer DELEANU, Ovidiu CĂLBOREANU, Alexandru VÂRTEJ, Remus IANCU; utóbbi négy a nagyszebeni néprajzi múzeum alkalmazottjaként írt. A konferencia tíz év után tűzte ismét napirendre a népi építészet tematikáját: a 2009-ben Torockószentgyörgyön megrendezett ülésszak a *Többnemzetiségű régiók népi építészete* alcímet viselte. Gazdag programajánlata ellenére, pontosan a népi építészet iránti lelkesedés lankadása miatt nem tudott a szakma eredményeiről átfogó keresztmetszetet nyújtani. A konferencia kötetében[14] megjelent erdélyi tematikájú dolgozatok szerzői BENKŐ Elek és SZABÓ Árpád Töhötöm. Román nyelven Ana BÂRCA, Adriana STROE, Ligia FULGA, Iosefina POSTĂVARU és Aurelian STROE közöltek. Több elhangzott előadást a kiadvány nem tartalmaz, egy részüket a Transsylvania Nostra III. évf. 2009. 2. számában jelentették meg.

Népi építészeti előadások természetesen más építészeti, műemlékvédelmi és néprajzi konferenciákon is szórványosan elhangzottak, de kizárólagosan e témának szentelt erdélyi rendezvényről nincs tudomásunk. Itt jegyezzük meg, hogy a kétévenként Békésen megrendezésre kerülő népi építészeti tanácskozások, bár elsősorban a magyarországi kutatás seregszemléjét biztosították, rendszeresen helyet adtak erdélyi tematikájú előadásoknak is.

Az említett konferenciák előadásai és a kiadott publikációk jól érzékeltetik a kutatást, a csekély anyagi és személyi erőforrás dacára terhelő párhuzamosságokat.

1994 és 1996 között néhány évig takaréklángon működött a SZABÓ Bálint körül szerveződő alkotóműhely kezdő mérnökei által folytatott népi lakóház-inventa-

11 BÁRTH 1996., BÁRTH 1998.
12 BINDER 1992.
13 MAKAY 1999., BALASSA – CSERI 1999.
14 SZABÓ B. 2009.

rizáció, amelyet SISA Béla kezdeményezésére a budapesti Országos Műemlékvédelmi Hivatal (OMvH)[15] Népi Csoportja rendelt meg. A program keretében Marosszéken, Kalotaszegen és a Partiumban falvanként négy-négy lakóházról töltöttek ki fényképes adatlapot. A munka legnagyobb eredménye a népi építészeti érdeklődés és terepismeret elsősorban a fiatal generáció körében történő növelésében mutatkozott, az OMvH archívumában található anyagok feldolgozására azonban tudomásunk szerint senki nem vállalkozott.

A kilencvenes évek derekán, ezúttal műemlékvédelmi indíttatásból kezdődött el újra Torockó népi építészetének kutatása. Az Europa Nostra díjas torockói értékvédelem, a kolozsvári Transylvania Trust Alapítvány általi elindítását az építészeti örökség teljes felleltározása előzte meg. Ezt az anyagot 1994–98 között FURU Árpád dolgozta fel. Legteljesebb publikálására, néhány rövidebb közlés[16] mellett, a Kriterion kiadó ötödik, megkésett népművészeti kötetében került sor, amelyet a hetvenes években részben a cenzúra, részben pont az építészeti fejezet hiánya miatt nem sikerült kiadni.[17] (Igaz, hogy DEBRECENI László és STARMÜLLER Géza az 50-es és 60-as években KÓS Károly, SZENTIMREI Judit és NAGY Jenő társaságában a torockói építészet gyűjtését is megkezdték, de az anyag feldolgozása nem készült el, és sajnos hozzáférhetősége máig nem biztosított.) A torockói értékvédelemmel párhuzamosan működő Énlaka Értékvédő Program ALBERT HOMONNAI Márton és SZIKSZAI László jóvoltából szintén gazdag kutatási háttéranyaggal rendelkezik, ám mindeddig erről csak rövid, vázlatos összefoglalók jelentek meg.[18]

Szintén védelmi célzattal kezdődött el Máréfalva, majd Udvarhelyszék székely kapuinak jegyzékbe vétele. A program a máréfalvi KOVÁCS Piroska nevéhez kötődik, akit tevékenységéért 2013-ban Europa Nostra díjjal tüntettek ki.

Megállapítható, hogy a népi építészet kutatásában egységes szempontrendszer csak a 90-es évek második felében kezdett körvonalazódni. Ennek előzménye a 90-es évek elején indított, erdélyi szász örökség felmérését célzó program. Az átfogó leltározás szomorú aktualitását a szász lakosság kivándorlása és a kiürült települések építészetének gyors pusztulása adta. A német kormány támogatásával és megrendelésére német, román és romániai magyar szakemberek állami és magánintézmények, egyetemek, alapítványok képviseletében a több évig tartó munkában a teljes Szászföld építészeti örökségét dokumentálták. A programról, az alkalmazott módszerről, szervezéséről több konferencián, publikációban hírt adtak. A nagy mennyiségű nyersanyag feldolgozása

15 Ma Forster Gyula Nemzeti Örökséggazdálkodási és Szolgáltatási Központ [szerk. megj.].
16 FURU 1994., FURU 2005., FURU 2006.
17 FURU 2002., FURU 2010. A kötet második bővített kiadása 2010-ben jelent meg.
18 A 2009-ben ABLERT HOMONNAI Márton által írt kötet tartalmaz Énlakára vonatkozó kutatási eredményeket, de az írás építészeti és műemlékvédelmi tematikája miatt nem tekinthető a helyszíni felmérés átfogó publikálásának. (ABLERT HOMONNAI 2009.)

sheets were completed on 4 houses in each village of the Mureş Co., Călata Region and Satu Mare Co. Important result consisted in the raise of the awareness towards vernacular architecture and the increase of field knowledge among the younger generation. The material deposited in the Authority's archive was not processed yet.

In the 1990s research on the vernacular architecture of Rimetea was restarted due to built heritage protection intent. Heritage protection in Rimetea, which received the Europa Nostra Medal, was initiated by the Transylvania Trust Foundation from Cluj-Napoca, and it was preceded by a complete inventory of the local built heritage. This material was processed between 1994 and 1998 by Árpád FURU. Besides a few short publications,[17] its full version was overtaken by the Kriterion Publishing House in its late, 5th folk art volume, which could not be published in the 1970 because of censorship and due to the lack of an architectural chapter[18] (In the 1960-70s László DEBRECENI and Géza STARMÜLLER, in the company of Károly KÓS, Judit SZENTIMREI and Jenő NAGY started to collect data on the architecture of Rimetea, but the data was never processed, and its availability is not yet ensured). Thanks to Márton ALBERT HOMONNAI and László SZIKSZAI, the Inlăceni's heritage protection program launched simultaneously with the Rimetea heritage protection program disposes over a rich data, but only brief and sketchy reviews were published.[19]

The inventory of the Szekler gates of Satu Mare (Harghita Co.), then of the entire Odorheiu Seat was also started with the intention of protection. The program is credited to Piroska KOVÁCS, who received the Europa Nostra Prize for dedicated service in 2013.

A consistent approach to vernacular architecture research started to be outlined in the 2nd part of the 1990s. The preliminary was the program for the assessment of the Saxon heritage in Transylvania launched at the beginning of the 1990s. The tragic timeliness of the inventory was given by the massive emigration of the Saxon population and the rapid decay of the architecture of the emptied settlements. With the support and by the commission of the German government, German, Romanian and Hungarian experts from Romania representing state and private institutions, universities, foundations documented the built heritage of the entire Saxon Area in a several years long work. The public was informed about the program and the applied methods at several conferences and publications. The processing of the data is still ongoing, and their publication in form of databases has started, but the complete process needs a great amount of time (*Denkmaltopographie Siebenbürgen*). Until now

17 FURU, *Torockó. Torockó népi építészete*, FURU, *Torockó népi építészete* , FURU, *Műemlékvédelem Torockón*.
18 FURU, *Népi építészet*, FURU, *Népi építészet*, II. The second enlarged edition was issued in 2010.
19 The book written by Márton ALBERT HOMMONAI in 2009 includes research findings regarding Inlăceni, but due to its architectural and built heritage protection topic the volume can not be regarded as a comprehensive overview. (ALBERT HOMMONAI, *Épített örökség és modernizáció*.)

a few volumes were issued which include information regarding vernacular architecture as well (data referring to Brasov Co., Rupea Seat, and the cities Sighişoara and Sibiu and some parts of the Ţara Bârsei Region were published).[20] The publication treating architectural and art history issues of certain Saxon settlements by Romanian researchers (Adriana STROE, Ligia FULGA, Iosefina POSTĂVARU, Aurelian STROE, Corina POPA, etc.) is also the result of this data collection process.[21]

Meanwhile, a Hungarian heritage inventory program was launched in the region along the Valea Nirajului (Nyárád-mente) and in the Baraolt Region, within the framework of the office responsible for social relations under the OMvH (the precursor to the National Office for Cultural Heritage), then the Ministry of National Cultural Heritage (NKÖM)[22] and the Teleki László Foundation. The material comprising data on vernacular architecture as well was transferred to the archive of the Entz Géza Foundation for Cultural History. The assessment aimed at the inventory of the entire built heritage, which includes not only vernacular buildings, and which, due to limited financial and human resources, was a task impossible to fulfil from the first. Therefore the work groups were content with assessing a few representative buildings or considered so. The material collected in the Erdővidék Region integrated the re-drawn house assessments carried out by Attila ZAKARIÁS and Sándor BENCZÉDI's team. In both areas the surveys were conducted on churches and on a few noble residences. The inventory of vernacular architectural heritage meant only the survey of a few buildings in each village with photo documentation of street layouts and digital settlement maps.

In 1999, with the support of the NKÖM, due to the collaboration between the Transylvania Trust Foundation and the Szentendre Ethnographic Open-air Museum, a similar inventory program was started, concentrating only on vernacular architectural heritage. The program's aim: the rapid inventory relying on photos and datasheets of around 1000 Transylvanian settlements' vernacular architecture, which at the turn of the 19th to 20th century had a Hungarian population of at least 33%.[23] Due to lack of sufficient funding this project could not be finalised either, in 10 years data was collected only in settlements of the Călata and Odorheiu Seat, and to a small degree in the Transilvanian Hill Region (in 80 villages). Regarding Călata and Odorheiu Seat, the collected data was processed by Árpád FURU,

20 MACHAT, *Denkmaltopographie Siebenbürgen: Kreis Kronstadt*, MACHAT, *Denkmaltopographie Siebenbürgen: Stadt Hermannstadt*, MACHAT, *Denkmaltopographie Siebenbürgen: Stadt Schässburg*.

21 STROE Adriana, *Şaroş pe Tărnave*, STROE Aurelian, *Forţa exemplului. Satul Şmig*, FULGA, *Arhitectura vernaculară în spaţiul multicultural*, POSTĂVARU, *Suburbiile istorice ale Braşovului*, POPA, *Argumente pentru conservarea in situ*.

22 Today Emberi Erőforrások Minisztériuma, meaning Ministry of Human Resources [ed. note].

23 The expert leader of the program presented at several conferences was Dr. Iván BALASSA M., field work was coordinated by Árpád FURU and partly by Sámuel SZABÓ.

folyamatban van, az anyag repertóriumszerű megjelentetése is megkezdődött, ám a teljességre még bizonyára sokat kell várni (*Denkmaltopographie Siebenbürgen*). Eddig néhány, a népi építészet szempontjából is értékes információkat hordozó kötet jelent meg (Kőhalomszék, Segesvár, Nagyszeben, és a Barcaság egyes részei kerültek publikálásra).[19] Szintén ennek az adatfelvételi tevékenységnek eredménye bizonyos szász települések sajátos építészeti, művészettörténeti kérdéseit taglaló tanulmányok egyes román kutatók közlésében (Adriana STROE, Ligia FULGA, Iosefina POSTĂVARU, Aurelian STROE, Corina POPA és mások) .[20]

A szász felmérőprogram hatására a magyarországi Kulturális Örökségvédelmi Hivatal (KÖH) jogelődje, az Országos Műemlékvédelmi Hivatal (OMvH) társadalmi kapcsolatokért felelős osztálya, majd a Nemzeti Kulturális Örökségvédelmi Minisztérium (NKÖM)[21] és a Teleki László Alapítvány keretei között Nyárádmentén és Erdővidéken magyar örökségi inventarizáció indult. Ennek népi építészeti adatokat is tartalmazó nyersanyaga később a kolozsvári Entz Géza Művelődéstörténeti Alapítvány archívumában került elhelyezésre. A felmérés megfogalmazott célkitűzései szerint a teljes, azaz nemcsak a népi építészeti örökség inventarizációjára törekedett, ami a szűk anyagi és emberi erőforrások miatt eleve lehetetlen feladat volt. A munkacsoportok ezért beérték néhány reprezentatív, vagy annak minősített épület felmérésével. Az erdővidéki anyag integrálta a ZAKARIÁS Attila és BENCZÉDI Sándor által vezetett csapat újrarajzolt házfelméréseit is. Mindkét területen építészeti felmérést készítettek templomokról és egykét nemesi lakóépületről is. A népi építészeti örökség inventarizációja falvanként csupán néhány épület műszaki felmérését jelentette, amely utcaképi felvételeket tartalmazó fotódokumentációval és digitális urbanisztikai térképekkel egészült ki.

Ezzel egy időben, 1999-ben erdélyi kezdeményezésre, szintén az NKÖM támogatásával, a Transylvania Trust Alapítvány és a szentendrei Szabadtéri Néprajzi Múzeum együttműködésével megindult egy hasonló, ám kizárólag a népi építészeti örökségre koncentráló adatfelvételi program, amelynek ambíciós célja mintegy 1000 erdélyi, a XIX–XX. század fordulóján legalább 33 százalékban magyar lakossággal rendelkező település teljes népi építészetének gyors, adatlapos és fényképes inventarizációja volt.[22] Sajnos az anyagiak hiányában ez a terv sem valósulhatott meg, 10 év alatt csupán Kalotaszeg és Udvarhelyszék, illetve kismértékben a Mezőség településein, mintegy 80 faluban készült el az adatfelvétel. A begyűjtött adatok feldolgozását Kalotaszeg és Udvarhelyszék esetében a Nemzeti Kulturális Alap (NKA) támogatásával FURU Árpád végezte el: a

19 MACHAT 1995., MACHAT 1999., MACHAT 2002.

20 STROE Adriana 2009., STROE Aurelian 2009., FULGA 2009., POSTĂVARU 2009., POPA 1999.

21 Ma Emberi Erőforrások Minisztériuma [szerk. megjegyz.].

22 A több szakmai konferencián is ismertetett program szakmai vezetője Dr. BALASSA M. Iván volt, a terepmunka koordinálását FURU Árpád és részben SZABÓ Sámuel végezte.

Kalotaszeg népi építészete című összegzés[23] 2007-ben, az *Udvarhelyszék népi építészete* kötet[24] 2011-ben jelent meg.[25]

Az NKÖM által támogatott két felmérés szempontrendszere különbözött egymástól. Bár fontosságát és célszerűségét felismerték, sajnálatos módon a két megközelítést képviselő kutatóknak a két metodológiát nem sikerült közös nevezőre hozni. A Teleki László Alapítvány és az Entz Géza Művelődéstörténeti Alapítvány nevével fémjelzett kutatás erőssége az építészeti felmérések elkészíttetésében rejlik, valamint abban, hogy néhány templom, kúria, kolostor és középület felmérésére is sor került. Hiányosságként felróható, hogy a nagyrészt építészek és művészettörténészek által végzett munka elsiklott bizonyos néprajzi jelenségek felismerése felett, ezért néhány esetben az elkészült anyagok reprezentativitása megkérdőjelezhető. A Transylvania Trust Alapítvány és a Szabadtéri Néprajzi Múzeum által készített inventarizációban a meglátogatott településeken a népi építészeti örökség teljes adatlapos és fényképes inventarizációja megtörtént, ám a második lépcsőben tervezett építészeti felmérések elkészítése az anyagiak hiánya miatt nem valósulhatott meg. A tájegységi néprajzi és népi építészeti kutatás követelményeinek az utóbbi felmérés, az egyes egyedi épületek jobb megismerése és esetleges helyreállításának előkészítése szempontjából az előbbi viszonyulás bizonyult célravezetőbbnek. Egy évtized távlatából szemlélve, a két metodológia egymást kiegészíthette volna; ezért nagy kár, hogy a csapatok nem összefogva, ugyanazon tájegységekben dolgoztak.

A Transylvania Trust Alapítvány keretében az adatfelvétel évenkénti kutatóutak formájában, csekély anyagi háttérrel és megváltozott metodológiával folytatódott Háromszéken, a Partiumban, a moldvai csángó településeken és Dél-Erdély néhány településén is, elsősorban BALASSA M. Iván, FURU Árpád és részben SZABÓ Sámuel részvételével. Az NKA által biztosított alkotói ösztöndíjak, valamint a Communitas Alapítvány támogatásai lehetővé tették az éves kutatóutak megszervezését Csíkban, Erdővidéken, Kászonban, Hétfaluban, Nyárádmentén, a Mezőségen, Aranyosszéken, Felső-Maros mentén és a Görgény völgyében, sőt, összehasonlítótanulmány-jelleggel sikerült kutatni román, székely és csángó építészetet Bukovinában, Szeben mellékén, Fogarasföldön, és Havaselvén (Argeş, Vâlcea és Gorj megyékben). Sikernek könyvelhetjük el, hogy az ún. Norvég Alap támogatásával a Transylvania Trust Alapítvány, a Keöpeczi Sebestyén József Műemlékvédő Társaság, valamint a Székely Nemzeti Múzeum partnerségével, 2008–2010 között Háromszéken az alapkutatás mellett faluképvédelmi tanulmányok, általános rendezési tervekbe illeszthető védelmi szabályzatok születtek. Szintén faluképvédelmi tanulmá-

23 FURU 2007.
24 FURU 2011.
25 Mindkét kötetet 2012-ben másodszor is kiadta az Exit kiadó. A *Kalotaszeg népi építészete* bővített kiadás. (FURU 2012a., FURU 2012b.)

with the support of the National Cultural Fund of Hungary (NKA): the synthesis entitled *Kalotaszeg népi építészete*[24] was published in 2007, the volume entitled *Udvarhelyszék népi építészete*[25] was issued in 2011.[26]

The two surveys used different approaches. Although the researchers did acknowledge the significance and expedience of the survey, they did not manage to harmonize their methodology. The advantage of the research credited to the Teleki László Foundation and the Entz Géza Foundation for Cultural History relied in the carrying out of architectural surveys and in the fact that a few churches, country-mansions, monasteries and public buildings too were surveyed. But the survey carried out mainly by architects and art historians failed to observe certain ethnographic phenomena, thus the representativeness of the recorded data might be disputed in some cases. During the inventory done by the Transylvania Trust Foundation and the Szentendre Ethnographic Open-air Museum, the vernacular architecture of the visited settlements was assessed entirely through data sheets and photos, but the architectural survey intended as a 2nd phase could not be completed due to the lack of financial resources. Concerning the fulfilment of requirements regarding ethnographic and vernacular architecture research, the latter survey was more appropriate, from the point of view of a deeper knowledge of particular buildings and the preparation of their eventual conservation, the former approach was more suitable. From a 10 years retrospective, the 2 methodologies could have complemented each other and the survey teams could have worked together in the same regions.

The Transylvania Trust Foundation continued data collection in form of annual field trips, with a modest financial background and a changed methodology in Three Seat, Partium, the Hungarian settlements in Moldova and in some villages of South-Transylvania as well, primarily with the participation of Iván BALASSA M., Árpád FURU and partly Sámuel SZABÓ. The grants offered by the NKA and the support ensured by the Communitas Foundation made possible the organization of annual field trips in Ciuc, Baraolt, Casin, Săcele, Valea Nirajului, Transylvanian Plain, Arieş Seat, Upper Mureş Valley and the Ghiurghiu-Valley. They succeeded to carry out comparative research on Romanian, Szekler and Csángo architecture in Bucovina, in Mărginimea Sibiului Region, Ţara Făgăraşului and in Ţara Românească (in Argeş, Vâlcea and Gorj Co.). With the support of the Norwegian Fund, between 2008 and 2010, in Covasna Co. the partnership constituted by the Transylvania Trust Foundation, the Keöpeczi Sebestyén József Society for Built Heritage Protection and the Szekler National Museum, besides basic research, conducted studies aiming at village aspect protection, and protection regulations

24 FURU, *Kalotaszeg népi építészete*.
25 FURU, *Udvarhelyszék népi építészete*.
26 Both volumes had a second edition in 2012 at the Exit Publisher. *The Vernacular Architecture of Kalotaszeg* is an enlarged edition. (FURU, *Kalotaszeg népi építészete*., FURU, *Udvarhelyszék népi építészete*.)

applicable in general settlement planning. The research carried out in the villages of the Valea Nirajului Region in 2012-2013, initiated by the Leader Association of the Valea Nirajului Micro-region and the Hodos-Venerque Society (Hodoşa) also contributed to the elaboration of village aspect protection plans (the sponsor of the program was the AFCN[27]). The ethnographic processing of these data is ongoing.

Iván BALASSA M. worked on the much debated issue of Szekler gates. His book was issued in 2011, and it will have a 2nd enlarged edition as well.[28] Within the framework of heritage protection in Rimetea, the research carried out by Iván BALASSA M. and Árpád FURU with the aim of restoring the 18th century houses brought about new results also regarding stoves and eared ovens of Rimetea – the publication of these is to occur also in the future.

The urban studies initiated by the Kós Károly Association for architects from Miercurea Ciuc, made use of digital technology, thus enabled the complete photographing and mapping of the buildings in the Ciuc, Ghimeş, Gheorgheni and Homorod Regions. The approach is primarily urbanistic, and its aim is the rescue of the traditional aspect of the villages. One of the results is the call for proposals on the topic of the Szekler house supported by the Council of Harghita County, which aims at an architectural style combining local features.

Vernacular architecture is studied primarily by architects, while ethnographers, besides Iván BALASSA M. mentioned and cited several times, approached the issue only occasionally. Klára GAZDA is a well-known ethnographer, and a researcher of home interiors; the chapter on vernacular architecture of the course-book[29] used at the Babeş-Bolyai University was written by her. Ferenc POZSONY informed the public about the stove-tiles found in Zăbala, and published the results of the skanzen movement in Transylvania after the change of the regime.[30] Enikő SZŐCSNÉ GAZDA made research on the interior of the Szekler homes, the historic evolution of furnishing, the stove-tiles in Transylvania and the Szekler gates in the Fiság Valley.[31] She also wrote an important synthesis of our era, entitled *Erdélyi kályhák és kályhacsempék*.[32] She also published the material collected by János ROEDIGER in Casin and Covasna Co.[33] Among the younger generation, Árpád Töhötöm SZABÓ wrote about wood cutting and shaping and about gates,[34] István KINDA about the practice of lime burning in Vârghiş,[35] but he made research on the culture of architecture and interior design of Roma communities as well.

27 Administraţia Fondului Cultural Naional [ed. note].
28 BALASSA M., *A székelykapu*.
29 GAZDA, *Közösségi tárgykultúra – művészeti hagyomány*.
30 POZSONY, *Egy háromszéki fazekasközpont*, POZSONY, *Zabolán talált kályhacsempék*, POZSONY, *Tájházak Erdélyben*.
31 GAZDA SZŐCSNÉ, *A Fiság völgye régi kötött nagykapui*.
32 GAZDA SZŐCSNÉ, *Erdélyi kályhák és kályhacsempék*.
33 ROEDIGER, *Kászonszék és Háromszék néprajzos szemmel*.
34 SZABÓ Á.T.
35 KINDA, *„…tervezte a (…) pólgármester" Falukapuk Orbaiszéken*, KINDA, *Vargyas mészégetői múltja és jelene*.

nyok elkészítését segítette elő az az alapkutatás, amely a Nyárádmente falvaiban, a Nyárádmenti Kistérség Leader Egyesülete és a Hodos-Venerque Baráti Társaság kezdeményezésére 2012–2013-ban jött létre – főtámogatója a romániai Nemzeti Kulturális Alap (AFCN)[26] volt. A fent említett anyagok néprajzi igényességű feldolgozása folyamatban van.

Az erdélyi kutatóutak anyagaira támaszkodva BALASSA M. Iván feldolgozta a székely kapu sokat vitatott kérdéskörét, könyve 2011-ben látott napvilágot – ennek bővített kiadása folyamatban van.[27] A torockói értékvédelem keretében BALASSA M. Iván és FURU Árpád a XVIII. századi házak helyreállítása érdekében végzett kutatásai a torockói tüzelők és a füles kemence esetében hoztak új eredményeket, amelyek megjelentetése szintén a jövőben várható.

Itt említjük meg a Csíkszeredában működő építészek egy csoportjának, a Kós Károly Egyesülés által Csíkban, Gyimesben, Gyergyóban és Homoródmentén kezdeményezett településképi kutatásait, amelyek immár a digitális technológia lehetőségeit kihasználva a teljes épületanyag lefényképezésével és térképre vetítésével jártak. A megközelítés elsősorban urbanisztikai jellegű és célja a hagyományos településkép megmentése. A munka egyik eredménye a Hargita Megye Tanácsa által támogatott, ún. Székely ház című tervpályázat, amely a helyi gyökereken alapuló építészet kialakítását tűzte ki célul.

Mint látjuk, a népi építészet kérdéskörét elsősorban építészek kutatták, a néprajzkutatók – a már többször említett és hivatkozott BALASSA M. Ivánon kívül – a tárgykört csak érintőlegesen közelítették meg. GAZDA Klára a néprajz-, illetve ezen belül a lakásbelsők neves kutatója, ugyanakkor a Babeş–Bolyai Tudományegyetemen használt tankönyv[28] népi építészeti fejezetnek szerzője.

POZSONY Ferenc zabolai kályhacsempeleletekről tudósított, és az erdélyi – szintén a politikai változások után alakuló – tájházmozgalom eredményeit publikálta.[29] SZŐCSNÉ GAZDA Enikő elsősorban a székely házbelsőt, a berendezések történeti alakulását, és ezen belül az erdélyi kályhacsempék tematikáját kutatta. Az ő nevéhez fűződik a Fiság-völgyi székely kapuk ismertetése is.[30] Korszakunk egyik jelentős szintézise *Erdélyi kályhák és kályhacsempék* címmel szintén SZŐCSNÉ GAZDA Enikő tollából született.[31] Ugyanő jelentette meg ROEDIGER János kászoni és háromszéki anyagát is.[32] A fiatalabbak közül SZABÓ Árpád Töhötöm famegmunkálásról és kapukról,[33] KINDA István a mészégetés erdővidéki gyakorlatáról publikált,[34] de kutatta a cigányság építő- és lakáskultúráját is.

26 Administraţia Fondului Cultural Naţional [szerk. megjegyz.].
27 BALASSA M. 2011.
28 GAZDA 2008.
29 POZSONY 1992., POZSONY 1993., POZSONY 2007.
30 SZŐCSNÉ GAZDA 2008a.
31 SZŐCSNÉ GAZDA 2010.
32 ROEDIGER 2013.
33 SZABÓ Á.T.
34 KINDA 2007., KINDA 2008.

A közelmúlt szakmai vitákat is kiváltó kezdeményezése, amely a szentendrei Szabadtéri Néprajzi Múzeumban (SZNM) egy erdélyi tájegység létrehozását célozná[35] értelemszerűen erdélyi népi építészeti kutatásokat indukált. A SZNM csapata, amelyet alkalmakként egyetemi hallgatók egészítettek ki, Homoródalmáson, Magyarzsákodon, Rákosdon, Lozsádon, Kalotaszeg és Háromszék egyes falvaiban végzett gyűjtési munkát: az eredmények publikálása még szintén várat magára.[36]

Az elmúlt 20 évben az erdélyi népi építészet elsősorban didaktikai célokat szolgáló felmérések tárgyát is képezte. Az Ybl Miklós Főiskola SZABÓ László által vezetett tudományos diákköri mozgalma Kászon falvaiban és Zselyken végzett építészeti felmérést, a Budapesti Műszaki és Gazdaságtudományi Egyetem diákjai Siklódon és a Székely Partium falvaiban mértek. A Kolozsvári Műszaki Egyetem hallgatói részben szervezett, részben önkéntes munkában Csíkszentdomokoson és Homoródmentén, a Szászföldön, illetve a mócvidéki falvakban dolgoztak. Közös vonása ezen akcióknak, hogy az anyagok különböző szempontrendszer szerint készültek, elérhetőségük csupán korlátozottan biztosított, teljes publikálásukat pedig feltehetőleg nem is tervezik.[37]

A román szakma Erdélyre vonatkozó eredményeiről csupán érintőlegesen szólunk. A fő kutatóműhelyek továbbra is a néprajzi múzeumok és ezeknek szabadtéri osztályai, a tárgykör publikációi is ezekhez az intézményekhez köthetők. A román kutatás egyik közelmúltbeli eredménye a Román Néprajzi Atlasz, valamint ezek nyers adatainak kötetben való közlése. A sorozat III. kötete a történeti Erdély lakáskultúrájával foglalkozik.[38] Sajnos a kötet nehezen használható, a települések azonosítása nehézkes, a közölt rajzok gyenge minőségűek. Ugyanakkor sok kérdést vet fel a használt minták reprezentativitása is – Torockó esetében például a kötetben szerepeltetett ház teljességgel atipikus, a kistájegység egyetlen jellemző háztípusával sem azonos – a szomszédos, de más tájegységhez tartozó Borrévről beköltözött, szegény román család épületéről van szó.

Mint láthatjuk, az új politikai helyzetben felgyorsult társadalmi és gazdasági átalakulás, amely a népi építészetet létrehozó és fenntartó életforma gyökeres meg-

35 A tervek kidolgozása érekében három előkészítő megbeszélésre került sor, az első, Szentendrén megtartott tanácskozás anyaga megelent a Ház és Ember 20. (2007) kötetében. Itt olvasható BALASSA M. Ivánnak a szentendrei Szabadtéri Néprajzi Múzeumba tervezett erdélyi részleg alapvetését tartalmazó tanulmánya – BALASSA 2007.

36 Részeredmény VASS Erika homoródalmási beszámolója az Acta Siculicában (VASS 2008. 557–570.)

37 A SZABÓ László vezette, a budapesti Ybl Miklós Főiskola hallgatói által végzett felmérésekről, köztük az erdélyiekről is élménybeszámolói szinten, mutatós felmérési rajzokkal és részletekkel jelent meg egy kötet – (SZABÓ L. 2003.), mely tartalmazza Zselyken 1993-ban, Gyergyószentmiklós és környékén 1994-ben és Kászonaltízen 1995-ben készített felmérések részleteit. A felmérési nyersanyagok és feldolgozások a Szabadtéri Néprajzi Múzeum Népi Építészeti Archívumában találhatók.

38 CIOBĂNEL – DROGEANU 2011.

A recent initiative regarding the setting up of a Transylvanian part within the Szentendre Ethnographic Open-air Museum, provoking professional debates as well,[36] naturally induced research on vernacular architecture of Transylvania. The work team of the open-air museum effectuated data collection in Mereşti, Jacodu, Răcăştia, Jeledinţi, Călata Region, and in some villages of the Covasna Co., yet the results are still unpublished.[37]

In the last 20 years Transylvanian vernacular architecture was subject to surveys serving mainly didactical purposes. The student team led by László SZABÓ of the Ybl Miklós College carried out architectural surveys in villages of the Casin Region and in Jeica, the students of the Budapest University of Technology and Economics made assessments in Şiclod and in the villages of the micro-region called Szekler Partium. The students of the Technical University of Cluj-Napoca worked partly in an organized manner, partly as volunteers in Sândominic and in the Homorod Region, in Saxon villages and in villages of the Ţara Moţilor Region. The common feature of these actions is that data were collected according to different criteria, and their availability is limited, while their publication is not intended either.[38]

About the results of Romanian specialists concerning Transylvania: the most important research groups are still connected to ethnographic museums and their open-air divisions, and the publications in the field are also linked to these institutions. A recent achievement in Romanian scientific life is the Romanian Ethnographic Atlas, and the publication of the related data. The 3rd volume of the series treats the interior furnishing of historic Transylvania.[39] The volume is not easy to handle, the identification of settlements is difficult, the drawings are of poor quality, and the representativeness of the used patterns is questionable; for example in the case of Rimetea the presented house is not identical with any house type of the micro-region, as it is the house of a poor Romanian family migrated to Rimetea from Buru, which is a neighbouring village, but belongs to a different cultural region.

Social and economic transformation accelerated in the new political situation, which resulted in the radi-

36 In order to elaborate the plans, three preparatory meetings were organized. The contributions at the first meeting held in Szentendre were published in the 20th volume of the *Ház és Ember* series (2007). The volume includes the study of Iván BALASSA M. proposing the setting up of a Transylvanian section within the Szentendre Ethnographic Open-air Museum – BALASSA 2007.

37 Part-time result: the report of Erika VASS concerning Mereşti in the *Acta Siculica* (VASS, *Ház a Homoród mentéről a Szabadtéri Néprajzi Múzeumban*. 557–570.)

38 A volume was published about the surveys carried out by the students of the Ybl Miklós College from Budapest led by László SZABÓ, including the survey in Transylvania as well, in the style of an account, with spectacular drawings and details (SZABÓ L., *Népi építészeti gyökerek felmérése, kutatása diákjaimmal 1976-2001*.), which includes the details of surveys carried out in Jeica in 1993, in Gheorgheni and its surroundings in 1994 and in Plăieşii de Jos in 1995. The survey material and their processing are stored in the Architecture Archives of the Szentendre Ethnographic Open-air Museum.

39 CIOBĂNEL–DROGEANU, *Habitatul. Răspunsuri la chestionarele*.

cal change of the lifestyle creating and maintaining vernacular architecture, highlighted the importance of field work. Simultaneously theories regarding Transylvania were formulated outside Transylvania as well: relying on the findings of the ethnographic atlas, two articles treat the issue of vernacular architecture, and the delimitation of ethnographic areas. The architect from Vojvodina, Imre HARKAI elaborated the most complex regional division of the Hungarian language area in his theoretical work entitled *House Systems*; using the possibilities of systems theory, with the help of cluster analysis, he defined 185 mini house systems, 5 house systems and several transitional areas and variants.[40] Balázs BORSOS defended his thesis entitled *The regional structure of Hungarian vernacular architecture in the light of the computerized processing of the Hungarian Ethnographic Atlas* in 2009,[41] which makes use of the available technical tools, namely computerized data processing, thus gives a detailed processing of the huge amount of data included in the ethnographic atlas, thus of the data regarding architecture as well.

Reviewing the history of research on Transylvanian vernacular architecture, despite the multitude of results, the process is far from being concluded. Compared to research carried out so far in Hungary, there are much more white patches, that is: areas, where data collection was not completed, or it was carried out only superficially. The synthesis-like evaluation of the past quarter of century might be precarious. The possibilities for intellectual freedom brought about by political changes were limited by principles of market economy and politics, only reduced financial and human resources were assigned for the sake of the declining heritage of a changing lifestyle.

The permanently running heritage protection programs in Rimetea and Inlăceni displayed spectacular achievements. Throughout Transylvania, museum houses stand witness of a heritage representing a past lifestyle, wherever there was an initiator. The protection of Szekler gates in Odorheiu Seat and recently in Ciuc and Covasna, due to the financial support of county councils, is a spectacular success.

Achievements are easier to claim in the field of research. In the light of the above-presented criteria, the great disproportion in what concerns the various areas and contents is not surprising. This article took into account both those works, which treat specific, more restrained topics, and those which aimed at a comprehensive overview of a small or medium area's architecture. If we consider only the latter, the general image is scantier. Including research carried out before 1989, so far overall architectural monographs were written only regarding Casin, the Târnava Mică Valley, the vernacular architecture of Ceangăi villages in Moldavia, the Oaşului

40 HARKAI, *Házrendszerek és szerepük a magyar népi építészetben*.

41 I used the thesis of Balázs BORSOS as a manuscript, including the graphic material of the cluster analysis as well – with the kind permission of the author. (BORSOS, *A magyar népi kultúra regionális struktúrája*.)

változását eredményezte, az adatfelvétel, a terepmunka elsődleges fontosságát emelte ki. Ezzel párhuzamosan Erdélyen kívül is születtek Erdélyre vonatkozó, elméleti jellegű kutatási eredmények: a néprajzi atlasz eredményeire támaszkodva két dolgozat is taglalja a népi építészet, illetve a néprajz táji tagolásának kérdését. HARKAI Imre délvidéki építész *Házrendszerek* című elméleti munkájában, a rendszerelmélet adta lehetőségekkel élve, egy kézi klaszteranalízis segítségével a magyar nyelvterületen 185 miniházrendszer, 5 házrendszer és több átmeneti övezet és variáns meghatározásával talán a legbonyolultabb eddigi táji tagolódást dolgozta ki.[39] BORSOS Balázs 2009-ben védte meg akadémiai doktori disszertációját *A magyar népi kultúra regionális struktúrája a Magyar Néprajzi Atlasz számítógépes feldolgozása fényében* címmel.[40] A dolgozat a kor technikai feltételrendszerének igénybevételével, azaz számítógépes feldolgozással részletes feldolgozását adja a néprajzi atlasz hatalmas adathalmazának, így az építészetre vonatkozó adatoknak is.

Az erdélyi népi építészet több mint száz éves kutatástörténetének vizsgálata során megállapítható, hogy a számos eredmény ellenére a folyamat távolról sem tekinthető lezártnak. A mai magyarországi helyzethez képest Erdélyben jóval több a fehér folt, azaz az olyan terület, ahol helyszíni adatfelvétel nem, vagy csak nagyon felületesen készült, és emellett továbbra is sok az egyenlőtlenség. Az elmúlt negyed évszázad összefoglaló jellegű értékelése lehet, hogy korai. Megállapítható viszont, hogy a politikai fordulattal beköszönő szellemi szabadság lehetőségeit sokban korlátozták a piacgazdaság és a politikum törvényszerűségei, azaz egy átalakuló életforma elsorvadó örökségére nem sok anyagi és emberi erőforrás jutott.

A népi építészeti örökség védelmében kétségtelenül a Torockón és Énlakán folyamatosan működtetett értékvédő programok hoztak látványos eredményt. Erdélyszerte ott, ahol volt kezdeményező és ötletgazda, egy-egy tájház létesítése állít emléket e korábbi életformát jelképező örökségnek. Látványos és sikeres eredmény, a megyei önkormányzatok anyagi támogatásának köszönhetően, Udvarhelyszéken és újabban Csíkban és Háromszéken is a székely kapuk védelme.

Könnyebb sikereket felmutatni a kutatás terén. A bemutatott szempontok ismeretében nem meglepő a rendelkezésre álló kutatási anyag nagymértékű aránytalansága, területi és tartalmi egyenlőtlensége. Eddigi felsorolásunkban egyaránt figyelembe vettük a pontszerűen, valamely sajátos kérdés megvilágítását célzó, illetve az átfogóbb, kis- vagy középtáji építészeti szintézist jelentő írásokat. Ha csupán ez utóbbiakat számoljuk, az általános kép jóval hiányosabb. Beleértve az 1989 előtti korszak eredményeit, igényes, átfogó építészeti monográfia eddig Kászonról, a Kis-Küküllő völ-

39 HARKAI 1995.

40 BORSOS Balázs disszertációját kézirat formájában használtam, beleértve a klaszteranalízis gazdag grafikai háttéranyagát is – a szerző szíves hozzájárulásával. (BORSOS 2009.)

gyéről, a moldvai csángó falvak építészetéről, az Avas vidékéről, Kalotaszegről, Udvarhelyszékről és Torockóról készült. A Szilágyság és a Mezőség népi építészetét tárgyaló monográfiák részben hiányosak, Szilágyság esetében pont a lakóházzal kapcsolatos rész, Mezőség vonatkozásában a területi lefedettség hiányos.

Számos erdélyi tájegységben történt meg a korábbi kutatási eredmények aktualizálása, amely a fent említett monográfiákban is tükröződik – gondolunk itt Kalotaszegre, Torockóra, Aranyosszékre, Háromszékre, Sóvidékre, Mócvidékre és a Szászföldre: más tájegységekben pedig az új adatfelvétel hozott áttörést, ilyenek Udvarhelyszék, ezen belül Homoródmente, Marosszék, Nyárádmente, Erdővidék, Gyergyó, a Partium egyes részei, valamint a bukovinai székelyek falvai.

A népi építészet kutatásának másik hiányossága az etnikai területek külön vizsgálatából ered. Sajnálatos és ismétlődő körülmény, hogy az egyes kutatók nem próbálnak kapcsolódni vagy figyelembe sem veszik a szakma más nyelven kiadott eredményeit, amelyek esetleg ugyanarra a területi egységre vonatkoznak. Fontos feladatként határozható meg ezért a vegyes lakosságú területek, illetve az egynyelvű régiók közti kölcsönhatások vizsgálata is. A korább említett tartalmi és földrajzi aránytalanságok kiküszöbölése, valamint az etnikai kölcsönhatások vizsgálata készítheti elő egy teljes Erdélyt (esetleg a Partiumot is) felölelő népi építészeti nagymonográfia megírását.

A táji tagolódás népi építészeti szempontok szerinti vizsgálatával, mint láttuk, viszonylag kevés kutató foglalkozott: BÁTKY Zsigmond, BARABÁS Jenő, BALASSA M. Iván, HARKAI Imre és BORSOS Balázs alkotja a rövid felsorolást, amelyet román részről Romulus VUIA-val egészíthetünk ki. Egyetlen kutató sem vizsgálta még meg a táji tagolódás XIX. század vége és a XX. század eleje után kialakult helyzetét, amikor lezárul a két erdélyi nagytáj további kis- és középtáj-egységekre szakadása. Adós a szakma a táji tagolódás folyamatának sorrendjéről, az egyes kis- és középtáj-egységek kölcsönhatásáról, hatást gyakorló vagy befogadó szerepéről megírt elemzésekkel is.

Nagy kérdés, hogy most az ezredforduló után, amikor az integrálódás és globalizáció folyamatai tizedelik a feltehetőleg nem sokáig fennmaradó népi építészeti örökséget, lesz-e elegendő anyagi és emberi erőforrás a fentebb vázolt megannyi feladat elvégzésére.

Region, Călata Region, Odorheiu Seat and Rimetea. The monographs on the vernacular architecture of Sălaj and Transylvanian Plain regions are incomplete; in case of Sălaj the part concerning houses, in case of Transylvanian Plain territorial coverage is insufficient.

In many Transylvanian regions previous research results were updated, for example regarding Călata Region, Rimetea, Arieş Seat, Covasna, the Salt region, Ţara Moţilor and Saxon Land. Concerning other areas, new data collection brought about new findings, i.e. Odorheiu Seat (and within the Homoród micro-region), Mureş Co., Valea Nirajului, Baraolt Region, Gheorgheni, some parts of the Partium, and the Szekler villages in Bucovina.

The distinct examination of ethnic territories is a further insufficiency in vernacular architecture research. It is an unfortunate fact that researchers with different linguistic background do not make endeavours towards collaboration, or they do not take into account the results of the field published in other languages, which eventually refer to the same geographic area. An important task would be the examination of areas with mixed population, and the interactions between different regions. The elimination of the above mentioned geographic and content-related disproportions and the examination of ethnic interferences could ensure the ground for a comprehensive vernacular architecture monograph covering the entire Transylvania (and perhaps the Partium as well).

As we could see, only relatively few researchers examined regional distribution according to vernacular architecture criteria: Zsigmond BÁTKY, Jenő BARABÁS, Iván BALASSA M., Imre HARKAI and Balázs BORSOS, completed on Romanian side by Romulus VUIA. There was no research conducted on the territorial distribution as it evolved following the turn of the 20th century, when Transylvania's two major regions were partitioned into further smaller and medium-sized areas. The field is also lacking analyses elucidating the order within the territorial distribution process, the interactions between small and medium-sized areas, their role in receiving or exerting various influences.

It is uncertain whether there would be sufficient financial and human resources for the carrying out of the outlined tasks now, following the turn of the millennium, when integration and globalization decimate vernacular architectural heritage, which presumably would not subsist for long.

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■ Christoph MACHAT[1]

Early Steps Towards a Conservation Philosophy for the Vernacular Heritage

Primi paşi către o filosofie a conservării patrimoniului vernacular

■ ***Abstract:*** *The article has two important parts: one about the semantics of the expression "vernacular", and the second is in connection with development theory and protection of this kind of built heritage. Challenges raised by the on-site (*in situ*) conservation versus open-air museums, moreover the history of open-air museums and the "Charter on the Built Vernacular Heritage" has been dealt with in the article.*

■ ***Keywords:*** *in situ* conservation, open-air museums, Charter on the Built Vernacular Heritage, vernacular architecture, historic building conservation, definitions

■ In April 2008 the International Committee on Theory and Philosophy of Conservation and Restoration of ICOMOS organized in Vienna the international conference on "Conservation and Preservation Interactions between Theory and Practice: In Memoriam Alois RIEGL". A research related to the development of the vernacular heritage theory[2] was presented by the author of this contribution, which is focused on the rather long – in terms of time – way towards the "Charter on the Built Vernacular Heritage" worked out by the International Committee of Vernacular Architecture (CIAV), completed in 1996[3] and adopted by the General Assembly of ICOMOS in Guadalajara, Mexico, in 1999[4].

The reasons for the long and hard way towards a doctrinal text for the conservation of the "vernacular" are manifold. The first is related to the term itself (not only) as a linguistic problem, the second to the lack of any mentioning of this specific type of heritage in the basic literature concerning the development of historic building conservation as a discipline. The latter might have been caused, as third reason, by the simultaneously evolved idea and the creation of open-air museums. In many of the languages spoken around the world the term of "vernacular" is unknown and this might explain the difficulties and differences in perception and

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2 MACHAT, Christoph. "The Vernacular between Theory and Practice," in *Conservation and Preservation. Interactions between Theory and Practice. In memoriam Alois Riegl (1858-1905)*, ed. Michael S. FALSER, Wilfried LIPP, Andrzej TOMASZEWSKI (Firenze: Polistampa, 2010), 159-171.

3 MACHAT, Christoph. "The History of CIAV," in *Vernacular Architecture. ICOMOS Monuments and Sites V* (München: 2002), 7-9; KOVANEN, Kirsti. "About the Charter on the Built Vernacular Heritage," in ibid., 10.

4 First published in the original English, French and Spanish versions in *International Charters for Conservation and Restoration. ICOMOS Monuments and Sites I* (München: 2001), 126-133.

■ ***Rezumat:*** *Articolul are două părţi: prima despre semantica expresiei vernaculare şi iar a doua este legată de evoluţia teoriei şi protecţiei patrimoniului construit vernacular. Provocarea ridicată de problematica conservării* in situ *versus muzeelor în aer liber, totodată istoria muzeele în aer liber şi „Carta privind patrimoniului construit vernacular" sunt tratate în articol.*

■ ***Cuvinte cheie:*** conservarea *in situ*, muzee în aer liber, Carta privind patrimoniului construit vernacular, ahitectură vernaculară, conservarea monumentelor istorice, definiţii

■ În aprilie 2008, Comitetul Ştiinţific Internaţional privind Teoria şi Filosofia Conservării şi Restaurării al ICOMOS a organizat în Viena conferinţa internaţională privind „Conservarea şi prezervarea interacţiunilor între teorie şi practică: in memoriam Alois RIEGL". Un studiu privind dezvoltarea teoriei patimoniului vernacular[2] a fost prezentat de autorul acestei lucrări, care este axată pe calea lungă – în sens temporal – către „Carta privind patrimoniul construit vernacular", elaborată de Comitetul Internaţional pentru Arhitectura Vernaculară (CIAV[3]), finalizată în 1996[4] şi adoptată de Adunarea Generală a ICOMOS în Guadalajara, Mexic, în 1999[5].

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2 MACHAT, Christoph, *The Vernacular between Theory and Practice*, în "Conservation and Preservation. Interactions between Theory and Practice. In memoriam Alois Riegl (1858-1905)", (eds.) Michael S. FALSER, Wilfried LIPP, Andrzej TOMASZEWSKI, Firenze, 2010, Polistampa,, 159-171.

3 International Committee of Vernacular Architecture

4 MACHAT, Christoph, *The History of CIAV*, în "Vernacular Architecture. ICOMOS Monuments and Sites V", München, 2002, 7-9; KOVANEN, Kirsti, *About the Charter on the Built Vernacular Heritage*, în *ibidem*, 10.

5 Publicată prima dată în versiunile originale în engleză, franceză şi spaniolă în *International Charters for Conservation and Restoration. ICOMOS Monuments and Sites I*, München, 2001, 126-133.

■ ***Photo 1.*** *Skansen Open-Air Museum in Stockholm: Lapp's camp, 1891. © C. MACHAT, 1991*
■ ***Foto 1.*** *Muzeul în Aer Liber Skansen din Stockholm: tabără laponă, 1891. © C. MACHAT, 1991*

Motivele acestui drum lung şi anevoios către un text doctrinal pivind conservarea „vernacularului" sunt multiple. Primul este legat de termenul însuşi ca problemă lingvistică (şi nu numai), al doilea de lipsa oricărei menţiuni a acestui tip specific de patimoniu în literatura fundamentală privind dezvoltarea conservării monumentelor ca disciplină. Cauza acestuia ar putea fi un al treilea motiv, respectiv ideea apărută simultan a muzeelor în aer liber şi înfiinţarea acestora. Termenul „vernacular" este necunoscut în multe din limbile vorbite în lume, iar aceasta ar putea fi o explicaţie pentru dificultăţile şi diferenţele de percepţie şi înţelegere în rândul specialiştilor în diferite discipline şi din diferite regiuni până în zilele noastre. Un foarte bun exemplu în acest sens este interpretarea termenului bazată pe atitudine în limba germană: înainte de reunificare, cele două comitete naţionale germane ICOMOS utilizau termeni diferiţi pentu conceptul „vernacular", după cum se poate vedea în denumirile date comitetului nostru internaţional pentru arhitectura vernaculară CIAV – „popular (folcloric)" in Est, „rural" in Vest. Având în vedere că niciuna din aceste traduceri nu este compatibilă cu semnificaţia reală a conceptului „vernacular", este necesară căutarea unor definiţii: Dicţionarul Oxford defineşte termenul de „vernacular" în sens lingvistic ca „aparţinând ţării natale, natal, indigen, care nu este de origine străină sau care nu este studiat". Explicaţia privind sensul arhitectural al termenului de „adaptat la caracterul unei ţări sau zone peisagere" este inclusă pentru prima dată în Dicţionarul Englez-German, ediţia complet revizuită din 1962[6], probabil în urma unei nevoi impuse de utilizarea tot mai frecventă a termenului în limbajul de specialitate al specialiştilor în conservare în a doua jumătate a secolului al XX-lea. Aceasta ar putea fi explicaţia şi pentru discuţiile cu privire la nevoia de definiţii ale arhitecturii vernaculare formulate şi publicate în ultimele decenii, precum „arhitectura fără arhitecţi", „[...] răspunde nevoilor grupurilor familiale", „se construieşte cu materiale naturale (şi semi-industriale)", „este adaptată mediului, iar volumetria se obţine prin tehnici meşteşugăreşti". Alte definiţii pot fi adăugate, precum cele propuse de colegii din „English Vernacular Group" (Grupul vernacular englez) – „[...] arhitectura vernaculară este clădirea comună a unui loc şi timp dat"[7] sau acel tip de clădire „[...] care în mod deliberat este mai degrabă permanent decât temporar, de inspiraţie mai degrabă tradiţională decât academică, care este orientat spre activităţile simple ale oamenilor obişnuiţi, formele lor şi întrepinderile lor industriale simple. Este puternic legat de loc"[8], în special prin

6 *Langenscheidt's Encyclopaedic Dictionary*, English-German, revizie completă din 1962, volumul 2 N–Z, ediţia a 4-a (Berlin-München: 1974), 1603.
7 MERCER, Eric. *English vernacular houses: a study of traditional farmhouses and cottages,* H.M. Stationery Off., 1975.
8 BRUNSKILL, R. W. *Traditional Buildings of Britain: Introduction to Vernacular Architecture*, Gollancz, 1981.

understanding among specialists from different disciplines and regions up to our days. A very good example is the attitude-based interpretation of the term in the German language: before the unification, the two German ICOMOS National Committees used different words for the vernacular, reflected in the names given to the International Committee on Vernacular Architecture (CIAV) – "popular (folk)" in the East, "rural" in the West. As none of these translations is compatible with the real meaning of the "vernacular", it is necessary to look for definitions: the Oxford Dictionary defines the "vernacular" in the linguistically sense of use as "of one's native country, native, indigenous, not of foreign origin or of learned formation". The explanation for the architectural sense of use as being "adapted to the character of one country or a landscape area" is included in the English-German Dictionary first in the completely revised 1962 edition[5], perhaps as a demand coming from the more frequent use of the term in the specialised language of conservationists in the second half of the 20th century. The latter might also explain the discussions on and the need for definitions of the vernacular architecture formulated and published in the recent decades, like "the architecture without architects", "[...] it responds to the needs of the family groups", "it is built with natural (and semi-industrial) materials", "it is adapted to the environment and with volumes shaped by handicraft techniques". Several other definitions might be added, like those proposed by colleagues of the English Vernacular Group – "[...] vernacular architecture is the common building of a given place and time"[6] or that sort of building "[…] which is traditional rather than academic in its inspiration, which provides for the simple activities of ordinary people, their forms and their simple industrial enterprises. It is strongly related to place"[7], especially through the use of the local building materials, but which represents design and building with thoughts and feelings rather than in a base or strictly utilitarian manner[8].

5 *Langenscheidt's Encyclopaedic Dictionary*, English-German, completely revised in 1962, Second volume N–Z, 4th edition (Berlin-München: 1974), 1603.
6 MERCER, Eric. *English vernacular houses: a study of traditional farmhouses and cottages* (H.M. Stationery Off.: 1975)
7 BRUNSKILL, R. W. *Traditional Buildings of Britain: Introduction to Vernacular Architecture*. (Gollancz: 1981)
8 A summary given by MACHAT, Christoph. "Conservation Management of the Vernacular Heritage," in *Proceedings of the International Conference on Conservation and Revitalization of Vernacular Architecture and ICOMOS-CIAV Annual Meeting 1997* (Bangkok: 1997), 98-99.

One of the recent publications of the CIAV committee for the General Assembly of ICOMOS in Sri Lanka in 1993 is focussing on the "popular (folk) inspiration" of an architecture "developed in a specific region, using local materials, traditional crafts and design"[9]. VARIN draws attention on the difficulties in formulating an overall and word-wide valid definition for the vernacular architecture. This statement might serve instead as conclusions after analysing all the above-mentioned proposals: whether the definitions name this specific type of heritage "traditional", "popular (folk)" or "vernacular", their contributions towards theory formation are unsatisfactory.

A search through the rich literature on the development of the conservation theory is also unsatisfactory, because all mentioning of the "vernacular" is missing. At the turn of the 19th to the 20th century, with the works of Camillo BOITO and Alois RIEGL, the development of heritage conservation as a discipline can be considered as accomplished and the notion of historical monument as defined in space and time.[10] Limited in time by the era of industrialization, the typology of historic buildings already included urban structures and the simple, small architecture, but this was related only to urban ensembles and thus acceptable only as "urban" vernacular architecture in our sense of understanding. John RUSKIN was the first (in 1849) to raise the private, the "true domestic architecture, the beginning of all other" to the same level as the "large" (the classical) architecture[11] and thus enlarged the typology of historic buildings; while criticizing those who were only interested in the "isolated splendour of palaces", he – and later William MORRIS – was also thinking of the continuity of the context given by the inconspicuous houses in the urban areas, claiming the introduction of "urban building ensembles" into the cultural heritage.[12] Even if we accept today that RUSKIN's "private, domestic" meant in fact the vernacular architecture, his ideas at those times were not really taken into account or disseminated outside England (and France) and did not enter the discussions on conservation theory.

It was Gustavo GIOVANNONI who, in 1913, in his article *Vecchie città et edilizia nuova*, introduced and worked out the concept of "small architecture" (including the private architecture) from a historical and aesthetical perspective as indispensable component of the old urban ensembles and claimed the same protection measures as for old cities.[13]

It is obvious that the traditional, rural or folk architecture was not the subject of GIOVANNONI's reflections. At that time, the first open-air museums had already opened their doors for 20 years: the Skansen Open-Air Museum in Stockholm, founded by Arthur HAZELIUS and opened in 1891, is considered as the first open-air museum in the world. First steps had been made by the Swedish-Norwegian king Oscar II, who, in 1882, initiated the translocation of a Norwegian farmstead to his property on the peninsula of Bygdøy (Oslo), followed in 1885 by the 13th century stave church from Gol and the foundation of the Oslo Norsk Folkemuseum. In 1897, the first building of the Sorgenfri Frilandsmuseet in Lyngby near Copenhagen was transferred and rebuilt.[14] The first intention of open-air

9 VARIN, François. "L'architecture vernaculaire: une définition difficile à cerner," in *Vernacular Architecture International Scientific Committee 10 th General Assembly of ICOMOS* (Colombo: 1993), 3-8.

10 CHOAY, Françoise. *Das architektonische Erbe, eine Allegorie. Geschichte und Theorie der Baudenkmale. (Bauwelt Fundamente 109)* (Braunschweig/Wiesbaden: 1997), 128.

11 RUSKIN, John. *The seven lamps of architecture* (London: 1849, 1956, § IV). 185.

12 We follow the presentation by CHOAY, *Das architektonische Erbe, eine Allegorie*, 106.

13 GIOVANNONI, Gustavo. *Vecchie città et edilizia nuova. Nuova Antologia* (Milano: 1913). GIOVANNONI's main work was published under the same title in Torino, 1931; see also CHOAY, *Das architektonische Erbe, eine Allegorie*, 107.

14 LAENEN, Marc. "Les Musées de plein air. Un futur pour un passé," in *Vernacular Architecture International Scientific Committee 10th General Assembly of ICOMOS* (Colombo: 1993), 26; *Skansen centenary museum's guide* (Stockholm: 1991), 5.

■ ***Photo 2.*** *Bygdøy, Norsk Folkemuseet in Oslo: Gol stave church (13th century). © C. MACHAT, 2010*
■ ***Foto 2.*** *Bygdøy, Norsk Folkemuseet din Oslo: Biserica de lemn din Gol (secolul al XIII-lea). © C. MACHAT, 2010*

utilizarea materialelor de construcţie locale, dar ale cărui concepţie şi execuţie sunt mai degrabă reprezentarea unor gânduri şi sentimente decât a unei modalităţi de bază sau strict utilitară[9]. Una dintre publicaţiile recente ale comitetului CIAV pentru Adunarea Generală a ICOMOS din Sri Lanka din 1993 se axează pe „inspiraţia populară (folclorică)" în arhitectura „dezvoltată într-o anumită regiune, care foloseşte materiale locale, precum şi meşteşuguri şi concepţii tradiţionale". VARIN atrage atenţia asupra dificultăţilor de formulare a unei definiţii unice valabile la nivel global pentru arhitectura vernaculară.[10] Această afirmaţie ar putea servi mai degrabă drept concluzie la analiza tuturor propunerilor menţionate mai sus: indiferent dacă definiţiile numesc acest tip specific de patrimoniu „tradiţional", „popular (folcloric)" sau „vernacular", contribuţiile lor sunt insuficiente pentru formularea unei teorii.

Rezultatele unei căutări prin bogata literatură despre dezvoltarea teoriei conservării sunt şi ele insuficiente, deoarece lipsesc orice menţiuni ale „vernacularului". La sfârşitul secolului al XIX-lea şi începutul secolului al XX-lea, odată cu lucrările lui Camillo BOITO şi Alois RIEGL, se poate

9 Rezumat de MACHAT, Christoph, *Conservation Management of the Vernacular Heritage*, în "Proceedings of the International Conference on Conservation and Revitalization of Vernacular Architecture and ICOMOS-CIAV Annual Meeting 1997", Bangkok, 1997, 98-99.

10 VARIN, François, *L'architecture vernaculaire: une définition difficile à cerner*, în "Vernacular Architecture International Scientific Committee 10 th General Assembly of ICOMOS", Colombo, 1993, 3-8.

considera că elaborarea conservării patrimoniului ca disciplină este finalizată şi că noţiunea de monument istoric este definită în spaţiu şi timp.[11] Limitată în timp de era industrializării, tipologia monumentelor cuprindea deja structurile urbane şi arhitectura mică, simplă, însă aceasta se referea doar la ansamblurile urbane, fiind astfel acceptabile doar ca arhitectură vernaculară „urbană" în sensul în care o înţelegem noi. John RUSKIN a fost primul care (în 1849) a ridicat arhitectura privată, cea „cu adevărat domestică, începutul tuturor celorlalte" la acelaşi nivel cu arhitectura „mare" (clasică)[12], extinzând tipologia monumentelor; criticându-i pe cei care se interesau doar de „splendoarea izolată a palatelor", acesta – iar ulterior şi William MORRIS – se gândea şi la continuitatea contextului dat de casele şterse din zonele urbane, solicitând introducerea „ansamblurilor construite urbane" în patrimoniul cultural.[13] Chiar dacă în prezent acceptăm că prin „privat, domestic" RUSKIN s-a referit de fapt la arhitectura vernaculară, ideile sale nu prea erau luate în considerare în acele vremuri, nici nu prea erau diseminate în afara Angliei (şi Franţei) şi nu intrau în discuţiile privind teoria conservării.

Gustavo GIOVANNONI a fost cel care, în 1913, în articolul său *Vecchie città et edilizia nuova*, a introdus şi elaborat, din perspectivă istorică şi estetică, conceptul de „arhitectură mică" (inclusiv arhitectura privată) ca o componentă indispensabilă a ansamblurilor urbane vechi şi a solicitat aceleaşi măsuri de protecţie ca şi pentru oraşele vechi.[14]

Este evident că nu arhitectura tradiţională, rurală sau folclorică făcea obiectul reflecţiilor lui GIOVANNONI. În acele vremuri, primele muzee în aer liber aveau deja porţile deschise de douăzeci de ani: Muzeul în Aer Liber Skansen din Stockholm, înfiinţat de Arthur HAZELIUS şi deschis în 1891, este considerat primul muzeu în aer liber din lume. Primii paşi fuseseră făcuţi de regele suedezo-norvegian Oscar II, care, în 1882, avuse iniţiativa strămutării unei gospodării norvegiene pe proprietatea sa de pe peninsula Bygdøy (Oslo), urmate în 1885 de biserica din lemn (*stavkirke*) de secol XIII din Gol, precum şi a înfiinţării muzeului Norsk Folkemuseet în Oslo. În 1897, a fost strămutată şi reconstruită prima clădire pentru Sorgenfri Frilandsmuseet din Lyngby, lângă Copenhaga.[15] Prima intenţie a muzeelor în aer liber era de a asigura un viitor

11 CHOAY, Françoise, *Das architektonische Erbe, eine Allegorie. Geschichte und Theorie der Baudenkmale. (Bauwelt Fundamente 109)*, Braunschweig/Wiesbaden, 1997, 128.
12 RUSKIN, John, *The seven lamps of architecture*, London, 1849, 1956, § IV, 185.
13 Conform prezentării lui CHOAY 1997, 106.
14 GIOVANNONI, Gustavo, *Vecchie città et edilizia nuova. Nuova Antologia*, Milano, 1913. Principala lucrare a lui GIOVANNONI a fost publicată cu acelaşi titlu la Torino, 1931; vezi şi CHOAY 1997. 107.
15 LAENEN, Marc, *Les Musées de plein air. Un futur pour un passé*, în "Vernacular Architecture International Scientific Committee 10th General Assembly of ICOMOS", Colombo, 1993, 26; *Skansen centenary museum's guide*, Stockholm, 1991, 5.

museums was to give a future to vanishing traditional cultures. They were part of a more general conservation movement that appreciated threatened rural culture because of its social value and wanted to conserve these traditional cultures by transferring them into museums. The background was the same as RUSKIN's reflections upon the disastrous damages to the traditional culture and architecture caused by the industrial revolution. Since the mid-19th century, the European society had to face considerable changes due to the migration of parts of the rural population towards the big urban industrial centres, the rural, agricultural communities being threatened by a first cultural standardisation which overlapped the diversity of regional cultures and produced the loss of traditions. As a reaction, artists, writers and ethnographers started to develop a cultural consciousness for the qualities of regional cultures – for preserving the regional cultural identity considered as a continuum and interpreted as the fundamental difference between peoples and nations. The first results of this movement were the presentations of national architecture during World Exhibitions, such as in Paris in 1867, with copies of traditional houses from the participating countries along the "Rue des Nations" and in 1878 with the architecture in the French colonies. The interiors of these houses were decorated with objects of the traditional culture, being in fact scenery for manifestations of traditional culture, songs, folk dances presented in traditional costumes. This new way of presenting the traditional and authentic cultures in their reconstructed environment undoubtedly inspired the founders of the first open-air museums. Open-air museums were conservation projects where, together with the material expression of architecture and objects – from the pre-industrial area –, the social aspects of the vanishing cultures was kept. This made them "living museums" not only because they showed "traditions" with exhibitions of folk dance, songs and crafts but also because they kept these traditions "alive".[15] The safeguarding role was completed in the 20th century by scientific museological work, with systematically organized scientific collections and with a strong educational function as museums for social history.

15 LAENEN, *Les Musées de plein air. Un futur pour un passé*, 25-30; LAENEN, Marc. "Vernacular Architecture and Cultural Deveolpment in Europe," in *Historische Kulturlandschaften. ICOMOS Journals of the German National Committee XI* (München: 1993), 46-47.

■ ***Photo 3.*** *Lyngby, Sorgenfri Frilandsmuseet (Copenhagen): Farmstead from Tue. © C. MACHAT, 1991*
■ ***Foto 3.*** *Lyngby, Sorgenfri Frilandsmuseet (Copenhaga): Gospodărie din Tue. © C. MACHAT, 1991*

■ **Photo 4.** *Bulgaria, Bojentsi "museum village". © C. MACHAT, 1989*
■ **Foto 4.** *Bulgaria, „satul-muzeu" Bojentsi. © C. MACHAT, 1989*

The "triumphal advance" of the open-air museums all over the European countries in the first half of the 20th century (in Romania: Bucharest – 1906, Cluj –1922, Sighet – 1926[16]) can be considered as an explanation for the lack of any mentioning of the rural vernacular heritage in the discussions on conservation theory, the conservation or safeguarding of this type of heritage being considered a duty of the open-air museums and not the subject of built heritages' conservation. Nevertheless, the first attempts towards inclusion of the rural vernacular in the typology of built heritage are indebted to Paul CLEMEN, the "father" of built heritages' conservation for the Rhineland, in charge of the recording and publication of the scientific inventories for the historic buildings of that province of Germany since 1893. In his memorable speech at the "Common day for monuments' conservation and home protection" in Salzburg (Austria) in 1911, he explained how under the influence of the home protection movement the art historians started to accept also the small, apparently insignificant built heritage with vernacular origin, like houses and farmsteads, but also chapels and crosses as worthy to be protected and claimed the "extension of monuments' protection on the whole townscape, the historic urban and rural settlement structures and the landscape". Even if CLEMEN had already included the mentioned vernacular heritage in his earlier inventories and he repeated his demands in 1930[17], the efficient protection of the vernacular heritage in Germany has been guaranteed only since the early 1970s, through a new legislation including the lists of historic buildings, the "vernacular" covering more than a third.

After World War II, open-air museums continued to be considered as the specialized institutions for the safeguarding and study of the vernacular heritage; especially in the East European socialist countries, the new rulers strongly supported their activities (due to the ethnographical approach, the educational function), neglecting any protection measures for their well-preserved vernacular heritage in the countryside (in Romania the ASTRA Museum in Dumbrava Sibiului[18]). Among those countries, culturilor tradiţionale pe cale de dispariţie. Acestea se încadrau într-o mişcare de conservare mai amplă, care aprecia cultura rurală ameninţată, datorită valorii sociale a acesteia, dorind conservarea acestor culturi tradiţionale transferându-le în muzee. Contextul era acelaşi ca şi în cazul reflecţiilor lui RUSKIN asupra daunelor dezastruoase aduse culturii şi arhitecturii tradiţionale de revoluţia industrială. De la mijlocul secolului al XIX-lea, societatea europeană a trebuit să facă faţă unor schimbări majore cauzate de migrarea unei părţi a populaţiei rurale către marile centre industiale urbane, apărând ameninţarea unei prime standardizări culturale pentru comunităţile agricole, rurale, standardizare care a suprapus diversitatea culturilor regionale şi a dus la pierderea tradiţiilor. Ca răspuns, artiştii, scriitorii şi etnografii au început să dezvolte o conştiinţă culturală pentru calităţile culturilor regionale – în vederea prezervării identităţii culturale regionale considerate un continuum şi interpretate ca diferenţă fundamentală între popoare şi naţiuni. Primele rezultate ale acestei mişcări au fost prezentările arhitecturii naţionale în cadrul expoziţiilor mondiale, precum cea din Paris din 1867, cu replici de case tradiţionale din ţările participante de-a lungul străzii „Rue des Nations", şi cea din 1878, cu arhitectură din coloniile franceze. Interioarele acestor case erau decorate cu obiecte din cultura tradiţională, reprezentând de fapt un decor pentru manifestări culturale tradiţionale, cântece, dansuri folclorice prezentate în costume tradiţionale. Acest nou mod de prezentare a culturilor tradiţionale şi autentice în mediul lor reconstruit a inspirat fără îndoială fondatorii primelor muzee în aer liber. Muzeele în aer liber au fost proiecte de conservare în cadrul cărora s-au păstrat aspectele sociale ale culturilor pe cale de dispariţie, împreună cu expresia materială a arhitecturii şi obiectelor – din zona preindustrială. Aceasta a făcut din ele „muzee vii", nu doar pentru că arătau „tradiţiile" prin expoziţii de dansuri, cântece folclorice şi meşteşuguri, ci şi pentru că menţineau aceste tradiţii „în viaţă".[16] Rolul de salvare a fost complet îndeplinit în secolul al XX-lea prin muncă ştiinţifică muzeologică, prin organizarea sistematică de colecţii ştiinţifice şi prin funcţia puternic educaţională a muzeelor cu privire la istoria socială.

„Evoluţia triumfală" a muzeelor în aer liber în toate ţările europene în prima jumătate a secolului al XX-lea (în România: Bucureşti – 1906, Cluj – 1922, Sighet – 1926[17]) poate fi considerată o explicaţie pentru lipsa oricărei menţiuni a patrimoniului vernacular rural în discuţiile privind teoria conservării, deoarece prezervarea sau salvarea acestui tip de patrimoniu era considerată

16 STOICA, Georgeta, PETRESCU, Paul. *Dicţionar de artă populară* (Bucureşti: 1997), Bucureşti: Muzeul Satului 339-342, Muzeul Transilvaniei Cluj 158-159, Muzeul Maramureşului Sighet 430-431.
17 MACHAT, Christoph „Paul Clemen als Inventarisator," in *Paul Clemen zur 125. Wiederkehr seines Geburtstages (Rheinische Denkmalpflege 35)* (Köln: 1991), 59.
18 STOICA, PETRESCU, *Dicţionar de artă populară*, 429.

16 LAENEN 1993. 25-30. LAENEN, Marc, *Vernacular Architecture and Cultural Deveolpment in Europe*, în "Historische Kulturlandschaften. ICOMOS Journals of the German National Committee XI", München, 1993, 46-47.
17 STOICA, Georgeta, PETRESCU, Paul, *Dicţionar de artă populară*, Bucureşti, 1997; Bucureşti: Muzeul Satului 339-342, Muzeul Transilvaniei Cluj 158-159, Muzeul Maramureşului Sighet 430-431.

ca fiind o datorie a muzeelor în aer liber şi nu un obiect al conservării monumentelor. Cu toate acestea, primele încercări de includere a vernacularului rural în tipologia monumentelor i se datorează lui Paul CLEMEN, „părintele" conservării monumentelor pentru Rhineland, fiind însărcinat cu înregistrarea şi publicarea inventariilor ştiinţifice pentru monumentele istorice din această provincie a Germaniei din 1893. În discursul său memorabil din cadrul „Zilei comune pentru conservarea monumentelor şi protejarea locuinţelor" din Salzburg din 1911, acesta a explicat cum, sub influenţa mişcării privind protecţia locuinţelor, istoricii de artă au început să accepte şi monumentele mici, aparent nesemnificative, de origine vernaculară, precum casele şi gospodăriile, dar şi capelele şi crucifixurile, ca meritând să fie protejate şi a solicitat „extinderea protecţiei monumentelor la întregul peisaj urban, la stucturile şi peisajul aşezărilor urbane şi rurale istorice". Chiar dacă CLEMEN inclusese deja patrimoniul vernacular menţionat în inventariile sale mai vechi şi îşi reînnoise solicitările în 1930[18], protejarea eficientă a patrimoniului vernacular în Germania a început să fie garantată

18 MACHAT, Christoph, *Paul Clemen als Inventarisator*, în "Paul Clemen zur 125. Wiederkehr seines Geburtstages (Rheinische Denkmalpflege 35)", Köln, 1991, 59.

only Bulgaria developed a somehow different attitude by declaring a number of well-preserved vernacular settlements as "museum villages"[19] protected as architectural reserves. Moreover, new open-air museums were founded in Western Europe, like in Germany e.g. in Kommern in 1958 and in Lindlar in 1986(!), and in recent times even on other continents, like the "Muang Boran Ancient City" open-air museum[20] close to Bangkok, Thailand, founded in the 1970s or the presentation of (the last surviving) traditional houses of the Ifugao province in Hungduan, Philippines, in the early 1980s.

It is evident that the conservation philosophy of the open-air museums is very different from that of a conservationist, even opposite, because the dismantling (not to say demolishing), transferring and rebuilding of a house or farmstead produces besides the loss of original material (e.g. joints in timber constructions) the loss of at least one important part of its authenticity – the original building place and the context – the rebuilt object becoming an exhibit of the museum. For this reason, the "Charter on the Built Vernacular Heritage" does not even mention this alternative of "safeguarding" the vernacular heritage. Since its worldwide dissemination in 1999, several conservation projects based on and with reference to the "vernacular philosophy" of the Charter has been successfully implemented[21].

19 ANGUELOVA, Rachelle. „Le musée village. Une méthode de conservation des villages historiques," in *Vernacular Architecture International Scientific Committee 10th General Assembly of ICOMOS* (Colombo: 1993), 34-37.

20 *Proceedings of the International Conference*, 569.

21 MACHAT, *The Vernacular between Theory and Practice*, 166-171.

■ ***Photo 5.*** *Hungduan, Philippines, Ifugao province open-air museum. © C. MACHAT, 2007*
■ ***Foto 5.*** *Hungduan, Filipine, muzeul în aer liber din provincia Ifugao. © C. MACHAT, 2007*

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- *Proceedings of the International Conference on Conservation and Revitalization of Vernacular Architecture and ICOMOS-CIAV Annual Meeting 1997* (Bangkok: 1997).
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doar de la începutul anilor 1970, printr-o nouă legislaţie care cuprindea listele cu monumentele protejate, în care „vernacularul" reprezenta mai mult de o treime.

După al II-lea Război Mondial, muzeele în aer liber au continuat să fie considerate instituţiile specializate în salvarea şi studierea patrimoniului vernacular; cu precădere în ţările socialiste est-europene, unde noii conducători au susţinut puternic activitatea acestor muzee (datorită abordării etnografice, a funcţiei educaţionale), neglijând orice măsuri de protecţie pentru patrimoniul vernacular bine păstrat la sat (în România, Muzeul ASTRA din Dumbrava Sibiului[19]). Dintre aceste ţări, doar Bulgaria a avut o atitudine oarecum diferită, declarând o serie de aşezări vernaculare bine păstrate ca „sate-muzeu"[20] protejate ca rezerve arhitecturale. De asemenea, s-au înfiinţat noi muzee în aer liber în Europa Occidentală, precum în Germania, de exemplu la Kommern în 1958 şi la Lindlar în 1986(!), iar mai recent chiar şi pe alte continente, precum muzeul în aer liber „Muang Boran Ancient City"[21] din apropierea Bangkok-ului, în Thailanda, înfiinţat în anii 1970 sau prezentarea caselor tradiţionale (ultimele care au supravieţuit) din provincia Ifugao, Hungduan, în Filipine, la începutul anilor 1980.

Este evident că filosofia conservării practicată de muzeele în aer liber este foarte diferită de cea a unui specialist în conservare, fiind chiar opusă, deoarece demontarea (ca să nu spunem demolarea), transferarea şi reconstruirea unei case sau gospodării duce, pe lângă pierderea de material originar (de exemplu, îmbinări la construcţiile din lemn), la pierderea a cel puţin unei părţi importante din autenticitatea acesteia – locul şi contextul originale ale clădirii –, obiectul reconstruit devenind o piesă de muzeu. Din acest motiv, „Carta privind patrimoniului construit vernacular" nici măcar nu menţionează această alternativă de „salvare" a patrimoniului vernacular. De la diseminarea globală a Cartei în 1999, au fost deja implementate cu succes câteva proiecte de conservare bazate pe „filosofia vernaculară" a Cartei şi cu trimitere la aceasta[22].

19 STOICA, PETRESCU 1997. 429.
20 ANGUELOVA, Rachelle, *Le musée village. Une méthode de conservation des villages historiques*, în "Vernacular Architecture International Scientific Committee 10th General Assembly of ICOMOS", Colombo, 1993, 34-37.
21 *Proceedings of the International Conference*, 1997. 569.
22 MACHAT 2010. 166-171.

■ MÁTÉ Zsolt[1]

The Built Heritage Conservation of Space and Space Connections

■ ***Abstract:*** *In Ancient cultures the shaping of the created spaces were submitted to the function. In case of the Egyptian architecture the design of space connection was determined by belief and ritual, while the Roman architecture set the representational space off, including also the outer ambience. Christianity handled space and space connection as compositional elements already. The article tells us briefly the historic evolution of space and space connections, thereafter presents a few steps and the historic building conserving concept of the Gödöllő Royal Palace spaces, revealing the aspects of heritage values related to space and space connections.*

■ ***Keywords:*** built heritage protection, conservation, space, space connection, functionality, Gödöllő Royal Palace, communication system

■ Throughout the history of architecture, the basic commissioning aim was always ideological or profane functionality.

The beginnings of exigent and representative architecture take us back to ancient Egypt; into a world in which the art of space and space connections may be observed in specific relations that are different from our perceptions. Architecture served almost a one-person goal, the apotheosis of the pharaoh or that of a leading figure. Thus it did not move or attract large crowds. Egyptian space played an important role not due to its aspect, but by its designation, fulfilled through its function.

The Egyptian belief system was remarkably manifold, colourful and complex. However, the Egyptian man was excluded from the rituals that served prosperity in this world and in the afterlife. This resulted in a greater emphasis on space connections than on the spaces themselves. From the mass of the Cheops Pyramid, of two and a half million cubic metres, less than 300 cubic metres were assigned for the space designated as the purpose of the entire building, the phar-

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Terek és térkapcsolatok műemlékvédelme

■ ***Kivonat:*** *Az ókori kultúrák idején létrehozott terek kiképzése a funkciónak volt alávetve. Az egyiptomi építészetben a térkapcsolatok kialakítását a hitvilág és a szertartások határozták meg, míg a római építészet elindította a reprezentációs téralakítást, bevonva a külső környezetet is. A kereszténység a teret és térkapcsolatot már kompozíciós elemként kezelte. Jelen tanulmány a tér és térkapcsolat történeti alakulásának vázlatos bemutatása után a Gödöllői Királyi Kastély terein végzett műemléki helyreállítás egyes lépéseit és annak koncepcióját kívánja bemutatni, rávilágítva a tér és térkapcsolatok helyreállításának örökségvédelmi aspektusaira.*

■ ***Kulcsszavak:*** műemlékvédelem, helyreállítás, tér, térkapcsolat, funkcionalitás, Gödöllői Királyi Kastély, közlekedőrendszer

■ Az építészet története során az alapvető megrendelői cél mindig az ideológiai vagy profán funkcionalitás volt.

Az igényes, reprezentatív építészet kezdetei visszavisznek bennünket az ókori Egyiptomba. Ráadásul egy olyan világba, amelyben a terek és térkapcsolatok művészete sajátos, a miénktől eltérő viszonylatban figyelhető meg. Az építészet szinte egyszemélyes célt, a fáraó vagy egy főember megdicsőülését szolgálta. Ilyenformán nem mozgatott, vonzott nagy tömegeket. Az egyiptomi tér nem saját megjelenésével, hanem a funkcióban betöltött rendeltetésében játszott fontos szerepet.

Az egyiptomi hitvilág rendkívül sokrétű, színes és összetett volt. Az egyiptomi ember azonban ki volt zárva a földi és túlvilági boldogulást szolgáló szertartásokból. Ebből eredt, hogy a térkapcsolatokra sokkal nagyobb hangsúly esett, mint magukra a terekre. A Kheopsz-piramis két és fél millió köbméternyi tömegében alig 300 köbmétert tesz ki az egész építmény céljaként megjelölhető tér, a király sírkamrája. A kötött liturgiájú temetési együttesek térkapcsolatai viszont a bonyolult gondolatvilág leképezései voltak. Fontos funkcionalitással megtöltött kapcsolatot valósított meg építészeti formában a piramis – völgytemplom – halotti templom koncepció. A sziklasírok helyiségcsoportja a Halottak Könyvében leírt túlvilági utazás kapuit és állomásait testesítette meg, miközben tereik kicsik, zsúfoltak voltak, pusztán a falakra festett képi programnak és a rituális tárgyak szűkös befogadásának adtak lehetőséget.

A híres Tutanhamon fáraó egymásba épített arany sírkápolnáit – a panelépítés első példáit – a lehetetlenséggel határos, kényelmetlen körülmények között kellett összeépíteni. A karnaki templomegyüttes hatalmas, 23 méter magas oszlopcsarnoka legfeljebb a fáraó és egy tucat családtag vagy papi kísérő együttes vonulására volt alkalmas.

Az egész korszak építészetét áthatja a transzcendentális funkcionalitás. A későbbi kultúrák épületeiben is még sokáig – például a Parthenon

1 Építész, dr., okleveles építészmérnök, okleveles műemlékvédelmi szakmérnök, a Petőfi Irodalmi Múzeum műszaki vezetője

esetében is – a belső tér térművészeti szempontból elhanyagolható, szinte jelentéktelen megfogalmazású marad. Róma kezdi meg a reprezentációs téralakítást. Persze ennek építészeti programját is funkciója határozza meg, a császár istenítése, de már nyilvánosan, az udvar és az utca népének bevonásával.

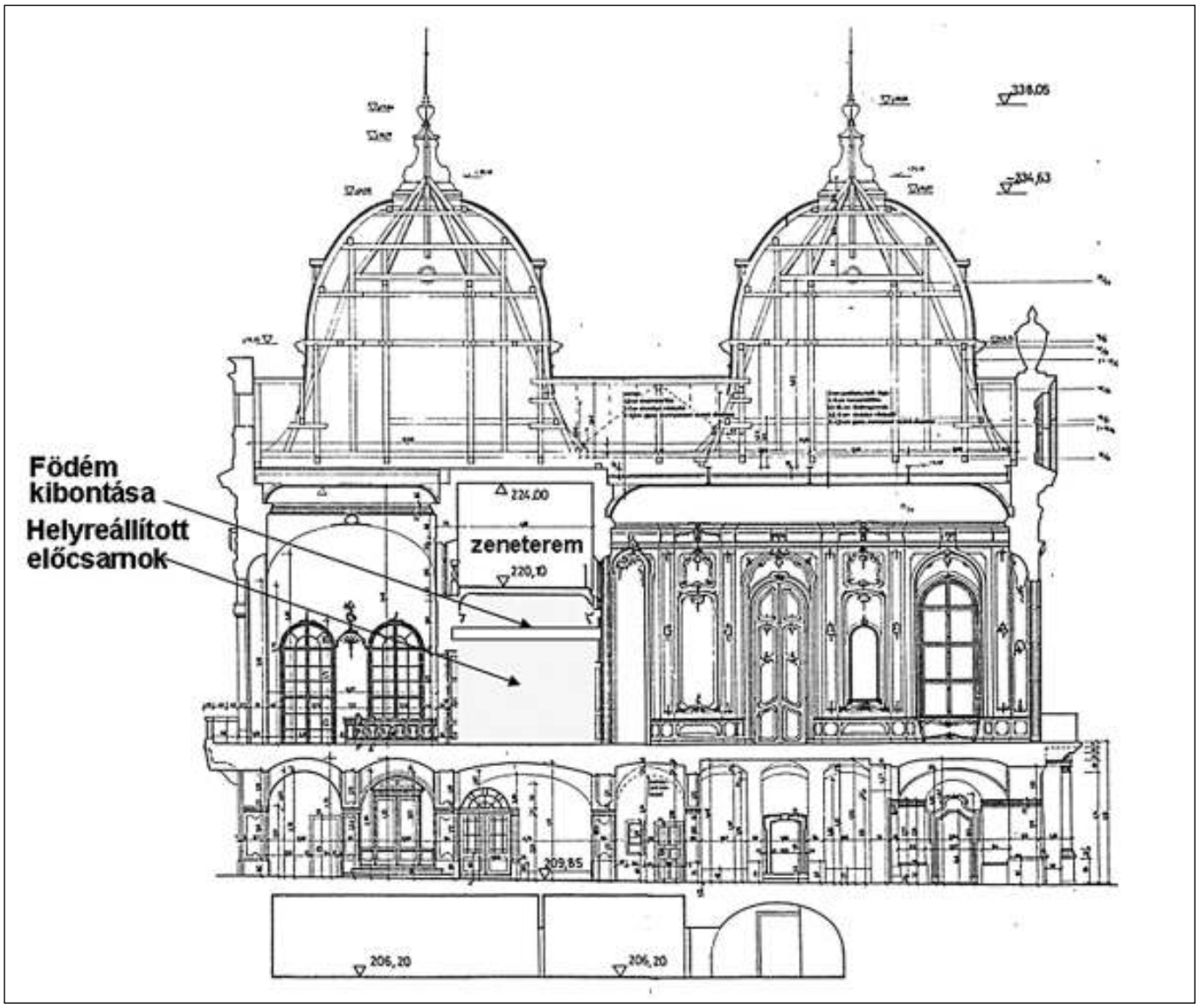
A kereszténység megjelenésével olyan, közel 2000 éve állandó funkció alakul ki, amely azután a térképzést, térkapcsolatokat kompozíciós elemként állítja a képviselt ideológia szolgálatába. Euszebiosz egyházatya tanúskodik erről, akinek ránk maradt hatalmas egyháztörténeti műve egyaránt foglalkozik korának, az 1700 évvel ezelőtti Római Birodalomnak üdvtörténeti és profán dolgaival. A türoszi templom részletes leírásában sorra veszi azokat a tereket, amelyek a szent liturgia központjához, az oltárhoz vezetnek. Hangsúlyozza a terek monumentalitását, a díszítettség és a fény szerepét a hívők és a hittől idegenek fokozatos bevezetésében és megragadásában.[2]

Kérdés, hogy a rendeltetésnek alávetett szükségszerűségek mellett hogyan jelentkezik a tér és térkapcsolat a műemlékvédelemben. Ez nem lehet azonos az építészet tér–térkapcsolat problematikájával, mert azzal ellentétben a műemlékvédelem célja nem az alkotás, hanem az értékőrzés

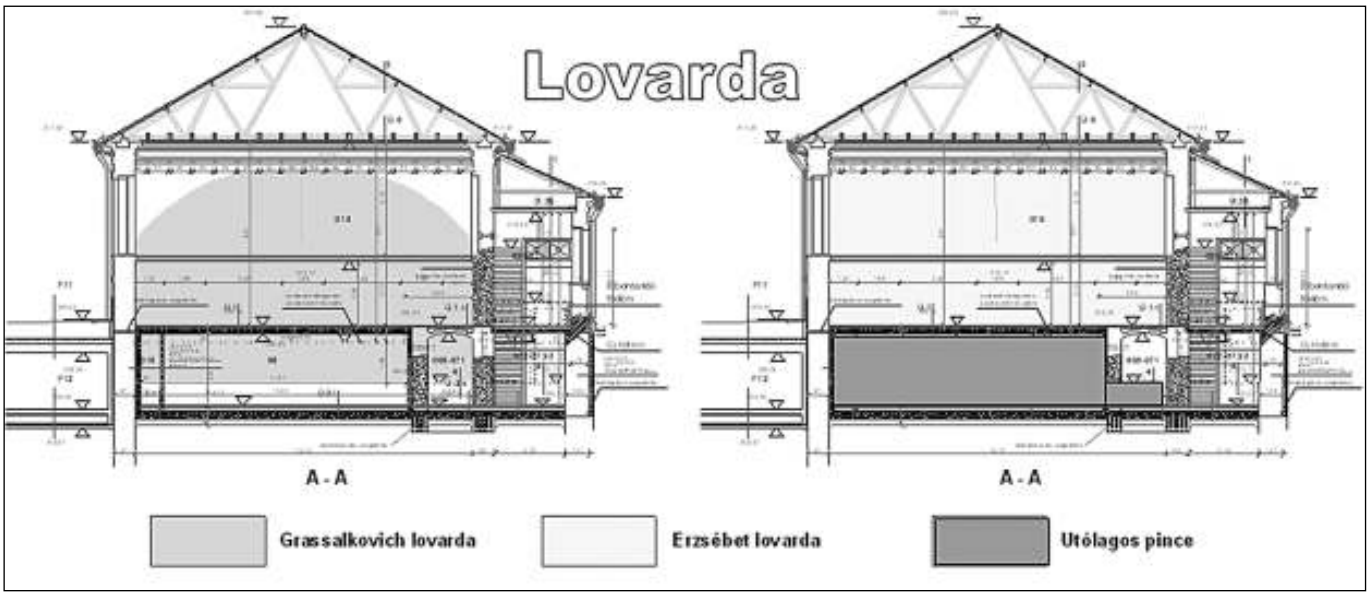
aoh's tomb. However, the space connections of the burial ensembles with a bound liturgy represented a complex system of ideas. The concept of pyramid – valley temple – funerary temple embodied an important relationship filled with functionality and expressed in architectural forms. The group of rooms in the rock cut tombs embodied the gates and stations of the journey in the afterlife described in the Book of the Dead; meanwhile their spaces were small and crowded, allowing merely for pictorial programs painted on the walls and a reduced capacity for ritual objects.

The interconnected golden burial chambers of the famous Pharaoh Tutankhamen – the first examples of panel construction – must have been built in conditions that were uncomfortable, close to unbearable. The vast, 23-metre-high Hypostyle Hall of the Karnak Temple Complex must have been suitable at most for the procession of the pharaoh and accompanying ensemble of a dozen family members or priests.

2 *Euszebiosz egyháztörténete*. Ford. BAÁN István. Budapest, 1983, Szent István Társulat. 416–419.



■ ***1. ábra:*** *A díszterem előcsarnoka*
■ ***Figure 1.*** *Foyer of the ceremonial hall*



■ ***2. ábra:*** *A lovarda periódusai*
■ ***Figure 2.*** *The periods of the riding hall*

Transcendental functionality radiates throughout this era's entire architecture. Even in buildings of later cultures – such as the Parthenon, – for a long time the artistic aspect of the interior space can be neglected, remaining almost insignificant in composition. The creation of representational space was begun by Rome. Naturally, its architectural concept was still subjected to function, i.e. the deification of the emperor, but expressed already publicly, with the involvement of the court and the street crowds.

The appearance of Christianity saw the emergence of a new function that became a permanent feature for nearly 2000 years, which set space modelling and space connections, as compositional elements, in the service of ideology. Church Father Eusebius bears witness to this, whose bequeathed vast church historical work deals with the salvation and profane issues of his age, i.e. the Roman Empire 1700 years ago. In his detailed description of the church in Tyre, he explores one by one the spaces that lead to the centre of the sacred liturgy, the altar. He emphasizes the monumentality of the spaces, the role of decoration and light in the gradual introduction and grasping of believers and non believers alike.[2]

The question is that besides necessity subjected to function, how do space and spatial connections occur within built heritage conservation? It can not be identical with the problems of space and space connections in architecture, because contrary to the latter, the aim of built heritage conservation is not creation, but value preservation and management. In this complex procedure the preservationist can not circumvent the old and newly emerging functionality. It is clear that in

2 *Euszebiosz egyháztörténete,* István BAÁN trans., (Budapest: Szent István Társulat, 1983), 416-419.

és értékmenedzselés. Ebben az összetett procedúrában a műemlékvédő a régi és újonnan jelentkező funkcionalitást sem tudja megkerülni. Egyértelmű, hogy emellett a terek kapcsolódása és a funkcióhoz komponált megjelenésének megóvása is az örökségvédelem feladata.

A térkapcsolatok műemlékvédelme és helyreállítása éppúgy felveti a purizmus, preferált stílus és hitelesség kérdését, mint bármely más részlet műemlékvédelme. Alapvető különbség, hogy míg pl. egy freskó, egy ablak periódusainak feltárása után lehetőség van több periódus fragmentumának egyidejű bemutatására, addig a tér, mint kubus esetében ez nehezen képzelhető el.

A tér és térkapcsolat örökségvédelmi viszonylatában a következő legfontosabb aspektusokkal kell szembesülni:

– A történeti terek visszaállítása.
– A történeti kapcsolatok visszaállítása.
– A funkció által megkövetelt új térkapcsolatok biztosítása.
– Új terek létrehozása.

Míg az első kettő világos követelmény – bár az építési periódusok egymásra rakódása miatt sokszor nem egyszerű, nem is egyértelmű feladat –, a funkció által megkövetelt kapcsolatok létrehozásába lépcsők, liftek, ajtók, átjárók, esetleg új terek létrehozása tartozik, – miközben számolnunk kell a szintén térigényes infrastrukturális térkapcsolatokkal.

A műemlékvédelem tér-térkapcsolati problematikáját a Gödöllői Királyi Kastély sok éve zajló helyreállításának tapasztalatain keresztül tekintjük át.

Harminc évvel ezelőtt, amikor a Gödöllői Királyi Kastély műemléki helyreállításának feladatát megkaptam, a kastély egyes részei romokban álltak, másutt az értékeket igénytelen, torzító átalakítások, beavatkozások fedték. Nem is sejtettem, hogy a befejezés még 30 év múlva is csak vágyott jövő lesz, de azt világosan láttam, hogy ekkora feladathoz csak átgondolt, koncepcionális előkészítés után lehet hozzáfogni, egyébként az elkészülő ütemek ellehetetlenítik a jó folytatást. A felmérés, történeti, művészettörténeti kutatás, épületdiagnosztikai vizsgálat és értékanalízis mellett téranalízis és térkapcsolati vizsgálat képezte az alakuló koncepció magját.

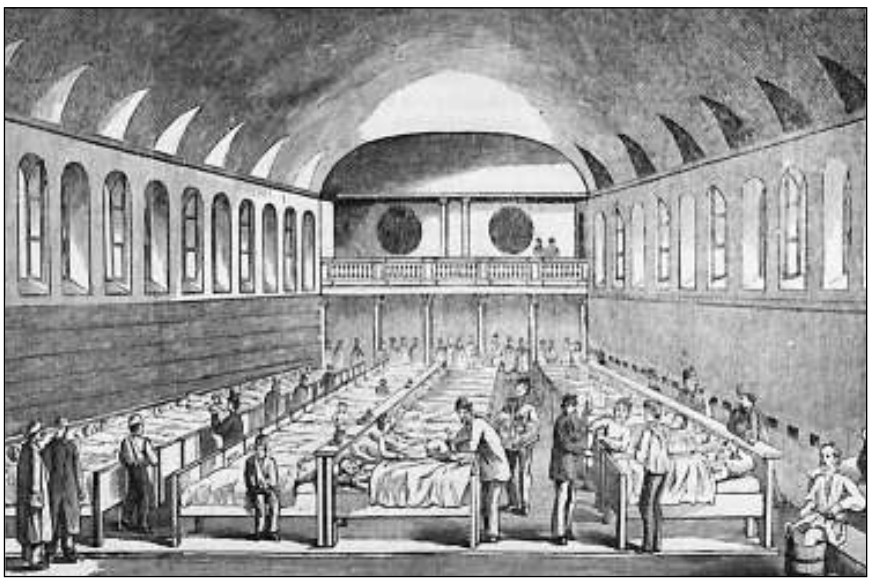
A kastélyt a II. világháború után méltatlan katonai és szociális célra hasznosították, szűkkeblű funkcionális és infrastrukturális átépítéseket hajtottak végre. Nem egy esetben nagy értékű történeti tereket romboltak le vagy építettek át. Ez utóbbiban már a királyi időszak is élen járt, mert akkor szüntették meg a kastély barokk, hercegi színházát. A téranalízis a kastély tereit sorra véve minősítette az egyes helyiségeket saját adottságaik szerint, és a jövőbeli hasznosítás szempontjából: megállapította a mél-

■ ***1. kép:*** *Gödöllői Királyi Kastély*
■ ***Photo 1.*** *Gödöllő Royal Palace*

tatlan hasznosítást, a durva átépítettséget, a művészettörténeti adatokból ismert, de műemléki szempontból megsemmisült épületrészeket, a széttagolt vagy elzárt közlekedőterületeket stb. A legértékesebb terek esetében előírta a műemléki szempontú hasznosítást.

A kastély és a kert kapcsolata

■ A gödöllői kastély és kertjének sajátos viszonya a magyar kastélyépítészet mintaalkotó típusa volt a XVIII. században. A francia és délnémet kastélyok fogadóudvara (*court d'honneur*) jellemzően a kastély külső bejárata előtti térségen helyezkedett el. Gödöllőn és a mintáját követő magyar főúri kastélyoknál viszont megfordult a helyzet. A főbejárati előcsarnokon áthajtva jutunk az U alakú kastélyszárnyakkal három oldalról körülzárt díszudvarra. A díszudvar volt a fogadások és ünnepségek helye. A negyedik oldalon balusztrád és néhány lépcsős szintkülönbség választotta el az így kialakult félenteriőrt a messze nyúló francia kerttől. Ezt a térkapcsolatot a kert tájképi jellegűvé alakításakor megbontották. A balusztrád lebontásra került, a belső díszudvar és a tájkert szintjét egybemosták. A helyreállítás során az eredeti, és a magyar kastélyokat jellemző térkapcso-



■ ***2. kép:*** *Lovarda, 1866*
■ ***Photo 2.*** *Riding hall, 1866*

addition to these, space connections and the protection of their function-related appearance is also the task of heritage conservation.

The protection and conservation of space connections raises the issues of purism, preferred style and authenticity in the same manner as does the heritage conservation of any other detail. A fundamental difference is that while, for example after revealing the periods of a mural or a window, there is a possibility for the simultaneous presentation of multiple period fragments, in the case of space, as cube, this is difficult to imagine.

Related to the built heritage conservation issues of space and space connections, the following key aspects should be faced:

– The rearrangement of historic spaces.
– The rearrangement of historical space connections.
– The provision of new space connections required by function.
– The creation of new spaces.

While the first two are clear requirements – although because of the superimposing of construction phases this is often not an easy or clear task, – the creation of connections required by function includes adding stairs, elevators, doors, passageways, perhaps new spaces, – while the often also space-consuming infrastructural space connection also need to be faced.

We will review the issues of built heritage conservation concerning space-space connections through the experiences gained during the conservation of the Gödöllő Royal Palace, which has been ongoing for many years.

Thirty years ago, when I received the task of monumental conserving at the Gödöllő Royal Palace, certain parts of it were in ruins, while in other areas its values were obscured by unassuming, distorting transformations and interventions. I did not even suspect that after thirty years its completion would still be a yearned-for future, but I clearly saw that a task of this size can only be started after a deliberate conceptual preparation; otherwise the completed timings would incapacitate a good continuance. Besides the architectural survey, historical and art historical research, building diagnostics study, and value analysis, the core of the evolving concept was based on the analysis of space and space connections.

Following World War II, the building was used for unworthy military and social purposes, carrying out hidebound functional and infrastructural remodelling. In some cases highly valuable historical spaces were demolished or transformed. In this latter activity the royal period was already forefront, as it was then when its Baroque, princely theatre was abolished. The spatial analysis reviewed the spaces one by one, classifying the individual rooms from the perspective of their own characteristics and future utilization: it established unworthy utilization, coarse modification, building parts that were identified based on art historical data but were destroyed

from a heritage conservation perspective, fragmented or closed communicating areas, etc. In the case of the most valuable spaces it prescribed utilization respecting built heritage conservation.

The palace and garden relationship

■ The special relationship between the Gödöllő Royal Palace and its garden was an exemplary model for Hungarian manor house architecture in the 18th century. The ceremonial courtyard of French and South German manor houses (*the court d'honneur*) was typically located in front of the manor house's outer entrance. However in Gödöllő, and at the Hungarian aristocratic manor houses following its example, the situation was reversed. The U-shaped ceremonial courtyard, enclosed on three sides by the building's wings, could be accessed by passing through the main entrance hall. The courtyard was the scene of receptions and celebrations. On the fourth side a balustrade and a few steps, resulting in a difference of level, separated the semi-interior thus formed from the far-flung French garden. This spatial connection was disrupted with the garden's transformation into a landscape garden. The balustrade was dismantled, while the levels of the inner ceremonial courtyard and the landscape garden were equated. During the conservation, the original spatial connection, characteristic of Hungarian manor houses, was reconstituted. The place of the garden railing, the stairs and the level relationships were clarified through archaeological excavations. The survey of the reused balusters established genuinely the rearrangement.

The next enquiry reviewed the internal communication system. It became apparent that the building's internal communication system does not ensure full passage. The interoperability of certain levels and the connections between some levels were obstructed. On the other hand, unreasonable modifications were made in the past as well, such as the staircase exiting from the building's mass on the upper floor and leading along the roof, which was made solely for Elizabeth, Queen of Hungary. It was a rough remodellation, which fortunately has only survived as a document related to that era; its details have already been destroyed. Its purpose was for the queen to access her favourite riding hall from her suite, concealed from prying eyes. A historical lesson became self-evident: in earlier times the goal was not manifest interoperability, but the seclusion of the princely or royal family's circulation from the staff.

A comprehensive study was necessary for the reconstruction of the communication system, indicating the position of new stairs, or of ones that were once demolished and were to be reconstructed, as well as the openings of the justified passageways. In order to have full interoperability, corridors needed to be interconnected, stairways

■ ***3. kép:*** *A lovarda átépítés közben, 2010*
■ ***Photo 3.*** *Riding hall during the remodelling, 2010*

lat rekonstrukciója valósult meg. A kerti korlát helye, a lépcső és a szintviszonyok régészeti feltárással tisztázódtak. A másodlagos helyen beépített baluszterek felmérése a visszaállítást hitelesen megalapozta.

A következő vizsgálat a belső közlekedőrendszert tekintette át. Fény derült arra, hogy a kastély belső közlekedőrendszere nem biztosítja a teljes átjárhatóságot. Akadályok voltak az egyes szintek bejárhatóságában és az egyes szintek kapcsolatában, másrészről ésszerűtlen átalakítások voltak a múltban is. Ilyen volt az emeletről, az épület tömegéből kilépve a tetőn átvezető lépcső, amely egyedül Erzsébet királyné részére készült. Durva átalakítás volt, amely szerencsére csak kordokumentumként maradt fenn, részletei már elpusztultak. Arra szolgált, hogy a királyné a kíváncsi tekintetek elől rejtve juthasson lakosztályából kedvenc lovardájába. Nyilvánvaló lett az a történelmi tanulság, hogy korábban nem a kézenfekvő átjárhatóság volt a cél, hanem a hercegi vagy királyi családnak a személyzettől való elkülönítése.

A közlekedőrendszer rekonstrukciójára átfogó tanulmányt kellett készítenünk, kijelölve az új vagy újrakészülő, valamikor elbontott lépcsők helyét, és az indokolt átjárók megnyitásait. A teljes átjárhatóság érdekében folyosókat kellett összenyitni, új lépcsőket kellett építeni vagy újjáépíteni, és gondolni kellett az akadálymentesítés liftjeinek elhelyezésére is.

■ ***4. kép:*** *A lovarda az EU-elnökség díszterme. © PÁLYI Zsófia*
■ ***Photo 4.*** *Riding hall, the ceremonial hall of EU Presidency. © Zsófia PÁLYI*

■ ***2. kép:*** *A királydombi Pavilon – a magyar királyok arcképcsarnoka*
■ ***Photo 2.*** *The King's hill pavilion – the portraits of Hungarian leaders*

A kastélynak vitathatatlanul legmegragadóbb látványát a díszterem és a hozzá vezető térsorozat jelenti: a lendületesen forduló díszlépcső, az allegorikus alakokkal díszített előcsarnok és a dúsan aranyozott, műmárvány borítású fogadóterem. Az előcsarnok vasbeton födémmel megcsonkított belmagasságának visszaállítása nemcsak a freskózott tér eredeti szépségét adta vissza, hanem módot adott a felette lévő zeneterem és a díszterem kuriózumnak számító funkcionális kapcsolatának helyreállítására is. A szobákra és lakosztályokra osztott barokk színháztér kibontásáról és MIGAZZI érsek barokk dísztermének restaurálásáról már bőséges publikációk jelentek meg.[3]

Különleges megfontolásokat igényelt a többször átépített lovarda terének helyreállítása és új funkcióba állítása.

A barokk lovarda jórészt földbe volt süllyesztve, azért, hogy védve legyen a hideg téli szelek ellen. Padlója körülbelül négy méterrel volt a mai szintnél mélyebben, s ennek megfelelően a tetőzete is alacsonyabban helyezkedett el. A lovarda az 1879-ben, Erzsébet királyné részére végzett nagyszabású átalakítással nyerte el megmenthető alakját és építészeti kialakítását. Barokk kori belmagassága visszavonhatatlanul megváltozott, tehát az eredeti belső kiképzés helyreállítása hitelesen, megoldhatatlan volt. Időközben az Erzsébet-kori padlószintet is megváltoztatták.

A lovarda az Európai Unió magyarországi soros elnökségének üléseire került helyreállításra. A kijelölt cél szükségessé tette új terek létrehozását a történelmi tér alatt. A padlószint, amely mellett az utólagos alápincézés tervezése során döntöttünk, az Erzsébet királyné számára kialakított lovarda eredeti, hiteles szintje. Semmilyen más megoldásnak történelmi, műemléki megalapozottsága nem volt.

A barokk lovardából fennmaradt egyetlen teret, a karzat alatti oszlopos teret, amelyet már Erzsébet királyné idején elfalaztak és földdel töltöttek fel, sikerült megmentenünk. Teljes mennyezeti és fali architektúrájával, toszkán oszloprendjével együtt ez ma a színésztársalgó. Végül ez lett az alkalmas tér, ahol a barokk lovarda lejárójának oldalfalán – építéskor a föld alól előkerült – 8 méter hosszú, két és fél méter magas freskó restaurálva bemutatásra kerülhetett.

3 Többek között: MÁTÉ Zsolt: A Gödöllői Királyi Kastély Barokk Hercegi Színháza. *Színpad*. 2005. 3. 13–18; Uő: Visszavarázsolt álom – A gödöllői barokk színház helyreállítása. *Interieur*. 2003. október–november. 88–93.

needed to be built or rebuilt, and the housing of elevators for full accessibility needed to be considered as well.

Unarguably the most fascinating sight of the building is the ceremonial hall and the series of spaces leading to it: the vigorously winding grand staircase, the foyer decorated with allegorical figures and the heavily gilded reception hall with artificial marble coating. Re-establishing the foyer's original height, which was mutilated by a reinforced concrete slab, not only restored the original beauty of the frescoed space, but it also reinstated the functional connection of the music hall, located above it, with the ceremonial hall, considered a curiosity. Plenty of publications have already appeared in connection with the disengagement of the Baroque theatre's space, split into rooms and suites, and with the conservation of Archbishop MIGAZZI's Baroque Ceremonial Hall.[3]

The conservation and putting into function of the repeatedly remodeled riding hall required special considerations.

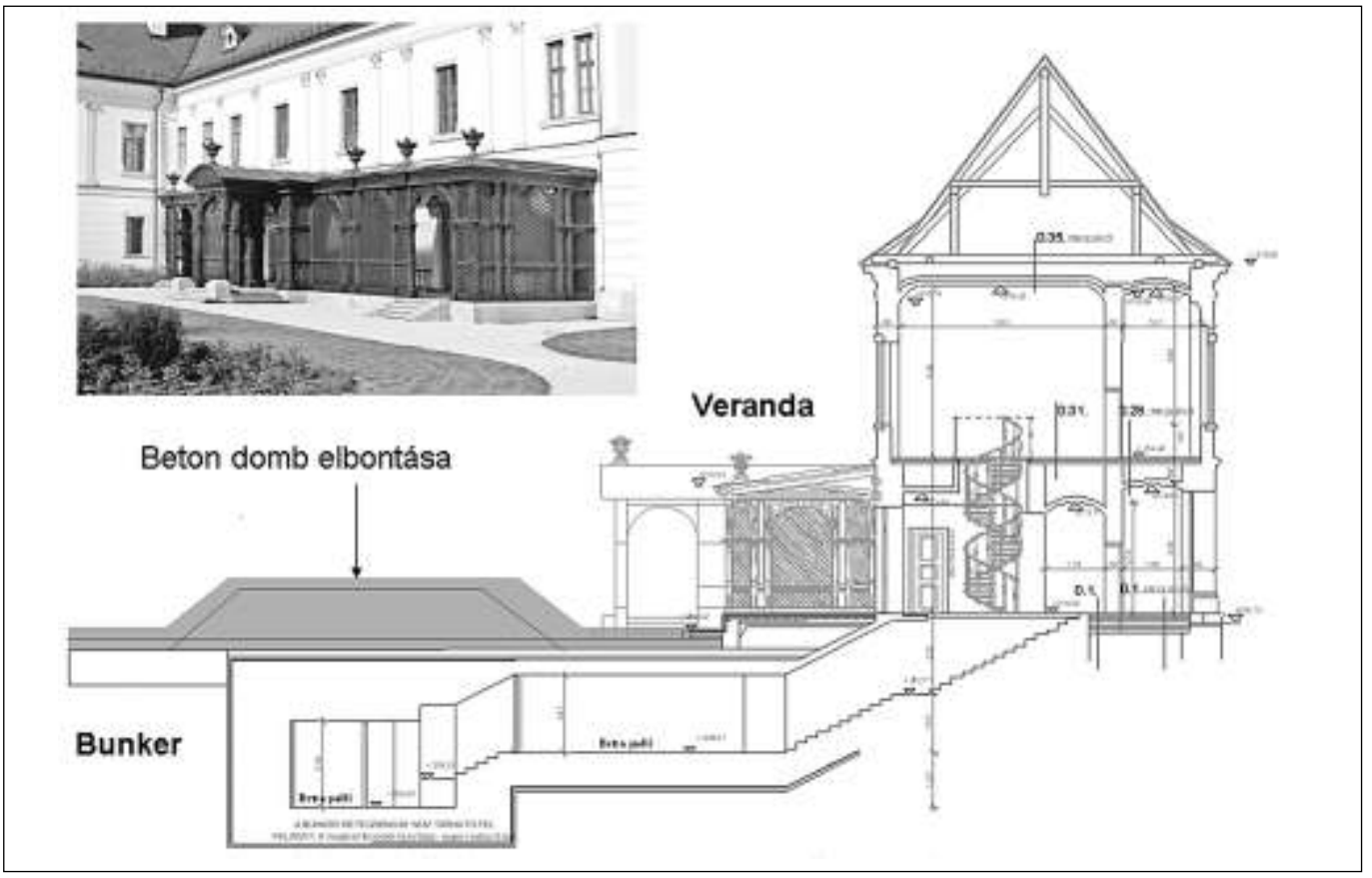
The Baroque riding hall was mostly sunk into the ground, so as to be protected against the cold winter winds. Its floor was about four metres deeper than the present level, and thus its roof was also located lower. The riding hall obtained its aspect and architectural display – the one that could be salvaged – in 1879, through a large-scale modification made for Queen Elizabeth. However, its Baroque interior height has changed irrevocably, thus the genuine conservation of its original internal disposition was impossible. In the meantime the Elizabethan floor level was changed.

The riding hall was conserved for the purpose of sessions by the presidency of the European Union, held at that moment by Hungary. The selected destination necessitated the creation of new spaces under the historical space. The floor level – opted for after a decision to introduce a basement level – is the original, authentic level of the riding hall designed for Queen Elizabeth. No other solutions had a historical or heritage conservation grounding.

We were able to save the Baroque riding hall's single surviving space, the columnar area under the loft, which has been walled up and filled with earth already in the time of Queen Elizabeth. Decorated on its entire ceiling and wall surface, together with its Tuscan columns, today it is the actor's lounge. Finally, this became the appropriate space for the presentation of the eight by two metres restored mural painting that was located at the entrance of the Baroque riding hall, following its recovery from under the ground during the construction.

Besides the two highlighted, special examples, the portrait gallery of the Hungarian kings, after being rearranged from

3 Among others: Zsolt MÁTÉ, "A Gödöllői Királyi Kastély Barokk Hercegi Színháza", *Színpad* 3 (2005): 13-18; idem, "Visszavarázsolt álom – A gödöllői barokk színház helyreállítása," *Interieur* (October-November, 2003): 88-93.



■ ***3. ábra:*** *Erzsébet veranda*
■ ***Figure 3.*** *Queen Elisabeth's veranda*

the ruins, received back its space and mass prior to the 19th century modification. The porch of Queen Elizabeth and the bunker of Governor HORTHY were also renewed. The intersected spaces of the two structures, which never existed at the same time, could only be made compatible by "cutting back" from the bunker's pressure protective concrete mass.

The historical space connections and Baroque enfilades were re-established. Modern interoperability and accessibility were solved by elevators, wheelchair lifts, and steps integrated into the historical system.

In addition to the still running conservation of the Royal Palace, by opening in 1996 the Palace Museum, the past has come alive. Theatrical performances have brought back active cultural life. This was supplemented by high-quality solo and chamber concerts in the ceremonial hall, the organisation of the International Harp Festival, the Liszt Festival, the Advent Days, the New Year's Concert, the Spring Festival, the Baroque Palace Days, the Coronation Memorial Days, the commemorative years of the royal family members, and countless periodical exhibitions, international and government events. The conservation achieved most things by these: it restored the authentic connection between people and spaces.

A két kiemelt, különleges példán túl a magyar királyok arcképcsarnoka romokból visszaállítva visszakapta a XIX. századi átalakítás előtti terét és tömegét. Megújult Erzsébet királyné verandája és HORTHY kormányzó bunkere. Az időben egyszerre sohasem létező két építmény egymásba harapó terét a bunker légnyomásvédő betondombjának „lefaragásával" lehetett összeférhetővé tenni.

Visszaálltak a történelmi térkapcsolatok, barokk amfiládok. A modern átjárhatóságot és akadálymentességet liftek, kerekesszék-emelő, a történelmi rendszerbe illeszkedő lépcsők oldják meg.

A Királyi Kastély máig folyó helyreállítása mellett a Kastélymúzeum 1996-os megnyitásával megelevenedett a múlt. A színházi bemutatókkal visszatért az aktív kultúrélet. Ezt kiegészítették a díszteremben zajló szóló- és kamarakoncertek, színvonalas hangversenyek, a Nemzetközi Hárfaverseny, a Liszt Fesztivál, az Adventi Napok, az Újévi Koncert, a Tavaszi Fesztivál, a Barokk Kastélynapok, a Koronázási Emléknapok, a királyi család tagjainak emlékévei, és számtalan időszaki kiállítás, államközi- és kormányrendezvények. A helyreállítás ezzel a legtöbbet érte el: visszaállította az emberek és terek hiteles kapcsolatát.

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■ MEZŐS Tamás[1]

Előzetes jelentés a kolozsvári Szent Mihály-plébániatemplom kutatásáról

Preliminary Research Report on Saint Michael's Parish Church in Cluj-Napoca

■ ***Kivonat:*** *Kolozsvár plébániatemplomáról középkori eredete és egyetemes építészettörténeti jelentősége ellenére viszonylag kevés építéstörténeti ismerettel rendelkezünk. 2013-ban a plébánia döntése értelmében megkezdődhetett a templom helyreállítását megelőző kutatási és tervezési feladatok végrehajtása. Beszámolónk a legérdekesebb észrevételeket közli az elmúlt esztendő eredményeiről.*

■ ***Kulcsszavak:*** Szent Mihály-plébániatemplom, épületkutatás, helyreállítás, tervezés

■ ***Abstract:*** *In spite of its mediaeval origins and its universal importance in the history of architecture, we still have relatively little historical knowledge about the parish church of Cluj-Napoca. Based on the decision of the parish adopted in 2013, we were able to start the research and planning activities preceding the conservation of the church. Our report shall present the most interesting observations about last year's results.*

■ ***Keywords:*** Saint Michael's Parish Church, building archaeology, conservation, design

■ A kolozsvári Szent Mihály-plébániatemplom műemléki kutatásának és helyreállításának előkészítése a magyar műemlékvédelem kiemelten fontos programja. Ma már nem közhely, hogy a műemléki kutatás és a helyreállítások tervezése multidiszciplináris feladat, amelyet csak különböző végzettségű és tudású szakemberek összehangolt és folyamatosan koordinált tevékenységével lehet az épület érdekében eredményesen elvégezni. A munkában eddig 20 szakterület összesen 43 szakértője működött közre. A megbízó előrelátását és a műemlék helyreállítása iránti elkötelezettségét bizonyítja, hogy nem szakaszonként, szerkezeti elemenként indította el az épület állapotának feltárását, hanem koncepciózusan a templom holisztikus állapotfeltárására adott megbízást, és a tervezés is a helyreállítás teljességét hivatott elvégezni.

A XIV. században épülő vagy már elkészült városi plébániatemplom Erdély egyik legnagyobb és legkorábbi Isten háza. Ennek ellenére a XX. században átfogó műemléki és építészettörténeti kutatásra nem került sor a templomban. Pedig az épület egészének és elemeinek a szemrevételezése is számos érdekes kérdést fogalmaz meg. A legkézenfekvőbb kérdés a jelenlegi csarnoktemplom építéskori szerkezetének meghatározása. Egyes vélekedések szerint például az eredetileg háromhajós bazilikát átalakították és csarnokszerkezetűvé formálták. A boltmezők formai kialakítása – a szentély kivételével – a pillérkötegek és a bordák megformálása vagy a falazat külső és belső struktúrája is számos, eddig megválaszolatlan kérdést vet föl. A templombelső terében számos falkép töredéke került elő. Nyomokban ismert volt a boltozat bordáinak a színezése is, de azt nem vizsgálták az elmúlt évszázad folyamán, hogy hány és pontosan milyen díszítőfestés-réteg lehetett a templom fennállása során. Sőt, az utolsó nagyobb beavatkozás során, az '50-es évek végén a bordaprofilokat „gondosan megtisztították", csaknem lehetetlenné téve a díszítőfestés elvi rekonstrukcióját.

■ The preparation of the historic building research activities and conservation works to be performed on Saint Michael's Parish Church in Cluj-Napoca is an outstandingly important Hungarian historic building conservation programme. It is no longer a commonplace today that the historic building researches and the conservation planning activities are a multidisciplinary task that can be carried out in the best interest of the building only by the constantly integrated and harmonized activities of various specialists of several backgrounds. 43 professionals of 20 specialties contributed to the works so far. The client's vision and its commitment to the historic building conservation is proven by the fact that it did not order the researches to be performed on the building by parts or structural elements but it rather ordered a conceptual holistic disclosure of the church's condition and the planning was also meant to achieve the completeness of the conservation.

The urban parish church erected or already standing in the 14th century is one of the biggest and the earliest places of worship in Transylvania. Even so, there was no comprehensive historic building and architectural research performed on the church during the 20th century though the observation of the entire building as well as its elements also raises several interesting issues. The most obvious issue regards the determination of the original structure of the hall

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church. According to certain suppositions the original three-nave basilica was transformed and formed into a hall. The shaping of the vaults with the exception of the chancel, the shaping of the compound piers and ribs or the inner and outer structure of the walls raise several questions that have not been answered so far. Several mural fragments have been discovered inside the church. Traces of the vault rib colour were also known but in the past century the number and the sort of paint layers that had existed since the construction of the church have not been analysed, yet. What is more, during the last major intervention at the end of the 50s the rib profiles "were carefully cleaned" making almost impossible to theoretically restore the ornamental painting.

The article published in the journal *Technika* no. 5 in 1942 by Jenő RADOS[2] was the first to deal in detail with the description of the actual condition of the church. It was also first to deal with his presumption about the stability problem caused by the choir vault and the extreme leaning of the choir side walls to the outside. RADOS states that the time of the erection of the choir dome constructed in the shape of a basket-handle arch might have been built in the same time as the erection of the tower, i.e. the late 30s of the 19th century.[3] But he did not recommend the demolition of the vault due to load-bearing problems but rather to aesthetic reasons. He made his recommendations without having analysed the effects of the tie rod-system that had not been built only into the choir but also into the attic of the entire church. The replacement of the choir dome was performed in the 50s under the coordination of Lajos BÁGYUJ, architect in Cluj-Napoca. But this intervention did not deal either with the real reasons of the walls displacement, taking RADOS' observations for granted: namely, that the leaning of the walls and the cracks visible on the façade walls were caused mainly by the choir dome and secondly by the faulty foundation works. Both RADOS and the workers on the interventions performed after the war did not observe the anomalies visible on the layout of the church as well as the walls and the architectural divisions.

During the planning phase of the building archaeology we mainly considered that it was important to carry out a detailed surveying, which beyond the determination of the building's primary geometrical parameters, also focuses on the importance of determining the deformations. We can explain by this principled choice that we did not resort to the use of a 3D laser scan-

2 We have used the offprint of RADOS' article to write this study. Its page numbering does not coincide with the original page numbering of the journal.

3 Jenő RADOS supposition is contradicted by the almost complete documentation of the tower's building documentation, including the discounting plan which can be found in the parish archives. It is difficult to imagine that there is no document kept in the archive about the demolition and the construction works of the choir vault built in the same time.

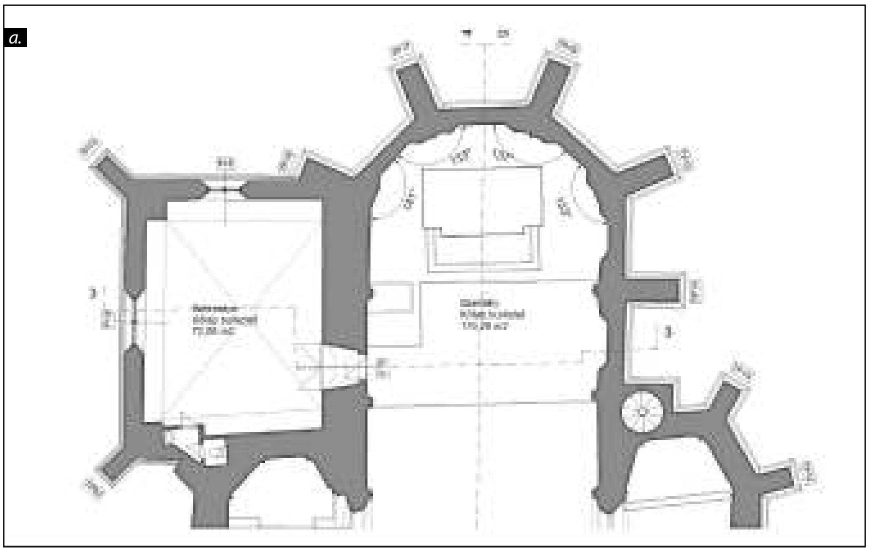
RADOS Jenő a *Technika* 1942. évi 5. számában közölt publikációjában[2] foglalkozik először részletesen a templom állapotának leírásával. Először tárgyalja a feltételezése szerint a szentély boltozata által okozott állékonysági problémát, a szentély oldalfalainak extrém kifelé dőlését. A szentély kosárgörbe vezérívre szerkesztett boltozatának építési idejét RADOS esetleg a torony építésével megegyező időre, tehát a XIX. század '30-as éveinek a végére teszi.[3] A boltozat elbontását azonban nem tartószerkezeti okokból, hanem elsősorban esztétikai megfontolásokból javasolja. Teszi ezt anélkül, hogy elemezte volna annak a vonóvasrendszernek a hatását, amelyet nem csupán a szentélyben, hanem a templom egész területén a tetőtérben valamikor beépítettek. A szentély boltozatának cseréjét végül BÁGYUJ Lajos kolozsvári építőmester irányításával az '50-es években elvégezték. Ez a beavatkozás sem foglalkozott azonban a falak elmozdulásának valódi okaival, evidenciaként kezelve a RADOS által megfogalmazottakat: nevezetesen, hogy a falak kidőlését és a homlokzati falakon tapasztalható repedéseket elsősorban a szentély boltozata, másodsorban alapozási hibák okozhatták. Mind RADOS, mind pedig a háború utáni beavatkozás résztvevői figyelmen kívül hagyták azokat az anomáliákat, amelyek megfigyelhetőek a templom alaprajzában, illetve a falazatokon és az építészeti tagozatokon.

Az épületkutatás megtervezésekor elsősorban egy olyan, minden részletre kiterjedő felmérés végrehajtását tartottuk fontosnak, amely az épület primer geometriai paramétereinek a meghatározásán túl a deformációk rögzítését is fontosnak tartja. Ezzel az elvi döntéssel is magyarázható, hogy tudatosan nem folyamodtunk olyan háromdimenziós lézerszkenner alkalmazásához, amely bár nagy pontossággal képes igen nagy tömegben információt szolgáltatni, de amely a technika sajátosságából következően elszakad magától az épülettől, és az ún. „pontfelhő" mindenhatóságában bízva szolgáltatja a geometriai adatokat. A hagyományos geodéziai módszerekkel szolgáltatott információkat minden esetben az építész szemrevételezését is biztosító „kézi" felméréssel egészítettük ki. Ezáltal olyan megfigyeléseket is tehettünk a külső homlokzatokon és a belső térben egyaránt, amelyek hozzásegítenek az épület szerkezeti működésének megértéséhez, illetve a meghibásodások okainak feltárásához. Meggyőződésünk, hogy a szakáganként elvégzett vizsgálatok integrált elemzése és kiértékelése vihet csak közelebb a műemlék helyreállításának a hiteles megtervezéséhez és kivitelezéséhez. A geodéziai felmérés és annak manuális kiegészítése szolgáltatta az alapot a tartószerkezeti vizsgálatok szemrevételezés útján történő, valamint műszeres végrehajtásához. Fontos adatokat szolgáltatott és további részletes vizsgálatok elvégzéséhez kínált iránymutatást a kőfelületek részletes geológiai és történeti anyagtani vizsgálata is. Meggyőződésünk, hogy a felmérés és a szemrevételezés útján nyert információk és feltételezések igazolása csak az anyagok részletes elemzésével lehetséges. Látványos eredményt kaptunk a külső homlokzati kváderfelületek kőanyagának és a felületek károsodásának dokumentálásával. Rendelkezésünkre áll egy olyan homlokzati kőfelmérés, amely a felhasznált anyag fajtájának a meghatározásán túl, annak származási helyére nézve is tájékoztat. Így például igen sok helyen megállapítható volt az utólagos kőcsere ténye, azoknak a beavatkozásoknak a helye, amelyek az '50-es évek BÁGYUJ által végrehajtott – és precízen jelölt – javítási munkái során készülhettek. Sajnos a homlokzati felületek vizsgálata azt is bizonyította, hogy

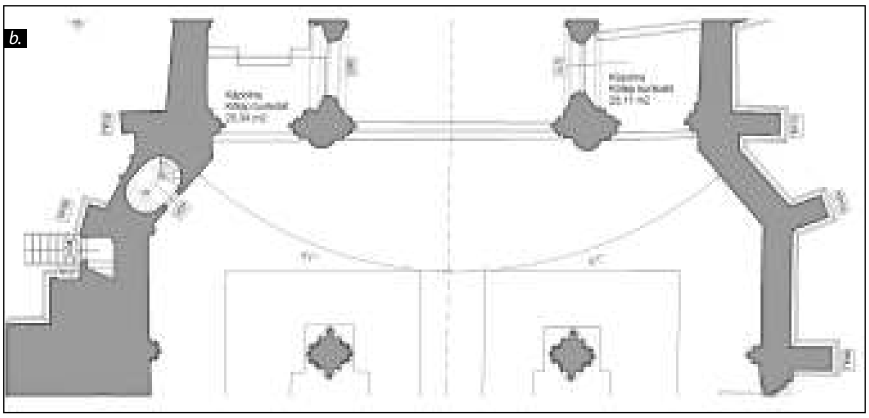
2 RADOS publikációjának különlenyomatát használtuk a dolgozat megírásához. Ennek oldalszámozása eltér a folyóirat eredeti oldalszámozásától.

3 RADOS Jenő feltételezésének ellentmond az a tény, hogy a plébánia irattárában csaknem hiánytalanul megvan a torony építésének dokumentációja, beleértve a leszámítolási terveket is. Nehezen képzelhető el, hogy az azonos időben készült szentélyboltozat bontásáról és építéséről semmilyen feljegyzést nem őrzött meg az archívum.

a.



b.



■ ***1 a–b. ábra:*** *A hossztengelyhez képest 38°-ban futó fal az apszisokhoz csatlakozva*
■ ***Figure 1 a–b.*** *The wall running 38° off the longitudinal axis attached to the apses*

feltehetően a BÁGYUJ irányításával végzett munkák során a kőfelületeket vízüvegbevonattal kísérelték meg konzerválni. Ennek következményeként a felületi korrózió mértéke szinte megállíthatatlan és kijavíthatatlan rombolást vitt véghez a kváderanyag felületének 3–5 mm-es mélységében.

A falfelületek lábazati zónájának állapotáról a falnedvesség és különösen a falazatban meglévő sótartalom meghatározása szolgáltatott adatokat. Egyértelműen igazoltuk, hogy a templomban használt fűtési rendszerek károsak voltak a felmenő falak állapotára. Ott, ahol a fűtés üzemelt, a lábazati zónánál magasabban is az átlagostól magasabb sókoncentrációt mértünk. A falszövetben felgyülemlett sók kivonása ott válik elengedhetetlenül szükségessé, ahol a sókoncentráció a korábban feltárt vagy a kutatásaink során felfedezett falképek közelében mutat kiemelkedő értéket.

A templom építéstörténetére vonatkozó ismereteink roppant hiányosak. Tény, hogy a kutatás számára fontos információt jelentene a templom területén lévő esetleges előzmények meglétének vagy hiányának a tisztázása. Ez nyilvánvalóan régészeti kutatás nélkül nem lehetséges. Kolozsvár településtörténetének a szempontjából is lényeges kérdés, hogy a római kori Napocát használta-e a betelepülő népesség a X–XI. században. Ma úgy véljük, hogy a templom helyreállításának szempontjából szükségtelen a belső térben régészeti kutatásokat végezni. Így a tudományos adatok minél épebb megőrzését tartjuk fontosabbnak, a régé-

ner that could offer large amounts of information quite accurately but shoves off the building proper due to its technical properties and conveys the geometrical information relying on the almightiness of the so-called “point cloud”. The information conveyed by the traditional geodesic methods was complemented in every case by the “manual” surveying that allows the architect to perform the visual inspections, too. Thanks to it, we could make certain pertinent observations both on the outer façades and the inside of the church that allowed us to understand the structural functioning of the building as well as to determine the causes of the failures. We are strongly convinced that only the integrated analysis and assessment of the inspections carried out by discipline can take us closer to the genuine planning and implementation of the conservation works. The geodesic surveying and its manual completion offered the grounds for the implementation of the load-bearing structure analysis both by visual inspection and instruments. The detailed geological analysis of the stone surfaces as well as their material analysis from a historical perspective conveyed important information as well as new directions for further detailed surveys. We are convinced that the information and presumptions obtained by surveying and visual inspection can be confirmed only by detailed material analysis. We obtained spectacular results by documenting the square stones on the outer façade and the damages of the surfaces. There is a façade stone survey available that beyond the determination of the type of material used, can give us information about its origin. Thus, for example, in many points we were able to determine a later replacement of the stones, the place of the repairs performed and accurately documented during the interventions in the 50s by BÁGYUJ. Unfortunately, the analyses on the façade have also proven that presumably during the works coordinated by BÁGYUJ, they tried to preserve the stone surfaces by a liquid glass coating. Consequently, the degree of corrosion on the surface is almost unstoppable and caused 3-5 mm deep irredeemable damages on the stone material.

The moisture and especially the determination of the salt content in the walls conveyed data about the condition of the wall plinths. We were able to confirm beyond any doubt that the heating systems used in the church damaged the condition of the walls. In heated areas we measured a salt concentration higher than the average at the plinths. The extraction of the salts built up in the walls is crucially important in areas where the salt concentration is extremely high near the murals previously discovered or revealed during our research.

Our knowledge about the construction history of the church is highly incomplete. It is clear that it would be important from the perspective of our research to pin down the existence of the lack of any antecedents on the church premises. It is obviously impossible without any archaeological surveys. From the perspective of the urban

history of Cluj-Napoca it is important to know whether the new comers settled in the Roman Napoca in the 10th-11th century. We deem today that from the point of view of the church's conservation it is unnecessary to carry out archaeological research inside. Thus we deem more important to keep the scientific data as unaltered as possible, leaving the surveys on the archaeological layers to posterity. In order to determine whether there used to be a basilica with side-aisles narrower than the side-aisles visible today, we confirmed by ground-penetrating radar surveys that the pictures do not show any remains of the foundation walls on the outer line of the side-aisles. If there was however such an earlier layout structure, it could only be confirmed by archaeological surveys because the longitudinal walls of the basilica might not have only been demolished but the foundation could also have been excavated prior to the enlargement. Yet, it is highly unlikely. It is a generally known fact and the unfinished example of Cârţa proves it that the mediaeval craftsmen started building the churches from the choir. After the completion of the choir, the special design of the parish church could be changed even during the building of the side-aisles. Since they did not want to tear down the already built side-aisles they rather assured the eastern apex of the widened side-aisle becoming striking and raising questions for everybody i.e. the wall running 38° off the longitudinal axis was built attached to the apses. (Figure 1a-b)

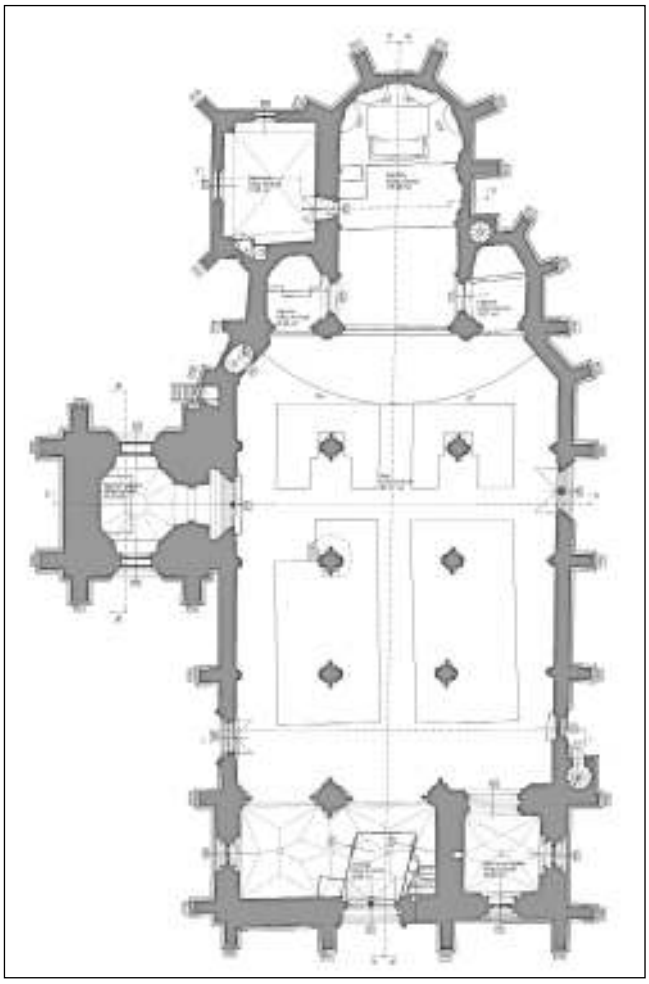
In the times when the church was presumably built but also in the ages before, the mediaeval craftsmen were able to determine quite accurately the layout of the buildings as well as the position of the walls. Based on the results of our survey it is questionable why the apse apex is asymmetrical (Figure 2). The edges of the polygon attached to the N-S apse wall laid sheer in principle on the longitudinal axis are attached in a 137° angle on the northern side and in a 133° angle on the southern side. These values approximately comply with the inner angle values of the octagon that would be 135°. If the apse was designed to be closed up by the five edges of the octagon, it is self-evident that the inner value of the other two angles can only be 135°. Certes, due to the characteristics of the octagon, edges 4 and 5 are already perpendicular on the closing side i.e. they are parallel with the longitudinal axis of the church. This requirement is almost met on the southern side. The angle closed by edges 2 and 5 is 136°. But the angle closed up by edges 1 and 4 on the northern side is already 141°, i.e. edge 4 is no longer parallel with the longitudinal axis. The research has not the aim to explain this anomaly, it is questionable if the asymmetry of the apse closure has ever been raised by the bibliography, as a problem in the layout of the church.

In his description of the building, Szilárd PAPP raised several issues that we also identified during our survey. First, we would like to draw the attention on the different rétegek kutatását átengedve az utókornak. Annak eldöntésére, hogy létezett-e a mai mellékhajóknál keskenyebb mellékhajókkal épült bazilikális elrendezésű templom, talajradar-vizsgálatokkal igazoltuk, hogy alapfalmaradványok az oldalszentélyek külső vonalában nem látszanak a felvételeken. Amennyiben mégis létezett korábban ilyen alaprajzi elrendezés, az valóban csak régészeti kutatásokkal lenne igazolható, mert a bazilikális templom hosszfalait nemcsak visszabonthatták, hanem az alapokat is kitermelhették a bővítést megelőzően. Ennek valószínűsége pedig csekély. Általánosan ismert tény, és Kerc befejezetlen példája is bizonyítja, hogy a templomok építését a középkor mestere a szentély felépítésénél kezdte. A szentély elkészültét követően, a mellékszentélyek építése közben is megváltoztathatták a plébániatemplom téralakításának a koncepcióját. Nem akarva visszabontani az elkészült mellékszentélyeket, inkább oly módon biztosították a megszélesített mellékhajó keleti záradékát, hogy a mindenki számára feltűnő és kérdéseket felvető, a hossztengelyhez képest 38°-ban futó falat építették meg az apszisokhoz csatlakozva (1a–b. ábra).

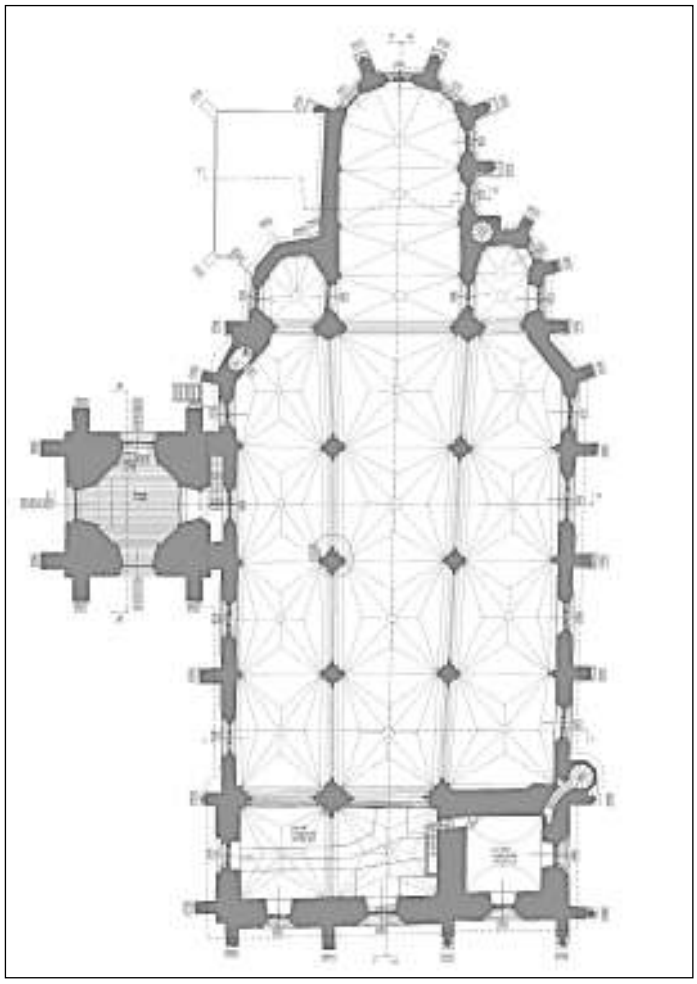
A templom vélt építési idejében, de azt megelőző korokban is a középkori mesterek igen nagy precizitással voltak képesek meghatározni az épületek kitűzését, a felmenő falak elhelyezkedését. Felméréseink eredményei alapján kérdéses, hogy a szentély záródása miért aszimmetrikus (2. ábra). A hossztengelyre elvben merőlegesen kitűzött É–D-i irányú szentély zárófalhoz csatlakozó sokszög oldalai északi irányban 137°-ban, déli irányban pedig 133°-ban csatlakoznak. Ezek az értékek megközelítően megfelelnek a nyolcszög belső szögértékének, amely 135° lenne. Abban az esetben, ha a szentélyt a nyolcszög 5 oldalával záródóan tervezték meg, nyilvánvaló, hogy a következő 2 belső szög értéke is 135° lehet csak. Természetesen a nyolcszög tulajdonságaiból következően a 4. és az 5. oldalak már merőlegesek a záró oldalra, vagyis párhuzamosak a templom hossztengelyével. Ez a déli oldalon csaknem pontosan megvalósul. A 2. és az 5. oldal által bezárt szög 136°. Az északi oldalon viszont az 1. és a 4. oldal között bezárt szög már 141°, vagyis a 4. oldal még nem párhuzamos a hossztengellyel. Erre az anomáliára a kutatás eddig még nem kísérelte megadni a magyarázatot, illetve kérdéses, hogy fölvetődött-e egyáltalán a szentély záródásának aszimmetriája, mint a templom alaprajzának problémája a szakirodalomban.

PAPP Szilárd épületleírásában számos olyan kérdést fölvet, amelyeket magunk is azonosítottunk a felmérés során. Mindenekelőtt a boltozati mezők különbözősége az, amire felhívnánk a figyelmet (3. ábra). SAJTOS István és HEGYI Dezső, a statikai munkarész tervezői legkevesebb 6 különböző építési periódust vélnek felfedezni a hajó boltozati mezőinek bordarendszere, illetve a bolthát falazatának a megfigyelése alapján. Eddigi ismereteink szerint a levéltárakban őrzött dokumentumok nem tudósítanak a boltmezők kisebb-nagyobb méretű pusztulásáról. További kutatás szükséges a tartószerkezeti vizsgálatokban megfogalmazott feltételezések igazolására.

Beszámolónk a teljesség igénye nélkül, csak a legfontosabb megállapítások és felvetések tájékoztató jellegű közlésére szorítkozik. A sokrétű vizsgálatsorozatból azonban meg kell említenünk a festő-restaurátor KISS Lóránd által elvégzett szondázó kutatás eredményeit. Természetesen örömmel nyugtáztuk azokat a eredményeket, amelyek új, eddig nem ismert ábrázolások felfedezését rögzítik. A legfontosabb új eredmény a nyugati homlokzaton, a főkaputól balra előkerült falfestés nyomainak feltárása. Korábban nem is számíthattunk arra, hogy a homlokzaton előkerülhet falfestés nyoma. A felfedezett középkori ábrázolás csak UV-fényben válik láthatóvá. A bemutatás nagy kihívást jelent tervezőnek és restaurátornak egyaránt.



■ ***2. ábra:*** *Asszimetrikus szentélyzárodás*
■ ***Figure 2.*** *The asymmetrical apse apex*



■ ***3. ábra:*** *A boltozati mezők különbözősége*
■ ***Figure 3.*** *The difference among vault panes*

A kutatásban és a tervezésben részt vettek/ The specialists who took part in the research and planning:

Építészet/Architecture: FEKETE Anikó, FREY György Péter, MELIS István, MEZŐS Tamás, ORBÁN György, POLYÁK Beáta, STAROWICZ Annamária
Tartószerkezetek/Load-bearing structures: HEGYI Dezső, SAJTOS István, THER Tamás, VÁRKONYI Péter, VETŐ Dániel
Épületgépészet/Building services: LŐRINCZ Péter
Erős és gyengeáramú hálózatok és világítás/Heavy and light current networks and lighting: FEKETE János, ORT Noémi, ZAZZINI, Ezio
Kertépítészet/Garden design: PATAKY Zsófia, SZILÁGYI Kinga
Geodézia/Geodesy: KISS Albert
Tetőszerkezet felmérés/Roof structure survey: BERKES Ferenc
Faanyagvédelem/Wood conservation: BABOS Rezső, DEVESCOVI József, KIRÁLY Béla
Geológia/Geology: KRUPA Ágnes, SZÍJÁRTÓ Anna, TÖRÖK Ákos, VATTAY Alina
Geotechnika/Geotechnology: ANDÓ Zoltán, PETIK Árpád
Földradar kutatás/Ground-penetrating radar surveys: NAGY Péter, NEDUCA Boriszláv, TÖRÖS Endre
Épületdiagnosztika/Building diagnostics: DÉR István, KOZA András, ZÁDOR Oszkár
Galambriasztó/Pigeon alarm: SCHMIDT Ferenc
Művészettörténet/Art history: PAPP Szilárd
Régészet/Archaeology: CSÓK Zsolt
Kőrestaurátor/Stone restorer: ASZTALOS György
Festőrestaurátor/Mural painting restorer: KISS Lóránd
Farestaurátor/Wood restorer: MIHÁLY Ferenc
Üvegrestaurátor/Glass restorer: CZEBE István
Fémrestaurátor/Metal restorer: FÉLEGYHÁZI Károly

ference among vault panes. (Figure 3) István SAJTOS and Dezső HEGYI, the planners of the statics works considered that they could identify at least 6 different architectural periods based on the observations of the rib system of the nave vault panes and vault extrados. According to our current knowledge, the documents in the archives do not contain any information about any smaller or bigger destruction of the vault panes. Further research would be required in order to confirm the presumptions stated in the surveys.

Without being exhaustive, our report comes down only to the most important findings and presumptions. But among the manifold series of survey we must mention the results of the sampling carried out by painting restorer Lóránd KISS. We obviously acknowledged with great pleasure the discoveries of new representations and paintings that have not been known so far. The most important new result is the discovery of the traces of murals that turned up left from the main entrance. Earlier we could not even hope for the discovery of any mural paintings on the façade. The unveiled mediaeval paintings are visible only by UV light. Its display is a challenge both for the architects and the restorers.

■ MAKAY Dorottya[1]

Şarpantele istorice cu caracter baroc de pe strada Mihail Kogălniceanu, Cluj-Napoca

Baroque Roof Structures on Mihail Kogălniceanu Street in Cluj-Napoca

■ ***Abstract:*** *The heightened interest for research on baroque roof structures, both from a structural viewpoint and from the history of architecture viewpoint, contributes to an increase of the number of publications on the topic, not only in Transylvania but in Germany or Hungary as well. Still, the subject matter of studies written in this field of research is generally chosen on a random basis. The time frame allotted to theses or dissertations restrains academic research – studies are thus mainly concerned with various details. Practicing engineers and specialists elaborate their articles with goals established according to information gathered from personal experience. Synthetic studies are scarce in the field.*

The technical data on (baroque) historic roof structures collected from well determined geographic areas in the depths of a topographical survey's detail (based on engineering criteria) will yield information useful for both basic research and collateral domains.

This article analyses the technological and conceptual similarities and differences of baroque roof structures situated in one of the street from Cluj remarkably rich in historic buildings, the Mihail Kogălniceanu[2] Street. The main objective of this paper is to describe a methodology for the gathering of a minimum of data that would allow for the elaboration of the basic survey of baroque roof structures.

■ ***Keywords:*** historic roof structures, main truss, secondary truss, baroque roof structures, Cluj-Napoca

■ The utilization and long term protection of our built heritage and of baroque roof structures as part of it requires us to identify, to discover and keep track of existing values. In this sense, synthesising the available information in the form of basic surveys open to experts but also to competent entities in the protection of built heritage would be extremely useful.

1 Engineer, manager at the IROD M Ltd., specialist in historic building conservation, certified specialist, Cluj-Napoca, Romania.

2 The historical name is "Woolf" Street, "Farkas" Street in Hungarian, the last street on the southern edge of the mediaeval fortress, right by the fortress wall.

■ ***Rezumat:*** *Creşterea interesului faţă de cercetarea şarpantelor istorice cu caracter baroc – atât din punct de vedere structural, cât şi din punct de vedere al istoriei arhitecturii – contribuie la înmulţirea publicaţiilor pe această tematică, nu numai pe teritoriul Transilvaniei, dar şi în Germania sau Ungaria. Totodată, alegerea obiectului articolelor, în general, se întâmplă aleatoriu. Cercetările academice sunt limitate de timpul alocat pentru teze sau disertaţii, fiind de obicei axate pe probleme de detaliu. Proiectanţii şi experţii practicanţi elaborează articole cu obiective ce pornesc de la informaţiile adunate din experienţa lor proprie. Lucrările de sinteză sunt rare.*

Din datele tehnice aferente şarpantelor istorice (cu caracter baroc) adunate la nivelul de detaliere a unei topografii (bazate pe criterii inginereşti) de pe teritorii geografice bine determinate pot rezulta informaţii utile atât pentru cercetările de bază, cât şi pentru domeniile colaterale.

Articolul de faţă analizează similitudinile şi diferenţele tehnologico-conceptuale ale şarpantelor istorice cu caracter baroc de pe una din străzile cele mai bogate în clădiri istorice ale Clujului: strada Mihail Kogălniceanu[2]. Scopul principal al prezentei lucrări este însă descrierea unei metodologii de colectare a datelor minimale necesare pentru elaborarea topografiei şarpantelor istorice cu caracter baroc.

■ ***Cuvinte cheie:*** şarpante istorice, fermă principală, fermă secundară, şarpante cu caracter baroc, Cluj-Napoca

■ Punerea în valoare şi protejarea pentru generaţiile viitoare a patrimoniului construit, respectiv a şarpantelor istorice cu caracter baroc ca parte integrantă a acestuia, presupune în primul rând identificarea, cunoaşterea, adică inventarierea valorilor existente. Sintetizarea informaţiilor într-o topografie accesibilă atât pentru specialişti, cât şi pentru forurile abilitate în protecţia patrimoniului construit ar reprezenta un instrument util.

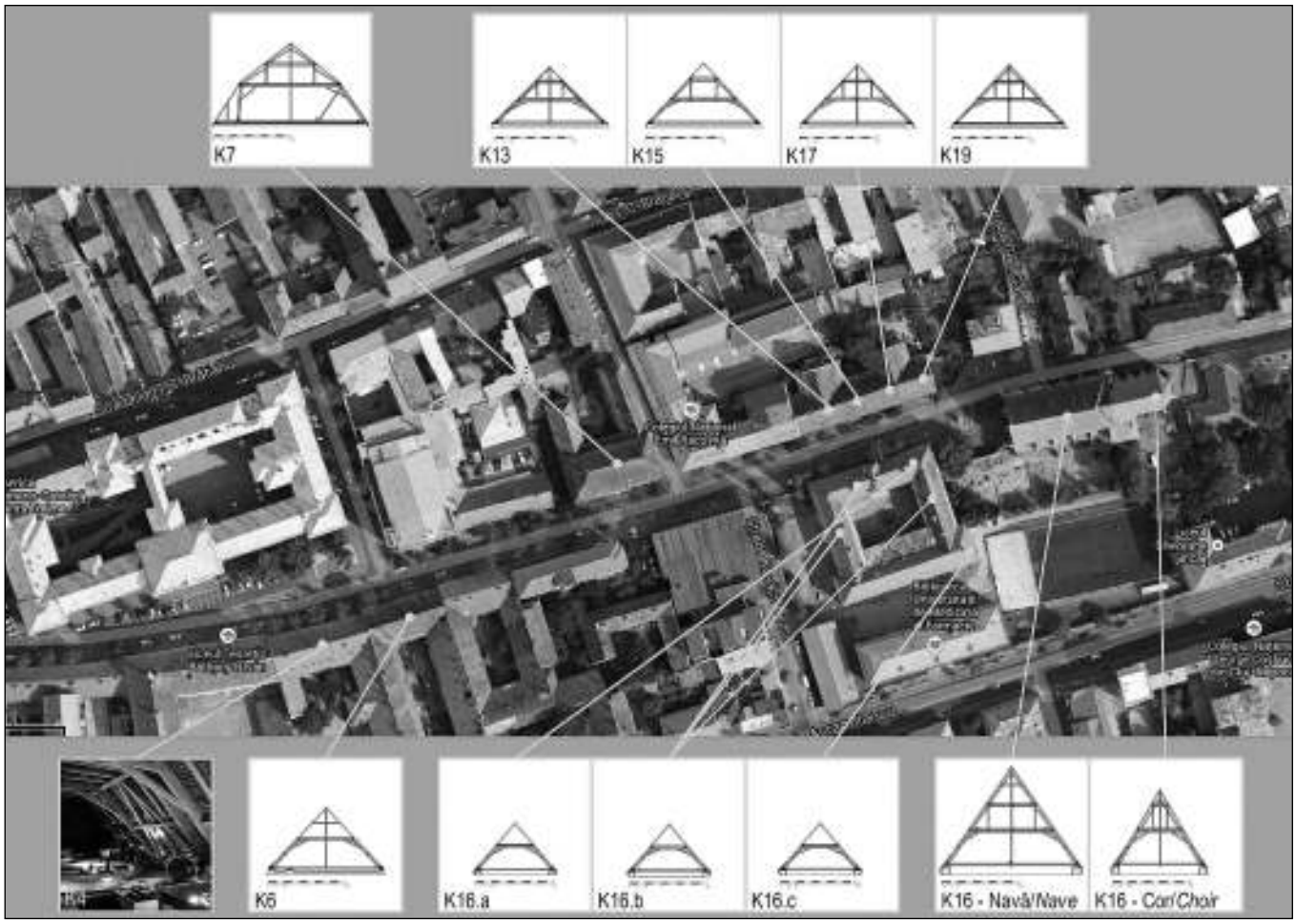
Metodologia colectării datelor necesare pentru inventarierea şarpantelor istorice cu caracter baroc

■ Articolul de faţă vizează elaborarea şi prezentarea metodologiei de inventariere a şarpantelor istorice cu caracter baroc[3] aflate într-un spaţiu geografic

1 Inginer, director la SC IROD M SRL, specializat în reabilitarea monumentelor istorice, expert atestat MCC, Cluj-Napoca, România.

2 Denumirea istorică este strada „Lupilor", în limba maghiară strada „Farkas", fiind ultima stradă pe latura sudică, de lângă zidul cetăţii medievale.

3 Definiţia şarpantelor istorice cu caracter baroc este redată în dicţionarele şi articolele enumerate în bibliografie.



■ ***Fig. 1.*** *Imobilele cu şarpante istorice cu caracter baroc de pe strada M. Kogălniceanu din Cluj-Napoca*
■ ***Figure 1.*** *Buildings with baroque roof structures on M. Kogălniceanu Street in Cluj-Napoca*

restrâns (una din străzile cele mai bogate în clădiri istorice din Cluj-Napoca): strada Mihail Kogălniceanu. S-a optat pentru această stradă datorită numărului ridicat de clădiri care datează dinainte de sfârşitul secolului al XIX-lea, când în epoca eclectică – datorită perioadei de înflorire economică a Clujului – multe clădiri au fost demolate şi înlocuite cu unele noi sau au fost extinse prin supraetajare, îndepărtându-se astfel şarpanta originală. Din totalul de 24 de clădiri aflate pe această stradă, 17 sunt incluse pe lista naţională a monumentelor istorice, din care 9 au şarpante istorice cu caracter baroc. Numărul şarpantelor cu caracter baroc este 12 (deci 50% raportat la numărul total al clădirilor şi 71% raportat la numărul clădirilor istorice). Tabelul 1 sintetizează informaţiile tehnice privind şarpantele istorice cu caracter baroc colectate prin prezenta metodologie. Baza de date trebuie completată cu informaţii privind istoria, respectiv regimul juridic şi de proprietate al clădirilor de care aparţin şarpantele, pentru a obţine o topografie completă.

Înaintea demarării etapei de culegere de date *in situ* pentru prezentul articol, autorul deţinea informaţii detaliate (releveu arhitecturalo-structural până la nivelul detaliilor) despre 3 clădiri, care la rândul lor conţin 6 tipuri de şarpante cu caracter baroc: K6; K16-a-b-c; K16-navă, K16-cor. Figura 1 identifică imobilele deţinătoare de şarpante cu caracter baroc.

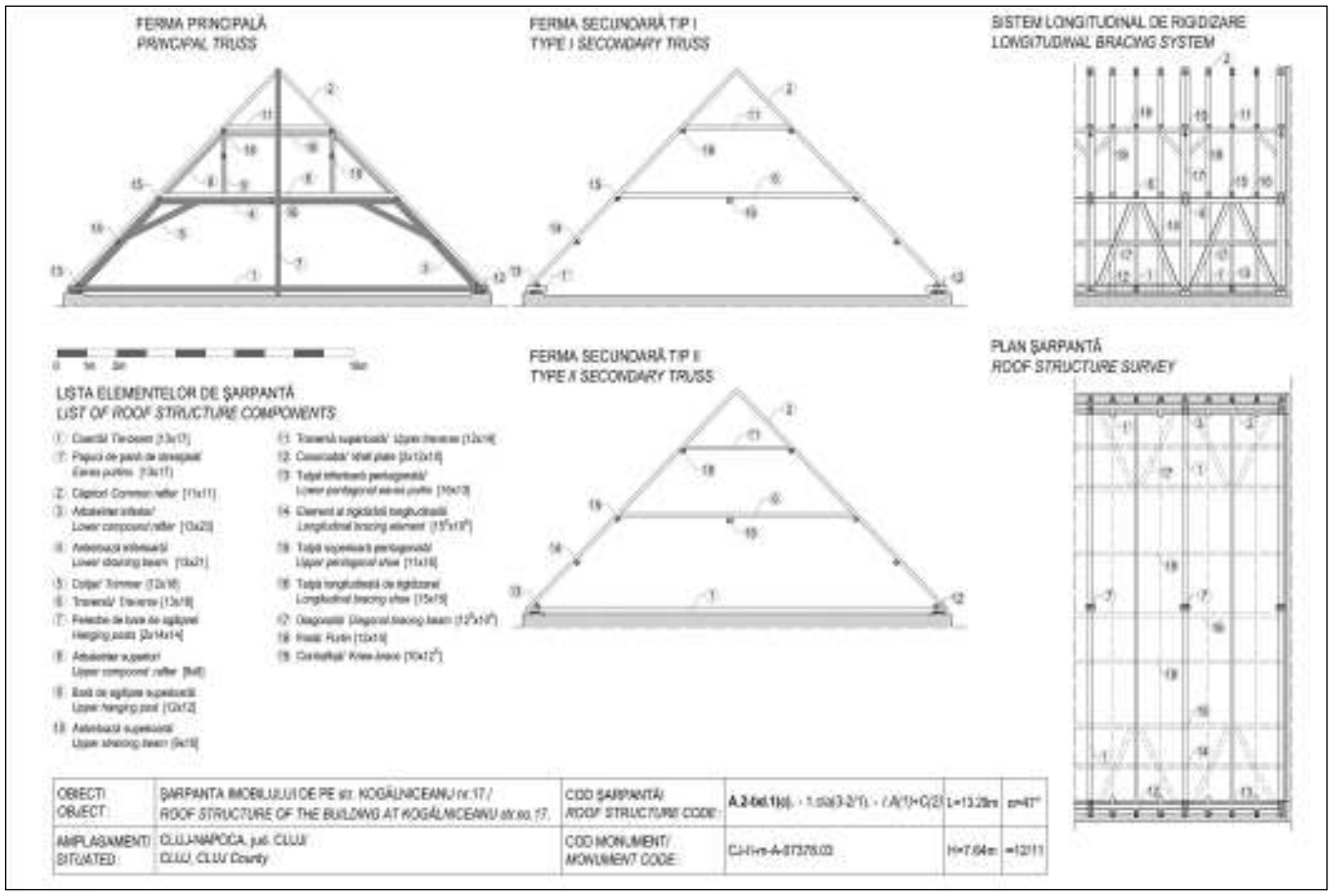
Pentru identificarea modului de lucru mecanic al şarpantelor istorice cu caracter baroc – prezentat succint prin tipologia aferentă – sunt necesare informaţii atât despre ferma principală, cât şi despre alcătuirea fermei secundare şi a sistemului longitudinal de rigidizare.[4] În consecinţă, datele minime ce sunt necesare pentru inventarierea şarpantelor cu caracter

4 MAKAY, Dorottya, Barokk fedélszerkezetek Erdélyben (Baroque roof structures in Transylvania), în „Transsylvania Nostra", nr. 8/2008, 20-28. Tipologia definitivă, pe baza căreia se identifică codul tipologic din tabelul 1 se detaliază în teza de doctorat a autorului.

The Methodology for Collecting the Necessary Data for an Inventory of Baroque Roof Structures

■ This paper elaborates and presents a methodology for establishing an inventory of baroque roof structures[3] situated on a small geographic area, boasting the greatest number of historic buildings in Cluj-Napoca: Mihail Kogălniceanu Street. The street was chosen owing to the high number of historic buildings constructed before the end of the 19th century, an eclectic period when under the favourable economic circumstances of the city, many buildings were demolished and replaced with new ones or extended with added floors, which led to the removal of the original roof structure. Out of the 24 buildings in the street, 17 are on the list of historic buildings and 9 out of these have baroque roof structures. The number of baroque roof structures is 12 (50% of the buildings and 71% of the historic buildings in the street). Table 1 offers a synthesis of technical information on baroque roof structures, collected using the methodology presented here. In order to generate an integral topographical survey,

3 Definitions for baroque roof structures are available in the dictionaries and papers listed in the Bibliography.



■ ***Fig. 2.*** *Modul de reprezentare a datelor tehnice aferente şarpantelor istorice cu caracter baroc, str. M. Kogălniceanu nr. 17, fermă principală, secundară, plan şi secţiune longitudinală, codul tipologic: A.2-bd.1(c). – 1.c/a(3-2/1).* – I.A(1)+C(2)

■ ***Figure 2.*** *The presentation of technical data on a baroque roof structure no. 17, M. Kogălniceanu St. main and secondary truss, longitudinal layout and section, typological code – A.2-bd.1(c). – 1.c/a(3-2/1).* – I.A(1)+C(2)

the database should be completed with data on the history, the legal and ownership status of the buildings bearing the roof structures.

Prior to the *in situ* collection of data for this paper, detailed information (comprehensive architectural and structural survey) on 3 buildings were available to the author, buildings incorporating 6 types of baroque roof structures: K6; K16-a-b-c; K16-nave, K16-choir. Figure 1 presents the buildings with baroque roof structure.

In order to identify the technical structure and behaviour of baroque roof structures – summarised in the related typology – information on the principal truss but also on the structure of the secondary truss and of the longitudinal bracing system is needed.[4] Consequently, the minimum set of data needed to elaborate an inventory of baroque roof structures is: survey of the principal and secondary trusses, the plan and longitudinal cross-section of the roof structure for a section of at least 3 bays, with sectional dimensions of elements and joint details recorded. The technical condition is assessed through simple visual analysis based on

4 MAKAY Dorottya, "Barokk fedélszerkezetek Erdélyben (Baroque roof structures in Transylvania)," *Transsylvania Nostra* 8 (2008): 20-28. The final typology explaining the typological code of Table 1 is detailed in the PhD thesis by the author.

baroc sunt: releveul fermelor principale şi secundare, planul şi secţiunea longitudinală a şarpantei pentru un tronson de minim 3 travee, cu înregistrarea dimensiunilor secţionale ale elementelor şi a detaliilor de îmbinare. Starea tehnică este apreciată doar prin simpla analiză vizuală pe baza semnelor elocvente de degradare: dislocări, elemente lipsă, deformaţii vizibile, atacuri insecto-fungicide, etc.[5] În prezenta metodologie, releveul se realizează clasic: cu instrumente de măsurare manuale (rulete, telemetru cu laser), pe baza schiţelor elaborate de mână *in situ*. Atât ansamblul (pe cât este posibil), cât şi detaliile sunt înregistrate sub formă de fotografii digitale, care pot fi ataşate la baza de date creată cu informaţiile adunate.[6]

Timpul necesar total pentru prelucrarea datelor pentru topografia şarpantelor cu caracter baroc de pe strada M. Kogălniceanu a fost de 40 de zile de lucru (12 şarpante). În cazul unui oraş bogat în şarpante istorice, cum este şi Cluj-Napoca, având aproximativ 70-110 şarpante cu caracter

5 În lipsa releveului integral al şarpantei, releveul deficienţelor structurale sau elaborarea unui studiu biologic nu sunt posibile, nu ar fi relevante şi ar depăşi limitele unei topografii, acestea fiind componentele cercetărilor orientate pe obiect.

6 Pentru culegerea datelor *in situ* şi prelucrarea digitală a şarpantelor relevate este necesară o echipă de doi specialişti (ingineri şi/sau arhitecţi) cu experienţă în relevarea şarpantelor istorice (cu caracter baroc). Timpul necesar pentru adunarea datelor *in situ* este de 2-4 ore pentru echipa menţionată, iar prelucrarea pe calculator a datelor sub forma prezentată în figura 2 înseamnă încă 6-10 ore de lucru pentru un specialist cu experienţă.

Împărţind orele de lucru investite în organizarea deplasărilor, precum şi pe cele „pierdute" prin vizitarea şarpantelor care nu au caracter baroc, timpul mediu necesar pentru asigurarea datelor primare pentru o analiză inginerească este de 20 de ore (2,5 zile de lucru). În situaţii optime, în cazul derulării unui program complex de inventariere a tuturor tipurilor de şarpante istorice, timpul pierdut este minim. Un specialist coordonator cu 1-2 asistenţi are nevoie de 2-4 zile de lucru pentru prelucrarea datelor a 10-12 şarpante sub formă de tipologie, topografie sau articol.

■ ***Tabelul 1.*** *Sinteza informațiilor tehnice privind șarpantele cu caracter baroc de pe strada M. Kogălniceanu, Cluj-Napoca.*[7]

■ ***Table 1.*** *Summary of technical data on baroque roof structures in M. Kogălniceanu Street, Cluj-Napoca.*[8]

Nr. crt.	Cod Code	Denumirea șarpantei / clădirii Roof structure's name / building	Cod monument istoric Historic building's Code	Deschidere Span	Unghi de înclinare Pitch	Raport de înclinare Pitching ratio	Consum specific m³/ m² Specific timber-use m³/ m²	Consum specific raportat la deschidere Specific timber-use / opening ratio	Cod tipologic Typological code
1	**K7**	Șarpanta palatului Teleki nr. 7 Roof structure of Teleki Palace, house no. 7	CJ-II-m-A-07375	2.61 m + 16.19 m	56° (56.3°) 38° (37.9°)	3/2 7/9	0.126	***0.670***	**B.3-b^{cs-L}da.1(c).** – 1.b(c)(3) – *I.AZ(1)+C(2)*
2	**K16 - navă** **K16 - nave**	Șarpanta peste nava bisericii reformate (nr. 16) Roof structure over the nave of the Calvinist church (no. 16)	CJ-II-m-A-07380	16.46 m	56° (56.3°)	3/2	0.158	**0.960**	**A.3-bda(m).1(c).** – 1.c/a(3-2/1). – *I.A(1)+C(2)*
3	**K6**	Șarpanta imobilului nr. 6 Roof structure of house no. 6	CJ-II-m-B-07374	13.91 m	47° (47.5°)	12/11	0.106	0.762	**A.1(m).1(c).** – 1.b(3). – *I.A(1)*
4	**K13**	Șarpanta imobilului nr. 13 Roof structure of house no. 13	CJ-II-m-A-07378.01	13.70 m	45°	1/1	0.108	0.788	**A.2-bd.1(c).** –1.c(2/3). –*IA(1C(2)*
5	**K15**	Șarpanta imobilului nr. 15 Roof structure of house no. 15	CJ-II-m-A-07378.02	13.48 m	47° (47.5°)	12/11	0.106	0.786	**A.2-bd.0.** – 1.c(3). – *I.A(1)+C(2)*
6	**K17**	Șarpanta imobilului nr. 17 Roof structure of house no. 17	CJ-II-m-A-07378.03	13.29 m	47° (47.5°)	12/11	0.100	0.752	**A.2-bd.1(c).** – 1.c/a(3-2/1). – *I.A(1)+C(2)*
7	**K19**	Șarpanta imobilului nr. 19 Roof structure of house no. 19	CJ-II-m-B-07378.04	13.31 m	47° (47.5°)	12/11	0.105	0.789	**A.3-bda.1(c).** – 1.c/a(3-2/1). – *I.A(1)+C(2)*
8	**K16 -cor** **K16 - choir**	Șarpanta peste corul bisericii reformate (nr. 16) Roof structure over the choir of the Calvinist church (no. 16)	CJ-II-m-A-07380	10.69 m	60° (60.3°) (59.7°)	7/4 (12/7)	0.166	*1.553*	**A.2-be.1(c).** – 1.c/a(3-2/1). – *I.A(1)+C(2)*
9	**K16.a**	Șarpanta Colegiului Reformat, aripa NV (nr. 16) Roof structure of the Calvinist High School, NW wing (no. 16)	CJ-II-m-B-07379	9.02 m	50° (50.2°)	6/5	0.117	1.297	**A.1.0.** – 1.a(3). – *I.A(1)*
10	**K16.b**	Șarpanta Colegiului Reformat; aripile E, V, NE (nr. 16) Roof structure of the Calvinist High School; E, W, NE wings (no. 16)	CJ-II-m-B-07379	8.98 m	50° (50.2°)	6/5	0.089	0.991	**A.1.0.** – 1.b(3). – *I.A(1)*
11	**K16.c**	Șarpanta Colegiului Reformat; aripa SE (nr. 16) Roof structure of the Calvinist High School; SE wing (no. 16)	CJ-II-m-B-07379	8.98 m	50° (50.2°)	6/5	0.088	0.980	**A.1.0.** – 1.c(3). – *I.A(1)*
12	**K4**	Șarpanta imobilului nr. 4 Roof structure of building no. 4	CJ-II-m-B-07372	**Mansardată - inaccesibilă** **Built-in attic - inaccessible**					

7 Sursele de informaţii pentru şarpantele studiate sunt după cum urmează: K16-navă şi cor: releveele au fost elaborate în cadrul proiectului de reabilitare de proiectantul general şi de proiectantul de structuri portante, iar K16-a-b-c de proiectantul general, de proiectantul de structuri portante şi de proiectantul de arhitectură; K6: releveul elaborat pentru teza de doctorat a autorului; K7, K13, K15, K17, K19: releveele s-au elaborat pentru prezentul studiu de către A. ANDRÉ, B. BORDÁS, J. HARI, I. KISGYÖRGY, B. SÁNDOR; K4: este inaccesibil, deoarece s-a mansardat.

8 The sources of information on the examined roof structures are the following: K16-nave and choir: surveys were elaborated during the conservation project by the general design and by the design for load-bearing structures; K16-a-b-c: by the general design, by the design for load-bearing structures and by the architectural design; K6: survey elaborated for the author's PhD thesis; K7, K13, K15, K17, K19: surveys elaborated for this paper by A. ANDRÉ, B. BORDÁS, J. HARI, I. KISGYÖRGY, B. SÁNDOR; K4: is inaccessible, owing to the created mansard.

eloquent signs of deterioration: dislocation, missing components, visible deformation, biological damages, etc.[5] In this methodology, the survey is a classical one: elaborated with manual measuring tools (roll tape, laser distance meter) on the basis of manual sketches taken *in situ*. Both the entire structure (as much as possible) and the details are recorded on digital photographs, attached to the database generated using the collected pieces of information.[6]

The total time needed to process the data for the baroque roof structures' basic survey in M. Kogălniceanu Street was 40 working days (12 roof structures). For a city rich in historic roof structures like Cluj-Napoca, having about 70-110 baroque roof structures,[7] the baroque roof structures' basic survey can be elaborated within a modestly budgeted research program of 25,000-30,000 Euros. The efficiency and the number of researched roof structures increase if the project focuses on all types of historical roof structures.

Comparative analysis of studied roof structures

■ Based on the collected and summarised data one can formulate observations from two basic points of view: (I) regarding the structural concept of roof structures and (II) regarding their technical condition.

Under the first category, the following observations can be made[8]:

a) The greater majority of roof structures (92%) are carried out with continuous common rafters; only one mansard-type baroc,[9] topografia şarpantelor cu caracter baroc se poate executa printr-un program de cercetare cu buget modest de 25.000-30.000 euro. Eficienţa, dar şi numărul de şarpante cercetate, cresc dacă se abordează toate tipurile de şarpante istorice în cadrul aceluiaşi program.

Analiza comparativă a şarpantelor studiate

■ Pe baza datelor obţinute şi sintetizate se pot formula observaţii din două puncte de vedere principale: (I) privind conceptul structural al şarpantelor şi (II) privind starea lor tehnică.

În prima categorie se pot formula următoarele observaţii[10]:

a) Marea majoritate a şarpantelor (92%) sunt realizate cu căpriori continui; s-a identificat o singură şarpantă tip mansardă (K7), care la rândul ei prezintă multe particularităţi (soluţii unicat): asimetria structurii, consum specific de lemn raportat la deschidere extrem de redus (faţă de valorile uzuale pentru şarpante cu caracter baroc tip mansardă, supraunitare).

b) Analiza fermelor principale (fig. 3) arată că cele 11 şarpante cu căpriori continui se înscriu în 3 soluţii structurale de bază: (1) soluţia aferentă deschiderii celei mai mari (K16-navă) se repetă pentru deschiderea mult mai mică (K16-cor), diferenţele derivând din inaplicabilitatea celor trei niveluri suprapuse de rigidizare datorită dimensiunilor reduse. Şarpantele K13-15-17-19 (cca 13,50 m deschidere) pornesc de la această soluţie, K19 practic repetă soluţia K16-navă, iar la celelalte trei şarpante soluţia se simplifică la două niveluri, nivelul 2 fiind de tip „d" (sistem de tensionare-suspendare cu pereche de bare de agăţare).

c) Similitudinea dintre şarpantele K13-19 şi cele aferente bisericii reformate este subliniată nu numai prin caracteristica menţionată mai sus (3 din 4 cu bare de agăţare), dar şi prin analiza fermelor secundare – figura 4, adică combinarea alternantă a două tipuri de ferme secundare: cele cu papuci (c) şi cele cu corzi (a) prezente la K17, K19, dar dispărând la K13 şi K15.

d) K4 (cunoscută doar din fotografii din 2004, înaintea mansardării – foto 1) şi K6, deşi au deschideri mai mari (13,90 m) decât K13-19, au conformare

■ ***Foto 1.*** *Vedere de ansamblu, şarpanta K4, 2004*
■ ***Photo 1.*** *K4: overall view of roof structure, 2004*

5 If there is no complete roof-structure survey available, it is not possible to elaborate a survey of structural deficiencies or a study of biological decay, as these would not be relevant and they would also go beyond the limits of a basic survey, being parts of specific research.

6 For the *in situ* data collection and digital processing of the surveyed roof structures, a team of two specialists (engineers and/or architects), experienced in surveying (baroque) roof structures is needed. The necessary time frame for the *in situ* data collection is 2 to 4 hours for the above given team, while the computerised processing of the data listed under the form given in Figure 2 takes up another 6 to 10 working hours for an experienced specialist. The team formed of experienced specialists can consists of three members, the third being trained in this activity through the very elaboration of the survey in question.

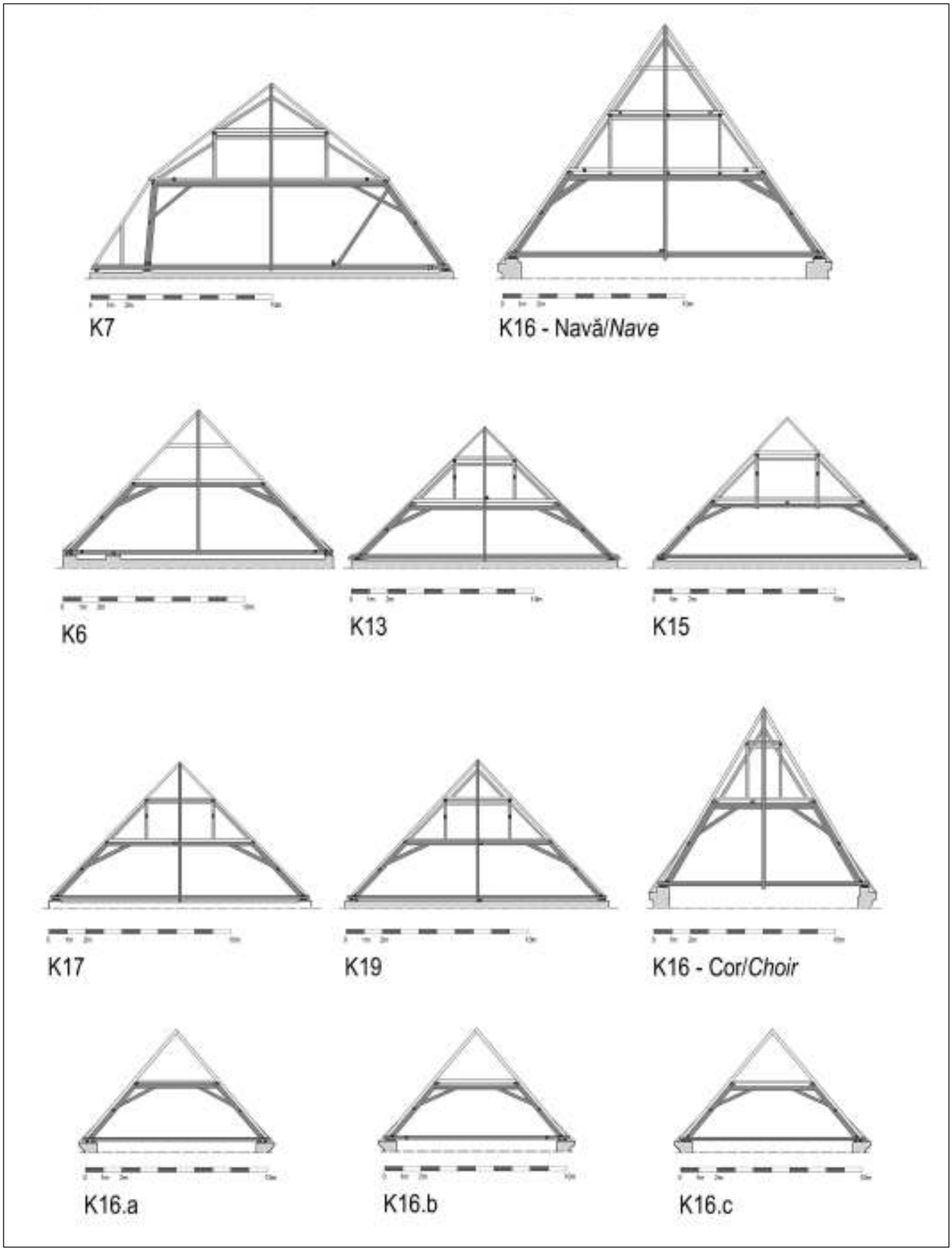
Summing up working hours invested in organising trips and those "lost" with visiting roof structures of non-baroque character, the average time necessary to collect primary data for an engineer's survey is 20 hours (2.5 working days). In optimal cases, within a complex project for inventorying all types of historic roof structures, the time loss can be reduced to minimum. A coordinating expert with 1 or 2 assistants needs 2-4 working days to process the data regarding 10-12 roof structures and render these as a typology, basic survey or an article.

7 Estimated according to the ratio of baroque roof structures (calculated for M. Kogălniceanu Street) divided by the number of historic buildings recorded in Cluj-Napoca, approximately 200-220.

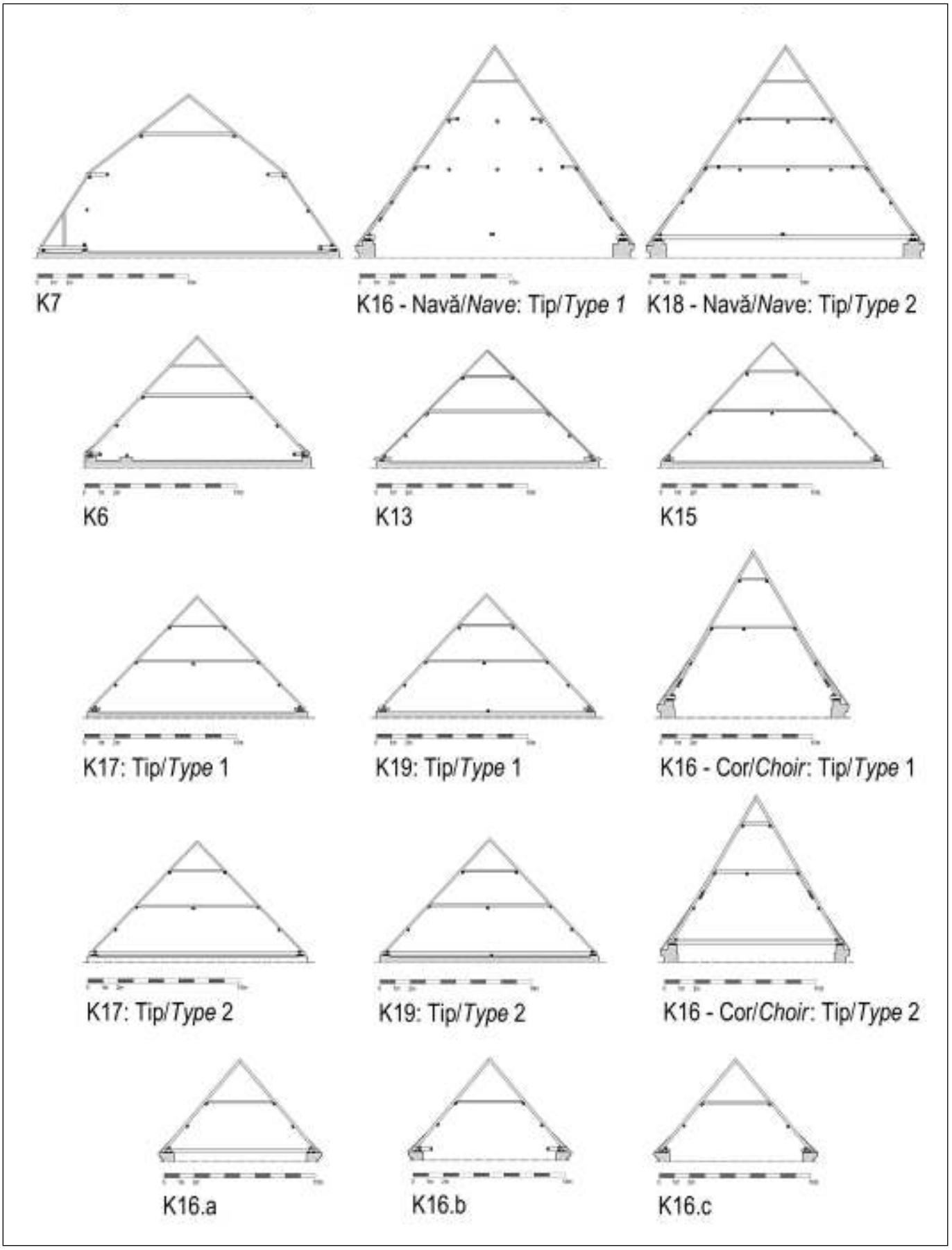
8 Based on the collected information, static models of the roof structures can be elaborated to serve as a basis in detailed engineering studies, while carpenters' signs can serve as material for art history, technique or architecture studies.

9 S-a estimat pe baza procentului aferent numărului de şarpante istorice cu caracter baroc (calculat pe strada M. Kogălniceanu) raportat la numărul clădirilor istorice listate din Cluj-Napoca, aproximativ 200-220.

10 Pe baza informaţiilor colectate, pot fi elaborate şi modelele statice ale şarpantelor, astfel putând fi conduse şi studii inginereşti detaliate, iar pe baza detaliilor, semnelor dulghereşti etc., putând fi conduse studii de istoria artei, tehnicii, arhitecturii.



■ ***Fig. 3.*** *Fermele principale ale şarpantelor studiate cu caracter baroc de pe str. M. Kogălniceanu, aşezate în ordinea descrescătoare a deschiderilor*
■ ***Figure 3.*** *Main trusses of the studied baroque roof structures on Kogălniceanu St., rendered according to the decreasing spans*



■ ***Fig. 4.*** *Fermele secundare ale şarpantelor studiate cu caracter baroc de pe str. M. Kogălniceanu, aşezate în ordinea descrescătoare a deschiderilor*
■ ***Figure 4.*** *Secondary trusses of studied baroques roof structures on Kogălniceanu St., rendered according to the decreasing spans*

■ **Foto 2.** *K13: soluție locală de rigidizare cu colțar suplimentar perpendicular*
■ **Photo 2.** *K13: local bracing solution with supplementary perpendicular angle brace*

structurală simplificată, rigidizarea fiind asigurată doar prin suplimentarea sistemului de tensionare cu caracter baroc printr-o traversă (moază) prezentând varianta intermediară spre soluţiile simple (doar sistemul de tensionare cu caracter baroc pe un nivel) aferente şarpantelor K16a-b-c, cu deschideri de doar 9,00 m.

e) În cadrul fermelor principale există un element – colţarul suplimentar perpendicular pe linia celui din sistemul de tensionare cu caracter baroc – care, sub forma unor soluţii locale (la intersecţii cu şarpantele altor aripi sau pe zone cu o singură apă), este prezent şi la şarpantele K4, K13 (foto 2) – element constant în fermele şarpantei K7. Soluţia este probabil invenţia unei echipe locale clujene, deoarece din 23 de şarpante studiate de autor (în cadrul tezei de doctorat), aceasta a fost identificată doar într-un singur caz, la şarpanta Mănăstirii Franciscane din Cluj-Napoca.

f) Din analiza fermelor secundare, se constată că alternarea a două tipuri de ferme, (a) cu corzi şi (c) cu papuci, este prezentă la un număr relativ ridicat de şarpante (4 din 12), papucii prezentând însă soluţia cea mai răspândită, fiind prezenţi la încă trei şarpante (deci, în total 7 din 12 cazuri), soluţia (b) cu grinzişoare şi longeron în 4 cazuri, iar corzile sunt prezente în toate fermele secundare într-un singur caz. Din punct de vedere al soluţiilor de preluare/transmitere a împingerilor laterale, pe un eşantion atât de restrâns şi cu similitudini clare la nivelul fermelor principale, sunt prezente atât toate cele trei soluţii de bază, cât şi combinaţiile lor.

g) Din punctul de vedere al sistemelor longitudinale de rigidizare cu caracter baroc, toate şarpantele studiate au la nivelul inferior soluţia clasică (A) cu diagonale înclinate una spre cealaltă, pornind din pana pentago-

roof structure was identified (K7), but this has many specific features (unique solutions): asymmetrical structure, extremely low specific intake of timber per opening (as compared to usual values for mansard-type baroque roof structures).

b) The analysis of main trusses (Figure 3) shows how the 11 roof structures with continuous common rafters can be divided according to 3 basic structural versions: (1) the solution related to the widest span (K16-nave) which is repeated for the considerably narrowest span of K16-choir, while differences spring from the impossibility to apply three consecutive levels of bracing components owing to the reduced dimensions. The roof structures K13-15-17-19 (span of about 13.50 metre) are based on this solution; K19 actually repeats the solution K16-nave; while for the other three roofs the structure is simplified to two levels, where level 2 is of type "d" (straining-hanging system with a pair of hanging bars).

c) The resemblance of the roof structures K13-19 and those over the Calvinist church is emphasised not only by the above presented features (3 of 4 with double suspension bar), but also by an analysis of the secondary trusses – Figure 4, namely an alternating combination of two types of

■ ***Tabelul 2.*** *Centralizator al stării tehnice caracteristice şarpantelor istorice cu caracter baroc de pe strada M. Kogălniceanu, Cluj-Napoca.*

Nr. crt.	Cod	Denumirea şarpantei (după clădirea de care aparţine)	Starea generală de degradare (1-10)	Nivel de risc (1-5)	Intervenţii executate	Nivelul de intervenţie necesar
1	**K7**	Şarpanta palatului Teleki, casa nr. 7	**8** (Înv, bio, IUN, CSIG)	**5**	Consolidare planşeu, intervenţii locale neprofesionale	Reabilitare – urgent
2	**K16 - navă**	Şarpanta peste nava Bisericii Reformate (nr. 16)	**6** (Înv, bio, CSIG – local)	**4**	Întreţinere	*Reabilitare – POR 5.1.*
3	**K6**	Şarpanta imobilului nr. 6	**6** (bio – local)	**1**	Reparaţii învelitoare	Restaurare
4	**K13**	Şarpanta imobilului nr. 13	**7** (Înv, bio, CSIG – local)	**4**	–	Restaurare – urgenţă medie
5	**K15**	Şarpanta imobilului nr. 15	**7** (Înv, bio, CSIG – local)	**4**	–	Restaurare – urgenţă medie
6	**K17**	Şarpanta imobilului nr. 17	**7** (Înv, bio, CSIG – local)	**4**	–	Restaurare – urgenţă medie
7	**K19**	Şarpanta imobilului nr. 19	**7** (Înv, bio, CSIG – local)	**4**	–	Restaurare – urgenţă medie
8	**K16 - cor**	Şarpanta peste corul Bisericii Reformate (nr. 16)	**6** (Înv, bio, CSIG – local)	**1**	Reabilitare	*Înlocuire învelitoare POR 5.1.*
9	**K16a**	Şarpanta Colegiului Reformat; aripa NV (nr. 16)	**1**	**0**	Restaurare	Întreţinere
10	**K16b**	Şarpanta Colegiului Reformat; aripile E, V, NE (nr. 16)	**1**	**0**	Restaurare	Întreţinere
11	**K16c**	Şarpanta Colegiului Reformat; aripa SE (nr. 16)	**1**	**0**	Restaurare	Întreţinere
12	**K4**	Şarpanta imobilului nr. 4	**1**	**1**	Mansardare	Întreţinere

■ ***Table 2*** *– Summary of characteristic technical condition of baroque roof structures in M. Kogălniceanu Street, Cluj-Napoca*[12].

No.	Code	Roof structure (named by the building)	General condition of decay (1-10)	Risk level (1-5)	Intervention carried out	Necessary level of intervention
1	**K7**	Roof structure of Teleki Palace, no. 7	**8** (Cov, bio, IUN, CSIG)	**5**	Consolidated slab, unprofessional local interventions	Urgent rehabilitation
2	**K16 - nave**	Roof structure over the nave of the Calvinist church (no. 16)	**6** (Cov, bio, CSIG – local)	**4**	Maintenance	*Rehabilitation – POR 5.1.*
3	**K6**	Roof structure of house no. 6	**6** (bio – local)	**1**	Roof covering repaired	Conservation
4	**K13**	Roof structure of house no. 13	**7** (Cov, bio, CSIG – local)	**4**	–	Moderately urgent conservation
5	**K15**	Roof structure of house no. 15	**7** (Cov, bio, CSIG – local)	**4**	–	Moderately urgent conservation
6	**K17**	Roof structure of house no. 17	**7** (Cov, bio, CSIG – local)	**4**	–	Moderately urgent conservation
7	**K19**	Roof structure of house no. 19	**7** (Cov, bio, CSIG – local)	**4**	–	Moderately urgent conservation
8	**K16 – choir**	Roof structure over the choir of the Calvinist church (no. 16)	**6** (Cov, bio, CSIG – local)	**1**	Rehabilitation	*Replacement of covering POR 5.1.*
9	**K16a**	Roof structure of the Calvinist High School; NW wing (no. 16)	**1**	**0**	Restoration	Maintenance
10	**K16b**	Roof structure of the Calvinist High School; E, W, NE wings, (no. 16)	**1**	**0**	Restoration	Maintenance
11	**K16c**	Roof structure of the Calvinist High School; SE wing (no. 16)	**1**	**0**	Restoration	Maintenance
12	**K4**	Roof structure of house no. 4	**1**	**1**	Built-in attic	Maintenance

11 Notaţiile au următoarele semnificaţii: înv – învelitoare degradată; bio – existenţa degradărilor biologice; IUN – intervenţii ulterioare neprofesionale; CSIG (local, de exemplu se referă la soluţii de noduri; sau integral) – concepţie structurală iniţial greşită.

12 The notations denote the following: cov – degraded roof covering; bio – signs of biological decay; IUN – unprofessional intervention; CSIG (local – refers to scattered or integral joining solutions) – initially mistaken structural concept.

■ ***Foto 3.*** *K15: utilizarea improprie ca spațiu de depozitare a podului, imposibilitatea întreținerii*
■ ***Photo 3.*** *K15: inappropriate use of the attic as storage, impossible to maintain*

nală de streaşină. Diferenţe constau doar în faptul că la 7 din 12, acestea sunt combinate cu sisteme verticale (eclectice) de rigidizare la nivelul 2, iar într-un caz (K7) sunt ulterior rigidizate cu încă un rând de diagonale.

În consecinţă, un eşantion restrâns, caracterizat prin similitudini semnificative analizate din punct de vedere al fermelor principale, poate să fie divergent din punctul de vedere al fermelor secundare şi chiar mai mult, din punct de vedere al sistemelor longitudinale de rigidizare.

Trecând la (II) analiza stării tehnice a acestor şarpante (tabelul 2), putem observa că neglijenţa în exploatare (lipsa de întreţinere) prezintă factorul de risc cel mai caracteristic al acestor şarpante. Fotografiile 3 şi 4 arată nivelul de degradare, precum şi utilizarea inadecvată ca spaţiu de depozitare a podurilor acestor şarpante.

În ultimul deceniu, la 6 din 12 şarpante s-au executat intervenţii de restaurare, reabilitare, la una mansardare (K4)[13] sau reparaţii de învelitoare, iar la una este prevăzută intervenţia (K16-navă), în decurs de un an. Dar 5 şarpante se află în stare de degradare avansată, riscul de colaps sau pierdere esenţială de material originar fiind prezent la o şarpantă (K7), unde se suprapun problemele de lipsă de întreţinere cu intervenţii ulterioare neprofesionale şi concepţie structurală iniţial deficitară.

Concluzii

■ În oraşele istorice din Transilvania din anii 1990 există o tendinţă de a reabilita („aranja") faţadele centrelor. În Cluj-Napoca s-au derulat două reprize de zugrăvire a faţadelor, acestea însă se degradează în continuare, deoarece sistemele de evacuare a apelor, învelitorile sau chiar şi structura şarpantelor – de multe ori – prezintă deficienţe. Valorile înglobate în şarpantele istorice, respectiv riscul pe care şarpantele neîntreţinute îl pot prezenta nu sunt cunoscute nici de proprietari, dar nici de autorităţile locale – mai mult, chiar şi o mare parte din specialişti (fie arhitecţi, fie experţi) omit să acorde atenţie acestor subansambluri structurale.

Inventarierea subansamblurilor structurale şarpante istorice (cu caracter baroc sau indiferent de tipul lor, în general) sub forma unei topografii

13 Autorul prezentei nu cunoaşte proiectul, deci nu se includ afirmaţii privind nivelul de profesionalism al intervenţiilor, deoarece nu se ştie dacă a fost salvat conceptul structural, detaliile şi materialul, sau doar forma exterioară, dacă intervenţia este reversibilă, şarpanta fiind doar mascată, sau dacă s-a pierdut structura.

secondary trusses: those with shoes (c) and those with tie-beams (a) present in K17, K19, and missing in K13 and 15.

d) K4 (known only from photographs taken in 2004, before it was converted to attic – Photo 1) and K6, even though having wider spans (13.90 metre) than K13-19; have a simplified structural conformation, their bracing being provided for only by adding an upper collar to the baroque straining system, which is an intermediary variant as compared to the simple solutions (a single baroque straining system on a single level) applied for roof structures K16a-b-c, with narrow span of only 9.00 metre.

e) For principal trusses there is a component: the supplementary angle brace perpendicular on the line of the one in the baroque straining system – which appears as local solution (at intersections of roof structures of other wings or in portions with a single slope) in roof structures K4, K13 as well (Photo 2) – and as a constant component of the trusses in roof structure K7. The solution was probably invented by a local carpentry-team in Cluj, as out of 23 roof structures analysed by the author (in PhD thesis) this solution was present in a single roof structure, that of the Franciscan Monastery in Cluj-Napoca.

f) The analysis of secondary trusses shows that the alternate use of two truss types: (a) with tie-beams and (c) with shoes, is applied for a relatively high number of roof structures (4 out of 12), nevertheless shoes are the widespread solution, being also used in 3 other roof structures (thus in a total of 7 out of 12), solution (b) with trimmers and header beams in 4 cases, and tie-beams are incorporated in all the secondary trusses of only one roof structure. From the point of view of overtaking and transmitting lateral load, for such a reduced sample with so clear resemblances on the level of principal trusses, all three basic solutions and their various combinations are also present.

g) From the point of view of the longitudinal baroque bracing systems, all analysed roof structures have the classical solution on their lower level (A) diagonals leaning towards eachother, setting out from the pentagonal eaves purlin. The only differences are due to the fact that in 7 out of 12 these are combined with eclectic vertical bracing systems on level 2, and in a single case, that of K7, there are further braced with another row of diagonals.

Consequently a narrow sample showing significant resemblances on the level of principal trusses can show divergences in what pertains to secondary trusses, and even more on the level of longitudinal bracing systems.

Concerning the (II) analysis of the technical condition of these roof structures (Table 2) it may be noted that careless ownership (lack of maintenance) is the most characteristic risk factor for these roof structures. Photos 3 and 4 display the level of degradation and the inadequate usage of these roof structures as storage.

During the last decade, various interventions such as conservation, refurbish-

ment (or the built-in attic K4)[9] or repairing of the roof covering were carried out in the case of 6 out of the 12 roof structures while for one of them (K16-nave), intervention is scheduled for the following year. Nevertheless 5 roof structures are in an advanced condition of decay while for one of them (K7) there is a considerable risk of collapse or essential loss of original material, owing to matters related to the lack of maintenance and unprofessionally implemented interventions and to an initially lacking structural concept as well.

Conclusions

■ Beginning with the 1990s, in the historical cities of Transylvania there is a tendency to conserve ("tune up") downtown façades. In Cluj-Napoca, there were two waves of painting the façades, nevertheless they keep decaying as the water draining systems, the roof coverings or even the roof structures of these buildings are quite often in a poor technical condition. Neither the owners nor the local authorities are aware of the values these historic roof structures represent, nor do they precisely know the risks involved for roof structures left without proper maintenance. Even worse, the greater part of the specialists (architects or engineer experts) fails to pay proper attention to these structural sub-units.

An inventory of the structural sub-units of the historic roof structures (baroque or in general) incorporated into a basic survey would offer great aid to local authorities in formulating certain financial strategies (for instance loans for owners who undertake the conservation-project not only façades but roof structures as well), or it would ease the possibility to check, through the construction licence system, whether projects include interventions on the historic roof structure level and to make such interventions (or at least the assessment) compulsory – especially if the database shows risks of decay for the historic roof structure. At the same time, the database could inform owners regarding the values their buildings represent, they could also be warned about their obligations and the risks related to the lack of maintenance of these buildings or the continuous postponement of interventions on roof structure level.

The conclusion of the research is that through the implementation of certain low budget inventory projects, it is possible to generate information which creates the basis of some scientific researches, also obtains a set of concrete data, which paired with economic and legal measures can contribute – through working out some local strategies – directly to the perpetuation of this significant segment of our built heritage.

9 The author of the article is unaware of the project so makes no statements regarding the level of professionalism of interventions, since it is impossible to know whether the structural concept, the details and material were preserved or only the external form was maintained, if the intervention is reversible, the roof structure being only covered, or if the structure itself is lost.

■ ***Foto 4.*** *K7: învelitoare extrem de degradată, intervenţii ulterioare neprofesionale, lipsă locală de rigidizare*
■ ***Photo 4.*** *K7: extremely decayed covering, evidence of unprofessional intervention, local lack of bracing*

a autorităţilor locale este necesară pentru formularea unor pârghii financiare (de exemplu, împrumut pentru proprietarii care se angajează la reabilitarea nu numai a faţadelor, ci şi a şarpantelor) sau pentru a verifica în cadrul sistemelor de autorizare de construcţii dacă un proiect include şi intervenţii asupra şarpantelor istorice, obligând la intervenţie (sau măcar la expertizare) în cazul în care din baza de date rezultă că şarpanta istorică prezintă risc de degradare. De asemenea, proprietarii ar putea fi informaţi despre valorile înglobate în clădirile lor şi, în acelaşi timp, pot fi atenţionaţi cu privire la obligaţiile lor, respectiv la riscurile care pot proveni din lipsa întreţinerii sau din amânarea intervenţiilor asupra şarpantelor.

Concluzia studiului este că prin derularea unor programe de inventariere – necesitând buget redus – se poate ajunge atât la informaţii care creează baza unor cercetări ştiinţifice, cât şi la obţinerea unui set de date practice, care, cuplate cu pârghii economico-legislative, pot contribui – prin elaborarea unor strategii locale – direct la perpetuarea acestui segment determinant al patrimoniului construit.

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■ Livia BUCŞA[1]

Expertiza biologică în restaurarea monumentelor istorice

■ ***Rezumat:*** *Articolul prezintă conţinutul unei expertize biologice efectuate pentru monumentele istorice, din punctul de vedere al autorului. Se face referire la modul de pregătire a specialiştilor, la dotarea necesară pentru observaţiile de teren şi la analizele de laborator. Se schiţează informaţiile utile pe care expertiza le poate oferi proiectanţilor şi constructorilor în realizarea unor lucrări de conservare şi restaurare de înaltă ţinută ştiinţifică.*

■ ***Cuvinte cheie:*** expertiză biologică, biodegradare, pregătire specialişti

Introducere

■ Restaurarea monumentelor istorice este un domeniu interdisciplinar care presupune unirea eforturilor mai multor specialişti (arhitecţi, ingineri constructori, istorici de artă, istorici, arheologi, geologi, biologi, chimişti, restauratori etc.) în realizarea proiectelor de restaurare şi în transpunearea lor în practică, respectând principiile şi normativele naţionale şi internaţionale în vigoare.

Tehnicile de restaurare şi conservare, pentru mult timp abandonate într-un empirism confuz, au evoluat într-o manieră considerabilă în ultimele decenii, graţie contribuţiilor pluridisciplinare legate de arhitectură, inginerie, ştiinţa materialelor, biologie, climatologie şi ştiinţele umaniste.[2]

În ţara noastră, după 1990, expertiza biologică a devenit o componentă obligatorie a documentaţiei pe care trebuie să o cuprindă proiectele de restaurare pentru monumentele istorice sau pentru componentele artistice ale acestora, în vederea obţinerii avizării din partea Comisiei Naţionale a Monumentelor Istorice sau a Comisiei de Componente Artistice.

Expertiza este o cercetare a obiectivului respectiv, care evidenţiază formele de degradare de natură biologică, explică cauzele apariţiei şi dezvoltării acestora, stabileşte extinderea lor şi propune măsurile optime de combatere şi prevenire pentru fiecare caz în parte.

Un diagnostic amănunţit şi exact al construcţiilor şi cauzelor degradării trebuie să preceadă orice intervenţie.[3]

Pregătirea specialiştilor

■ La noi în ţară nu există o formă specială de pregătire pentru cei care doresc să înveţe să realizeze expertize biologice la construcţii şi este cauza principală a numărului foarte redus (doi) de experţi biologi înscrişi

1 Expert biolog, dr., conferenţiar universitar la Universitatea „Lucian Blaga" din Sibiu, România.
2 Giovanni Giuseppe AMOROSO, *Trattato di scienza della conservazione dei monumenti*, Firenze, Alinea Editrice, 2002.
3 ICOMOS, *International Wood Committee, Principles of Practice for the Preservation of Historic Timber Buildings*, 1999.

Biological Assessment in Historic Building Conservation

[1]

■ ***Abstract:*** *The article presents the point of view of the author on the content of a biological assessment carried out for historic buildings. It refers to the training of specialists, to the equipment necessary for the observations in the field and for the laboratory analyses. It points out the useful information that the assessment may provide to the designers and constructors so that they can perform high scientific quality preservation and conservation works.*

■ ***Keywords:*** biological assessment, biodegradation, training of specialists

Introduction

■ Historic building conservation is an interdisciplinary field that implies joint efforts from several specialists (architects, civil engineers, art historians, historians, archaeologists, geologists, biologists, chemists, restorers, etc.) for drawing up and implementing conservation projects in accordance with national and international principles and standards in force.

The conservation and preservation techniques, after having been abandoned in a confuse empiricism for a long time, have significantly progressed in the last decades, due to multidisciplinary contributions related to architecture, engineering, material sciences, biology, climatology and human sciences.[2]

In post-1990 Romania, the biological assessment has become a mandatory component of the documentation that has to be included in the conservation projects for historic buildings or for their artistic components, in order to obtain approval from the National Commission for Historic Buildings or from the Commission for Artistic Components.

The assessment is an evaluation of the building concerned, which highlights the deteriorations of biological nature, explains the causes of their occurrence and development, establishes their extent and proposes

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2 Giovanni Giuseppe AMOROSO, *Trattato di scienza della conservazione dei monumenti* (Firenze: Alinea Editrice, 2002).

în Registrul naţional al experţilor şi verificatorilor tehnici în domeniul monumentelor istorice.

În Marea Britanie, specialiştii în acest domeniu, după studii de 3 ani, în care sunt predate discipline din domeniul arhitecturii, contrucţiilor, biologiei, conservării şi restaurării monumentelor, protecţiei muncii, poartă denumirea de *surveyor*.

În Ungaria, Registrul experţilor cuprinde un număr mare de specialişti (peste 200), majoritatea având la bază studii de industrializarea lemnului şi doar un număr restrâns studii de biologie. Acest lucru este explicabil, pe de o parte, prin tradiţie, şi, pe de altă parte, prin faptul că lemnul, componenta cea mai vulnerabilă la degradarea biologică într-o construcţie, este studiat în detaliu în asemenea facultăţi.

În Germania şi Italia, majoritatea celor care efectuează expertize biologice fac parte din institute de cercetare sau din firme private specializate în combaterea agenţilor de biodegradare. Institutele de cercetare colaborează cu universităţile de profil, organizează periodic cursuri de formare a specialiştilor şi oferă posibilitatea efectuării unor stagii de practică pentru cei interesaţi.[4]

Colaborarea cu specialiştii în domeniul restaurării monumentelor, cooptarea în proiecte naţionale şi internaţionale de mare anvergură (proiectul româno-englez de restaurare a bisericilor de lemn din Maramureş, proiectul interguvernamental româno-german GTZ[5] din Sibiu, proiectul Millenium din Baia Mare etc.), participarea la trei proiecte cu finanţare europeană (proiectul „Civilizaţia lemnului", COST E46 şi COST IE0601) au contribuit la desăvârşirea pregătirii mele ca expert. Trebuie să menţionez şi importanţa prezenţei pe şantierele de restaurare unde am asigurat asistenţa tehnică de specialitate pentru eradicarea atacurilor biologice. Dezvelirea elementelor de construcţie în timpul lucrărilor de restaurare m-a ajutat să observ şi să înţeleg problematica fenomenelor de biodegradare la diferite tipuri de monumente, iar discuţiile purtate cu constructorii şi cu meşterii, care cunosc tehnicile tradiţionale, mi-au fost de un real folos.

Am avut posibilitatea să particip, în anul 1982, la un curs postuniversitar de istoria artei, organizat de Institutul de Arte Plastice „Nicolae Grigorescu" din Bucureşti, considerat ca un element necesar în pregătirea investigatorilor (chimişti, biologi şi fizicieni) din cadrul Laboratoarelor zonale de restaurare. Este foarte important pentru un investigator să deţină cunoştinţe de bază şi în domeniul artistic, pentru a putea aprecia valoarea unui monument şi a componentelor sale.

Pe parcursul anilor, pe baza experienţei, am reuşit să îmbunătăţesc şi să adaptez metodologia de elaborare a expertizelor după problematica monumentelor, după cunoştinţele acumulate, după cerinţele noilor normative şi după exigenţele internaţionale din domeniu.

4 Personal, am avut şansa să parcurg un ciclu de specializare, de 3 ani (1976-1980), în domeniul investigaţiilor biologice, în cadrul Centrului Special de Perfecţionare a Cadrelor al Ministerului Culturii, după ce am fost încadrată, prin concurs, la Laboratorul zonal de restaurare de pe lângă Muzeul Brukenthal din Sibiu. Ulterior am extins preocupările şi pe patrimoniu imobil şi am susţinut un doctorat pe tema fungilor care degradează monumentele istorice şi construcţiile din muzeele în aer liber. În anul 1982 şi apoi în 1995, am beneficiat de stagii de pregătire în Marea Britanie. În cadrul Building Research Establisment, am avut posibilitatea să mă documentez, să particip la expertizele efectuate de specialişti pe teren şi la cercetările de laborator. De asemenea, am avut şansa, începând din 1993, să particip la Seria Conferinţelor de Teoria şi Practica Reabilitării Patrimoniului Construit - Tuşnad, care au constituit o adevărată şcoală pentru pregătirea multor specialişti în domeniul restaurării monumentelor istorice din ţara noastră. Încurajările primite din partea Bálint SZABÓ şi cooptarea în proiecte de restaurare ale colectivului pe care-l conducea m-au determinat să înfiinţez propria firmă de profil în cercetarea şi valorificarea patrimoniului construit.

5 Societatea Germană pentru Colaborare Tehnică [notă ed.]

optimum combat and prevention measures on a case by case basis.

A thorough and accurate diagnosis of the buildings and of the causes of decay should precede any intervention.[3]

Training of specialists

■ No special form of training exists in Romania for the people who want to learn how to make biological assessments, which is the main cause of the very low number (two) of biological experts who are registered in the National Register of Technical Experts for Historic Buildings.

In Great Britain, the specialists in this field attend a 3 year study course where they are taught subjects from the areas of architecture, civil engineering, biology, building conservation, work safety, and are called surveyors.

In Hungary, the Register of Experts contains a large number of specialists (above 200), of which the majority have wood industrialization studies and only a small number have biology studies. This can be explained by tradition, on the one hand, and, by the other hand, by the fact that wood, which is the building component that is the most vulnerable to biological decay, is thoroughly studied in this kind of faculties.

In Germany and Italy, most of the people who carry out biological assessments work in research institutes or in private companies specialised in combating biodegradation agents. The research institutes cooperate with universities in the field, organise regular training courses for specialists and offer the possibility of internships for interested persons.[4]

My cooperation with specialists in the area of building conservation, my co-optation in large scale national and international projects (Romanian-English Project on the Conservation of the Wooden Churches

3 ICOMOS, *International Wood Committee, Principles of Practice for the Preservation of Historic Timber Buildings* (1999).

4 Personally, I had the opportunity to attend a three year specialisation course (1976-1980) in the area of biological assessments at the Special Centre for Further Training of Management Staff of the Ministry of Culture, and subsequently I obtained a job through contest at the Local Conservation Laboratory of the Brukenthal Museum in Sibiu. Then, I have expanded my interest to real estate heritage and I have obtained a PhD with a thesis on fungi that deteriorate historic buildings and buildings in open air museums. In 1982 and in 1995, I got internships in Great Britain. At the Building Research Establishment, I had the possibility to gather information, to take part in assessments carried out by specialists in the field and in laboratory research activities. Moreover, starting from 1993, I have had the chance to participate at the Conference Series on Theoretical and Practical Issues on Built Heritage Conservation - Tuşnad, which have been a real school for the training of many specialists in the area historic building conservation in Romania. The encouragements I received from Professor Bálint SZABÓ and my co-optation in conservation projects of the team he led have determined me to set up my own firm, specialised in the research and utilization of the built heritage.

in Maramureş, Romanian-German Intergovernmental GTZ[5] Project in Sibiu, Millennium Project in Baia Mare, etc.), my participation in 3 projects financed from European funds ("Wood Civilization" Project, COST E46 and COST IE0601) have all contributed to the completion of my training as expert. I also would like to point out the importance of my presence on conservation sites where I provided specialised technical assistance for the control of biological attacks. The stripping of the construction elements during conservation works has helped me to observe and understand the issue of biodegradation phenomena in various types of buildings, and the discussions I have had with builders and craftsmen who have the know-how of traditional techniques have been really useful to me.

In 1982, I had the opportunity to participate in a postgraduate course on art history that was organised by the "Nicolae Grigorescu" Institute of Fine Arts of Bucharest, which was considered a necessary element in the training of the experts (chemists, biologists and physicists) working in Local Conservation Laboratories. Basic artistic knowledge is very important for an expert to be able to estimate the value of a historic building and its components.

In time and on the basis of my experience, we have managed to improve and to adapt the methodology of drawing up assessments depending on the issues of buildings, on the cumulated knowledge, on the requirements in the new rules and standards and on international requirements in the field.

Knowledge and equipment necessary to perform biological assessments

■ We have found it useful for the people who want to specialise in this field to make a brief presentation of the knowledge to acquire and of the equipment to have in order to be able to draw up assessments that are in line with the standards in force and that provide the designers with useful scientific information.

Necessary knowledge

1) Thorough biology and ecology knowledge on:
   – the biodegradation agents (bacteria, fungi, algae, lichens, superior plants, insects, birds, animals);
   – the macro and microscopic identification methods;
   – the factors that influence their occurrence and development;
   – prevention and combating methods.
2) General knowledge on the composition and structure of building materials (stone, masonry, wood, etc.), designation of the building elements.
3) Thorough knowledge on the causes of material decay, on the preservation and conservation methodology

5 German Technical Cooperation Agency [ed. note]

Cunoştinţe şi dotări necesare pentru realizarea expertizelor biologice

■ Am considerat util, pentru cei care doresc să se specializeze în acest domeniu, să trec în revistă cunoştinţele pe care trebuie să le însuşească şi dotarea de care trebuie să dispună pentru a putea elabora expertize care să corespundă standardelor în vigoare şi care să ofere o informaţie ştiinţifică utilă proiectanţilor.

Cunoştinţe necesare

1) Cunoştinţe aprofundate de biologie şi ecologie privind:
   – agenţii de biodegradare (bacterii, fungi, alge, licheni, plante superioare, insecte, păsări, animale);
   – metode de identificare macro şi microscopice;
   – factori care influenţează apariţia şi dezvoltarea acestora;
   – metode de prevenire şi combatere.
2) Cunoştinţe generale privind compoziţia şi structura materialelor de construcţie (piatră, zidărie, lemn etc.), denumirea elementelor de construcţie.
3) Cunoştinţe aprofundate privind cauzele degradării materialelor, metodologia conservării şi restaurării elementelor de construcţie şi a componentelor artistice.
4) Cunoştinţe de chimie privind compoziţia substanţelor utilizate în prevenirea şi combaterea biodegradării, compatibilitatea, toxicitatea, solubilitatea acestora etc.
5) Cunoştinţe privind conservarea bunurilor culturale (factori de microclimat, conservare preventivă şi curativă, principiile de conservare etc.).
6) Cunoştinţe de protecţia muncii şi protecţia mediului.
7) Cunoştinţe generale de istoria artei şi arhitectură.

Dotarea

Dotarea necesară pentru observaţiile efectuate în teren este compusă din: umidometru pentru lemn şi zidărie, bormaşină, aparat foto, ciocan de zidărie, toporişcă, bisturiu sau cuţit, binoclu, lupă, lanternă, recipiente pentru probe etc. Dotarea minimă necesară pentru analizele de laborator: binoclu stereo, microscop optic, termostat, frigider, plită sau bec cu gaz etc.

Conţinutul expertizei biologice

■ O expertiză biologică poate fi efectuată pentru o întreagă construcţie sau pentru diferite părţi de construcţie (zidărie, anumite încăperi, planşee, şarpantă, învelitoare, tâmplării, componente artistice etc.).

Materialul elaborat trebuie să cuprindă următoarele capitole şi subcapitole: I. Introducere, II. Scurt istoric al monumentului, III. Aşezare şi scurtă descriere a obiectivului, IV. Rezultatele: 4.1. Vegetaţia din jur, dacă este cazul, 4.2. Inspecţia exterioară, 4.3. Inspecţia interioară, 4.4. Analiza probelor, 4.5. Propunerile de tratamente sau, după caz, măsurile de eradicare ce se impun la fiecare caz în parte, V. Concluzii.

Vom prezenta pe rând conţinutul acestor capitole.

I. În *Introducere* se specifică beneficiarul expertizei şi scopul pentru care a fost comandată, operaţiile întreprinse (deplasări, tipul de observaţii efectuate, sondaje, prelevare de probe şi analize).

II. Capitolul *Scurt istoric al monumentului* cuprinde o consemnare sintetică a principalelor etape în care s-au făcut intervenţii asupra

construcţiei şi specificarea statutului (dacă este monument istoric, dacă este în uz etc.). Aceste informaţii sunt puse la dispoziţie, în majoritatea cazurilor, de către proiectant şi sunt cuprinse în studiul istoric. Sunt necesare pentru alcătuirea expertizei, deoarece ne pot ajuta în diferenţierea materialelor originale de cele introduse ulterior în construcţie şi în explicarea cauzelor apariţiei unor atacuri biologice.

III. *Aşezare şi scurtă descriere a obiectivului*. Această abordare este importantă pentru înţelegerea influenţei terenului asupra evoluţiei construcţiei. Forma terenului, compoziţia şi caracteristicile acestuia, între care mai importante sunt umiditatea şi creşterea nivelului solului, care pot constitui cauze ale degradărilor şi instalării agenţilor biologici.

IV. *Rezultate*

4.1. *Descrierea vegetaţiei din jurul obiectivului* este necesară pentru situaţiile în care aceasta s-a dezvoltat spontan sau a fost plantată şi afectează monumentul. În jurul bisericilor de lemn, dar şi al celor de zidărie, întâlnim frecvent cazuri în care vegetaţia dezvoltată necontrolat afectează fundaţiile, învelitorile sau zidăria (foto 1). În cazul cetăţilor sau al siturilor arheologice, vegetaţia de plante superioare poate constitui principala cauză a degradării acestora (foto 2).

În majoritatea expertizelor efectuate, am constatat că speciile de arbori invazivi (*Acer negundo, Ailanthus altissima*, *Robinia pseudoacacia, Thuja orientalis* etc.), introduse ca plante ornamentale, sunt mult mai frecvente şi prolifice decât cele indigene.

Pentru fiecare tip de vegetaţie, în expertiză, se propun măsuri specifice de îndepărtare, întreţinere şi control.[6]

Normele metodologice privind protecţia monumentelor specifică distanţa de 3 m până la care vegetaţia de arbori dezvoltată spontan sau plantată trebuie îndepărtată.

6 Livia BUCŞA, *Degradarea biologică a fortificaţiilor*, în „Transsylvania Nostra”, nr. 3/2010, p. 20-31.

■ ***Foto 1.*** *Biserica de lemn din Şpălnaca, jud. Alba*
■ ***Photo 1.*** *Wooden church in Şpălnaca, Alba County*

for construction elements and of artistic components.
4) Chemistry knowledge on the composition of substances used to prevent and combat biodegradation, on their compatibility, toxicity, solubility, etc.
5) Knowledge on the preservation of cultural goods (microclimate factors, preventive and curative preservation, conservation principles, etc.).
6) Knowledge on work safety and environment protection.
7) General knowledge on art history and architecture.

Equipment

The following equipment is necessary for carrying out observations in the field: moisture meter for wood and masonry, drilling machine, photo camera, masonry hammer, hatchet, bistoury or knife, binoculars, loupe, flashlight, containers for the samples, etc. Minimum equipment for laboratory tests: stereo binocular, optical microscope, thermostat, refrigerator, heating plate or gas lamp, etc.

Content of a biological assessment

■ The biological assessment may be carried out for the whole building or only for various parts of it (masonry, certain rooms, slabs, roof structure, roof coverings, joineries, artistic components, etc.).

The documentation that is drawn up shall contain the following chapters and subchapters: I. Introduction, II. Brief history of the building, III. Siting and brief description of the building, IV. Results: 4.1. Surrounding vegetation, if appropriate, 4.2. Outdoor inspection, 4.3. Indoor inspection, 4.4. Sample analysis. 4.5. Proposals of adequate treatments or control measures, as appropriate, on a case by case basis, V. Conclusions.

Each of these chapters will be further detailed.

I. The *Introduction* specifies the beneficiary of the assessment and the purpose for which it has been ordered, the operations performed (travels, types of observations made, probing, sampling and analyses).

II. The *Brief history of the building* contains a summary description of the main stages of interventions on the building and a mention on its status (historic building, still in use, etc.). In most cases, this information is provided by the designer and is included in the historic study. It is necessary for the assessment, as it can help to differentiate the original materials from the materials introduced later in the building, as well as to explain the causes of the occurrence of certain biological attacks.

III. *Siting and brief description of the building*. This approach is important in order to understand the

influence of the land on the evolution of the building. The shape of the land, its composition and characteristics, especially humidity and land level increase as most important, which may be causes of the deteriorations and installation of biological agents.

IV. *Results*

4.1. *The description of the surrounding vegetation* is necessary in cases where it developed spontaneously or it was planted and it affects the building. The surroundings of wooden or even masonry churches are often examples of vegetation that developed wildly and that affects the foundations, the coverings or the masonry (Photo 1). The vegetation made of superior plants may be the main cause of decay in the case of citadels or archaeological sites (Photo 2).

In most of the assessments we have performed, we have found that the species of invasive trees (*Acer negundo, Ailanthus altissima, Robinia pseudoacacia, Thuja orientalis*, etc.), which have been introduced as ornamental plants, are much more frequent and prolific than the indigenous species.

The assessment shall propose specific measures of removal, maintenance and control for each type of vegetation.[6]

The methodological rules concerning historic building protection provide for the removal of the vegetation developed spontaneously or planted on a distance of 3 metre from the building.

4.2. The *Outdoor inspection* is very important, as it helps to identify and locate the causes that may trigger the occurrence of biological attacks on a building. In order to identify the vulnerable areas more easily, the following aspects shall be observed: rising damp, infiltration sources, building defects, negligence in maintenance, inappropriate interventions, etc. (Photo 3).

4.3. *Indoor inspection*

Inspection shall start from the lowest level (basement, semi-basement, ground floor) and shall continue upwards, with the higher levels. The following elements shall be analysed at basement and semi-basement levels: sources of rising damp, presence of infiltrations or defects of the water supply and sewage systems that may be causes triggering biological attacks. The identification of certain types of microorganisms, such as microorganisms from the *Thiobacillus* genre, at the level of damp masonry, may indicate the presence of infiltrations from the sewage system.

In case of decay caused by certain species of fungi at the ground floor, the fruiting bodies can mainly be found in the basement or semi-basement.

The inspection is pursued at the other floors and at the roof structure. It is important to be provided with surveys drawn up in advance for the whole building so as to be able to locate the affected areas and to

6 Livia BUCŞA, "Degradarea biologică a fortificaţiilor," *Transsylvania Nostra* 3 (2010): 20-31.

■ ***Foto 2.*** *Zid din Cetatea Alba Iulia invadat de vegetație*
■ ***Photo 2.*** *Wall of Alba Iulia Citadel invaded by vegetation*

4.2. *Inspecţia exterioară* este foarte importantă, deoarece ajută la cunoaşterea şi localizarea cauzelor care pot declanşa apariţia atacurilor biologice la o construcţie. Trebuie urmărite: umiditatea ascensională, sursele de infiltraţii, defectele de construcţie, neglijenţele în întreţinere, intervenţiile necorespunzătoare etc., pentru a se putea identifica mai uşor zonele vulnerabile (foto 3).

4.3. *Inspecţia interioară*

Se începe cu nivelul inferior (subsol, demisol, parter) şi se continuă cu cele superioare. La subsol şi demisol se identifică sursele de umiditate ascensională, prezenţa unor infiltraţii sau defecte ale sistemelor de apă şi canal care pot constitui cauze ale declanşării atacurilor biologice. Identificarea anumitor tipuri de microorganisme, cum sunt cele din genul *Thiobacillus*, la nivelul zidăriilor umede, ne poate indica prezenţa unor infiltraţii de la sistemul de canalizare.

În cazul degradărilor produse de anumite specii de fungi la nivelul parterului, corpurile sporifere sunt întâlnite cu precădere în subsol sau demisol.

Se continuă inspecţia la celelalte niveluri şi la şarpantă. Este important să existe relevee elaborate în prealabil pentru întreaga construcţie, pentru a putea fi localizate zonele cu probleme şi pentru a înţelege legăturile între efecte şi cauze.

În cadrul acestei inspecţii, se prelevează probe din materialele componente ale obiectivului (lemn, tapet, textile etc.) şi din zonele cu atacuri biologice. Prelevarea de probe biologice se efectuează în funcţie de natura atacului. Pentru atacurile produse de microorganisme (bacterii şi mucegaiuri), probele se prelevează în recipiente sterile. Pentru fungi (ciuperci), se colectează corpurile sporifere, miceliu şi fragmente de material degradat. Corpurile sporifere ale ciupercilor sunt rar prezente, motiv pentru care identificarea speciilor poate fi dificilă sau nu este întotdeauna posibilă.[7]

La atacurile produse de insectele xilofage se iau în considerare dimensiunile orificiilor de zbor, intensitatea acestora şi se colectează rumeguş şi

7 Livia BUCŞA, Corneliu BUCŞA, *Degradările biologice ale structurilor din lemn la monumentele istorice şi muzeele în aer liber*, în „Transsylvania Nostra", nr. 2/2009, p. 22-30.

■ **Foto 3.** *Castelul din Posmuş*
■ **Photo 3.** *Manor house in Posmuş*

probe de lemn. Trebuie, de asemenea, să precizăm dacă atacul este activ sau stopat şi dacă sunt urme ale unor tratamente chimice prealabile.

Atunci când sunt observate zone potenţiale de atac sau manifestări incipiente, la nivelul planşeelor, pardoselilor, tâmplăriilor etc., se efectuează sondaje sau se solicită realizarea acestora de către beneficiar. Aceste sondaje sunt necesare atât pentru localizarea şi estimarea extinderii atacurilor cât şi pentru stabilirea cauzelor care au dus la declanşarea lor. Zonele cu atac biologic de unde au fost prelevate probele se notează pe releveu.

Tot la faţa locului se stabileşte vechimea, intensitatea atacurilor şi cauzele care au favorizat apariţia şi dezvoltarea acestora.

Măsurătorile de umiditate a lemnului sau a zidăriilor se efectuează la faţa locului folosind un umidometru portabil. Aceste informaţii pot da indicii precise dacă suportul este expus sau nu degradărilor biologice. În cazul lemnului, degradarea fungică devine posibilă doar dacă umiditatea acestuia este peste 22%, iar o degradare rapidă se produce doar la valori egale sau mai mari de 26%.[8]

Pentru a verifica starea lemnului în profunzime, se poate utiliza un ciocan de zidărie sau o toporişcă, pentru ciocănirea lemnului. Sunetul lemnului degradat este uşor de diferenţiat, iar pentru a cunoaşte gravitatea degradării se poate utiliza o bormaşină, dotată cu un burghiu lung.

understand the relation between the causes and the effects.

During this inspection, samples are taken from the component materials of the building (wood, wallpaper, textile, etc.) and from the biologically attacked areas. Biological sampling shall depend on the nature of the attack. In case of microorganism (bacteria and mould) attacks, samples shall be collected in sterile containers. In case of fungi (mushrooms), fruiting bodies, mycelium and fragments of deteriorated material shall be collected. Fungi fruiting bodies are only seldom present, and consequently the identification of the species may be difficult or impossible.[7]

In case of xylophagous insect attacks, the size and intensity of exist holes shall be considered and sawdust and wood samples shall be collected. Moreover, it shall be specified whether the attack is active or stopped and whether any traces of previous chemical treatments are present.

8 R. W. BERRY, *Remedial treatment of Wood rot and insect attack in buildings*, Watford, Building Research Establishment Garston, 1994.

7 Livia BUCŞA, Corneliu BUCŞA, "Degradările biologice ale structurilor din lemn la monumentele istorice şi muzeele în aer liber," *Transsylvania Nostra* 2 (2009): 22-30.

Where any potential attack areas or incipient manifestations are found in the slabs, floors, joineries, etc., they shall be probed into or the beneficiary shall be asked to have them probed into. This probing is necessary for both locating and estimating the extent of the attacks and establishing their causes. The biologically attacked areas that have been probed shall be marked out on the survey.

Moreover, the age, the intensity of the attacks and the causes that triggered their occurrence and development shall also be established on the spot.

The humidity in the wood or in the masonries shall be measured on the spot with a mobile moisture meter. This information can give accurate indications that the support is or is not exposed to biological decay. In the case of wood, fungi decay becomes possible only if its humidity exceeds 22%, while rapid decay occurs only when humidity is equal or above 26%.[8]

In order to check the status of the wood in depth, a masonry hammer or a hatchet may be used to tap the wood. The sound of decayed wood is easily identifiable, and in order to know the seriousness of the decay, a long drill may be used.

A special drilling machine shall be used for artistic components or highly valuable decorative elements, with needle thick drill and equipped with a device recording the density of the wood in the investigated area on a graph.

The presence of two persons is recommended when performing inspections, because it is difficult to observe, to make notes on the surveys, to take samples and to take pictures at the same time.[9]

8 R. W. BERRY, *Remedial treatment of Wood rot and insect attack in buildings* (Watford: Building Research Establishment Garston, 1994).

9 Personally, I have got the help of my husband in most of the assessments, who is also a biologist, specialised in preservation and conservation, on the one hand, and in ecology and xylophagous insects, on the other hand.

Pentru componente artistice sau elemente decorative foarte valoroase, se utilizează o maşină de găurit specială, cu un burghiu de grosimea unui ac şi dotat cu un dispozitiv care înregistrează, pe un grafic, densitatea lemnului în zona investigată.

Este recomandabil ca la efectuarea inspecţiilor să fie prezente două persoane, deoarece este dificil să se efectueze în acelaşi timp observaţii, să se noteze pe relevee, să se preleveze probe şi să se fotografieze.[9]

4.4. Analiza probelor

Probele prelevate se analizează în laborator, în funcţie de natura acestora.

Identificarea esenţelor lemnoase este necesară pentru cunoaşterea materialelor originare puse în operă, alegerea corectă a materialelor de completare sau înlocuire şi a biocizilor.

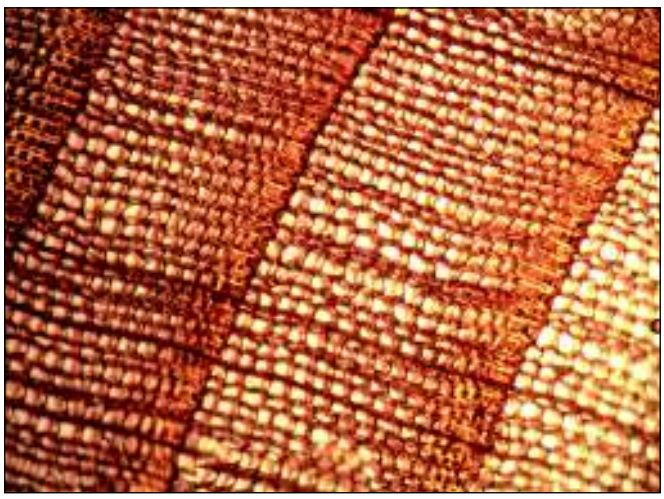
După caracterele macroscopice, putem distinge lemnul de răşinoase de cel de foioase, esenţele tari de cele moi, cele cu pori vizibili şi stuctură grosieră, cum sunt speciile din genul *Quercus*, de cele cu structură fină, uniformă, cum sunt speciile de tei şi plop, etc. Nu putem însă delimita lemnul de molid de cel de brad sau speciile din genul *Quercus* (stejar, gorun, cer, gârniţă), teiul de plop, etc.

Pentru identificarea esenţelor lemnoase după caracterele microscopice, se selectează materialul, se fac observaţii cu binoclul stereo, iar probele prelevante se fierb cca. 1-2 ore. După fierbere, se pot efectua secţiuni transversale, radiale şi tangenţiale. Secţiunile se studiază la microscopul optic şi se realizează fotografii ale acestora. Pe baza caracterelor morfologice observate, a bibliografiei de specialitate şi, după caz, a unor preparate fixe sau proaspete, se pot diferenţia precis esenţele lemnoase. O simplă secţiune transversală, observată la microscop, ne indică diferenţa între lemnul de brad (*Abies alba*), care nu are canale rezinifere în masa lemnului (foto 4), şi alte răşinoase care au canale rezinifere (foto 5), cum sunt molidul, laricele şi speciile de pin.

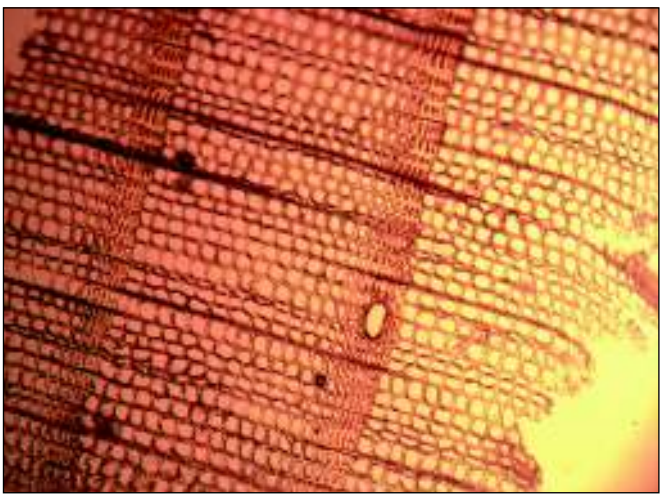
La probele de piatră, cu ajutorul observaţiilor efectuate cu un binoclu stereo, se poate preciza natura pietrei, care apoi ajută la identificarea speciilor colonizante, dar analiza petrografică propriu-zisă trebuie efectuată de un specialist geolog.

Probele de pânză, cum sunt pânzele interstiţiale la bisericile de lemn, pot fi analizate la microscop pentru identificarea fibrelor textile şi a tehnicilor de confecţionare.

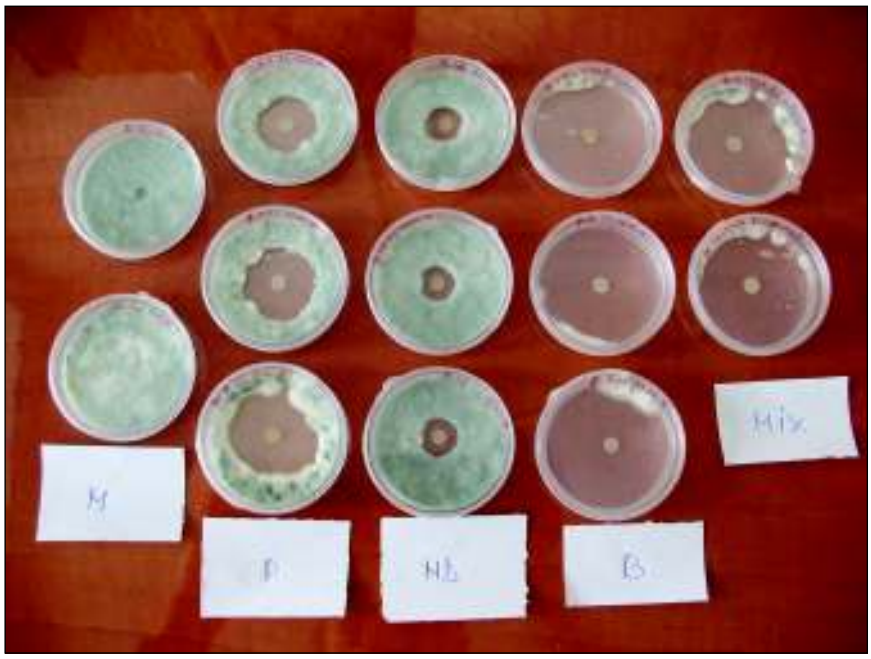
9 La majoritatea expertizelor efectuate, am beneficiat de ajutorul soţului meu, care este tot biolog, specializat atât în conservare şi restaurare cât şi în ecologie şi în studiul insectelor xilofage.



■ ***Foto 4.*** *Secţiune transversală, lemn de brad*
■ ***Photo 4.*** *Transverse section, fir wood*



■ ***Foto 5.*** *Secţiune transversală, lemn de molid*
■ ***Photo 5.*** *Transverse section, spruce wood*



■ **Foto 6.** *Antibiogramă pentru testarea eficacității unor fungicide*
■ **Photo 6.** *Antibiogram for fungicide efficacy testing*

Agenţii de biodegradare sunt identificaţi diferenţiat după grupele taxonomice din care fac parte.

Microorganismele (bacterii şi mucegaiuri) se transpun, din probele prelevate steril, pe medii de cultură. După incubare şi creşterea coloniilor, se izolează speciile, se analizează caracterele coloniilor şi se studiază caracterele morfologice şi sporii cu ajutorul microscopiei optice şi, dacă sunt posibilităţi şi situaţii deosebite, se poate apela la microscopia electronică.

Pentru stabilirea soluţiilor optime de tratare a atacurilor de micromicete, se pot efectua antibiograme pentru testarea sensibilităţii la diferitele tipuri de biocizi (foto 6).

Fungii (ciupercile) macroscopici se identifică după caracteristicile corpurilor sporifere, ale sporilor şi ale miceliului. În cazurile în care atacurile sunt vechi şi găsim doar efectul acestora, sub formă de putregai, speciile nu pot fi identificate. Recentele tehnici moleculare de identificare bazate pe secvenţele de ADN au fost utilizate şi pentru crearea unor chei de identificare la principalele specii de basidiomicete implicate în degradarea lemnului de construcţii, dar utilizarea lor în practica curentă este încă prea costisitoare la noi în ţară.

Foarte important este să se poată diferenţia atacul produs de *Serpula lacrymas* de cel produs de alte specii de fungi. Acest lucru necesită experienţă practică.

Lichenii, deşi prezintă tal permanent, sunt mai dificil de identificat şi, prin urmare, pe lângă caracterele morfologice, se utilizează şi reacţii chimice.

Expertul nu poate fi specializat în toate grupele taxonomice şi, de aceea, în cazul anumitor grupe sistematice, se apelează la specialişti din domeniu.

Plantele superioare, în perioada de vegetaţie, pot fi identificate cu ajutorul caracterelor macroscopice.

Insectele, în special cele xilofage, cuprind un număr redus de specii pe care le întâlnim în construcţii. Este însă dificil să găsim insectele adulte (apar doar în perioadele de zbor care ţin 2-3 săptămâni pe an) sau să prelevăm larvele fără distrugerea unei părţi din material.

Speciile pot fi însă identificate după forma şi mărimea orificiilor de zbor şi după tipul de rumeguş.

Este foarte importantă cunoaşterea comportamentului şi fiziologiei acestor insecte, care pot oferi informaţii preţioase despre gravitatea atacu-

4.4. *Sample analysis*

The collected samples shall be subject to laboratory tests, depending on their nature.

Identifying the type of wood is necessary in order to be aware of the originally used materials, to make correct choices of addition or replacement materials and of biocides.

According to macroscopic characteristics, it is possible to distinguish coniferous from leafy wood, hardwood from softwood, wood with visible pores and coarse structure, such as the species from the *Quercus* genre, from wood with fine, even structure, such as the lime and poplar species, etc. However, it is not possible to distinguish between spruce and fir wood or between the species of the *Quercus* genre (oak, sessile oak, Turkey oak, Hungarian or Italian oak), or between lime and poplar wood, etc.

In order to identify the type of wood according to the microscopic characteristics, the material shall be selected, it shall be observed with the stereo binocular, and the collected samples shall be boiled for 1-2 hours. After boiling, transverse, radial and tangential sections may be made. The sections shall be examined with the optical microscope and shall be photographed. On the basis of the observed morphological features, of the specialised bibliography and, as appropriate, of certain fixed or fresh preparations, the types of wood can be accurately differentiated. A simple transverse section observed at the microscope may indicate the difference between the fir (*Abies alba*) wood, which does not have resin canals in the wood mass (Photo 4), and other coniferous wood species presenting resin canals (Photo 5), such as the spruce, the larch and the pine species.

In the case of stone samples, the nature of the stone may be specified by observations made with a stereo binocular, which further helps to identify the colonizing species, but the proper petrographic examination shall be performed by a geologist expert.

Textile samples, such as interstitial fabric at the wooden churches, may be analysed at the microscope in order to identify the textile fibres and the manufacturing techniques.

Biodegradation agents shall be identified differently depending on the taxonomic group to which they belong.

Microorganisms (bacteria and mould) shall be transposed from the samples collected in sterile conditions on culture media. After incubation and colony growth, the species shall be isolated, the colony features shall be analysed and the morphological characteristics as well as the spores shall be examined by optical microscopy and, if possible and in exceptional situations, by electronic microscopy.

In order to establish optimum solutions for the treatment of micromycete attacks, antibiograms may be performed in order to test the sensibility to different types of biocides (Photo 6).

Macroscopic fungi (mushrooms) shall be identified according to the features of the fruiting bodies, of the spores and of the mycelium. Where attacks are old and we can find only their effect, as rot, the species cannot be identified. Recent identification molecular techniques based on DNA sequences have also been used to create identification keys for the main basidiomycete species involved in timber decay, but their use in current practice is still too expensive in Romania.

It is very important to be able to differentiate between the attack caused by *Serpula lacrymas* and the attacks caused by other fungi species. This needs practical experience.

Lichens, although they present permanent thallus, are more difficult to identify and, consequently, chemical reactions are used beside morphological features.

The expert cannot be specialised in all taxonomic groups and therefore, in the case of certain systematic groups, specialists in the field are asked to help.

Superior plants may be identified by their macroscopic features during the vegetation period.

The number of species of insects, in particular xylophagous ones that can be found in constructions is low. However, it is difficult to find the adult insects (they are present only during the flight periods, which only last for 2-3 weeks per year) or to collect larvae without destroying part of the material.

Nevertheless, the species may be identified on the basis of the shape and size of the exit holes and of the sawdust type.

It is very important to know the behaviour and the physiology of these insects, as they may provide valuable information on the seriousness of the attacks and of the deteriorations they can produce. This information may be used as scientific argument for deciding on the type of intervention (replacement, consolidation, treatment, carving, etc.) on the various elements. A good example in this respect is the attack of the species *Xestobium rufovillosum* on oak wood. Architects and constructors, when they see a roof structure element made of oak timber presenting this kind of attack, are convinced that it needs to be replaced (Photo 7). However, the information that the attack of this species is limited to sapwood alone and the recommendation of local craving or treatment would lead to salvaging lots of original material (Photo 8). Nevertheless, the same species may also attack the duramen of the oak wood, if it has been humid for a long time and deteriorated by fungi species previously. In the case of a sole plate that seems intact, but which is in contact with the soil and presents exit holes in the duramen area, it is certain that the inside has been deteriorated by fungi, as rot. In this case, arguments shall be provided in favour of replacement or consolidation of the element, as appropriate.

rilor şi a degradărilor produse. Acestea pot constitui argumente ştiinţifice în delimitarea elementelor care necesită diferite tipuri de intervenţii (înlocuire, consolidare, tratament, cioplire etc.). Un bun exemplu în acest sens sunt cazurile de atac produse de specia *Xestobium rufovillosum* la lemnul de stejar. Arhitecţii şi constructorii, când observă un element de şarpantă, din lemn de stejar, cu acest tip de atac, sunt convinşi că trebuie înlocuit (foto 7). Dacă se specifică însă că atacul acestei specii se limitează doar la partea de alburn a lemnului şi se propune doar cioplire sau tratament local, se pot salva multe materiale originare (foto 8). Aceeaşi specie poate însă ataca şi duramenul lemnului de stejar, dacă acesta a fost umezit pe termen lung şi degradat în prealabil de specii de fungi. La o grindă talpă care pare intactă, dar este în contact cu solul şi cu orificii de zbor în zona de duramen, este cert că în interior lemnul a fost degradat de fungi, sub formă de putregai. În acest caz, va trebui să fie convinşi că elementul necesită înlocuire sau consolidare, după caz.

4.5. *Propunerile de tratamente* sau, după caz, măsurile de eradicare care se impun sunt diferenţiate pentru fiecare caz în parte.

La recomandarea tratamentelor chimice se ţine cont de normativele UE în vigoare. Chiar dacă aceste normative nu sunt adoptate de legislaţia

■ ***Foto 7.*** *Biserica din Drăuşeni, elemente de şarpantă din lemn de stejar, cu atac de* Xestobium rufovillosum

■ ***Photo 7.*** *Church in Drăuşeni, roof structure elements made of oak attacked by* Xestobium rufovillosum

■ ***Foto 8.*** *Detaliu cu localizarea atacului de* Xestobium rufovillosum *la nivelul alburnului*
■ ***Photo 8.*** *Detail with location of the* Xestobium rufovillosum *attack in the sapwood*

din ţara noastră, ele ajută la evitarea utilizării nejustificate a substanţelor chimice, la recomandarea unor tratamente cu substanţe cu toxicitate redusă şi implicit la protejarea sănătăţii oamenilor şi a mediului ambiant.

Trebuie să sensibilizăm oamenii la faptul că un material lemnos tratat chimic devine un deşeu toxic, care nu poate fi gestionat adecvat în prezent.

Unul dintre cei mai reputaţi specialişti în domeniul biodegradării monumentelor din Marea Britanie, Brian RIDOUT, afirmă că „justificarea corectă şi onestă a tratamentelor şi intervenţiilor va reduce pierderile de materiale originare şi va proteja mediul de utilizarea nejustificată a biocidelor”.[10]

Constructorii şi, uneori, beneficiarii sunt tentaţi să solicite tratamente chimice preventive la întreg materialul lemnos, „pentru siguranţă”. Este important să se specifice, în expertiză, că materialul lemnos originar, care nu a suferit atacuri biologice în decursul timpului, nu necesită tratamente insecto-fungicide. Atunci când expertul este implicat în firme de comercializare pentru astfel de substanţe, are tendinţa de a prescrie tratamente în exces.

În cazul atacurilor produse de *Serpula lacrymans* este necesară stabilirea măsurilor de eradicare în conformitate cu normativele naţionale şi internaţionale în vigoare, adaptate problematicii monumentului în cauză. Ca metodologie generală, ele trebuie să cuprindă următoarele etape şi operaţii:

1) sondaje pentru stabilirea extinderii atacului şi a cauzelor care au dus la declanşarea lui;
2) îndepărtarea corpurilor fructifere în pungi de polietilenă şi arderea lor;
3) extragerea întregului material lemnos care prezintă atac fungic (pardoseală, grinzi, lambriu) şi secţionarea elementelor de lemn parţial atacate, la 0,50 m de zona de atac vizibilă cu ochiul liber;
4) extragerea unei porţiuni din umplutura de sub pardoseală;
5) îndepărtarea tencuielii pe cca. 0,10 m înălţime, în zona de atac;
6) îndepărtarea umpluturii din zona perimetrală a pereţilor cu atac, până la cca. 0,40 m adâncime;
7) curăţirea şi rostuirea zidăriei unde este extins miceliul ciupercii;
8) arderea cu foc deschis a zidăriei curăţate;
9) remedierea cauzelor care au dus la declanşarea atacului;

10 Brian RIDOUT, *Timber Decay in Buildings*, London, Spon Press, 2004.

4.5. The *Proposals of adequate treatments* or control measures, as appropriate, shall be differentiated on a case by case basis.

When recommending chemical treatments, the EU rules in force shall be taken into account. Even if these rules are not transposed in the Romanian legislation, they help to avoid using chemical substances unreasonably, to recommend treatments with low toxicity substances and, implicitly, to protect human health and the environment.

People's awareness should be raised on the fact that chemically treated wood material becomes toxic waste, which cannot be managed properly at present.

One of the most renowned specialists in the area of historic building biodegradation in Great Britain, Brian RIDOUT, states that "honest justification of treatments and intervention will reduce the loss of original material and protect the environment from the unnecessary use of biocides"[10].

Constructors and, sometimes, beneficiaries have the tendency to request preventive chemical treatments on the entire wood material "just for safety". It is important that the assessment specifies that the original timber that has not suffered biological attacks in time does not need insecticide and fungicide treatments. When the expert is involved in companies marketing this kind of substances, he/she has the tendency to prescribe excessive treatments.

In case of attacks caused by *Serpula lacrymans*, it is necessary to set up control measures in accordance with the national and international rules in force, and adapted to the issue with the building concerned. As general methodology, these measures shall contain the following stages and operations:

1) probing in order to establish the extent of the attack and the causes to it;
2) removing the fruiting bodies in polyethylene bags and their burning;
3) drawing out all wood material presenting fungi attack (floor, beams, panelling) and sectioning of the partially attacked wood elements at 0.50 metre from the area on which the attack is visible with the naked eye;
4) drawing out a portion of the backfilling of the floor;
5) unplastering up approximately 0.10 metre in the attack area;
6) removing the filling in the area outlining the attacked walls down to approximately 0.40 metre;
7) cleaning and jointing the masonry in the area of expansion of the fungi mycelium;
8) burning the cleaned masonry with open fire;
9) remedying to the causes that triggered the attack;

10 Brian RIDOUT, *Timber Decay in Buildings* (London: Spon Press, 2004).

10) treating with special fungicide solution (e.g. Diffusit M, based on boracic acid and borax, with a concentration of 15% in water) applied by spraying two times consecutively;
11) re-plastering;
12) refilling with dry gravel or with dry timber having less than 17% humidity and having been preventively treated with fungicide solution (e.g. Diffusit S based on boracic acid and borax, with a concentration of 12-15% in water) applied by brushing two times consecutively;
13) setting out a 0.08-0.10 metre large area outlining the walls that shall be filled with gravel sand, in order to increase the evaporation area for rising damping in the walls (in case the walls are affected by rising damping).

The removed timber with fungi attack shall be burnt, while the timber without attack may be reused, but only in open air.

The filling material containing mycelium and mushroom remains shall be buried or disposed in a controlled landfill.

All through the control works, technical assistance shall be provided by a specialist in the field.

Drawing up a biological assessment

■ The content of the assessment shall be adapted to the type of building analysed, to the different parts of building or to the artistic components.

In the case of a wooden church or of a small size building, each deteriorated element and the measures to take shall be described.[11]

In the case of historic roof structures with a big number of components, where detailed analysis of each element is necessary, tables are used, as well as marking out according to the surveys drawn up by the designer. The table shall contain the type of decay, the size of the affected area, the biodegradation agents, the measures to take and the corresponding picture.

Irrespectively of the pattern used, the assessment shall contain the following pieces of information:

1) biodegradation forms (colouring, decolouring, types of rot, fruiting bodies, exit holes, insect galleries or nibbles, loss of material, detachment of material, embrittlement, cracks, fissures, deformations, etc.;
2) location and extension of the attack by elements, areas, spaces, etc.;
3) intensity of the attack (low, strong, very strong or the number of exit holes of xylophagous insects by area unit);

11 Livia BUCŞA, Ana-Maria HALASZ, "Biserica de lemn din Bulgari, judeţul Sălaj, particularităţi de construcţie şi probleme de biodegradare," *Caietele restaurării* (Bucureşti: Editura ACS, 2013): 178-188.

10) tratarea cu soluţie fungicidă specială (ex. Diffusit M, pe bază de acid boric şi borax, în concentraţie de 15% în apă) aplicată prin pulverizare de două ori consecutiv;
11) refacerea tencuielilor;
12) refacerea umpluturii cu pietriş uscat sau cu material lemnos uscat sub 17% şi tratat preventiv cu soluţie fungicidă (ex. Diffusit S pe bază de acid boric şi borax, în concentraţie de 12-15% în apă) aplicată prin pensulare de două ori consecutiv;
13) crearea unui spaţiu perimetral pereţilor, de 0,08-0,10 m lăţime, care se va umple cu pietriş mărunt, pentru a creşte suprafaţa de evaporare a umidităţii ascensionale de la nivelul pereţilor (în cazul în care pereţii prezintă umiditate ascensională).

Materialul lemnos extras şi cu atac de ciupercă trebuie ars, iar materialul lemnos care nu are atac poate fi refolosit, dar pentru utilităţi situate în aer liber.

Materialul de umplutură care conţine miceliu şi resturi de ciuperci va fi îngropat sau transportat la o groapă de gunoi amenajată.

Pe parcursul lucrărilor de eradicare se va asigura asistenţă tehnică din partea unui specialist în acest domeniu.

Elaborarea expertizei biologice

■ Conţinutul expertizelor se cere a fi adaptat la tipul de monument analizat, la diferitele părţi de construcţie sau la componentele artistice.

Atunci când este vorba de o biserică de lemn sau de o construcţie de mici dimensiuni, se descriu pe rând elementele degradate şi măsurile care se impun.[11]

În cazul şarpantelor istorice cu un număr mare de componente, unde este necesară analiza amănunţită a fiecărui element, se recurge la tabele şi se utilizează notarea conform releveelor întocmite de proiectant. În tabel, se specifică tipul degradării, dimensiunea zonei afectate, agenţii de biodegradare, măsurile care se impun şi fotografia corespunzătoare.

Indiferent de modelul folosit, expertiza trebuie să cuprindă următoarele informaţii:

1) formele de biodegradare (colorări, decolorări, tipuri de putregai, corpuri sporifere, orificii de zbor, galerii sau rosături de insecte, pierderi de material, desprinderi de material, fragilizări, crăpături, fisuri, deformări etc.;
2) localizarea şi extinderea atacului pe elemente, suprafeţe, spaţii etc.;
3) intensitatea atacului (slab, puternic, foarte puternic sau numărul de orificii de zbor ale insectelor xilofage pe unitatea de suprafaţă);
4) vechimea aproximativă a atacului biologic şi dacă mai este activ sau nu;
5) cauzele apariţiei şi extinderii atacului;
6) intervenţiile necesare (secţionare, înlocuire, curăţare, cioplire, tratamente preventive sau curative etc.) pe elemente de construcţie;
7) măsuri generale de eradicare, dacă este cazul;
8) protecţia preventivă;
9) recomandări de produse, reţete, consumuri, costuri, surse de aprovizionare;
10) măsuri de protecţia muncii în cazul tratamentelor chimice;
11) documentaţia fotografică;
12) relevee cu marcarea zonelor degradate.

Odată cu relansarea interesului pentru activităţile de restaurare a monumentelor, în noul context socio-economic al schimbărilor petrecute

11 Livia BUCŞA, Ana-Maria HALASZ, *Biserica de lemn din Bulgari, judeţul Sălaj, particularităţi de construcţie şi probleme de biodegradare*, în "Caietele restaurării", Bucureşti, Editura ACS, 2013, p. 178-188.

după 1994, s-au înfiinţat un număr mare de firme angrenate în aceste activităţi dificile, multe dintre ele formate din oameni cu experienţă redusă în domeniu. Pentru a sprijini formarea şi specializarea acestora, arhitectul Niels AUNER a avut iniţiativa redactării lucrării *Tehnologia consolidării, restaurării şi protecţiei împotriva biodegradării structurilor de lemn din monumentele istorice*, care să constituie un „îndrumător în practica curentă a restaurării monumentelor”[12]. Cooptarea mea în colectivul care a elaborat această lucrare a confirmat profesionalismul demersurilor mele în domeniu şi reuşita în convingerea arhitecţilor cu experienţă în restaurarea monumentelor, sceptici la începutul colaborării noastre, de importanţa cunoştinţelor cu care un biolog poate contribui la aşezarea pe baze ştiinţifice a actului magic al restaurării.

Din păcate şi în prezent sunt proiectanţi care consideră expertiza biologică o simplă formalitate şi încearcă să obţină documente elaborate de nespecialişti. Cum în majoritatea comisiilor de avizare a dosarelor de restaurare nu sunt specialişti pe acest domeniu, sunt acceptate expertize care nu au conţinut ştiinţific adecvat.

La solicitarea unor firme şi a unor persoane fizice care au dorit să se specializeze în acest domeniu, am instruit mai mulţi tineri. Din păcate, o parte dintre ei au plecat din ţară sau au ales să lucreze în alte domenii. Încerc şi în prezent să formez alţi tineri şi sper să îmi pot transmite experienţa la cât mai mulţi doritori.

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12 Niels AUNER, Livia BUCŞA, Corneliu BUCŞA, Octavian CIOCŞAN, *Tehnologia consolidării, restaurării şi protecţiei împotriva biodegradării structurilor de lemn din monumentele istorice*, Sibiu, Editura Alma Mater, 2006.

4) approximate age of the biological attack and its status of active or inactive;
5) causes of occurrence and expansion;
6) necessary interventions (sectioning, replacement, cleaning, carving, preventive or curative treatments, etc.) on the construction elements;
7) general control measures, as appropriate;
8) preventive protection;
9) recommendations of products, recipes, consumption, cost, supply sources;
10) work safety measures in case of chemical treatments;
11) photographic documentation;
12) deteriorated areas marked out on surveys.

In parallel with the re-launch of the interest for historic building conservation in the new social and economic context of the post-1994 changes, a big number of companies dealing with this kind of difficult activities were set up, many of which employ people with low experience in the field. In order to support their education and further training, architect Niels AUNER had the initiative to write the paper *Tehnologia consolidării, restaurării şi protecţiei împotriva biodegradării structurilor de lemn din monumentele istorice*, which was meant to be a guideline in current practice of historic building conservation.[12] My cooptation in the team who drafted this paper has confirmed my professionalism in the approach of this field and my success in convincing the architects with experience in historic building conservation, who were sceptical in the beginning of our cooperation, of the importance of the knowledge a biologist can bring in to set up scientific bases for the magical act of conservation.

Unfortunately, there are still designers who consider the biological assessment to be a simple formality and try to obtain documents drawn up by laymen. Because most of the commissions for the approval of conservation projects do not contain specialists in this field, they accept assessments with inadequate scientific content.

At the request of certain companies and individuals who wanted to specialise in this field, I have trained several young people. Unfortunately, part of them have left the country or have chosen to work in other fields. We are still trying to train other young people and we hope to pass our experience over to as many wishful people as possible.

12 Niels AUNER, Livia BUCŞA, Corneliu BUCŞA, Octavian CIOCŞAN, *Tehnologia consolidării, restaurării şi protecţiei împotriva biodegradării structurilor de lemn din monumentele istorice* (Sibiu: Editura Alma Mater, 2006).

■ Daniela MARCU ISTRATE[1]

Archaeological Contributions to the History of the St. Michael's Roman Catholic Cathedral in Alba Iulia

Contribuţii arheologice la istoria Catedralei Romano-catolice Sfântul Mihail din Alba Iulia

■ ***Abstract:*** *The article presents the main results obtained through the archaeological researches conducted between 2000 and 2011, at the interior and the exterior of the Roman Catholic cathedral in Alba Iulia, during the historic building's conservation. Regarded as a whole, the investigations have brought new information on the cathedral's history, especially on the eastern side, thoroughly studied even since 2000, both on the outside (2000-2007) and on the inside (2000-2004 the interior of the sacristy, 2010-2011 the interior of the choir). For the first time, the ruins of the Romanesque semicircular apse, the ruins of the Gothic choir and of its sacristy on the southern side have been highlighted.*

■ ***Keywords:*** Mediaeval cathedral, sacristy, Romanesque apse, Gothic choir, Alba Iulia

■ One of the most important historic buildings in the mediaeval Kingdom of Hungary and in nowadays Transylvania, the St. Michael's Roman Catholic Cathedral in Alba Iulia has been during the last decades through a rehabilitation and conservation effort. The conservation of the northern chapel, of the western towers, of the Baroque sacristy, and especially the detailed conservation of the sanctuary have been accompanied by the reconfiguration of the stepping level, through which, in a suggestive way, the aspect of the historic building has been restituted.[2]

Built mainly during the 13th century, in a moment of strong affirmation of the Catholic Archdiocese of Transylvania, the cathedral has suffered minor additions in the modern period, preserving until today its original substance in a ratio unparalleled for its time. Due to incomplete writ-

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2 A variant of this article: Daniela MARCU ISTRATE, "Régészeti adalékok a gyulafehérvári Szent Mihály-székesegyház főszentélyének és sekrestyéjének történetéhez", in *A gyulafehérvári székesegyház főszentélye*, ed. PAPP Szilárd (Budapest, 2012), 21-42.

■ ***Rezumat:*** *Articolul prezintă principalele rezultate obţinute în cercetările arheologice efectuate în anii 2000-2011 în interiorul şi exteriorul Catedralei Romano-catolice din Alba Iulia, în timpul restaurării monumentului. Privite în ansamblu, investigaţiile au adus informaţii noi despre istoria catedralei, în mod special despre partea estică studiată amănunţit încă din anul 2000, atât în exterior (2000-2007) cât şi în interior (2000-2004 interiorul sacristiei, 2010-2011 interiorul sanctuarului). Pentru prima dată au fost evidenţiate ruinele absidei semicirculare romanice, ruinele corului gotic şi ale sacristiei acestuia de pe latura de sud.*

■ ***Cuvinte cheie:*** Catedrală medievală, sacristie, absidă romanică, cor gotic, Alba Iulia

■ Unul dintre cele mai importante monumente din regatul medieval al Ungariei şi din Transilvania actuală, Catedrala Romano-catolică Sfântul Mihail din Alba Iulia s-a aflat în ultimele decenii într-un şantier de reabilitare şi restaurare. Restaurarea capelei nordice, a turnurilor de vest, a sacristiei baroce şi mai ales amănunţita restaurare a sanctuarului au fost însoţite de reconfigurarea nivelului de călcare, prin care, în mod sugestiv, a fost restituit aspectul monumentului.[2]

Construită în principal pe parcursul secolului al XIII-lea, într-un moment de puternică afirmare a Episcopiei catolice a Transilvaniei, catedrala a suportat adaosuri minore în epoca modernă, păstrând până astăzi substanţa originară într-o proporţie fără egal pentru epoca sa. În condiţiile unei informaţii scrise lacunare şi unor cercetări directe niciodată exhaustive, istoria catedralei este încă în dezbatere, cu toate progresele notabile înregistrate în ultimele decenii.[3] Pe lângă studierea părţilor vizibile de către arhitecţi şi istorici, arheologia a adăugat mereu ceva important – dacă a avut posibilitatea să se apropie de clădire.

În toate cele trei mari şantiere de restaurare prin care a trecut catedrala s-au făcut cercetări arheologice, mai mult sau mai puţin extinse. Primul

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2 O variantă a acestui articol: Daniela MARCU ISTRATE, *Régészeti adalékok a gyulafehérvári Szent Mihály-székesegyház főszentélyének és sekrestyéjének történetéhez*, în PAPP Szilárd (red.), "A gyulafehérvári székesegyház főszentélye", Budapest, 2012, p. 21-42.

3 Autorii principali ai subiectului: ENTZ Géza, *A gyulafehérvári székesegyház*, Budapest, 1958.; Idem, *La cathédrale de Gyulafehérvár (Alba Iulia)*, în „Acta Historiae Artium", V. 1-2/1958, p. 1-40.; Virgil VĂTĂŞIANU, *Istoria artei feudale în Ţările Romîne*, Bucureşti, 1959. Sinteza stadiului actual al cunoştinţelor despre catedrală: Daniela MARCU ISTRATE, *A gyulafehérvári római katolikus székesegyház és püspöki palota régészeti kutatása (2000–2002)*, Budapest, Teleki László Alapítvány, 2008.; SARKADI Márton, *„s folytatva magát a régi művet" Tanulmányok a gyulafehérvári székesegyház és püspöki palota történetéről*, Budapest, Teleki László Alapítvány, 2010.

■ **Foto 1.** *Vedere de ansamblu în timpul cercetărilor arheologice din corul gotic*
■ **Photo 1.** *Overview during the archaeological researches in the Gothic choir*

dintre acestea a fost activ între 1898-1917, presupunând săpături ample în interiorul navelor şi transeptului bisericii, de asemenea intervenţii majore în exterior. Au fost dezvelite parţial ruinele catedralei romanice şi ale rotondei[4], iar în exterior s-a realizat un canal de aerisire în jurul fundaţiilor şi s-a coborât nivelul de călcare foarte aproape de cota secolului al XIII-lea. Coordonatorul acestui şantier a fost arhitectul István MÖLLER, iar cercetarea arheologică a fost condusă de Béla PÓSTA.

Ample cercetări au avut loc între 1968-1977, în cadrul celui de-al doilea şantier de restaurare, sub conducerea arheologului Radu HEITEL: interiorul catedralei, de la limita arcului de triumf spre vest, a fost decopertat integral şi investigat prin mai multe secţiuni. Rezultatele au fost invocate frecvent în diverse articole, dar nu au fost publicate într-un raport detaliat.[5]

Cercetările arheologice au fost reluate în 1997, sub coordonarea autoarei acestor rânduri, desfăşurându-se cu unele întreruperi până în anul 2011 – în paralel cu ample lucrările de amenajare a terenului exterior şi de restaurare a turnurilor vestice, corului, sacristiei şi capelei Lázó.[6] În acest context s-a realizat o cercetare aplicată, adaptată lucrărilor de restaurare şi limitată în general la descărcarea de sarcină istorică a anumitor suprafeţe. (foto 1) Supravegherea arheologică a săpăturilor utilitare a alternat cu efectuarea unor sondaje de cercetare, în timp acumulându-se un material

4 ENTZ Géza, *A gyulafehérvári székesegyház*, Budapest, 1958, p. 72.; Radu HEITEL, *Principalele rezultate ale cercetărilor arheologice din zona sud-vestică a cetăţii de la Alba Iulia (1968-1977)* în „I. Studii şi cercetări de istorie veche (şi arheologie)", III. 36/1985, p. 218.:,nota 10.

5 Radu HEITEL, *Archäologische Beiträge zu den romanischen Baudenkmälern aus Südsiebenbürgen*, în „Revue Roumaine d'Histoire de l'Art", IX. 2/1972, p. 139-160.; Idem, *Principalele rezultate ale cercetărilor arheologice din zona sud-vestică a cetăţii de la Alba Iulia (1968-1977)* în „I. Studii şi cercetări de istorie veche (şi arheologie)", III. 36/1985, p. 215-231.; Idem, *Principalele rezultate ale cercetărilor arheologice din zona sud–vestică a cetăţii de la Alba Iulia (1968-1977). II. Piesele de metal* în „Studii şi cercetări de istorie veche (şi arheologie)", III. 37/1986, p. 233-248.

6 Cercetările realizate din 1997 până în 2002 au fost publicate într-un detaliat raport tehnic, apărut în anul 2008 în limba maghiară şi în anul 2009 în limba română. (Daniela MARCU ISTRATE, *A gyulafehérvári római katolikus székesegyház és püspöki palota régészeti kutatása (2000–2002)*, Budapest, Teleki László Alapítvány, 2008.; Idem, *Catedrala romano-catolică Sfântul Mihail şi palatul episcopal din Alba Iulia. Cercetări arheologice 2000-2002*, Alba Iulia, 2009.). Un scurt rezumat al acestor cercetări anterior anului 2009: Daniela MARCU ISTRATE, *Catedrala romano-catolică şi palatul episcopal din Alba Iulia. Arheologie şi istorie, catalog de expoziţie*, Alba Iulia, 2009.; Idem, *Erdély ezeréves püspöksége. A gyulafehérvári Szent Mihály Székesegyház és Érseki Palota régészeti kutatása 2000–2008*, Budapest, Teleki László Alapítvány, 2010.

ten information and to never exhaustive direct research, the cathedral's history is still under debate, with all the remarkable progress of the last decades.[3] Beside the study of the visible areas by architects and historians, archaeology has always added something important – if it had the possibility to come close to the building.

In all three great conservation periods the cathedral has been through, more or less extensive archaeological research has been conducted. The first of them was between 1898 and 1917, with ample excavations inside the church's nave and transept, also with major interventions at the exterior. The ruins of the Romanesque cathedral and of the rotunda were partially uncovered[4]. On the outside, a ventilation channel was implemented around the foundations and the stepping level was lowered very close to the 13th century state. The coordinator of this conservation site was architect István MÖLLER, the archaeological research being led by Béla PÓSTA.

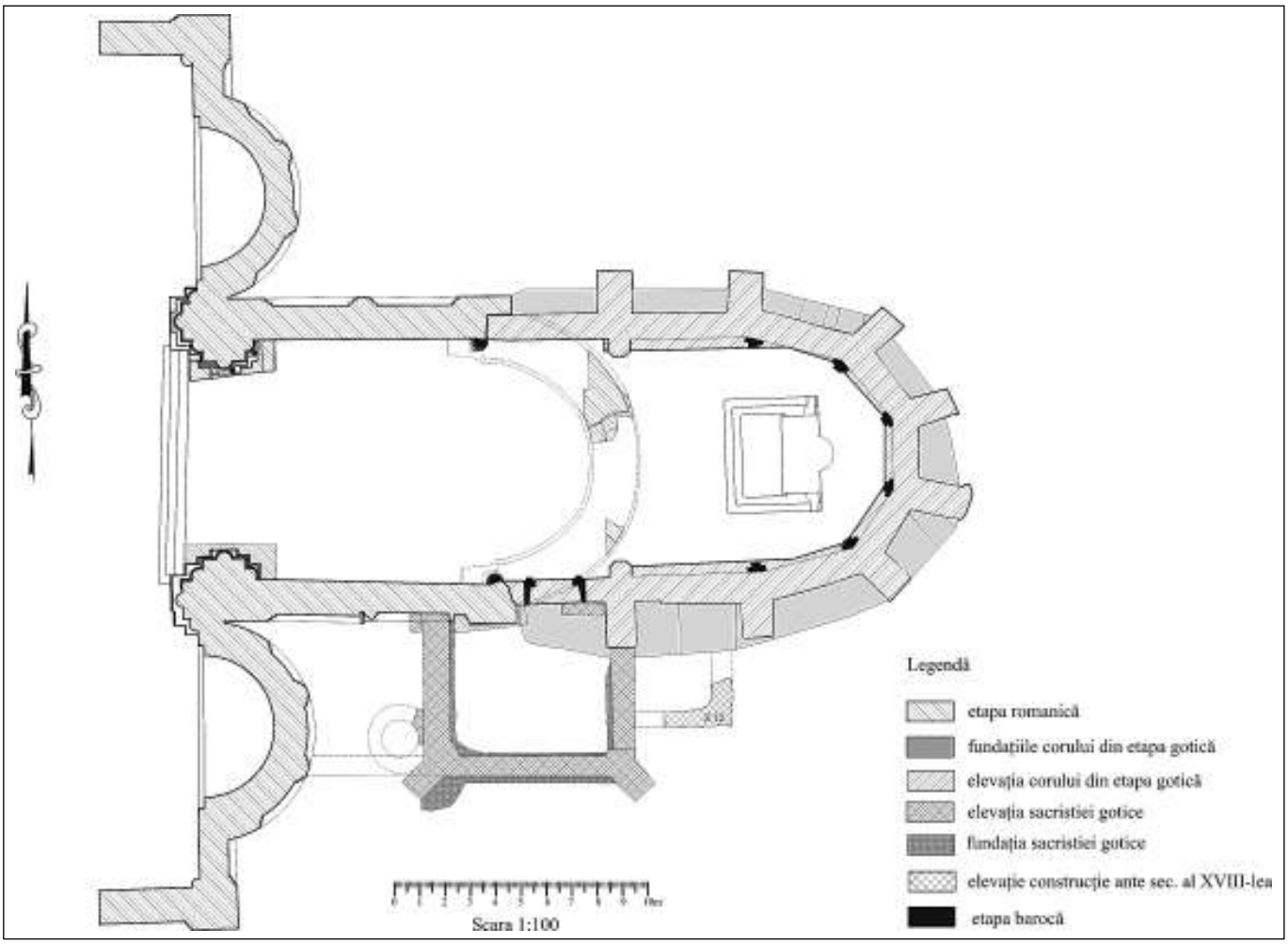
Extensive research took place between 1968 and 1977, during the 2nd conservation site, under the supervision of archaeologist Radu HEITEL: the interior of the cathedral, from the limit of the triumphal arch to the west, was fully uncovered and investigated in several sections. The results were often invoked in various articles, but they were never published in a detailed report. [5]

The archaeological investigations were resumed in 1997, under the supervision of the author of these lines, being carried out with several interruptions until 2011 – parallel with the ample interventions for the arrangement of the outside area and for the conservation of the western towers, of the choir, sacristy and

3 Main authors on the subject: ENTZ Géza, *A gyulafehérvári székesegyház* (Budapest, 1958); ENTZ Géza, "La cathédrale de Gyulafehérvár (Alba Iulia)," *Acta Historiae Artium* 1-2 (1958): 1-40.; Virgil VĂTĂŞIANU, *Istoria artei feudale în Ţările Romîne* (Bucureşti, 1959). The synthesis of the present stage of knowledge on the cathedral: Daniela MARCU ISTRATE, *A gyulafehérvári római katolikus székesegyház és püspöki palota régészeti kutatása (2000–2002)* (Budapest: Teleki László Alapítvány, 2008);. SARKADI Márton, *„s folytatva magát a régi művet" Tanulmányok a gyulafehérvári székesegyház és püspöki palota történetéről* (Budapest: Teleki László Alapítvány, 2010).

4 ENTZ Géza, *A gyulafehérvári székesegyház* (Budapest, 1958), 72.; Radu HEITEL, "Principalele rezultate ale cercetărilor arheologice din zona sud-vestică a cetăţii de la Alba Iulia (1968-1977)," *I. Studii şi cercetări de istorie veche (şi arheologie)* 36 (1985): 218.; note 10.

5 Radu HEITEL, "Archäologische Beiträge zu den romanischen Baudenkmälern aus Südsiebenbürgen," *Revue Roumaine d'Histoire de l'Art* 2 (1972): 139-160.; Radu HEITEL, "Principalele rezultate ale cercetărilor arheologice din zona sud-vestică a cetăţii de la Alba Iulia (1968-1977)," *I. Studii şi cercetări de istorie veche (şi arheologie)* 36 (1985): 215-231.; Radu HEITEL, "Principalele rezultate ale cercetărilor arheologice din zona sud–vestică a cetăţii de la Alba Iulia (1968-1977). II. Piesele de metal," *Studii şi cercetări de istorie veche (şi arheologie)* 37 (1986): 233-248.



■ ***Fig. 1.*** *Plan general cu evoluția părții de est a catedralei*
■ ***Figure 1.*** *General plan with the evolution of the cathedral's eastern side*

of the Lázó chapel[6]. In this context, an applied investigation was conducted, adjusted to the conservation interventions and generally limited to the archaeological discharge of certain areas. The archaeological supervision (Photo 1) of the utility excavations alternated with conducting certain research surveys, over time accumulating an enormous material referring both to the cathedral and Episcopal Palace, and to the general history of the Alba

6 The research conducted between 1997 and 2002 were published in a detailed technical report, published in 2008 in Hungarian and in 2009 in Romanian. (Daniela MARCU ISTRATE, *A gyulafehérvári római katolikus székesegyház és püspöki palota régészeti kutatása (2000–2002)* (Budapest: Teleki László Alapítvány, 2008).; Daniela MARCU ISTRATE, *Catedrala romano-catolică Sfântul Mihail şi palatul episcopal din Alba Iulia. Cercetări arheologice 2000-2002* (Alba Iulia, 2009). A short summary of these researches prior to 2009: Daniela MARCU ISTRATE, *Catedrala romano-catolică şi palatul episcopal din Alba Iulia. Arheologie şi istorie, catalog de expoziţie* (Alba Iulia, 2009).; Daniela MARCU ISTRATE, *Erdély ezeréves püspöksége. A gyulafehérvári Szent Mihály Székesegyház és Érseki Palota régészeti kutatása 2000–2008* (Budapest: Teleki László Alapítvány, 2010).

enorm referitor atât la catedrală şi la palatul episcopal, cât şi la istoria generală a Cetăţii Alba Iulia, material aflat în momentul de faţă în diferite stadii de prelucrare.

Arheologii au studiat fundaţiile catedralei, analizând maniera de construcţie (materiale, combinaţii, liant, modul de punere în operă) şi contextul stratigrafic în care se află acestea (nivelul de construcţie, straturile care s-au depus în conexiune cu anumite etape de construcţie). De un mare folos în sistematizarea informaţiilor au fost cele aproximativ 600 de morminte descoperite în săpături, majoritatea datând din intervalul secolelor XI-XIII. Pentru datarea structurilor zidite au fost esenţiale numeroasele obiecte de inventar descoperite în săpături: fragmente ceramice, piese de port şi de podoabă, obiecte de uz casnic, dar mai ales cele peste 300 de monede din secolele XI-XVIII.

Privite în ansamblu, cercetările arheologice au adus informaţii noi despre istoria catedralei, în mod special despre partea estică studiată amănunţit încă din anul 2000, atât în exterior (2000-2007) cât şi în interior (2000-2004 interiorul sacristiei, 2010-2011 interiorul sanctuarului).[7] (fig. 1) Aceste investigaţii au permis reconstituirea principalelor etape de construcţie şi identificarea unor repere cronologice.

Astfel, pentru prima dată au fost vizibile vestigiile absidei semicirculare din etapa romanică. Ruinele acesteia se păstrează în interiorul sanc-

7 Prezentarea detaliată a rezultatelor privind partea estică a catedralei: Idem, *Régészeti adalékok a gyulafehérvári Szent Mihály-székesegyház főszentélyének és sekrestyéjének történetéhez*, în PAPP Szilárd (red.), „A gyulafehérvári székesegyház főszentélye", Budapest, 2012, p. 21-42.

■ **Foto 2.** *Ruina absidei semicirculare a catedralei (în jur de 1200)*
■ **Photo 2.** *The ruin of the cathedral's semicircular apse (around 1200)*

tuarului actual, cu o fundaţie din bolovani de piatră şi fragmente de cărămidă şi o elevaţie din blocuri de piatră. Construită foarte îngrijit, absida a avut forma unui segment de cerc uşor aplatizat, cu deschiderea de 8 m şi lăţimea la nivelul de demolare de 1,74 m (foto 2).

În legătură cu datarea primei etape a catedralei Sf. Mihail, cercetările arheologice din anii 2000-2002 au indicat că şantierul s-a putut deschide spre finele secolului al XII-lea, activând practic în întreg secolul al XIII-lea.[8] Absida semicirculară aparţine primei părţi a acestui interval, fiind încheiată înainte de mijlocul secolului al XIII-lea. Demolarea absidei a fost explicată cel mai frecvent ca o consecinţă a distrugerilor provocate de invazia tătară din 1241. În stadiul actual al cercetărilor, este însă greu să ne imaginăm că o clădire cu pereţii groşi de 1,35 m (corul), respectiv 1,74 m (absida) a suferit avarii atât de mari încât a fost necesară demolarea ei. Pare mult mai plauzibil ca această operaţiune să fi fost determinată de necesitatea extinderii spaţiului util al sanctuarului (fig. 2).

Corul gotic[9] a fost construit în jurul absidei semicirculare, prelungind spaţiul sacral spre est cu o travee dreptunghiulară şi o absidă încheiată în cinci laturi dintr-un octogon. Construcţia a fost pornită cu o fundaţie foarte lată, care să sprijine în egală măsură şi contraforturile, şi o elevaţie din blocuri de piatră fasonate, groasă de 1,40 m. Deschiderea maximă a sanctuarului era de 8,50 m la limita absidei pentagonale, a cărei naştere era deplasată spre est cu aproximativ 2 m faţă de forma actuală. Pe baza mormintelor descoperite în săpături putem considera această parte a bisericii finalizată în primele decenii de după mijlocul secolului al XIII-lea. (foto 3, 4)

Deşi infrastructura corului a fost foarte solidă, în timpul construcţiei au apărut tot felul de ezitări pe care astăzi nu le putem explica. Cercetarea arheologică a constatat lăţimea inegală a fundaţiilor, descentrarea elevaţi-

8 Daniela MARCU ISTRATE, *Catedrala romano-catolică Sfântul Mihail şi palatul episcopal din Alba Iulia. Cercetări arheologice 2000-2002*, Alba Iulia, 2009, p. 123.

9 ENTZ Géza, principalul autor al subiectului, argumentează deschiderea şantierului la sfârşitul secolului al XII-lea şi dezvoltarea acestuia în prima jumătate a secolului al XIII-lea. ENTZ Géza, *La cathédrale de Gyulafehérvár (Alba Iulia)*, în „Acta Historiae Artium", V. 1-2/1958, p. 20, 34-35. Virgil VĂTĂŞIANU plasează deschiderea şantierului după invazia tătară, în cea de-a doua jumătate a secolului al XIII-lea. Virgil VĂTĂŞIANU, *Istoria artei feudale în Ţările Romîne*, Bucureşti, 1959, p. 44-48, 52. Scurtă sinteză a problemei: Daniela MARCU ISTRATE, *Catedrala romano-catolică Sfântul Mihail şi palatul episcopal din Alba Iulia. Cercetări arheologice 2000-2002*, Alba Iulia, 2009, p. 87-90.

Iulia Fortress, material being currently in different stages of processing.

The archaeologists have studied the foundations of the cathedral, analysing the manner in which they were built (materials, combinations, binder, and implementation techniques) and the stratigraphic context in which they are placed (construction level, the layers that were deposited in connection with certain construction phases). Of great use in the systematisation of information were the approximately 600 graves found in the excavations, most of them dating from the interval between 11th and 13th centuries. Very useful for the dating of the built structures were the many inventory objects found in the excavations: ceramic fragments, pieces of costume and jewellery, household items, but especially the over 300 coins from the 11th-13th century.

As a whole, the archaeological research brought new information on the cathedral's history, especially regarding its eastern side, thoroughly studied even since 2000, both on the exterior (2000-2007) and on the interior (2000-2004 the interior of the sacristy, 2010-2011 the interior of the sanctuary).[7] These investigations (Figure 1) have allowed the reconstruction of the main building stages and the identification of several chronological landmarks.

Thus, for the first time the remains of the semicircular apse from the Romanesque period were visible. Its ruins are preserved inside the current sanctuary, with a foundation of stone boulders and bricks and a protrusion of blocks of stone. Very carefully built, the apse had the shape of a slightly flattened segment of a circle, with a span of 8 metres and the width at the demolition level of 1.74 metres (Photo 2).

Regarding the dating of the first period of the St. Michael's Cathedral, the archaeological research between 2000 and 2002 has indicated that the construction site might have opened toward the end of the 12th century, activating practically during the entire 13th century.[8] The semicircular apse belongs to the first part of this interval, being finished before the middle of the 13th century. The apse's demolition has been most frequently explained as a consequence of the destructions caused by the Tartar invasion of 1241. In the current state of research however, it is difficult to imagine that a building with walls 1.35 metres thick (the choir), respectively 1.74 metres thick (the apse) has suffered damage so great that it was necessary to demolish it. More plausible seems that this

7 The detailed presentation of the results on the eastern side of the cathedral: Daniela MARCU ISTRATE, "Régészeti adalékok a gyulafehérvári Szent Mihály-székesegyház főszentélyének és sekrestyéjének történetéhez", in *A gyulafehérvári székesegyház főszentélye*, ed. PAPP Szilárd (Budapest, 2012), 21-42.

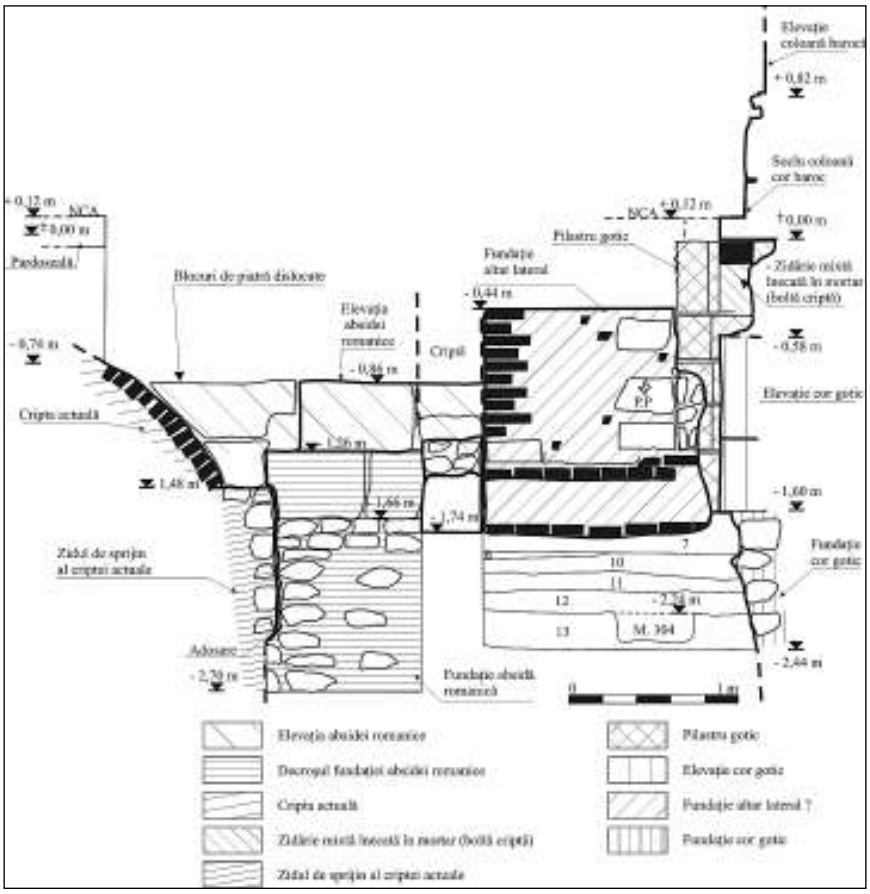
8 Daniela MARCU ISTRATE, *Catedrala romano-catolică Sfântul Mihail şi palatul episcopal din Alba Iulia. Cercetări arheologice 2000-2002* (Alba Iulia, 2009), 123.

operation was determined by the need to extend the used space of the sanctuary (Figure 2).

The Gothic choir[9] was built around the semicircular apse, extending the sacral space eastwards with a rectangular bay and an apse closed in five sides of an octagon. The building was started with a very wide foundation, which would equally support the buttresses and a protrusion of ashlar stones, with a thickness of 1.40 metres. The maximal span of the sanctuary was of 8.50 metres at the limit of the pentagonal apse, whose springing was shifted eastward by approximately 2 metres from the actual shape. Based on the tombs discovered in the excavations, we may suppose this part of the church to have been finished in the first decades from the second half of the 13th century (Photos 3, 4).

Although the choir's infrastructure was very solid, during construction all sorts of hesitations, which we cannot explain today, have appeared. The archaeological investigations have noted the uneven height of the foundations, the misalignment of the elevations (only partly resting on the foundation), the lack of correlation between the intersection of the apse's sides and the placement of the buttresses, as well as the incorrect assessment of the interior stepping level, which caused in the end a part of the elevation to remain buried. The discrepancies started at the base were surely found up to the roof top in a way or another, generating

9 ENTZ Géza, the lead author on the subject, argues the opening of the site at the end of the 12th century and its development in the first half of the 13th century. ENTZ Géza, "La cathédrale de Gyulafehérvár (Alba Iulia)," *Acta Historiae Artium* 1-2 (1958): 20, 34-35.; Virgil VĂTĂŞIANU places the opening of the site after the tartar invasion, in the second half of the 13th century. Virgil VĂTĂŞIANU, *Istoria artei feudale în Ţările Romîne* (Bucureşti, 1959), 44-48, 52. Short synthesis of the issue: Daniela MARCU ISTRATE, *Catedrala romano-catolică Sfântul Mihail şi palatul episcopal din Alba Iulia. Cercetări arheologice 2000-2002* (Alba Iulia, 2009), 87-90.



■ ***Fig. 2.*** *Secţiune nord-sud în interiorul corului actual, cu ruina absidei romanice*
■ ***Figure 2.*** *North-south section in the present choir, with the ruin of the Romanesque apse*

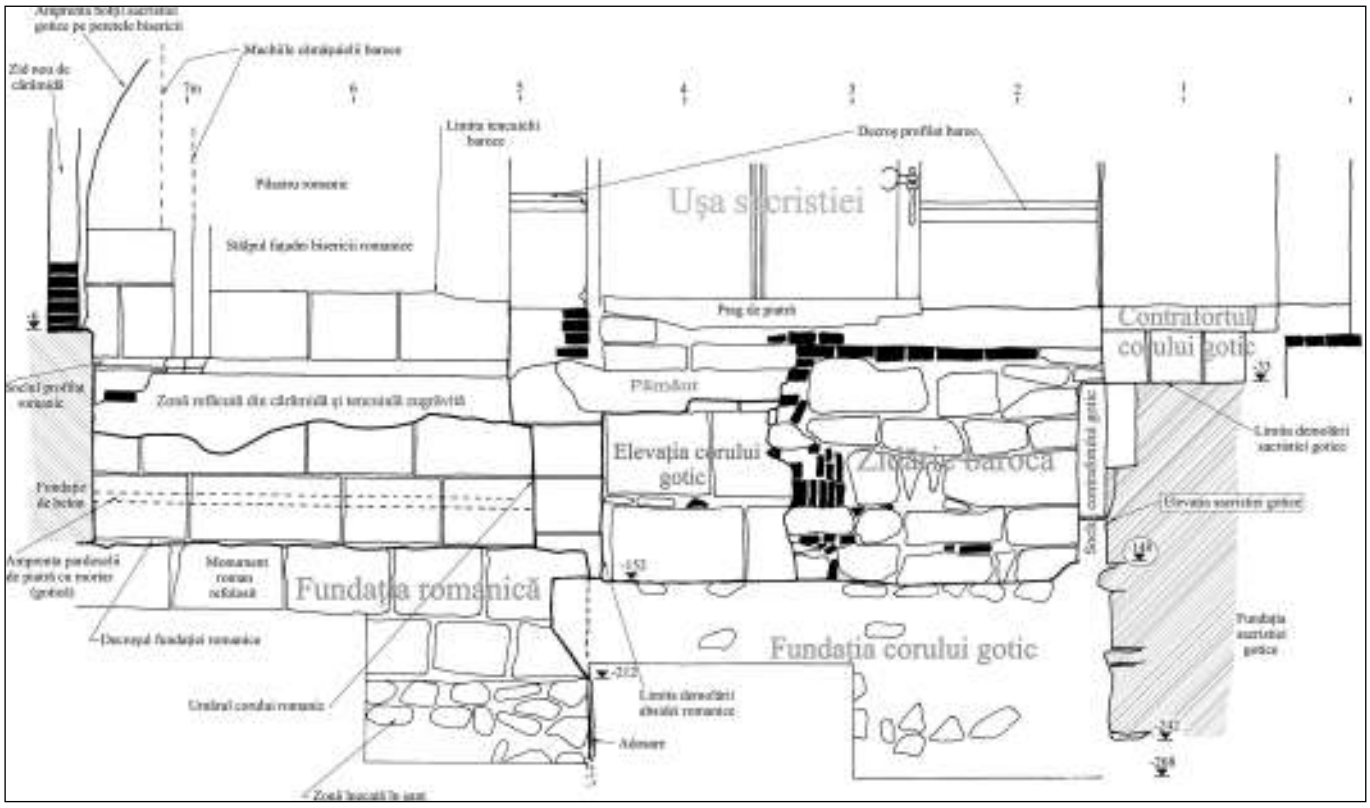
ei (sprijinită doar parţial pe fundaţii), lipsa de corelare între intersecţia laturilor absidei şi dispunerea contraforturilor, precum şi aprecierea eronată a nivelului de călcare interior, ceea ce a făcut ca în final o parte a elevaţiei să rămână îngropată. Dezacordurile pornite de la bază se regăseau cu siguranţă până la vârful acoperişului într-o formă sau alta, ceea ce a generat problemele de structură pe care această parte a clădirii le-a avut deseori.

Cercetările arheologice din partea de est a catedralei au condus la descoperirea unui compartiment ce rămăsese necunoscut specialiştilor: o sacristie datând din secolul al XIII-lea, adăugată la puţină vreme după construirea corului gotic, pe latura sudică a acestuia. Sacristia gotică[10] a

10 *Ibidem*, p. 100-104.

■ ***Foto 3.*** *Elevaţia corului gotic (ante 1277)*
■ ***Photo 3.*** *Gothic choir protrusion (ante 1277)*

■ ***Foto 4.*** *Fragment din pardoseala originară a corului gotic*
■ ***Photo 4.*** *Fragment of the original floor of the Gothic choir*



■ ***Fig. 3.*** *Paramentul peretelui sudic al catedralei, vedere din interiorul sacristiei*
■ ***Figure 3.*** *The facing of the cathedral's southern wall, seen from the interior of the sacristy*

fost o clădire rectangulară cu dimensiunile interioare 6,50 m x 6,20 m, latura sa de est prelungind primul contrafort al sanctuarului gotic spre sud. Elevaţia acestei clădiri, cu o lăţime de 0,90 m, a fost construită în sistem emplecton, cu paramente exterioare din blocuri de piatră ecarisate (multe refolosite) şi miezul din pietre de diferite dimensiuni şi fragmente de cărămizi romane, legate cu mult mortar. Colţurile dinspre sud au fost sprijinite prin două contraforturi aşezate oblic. Cercetările de parament au arătat că sacristia a avut două nivele, ambele acoperite cu bolţi ogivale ale căror amprente au fost vizibile pe elevaţia peretelui sudic al catedralei. Accesul la parter se realiza din biserică, iar accesul la etaj îl presupunem din exterior, printr-un corp de scară ale cărui ruine au fost identificate la extremitatea sudică a peretelui vestic (fig. 3).

Despre istoria ulterioară a corului gotic nu cunoaştem aproape nimic. Mai multe fundaţii din cărămidă sugerează existenţa unor altare laterale, dar dominanta acestui interior o constituie numeroasele cripte de familie orientate în toate direcţiile şi intersectate dezordonat – cele mai vechi datând probabil din secolul al XVI-lea. În timp, s-a ajuns la o aglomerare fără margini şi la cereri care nu mai puteau fi satisfăcute, ceea ce a dus la decizia dezafectării întregii suprafeţe şi construirii unei ample încăperi funerare subterane. În intervenţiile enorme făcute cu acest prilej, este absolut remarcabil faptul că acele cripte vechi care mai erau întregi au fost golite cu maximă atenţie, astfel că nimic din conţinutul lor nu a ajuns până la noi.

Cercetările complexe realizate în anii 2010-2011 au confirmat faptul că la mijlocul secolului al XVIII-lea sanctuarul gotic a fost demantelat aproximativ la nivelul de călcare din interior, ceea ce însemna cu aproximativ 0,50 m deasupra nivelului exterior. Pe ruina astfel formată a fost reaşezată elevaţia, cu câteva modificări de traseu pe care le-am amintit mai sus. Umărul sanctuarului gotic a fost anulat, limita fiind marcată de pilaştrii baroci cu profil semicircular aşezaţi pe umplutura rezultată din demolare. În timpul acestei operaţiuni este posibil ca pardoseala gotică din lespezi de piatră să nu fi fost demontată, deoarece coloanele baroce sunt aşeza-

the structural problems this side of the building often had.

The archaeological research conducted on the eastern side of the cathedral have led to the discovery of a compartment that had been unknown by the specialists: a sacristy dating from the 13th century, added shortly after the Gothic choir was built, on its southern side. The Gothic sacristy[10] was a rectangular building with the interior dimensions of 6.50 metres x 6.20 metres, the eastern side prolonging the first buttress of the Gothic sanctuary to the south. The elevation of this building, having a width of 0.90 metre, had emplecton walls, with the exterior of ashlars (many of them reused) and the interior of stones of different sizes and fragments of Roman bricks, bound with a lot of mortar. The southern corners were supported by two oblique buttresses. The building archaeology studies have shown that the sacristy had two levels, both covered by cross vaults whose prints were visible on the elevation of the cathedral's southern wall. The access to the ground floor was made from the church and to the second floor we suppose it was made from outside, through a stair, the ruins of which were discovered at the southern end of the western wall (Figure 3).

We know almost nothing about the subsequent history of the Gothic choir.

10 Daniela MARCU ISTRATE, *Catedrala romano-catolică Sfântul Mihail*, 100-104.

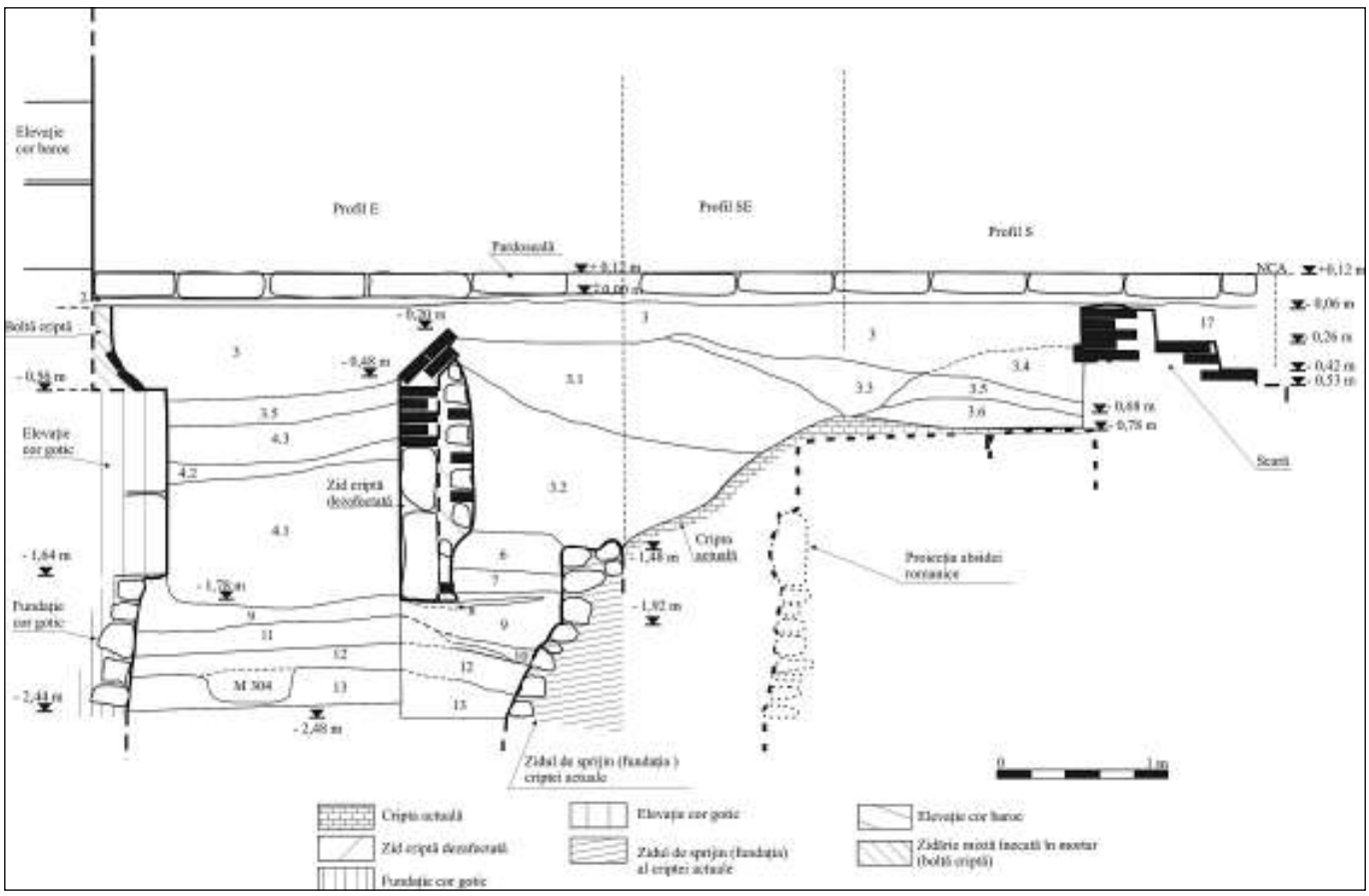
Several brick foundations suggest the existence of lateral altars, but the dominant of this exterior is constituted of the many family crypts oriented in all directions and disorderly intersected – the oldest dating probably from the 16th century. Over time, they became overly crowded and the requests could not be satisfied anymore, which led to the decision to decommission the whole area and to build a large underground funerary room. During the enormous interventions implemented at this time, it is remarkable that those old crypts that were still whole were emptied with maximum care, so that nothing of their content has reached us.

The complex research carried out in 2010-2011 have confirmed that at the middle of the 18th century the Gothic sanctuary was dismantled to approximately the inside stepping level, which was with approximately 0.50 metre above the exterior level. On the ruin thus formed, the walls were replaced, with several alterations that were mentioned above. The shoulder of the Gothic sanctuary was annulled; the limit being marked by Baroque pilasters with a semicircular profile placed on the filling resulted from the demolition. It is possible that during this operation the Gothic stone floor was not dismantled, because the Baroque colte direct pe ea. Singura intervenţie pe care am observat-o la nivelul de călcare a fost transferarea scărilor de la limita umărului sanctuarului gotic spre vest, aproximativ la limita fostului cor romanic. În concluzie, la mijlocul secolului al XVIII-lea sanctuarul, aflat într-o stare de conservare foarte proastă, a fost de fapt demontat şi reconstituit, cu folosirea aceloraşi materiale: un şantier atât de prudent încât clădirea a păstrat aerul gotic originar, şi doar foarte minuţioase studii asupra paramentului au lăsat să se vadă o intervenţie atât de radicală.[11] (fig. 4)

La un moment dat, după reconstruirea sanctuarului, sacristia gotică a fost şi ea înlocuită cu o construcţie nouă, corespunzând sacristiei baroce actuale.[12] În ce stadiu se afla sacristia gotică atunci când a început construcţia barocă actuală? Era aceasta în picioare, parţial ruinată sau demolată aproape complet? Putem spune doar că perimetrul era cunoscut, astfel că latura de sud a sacristiei baroce s-a aşezat pe latura corespunzătoare a sacristiei gotice, iar peretele de est a fost aşezat în exteriorul peretelui estic al sacristiei gotice, probabil lipit de acesta. Pe partea de nord a fost folosit peretele bisericii, ca şi în etapa anterioară, elevaţia fiind tencuită şi zugrăvită, iar acolo unde planul nu era regulat, în dreptul pilastrului şi al uşii, au fost realizate cămăşuieli mai mult sau mai puţin consistente, inclusiv profilaturi din tencuială. Spre vest sacristia barocă a fost mai lată cu 1 m faţă de forma actuală: ruina peretelui s-a observat la realizarea sistemului de canalizare din anul 2007, la o distanţă de cca. 1 m faţă de absidiola sudică.

11 Dezbaterea detaliată a acestui moment istoric în: PAPP Szilárd (red.), *A gyulafehérvári székesegyház főszentélye*, Budapest, 2012, p. 21-42.

12 Analiza paramentului laturii estice a sacristiei a arătat clar faptul că aceasta nu poate fi anterioară reconstruirii sanctuarului de la mijlocul secolului al XVIII-lea.



■ ***Fig. 4.*** *Secţiune nord-sud în interiorul corului actual, cu evidenţierea încăperii funerare subterane*
■ ***Figure 4.*** *North-south section in the present choir, with the marking of the underground burial chamber*

Rezultatele enunţate succint în aceste pagini au la bază studierea amănunţită a ruinelor descoperite în interiorul şi exteriorul catedralei, în corelaţie cu mormintele, cu obiectele de inventar şi mai ales cu depunerile stratigrafice. Deşi aceste informaţii şi artefacte au fost recuperate într-un şantier de restaurare, în condiţii deseori improprii unei cercetări arheologice propriu-zise, însumarea lor contribuie esenţial la rescrierea istoriei monumentului.

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umns are placed directly on it. The only intervention we have noticed at stepping level was the transferring of the stairs from the limit of the Gothic sanctuary's shoulder to the west, approximately at the limit of the former Romanesque choir. As a conclusion, at the middle of the 18th century the sanctuary, in a very bad preservation state, was in fact demolished and rebuilt, using the same materials: a construction site so careful that the building has preserved its original Gothic air, and only very detailed building archaeology studies have shown such a radical intervention.[11] (Figure 4)

At a certain point, after the sanctuary's reconstruction, the Gothic sacristy was also replaced with a new building, corresponding to the present Baroque sacristy.[12] At what stage was the Gothic sacristy when the current Baroque building was started? Was it standing, partially ruined or almost completely demolished? We can only say that its perimeter was known, so that the southern side of the Baroque sacristy was placed on the corresponding side of the Gothic sacristy, and the eastern wall was placed outside the eastern wall of the Gothic sacristy, probably adjacent to it. The wall of the church was used on the northern side, as in the previous period, the wall being plastered and whitewashed, and where the plan was not regular, next to the pilaster and to the door, more or less consistent coatings were made, including plaster profiles. To the west, the Baroque sacristy was 1 metre wider than the current plan: the ruin of the wall was noticed during the implementation of the the sewage system in 2007, at a distance of approx. 1 metre from the southern apsidiole.

The results succinctly stated in these pages have at their base the thorough study of the ruins discovered at the interior and exterior of the cathedral, in correlation with the tombs, the inventory items and especially with the stratigraphic deposits. Although this information and these artefacts were recovered in a conservation site, in conditions often unsuitable for archaeological research, their summing up contributes essentially to the rewriting of the historic building's history.

11 The detailed debate of this historic building in: PAPP Szilárd ed. *A gyulafehérvári székesegyház főszentélye* (Budapest, 2012), 21-42.

12 The building archaeology study of the sacristy's eastern side has clearly shown that it could not have been built before the sanctuary reconstruction at the middle of the 18th century.