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GREEN TRANSFORMATION: TRENDS AND PROSPECTS OF GREEN JOBS IN ROMANIA

Veronica ȚARAN-BACIU GEORGESCU[1], Emanuela-Adina NICULA[2], Viorel GLIGOR[3], Alexandru-Sabin NICULA[4]

ABSTRACT. Green Transformation: Trends and Prospects of Green Jobs in Romania. This study investigates the trends and potential of green jobs in Romania, particularly focusing on sectors crucial to the green economy, such as agriculture, energy, and waste management. The emergence of green jobs signifies a shift towards ecological sustainability and economic resilience, highlighted by the growth in sectors A (Agriculture, Forestry, and Fishing), D (Electricity, Gas, Steam, and Air Conditioning Supply), and E (Water Supply; Sewerage, Waste Management, and Remediation Activities) from NACE rev.2 codes. The analysis reveals an evolving labor market, with an increase in sustainable agricultural practices and a shift towards more sustainable energy production methods. Furthermore, significant increases in average annual net wages across these sectors from 2018 to 2023 suggest an appreciation of labor value in green jobs, potentially reflecting heightened demand, technological advancements, and a shift towards more specialized skill sets. This study contributes to the academic discourse on green jobs, offering valuable insights for policymakers, industry stakeholders, and the labor market in fostering a sustainable and resilient economy. Future research should address methodological limitations, explore the impact of policy interventions, and examine the role of technological advancements in developing green jobs in Romania.

Keywords: *green jobs; sustainable development; GIS; agriculture; energy; waste management; labor market dynamics; Romania.*

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1. Introduction

In an era where human impact on the environment is becoming increasingly significant, the discussion surrounding green jobs as a crucial component of ecological sustainability is gaining prominence within environmental policy (Ilovan et al., 2018) and economic strategic planning. This conversation, underpinned by the works of Söderholm (2020), Jacobs (2012) or Adams (2008), not only accentuates the imperative shift towards a more sustainable, less fossil fuel-reliant economy but also brings to light the innovative strategies for biodiversity conservation and the sustainable management of natural resources, as evidenced by previous research (Egoh et al., 2021; Hahn et al., 2022; Maxwell et al., 2020).

Amidst the pressing challenges of climate change (Nistor et al., 2018; 2019) and the global push for sustainable development, green jobs are increasingly recognized as both a viable and necessary solution. Defined by the United Nations Environment Programme (UNEP) and the International Labour Organization (ILO), green jobs are those that contribute to the conservation or restoration of the environment, help reduce greenhouse gas emissions, decrease energy and raw material consumption, and support the preservation of biodiversity and ecosystems (UNEP, 2008; ILO, 2013). This nexus between economic growth and environmental stewardship underscores the essential role of green jobs in fostering a fair and sustainable transition towards more resilient economies (Schor, 2010).

The concept of green jobs has growing attention over the past two decades, spotlighting earlier initiatives such as The Green Job Initiative – a collaborative effort by UNEP, the International Trade Union Confederation (ITUC), the International Organization of Employers (IOE), and ILO. This initiative aims to unlock developmental potential, promote equality, and ensure a transition to sustainable economic models (UNEP, 2008). Green jobs are broadly defined as positions that are either dependent on the environment or are created, substituted, or redefined in the process of shifting towards a greener economy (Pociovălișteanu et al., 2015). According to Dell'Anna (2021), these include dignified roles that facilitate environmental conservation or rehabilitation, spanning traditional sectors like manufacturing and construction to emerging areas such as renewable energy and energy efficiency.

The green job sector offers a framework for examining the relationship between sustainability transition and labor market dynamics (Mathieu, 2024), suggesting that anyone from solar engineers to architects and even waste pickers can find a niche within this segment (World Bank podcast, 2024). The European Commission further delineates green jobs as those directly involved with using information, technologies, or materials to enhance environmental

quality, necessitating advanced skills, comprehensive knowledge, and specialized training (Flash Eurobarometer 456, 2024). Despite varied economist perspectives on what constitutes a green job, Colijn (2024) presents a nuanced view, suggesting that green jobs support the transition towards a socio-ecological framework by promoting renewable energy use and reducing non-renewable energy consumption.

The academic discourse reveals no singularly accepted definition of green jobs, with the concept continually evolving (Bowen et al., 2018; Rodríguez, 2019). Research methods in this field range from qualitative to quantitative, with the latter often focusing on econometric models that measure the prevalence of ecological jobs within national economies (Sulich et al. 2018). Green jobs are closely linked with sustainable development, ecological and circular economies, and the welfare economy, signaling a broad connection with sustainable growth and employability (Battaglia et al., 2018; Darmandieu et al., 2022; García-García et al., 2022). Our research delves into the emerging landscape (Maroşi et al., 2019) and potential of green jobs within the Romanian economy, aiming to categorize NACE codes directly related to green occupations and to analyze, from a Geographic Information System (GIS) perspective, wage earnings and employee engagement in sectors A (Agriculture, Forestry, and Fishing), D (Electricity, Gas, Steam, and Air Conditioning Supply), and E (Water Supply; Sewerage, Waste Management, and Remediation Activities) as per the CAEN rev. 2 classification. This in-depth approach offers comprehensive insights into the economic and distributional effects of green jobs across key sectors, outlining both overarching and sector-specific research objectives pertinent to advancing Romania's green employment and sustainable development agendas.

A transdisciplinary approach is deemed essential in addressing the complexity and interconnectedness of environmental, economic, and social issues. It entails collaboration across various academic fields and practices, from natural sciences to social sciences, economics, and engineering, to develop innovative and comprehensive solutions to global challenges (Nicolescu, 1999; Brandt et al., 2013). Such an approach enhances the proposed solutions' effectiveness and ensures the integration of multiple perspectives and stakeholder interests in formulating and implementing sustainable development policies (Klein et al., 2001). However, the narrative of the transdisciplinary approach to green jobs for sustainable development and economic growth encapsulates a broad array of scholarly insights, illustrating the critical need for a holistic and transdisciplinary methodology in understanding the nexus between sustainable development, green job creation, and spatial dynamics. Through the lens of GIS technology application (Adorean et al., 2020; Avădănei et al., 2018; Nicula et al., 2018; Nistor et al., 2019; 2020; Nistor and Nicula, 2021), we gain invaluable

perspectives on the power of spatial analysis in environmental and socio-economic planning, underscoring its pivotal role in crafting strategies for green employment. Complementing this spatial emphasis, the research shifts the focus towards environmental energy challenges, presenting innovative methodologies for leveraging emissions in energy production (Cociș et al., 2012; Soporan et al., 2012; Soporan et al., 2013 a, b). This body of work emphasizes the adaptability required to harness environmental changes for sustainable growth, highlighting a critical area for green job expansion. The study aims to generate innovative and applicable solutions for promoting green jobs within the Romanian context through cross-sectoral and interdisciplinary collaboration.

2. Materials and Methods

The study adopts a transdisciplinary approach, integrating knowledge from various fields - economics, ecology, information technology, and social sciences - to address the complexity of green jobs and their impact on sustainable development. This methodology allows for a holistic understanding of market dynamics and the ecological and social impacts of green jobs, reflecting the interconnectedness between economic, social, and natural systems (Lawrence, 2004).

Research methodologies on green jobs vary, employing both qualitative and quantitative approaches (Nicula et al., 2017; Bîrsănuc et al., 2020) to explore the role and impact of these positions within the economy and society (Sulich et al., 2018). The discourse connects green jobs with sustainable development, circular economy, and other key themes in sustainability (Battaglia et al., 2018; Darmandieu et al., 2022; García-García et al., 2022).

Our research utilizes a comprehensive methodological approach, analyzing structural data on the number of employees and the average annual net wage by activities of the national economy according to NACE Rev.2. This data, derived from the National Institute of Statistics of Romania's Tempo database, underwent both graphical representation and relational analysis. The spatial distribution of employees was scrutinized using Geographic Information System (GIS) technology, focusing on NACE codes A (Agriculture, Forestry and Fishing), D (Electricity, Gas, Steam and Air Conditioning Supply), and E (Water Supply; Sewerage, Waste Management and Remediation Activities). However, this study encounters several methodological limitations. Firstly, the Tempo database (Romanian National Institute of Statistics, 2024) does not account for NACE code T (Activities of private households as employers of domestic personnel; activities of private households producing goods and services for own use),

which pertains to household activities as employers of domestic personnel and for own use. Including this category could potentially broaden the understanding and categorization of green jobs, thereby highlighting an area for future data enhancement and research. Secondly, the research is constrained by outdated data regarding the Employed Population in the Environmental Goods and Services Sector, with the latest available data being from 2018. This poses a significant challenge for our analysis, which aims to cover developments in the green job sector between 2018 and 2022. The absence of up-to-date data limits the ability to fully capture and analyze the most recent trends and transformations within Romania's green employment realm.

The methodological approach targets the literature gap regarding the direct involvement of specific NACE codes in green jobs, a segment not explicitly defined by Eurostat, the ILO, or the UNEP. Moreover, our approach includes a computational bibliometric analysis utilizing VOSviewer to identify citation clusters and the prevalence of green job-related concepts within the Web of Science database.

Within the complex network presented by the VOSviewer bibliometric analysis, the central concept of "green jobs" anchors a rich tapestry of research topics, illustrating the field's expansive reach from macroeconomic effects to detailed analyses of educational and sector-specific skill requirements. The myriad connections depicted through linkages in the map articulate the multifaceted and interdisciplinary dialogue within green jobs research, underscoring the interplay between policy formulation, industry practices, and labor market dynamics in the context of sustainable economies. Each strand in this network denotes a strand of scholarship, evolving and expanding over the six-year span (2016-2022), highlighting key thematic concentrations and the progressive integration of emerging issues such as "algorithm" and "energy consumption". This visual representation not only underscores the foundational themes underpinning the sector but also traces the trajectory of academic inquiry, marking a clear direction towards new research frontiers and evolving priorities within the sustainable development paradigm. The figure intricately maps the scholarly terrain surrounding "green jobs", revealing a constellation of related terms—such as "economy", "climate change", "energy", and "education" which collectively narrate an ongoing discourse that intertwines environmental sustainability with economic growth, workforce development, and the transition to renewable energies.

The specialized literature was computationally analyzed using VOSviewer software, with 171 processed scientific documents on the concept of "green job*" on the Web of Science Clarivate. The main reason for resorting to computer-assisted literature review lies in the multiple advantages it encompasses:

(i) storing, manipulating, managing, and analyzing a substantial volume of bibliometric data and information; (ii) objective analysis of citation and co-citation clusters on related topics (for example: citation clusters sustainable development – education – health – renewable energy – waste management (Fig. 1); (iii) centralization and diachronic analysis of bibliographic references; (iv) graphical visualization of citation/co-citation clusters.

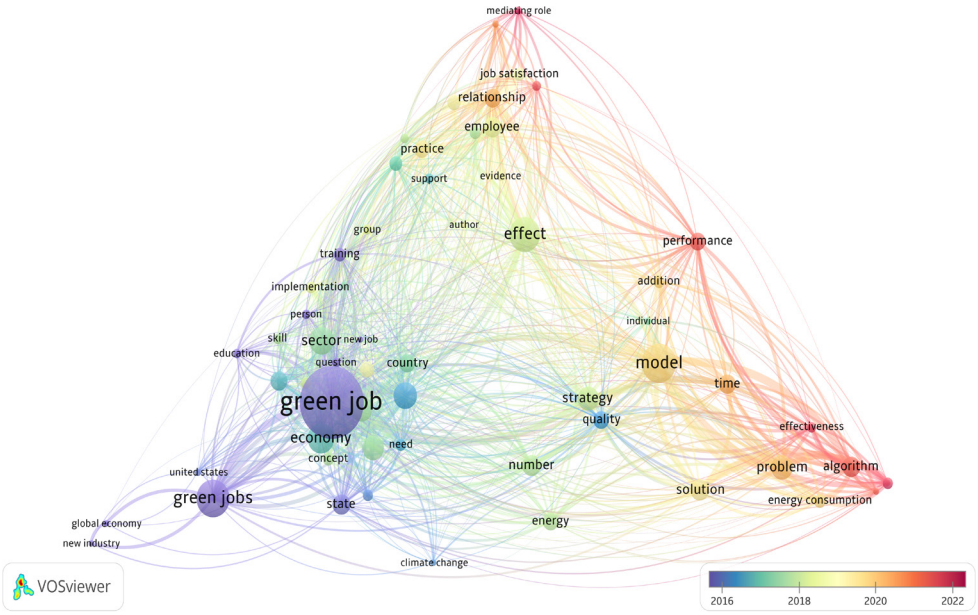


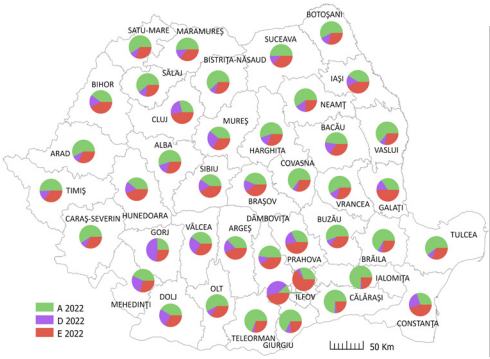
Fig. 1. Bibliometric Network Analysis of Green Jobs Research (2016-2024)
Data: Web of Science; Software: VOSviewer

3. Results

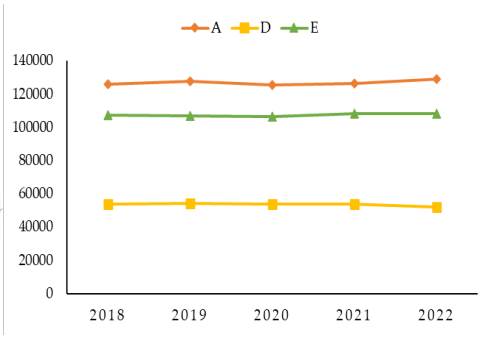
In the context of the study, the previously presented analysis can be reinterpreted through the lens of ecological transformation and the emergence of green jobs in Romania. By extrapolating and adapting the data to this context, we investigate how different regions (Fig. 2a) adapt and contribute to the green economy, highlighting the disparities and opportunities in creating sustainable jobs.

The centrality of Bucharest in the green transition is notable, having the highest absolute values indicated in the original data for categories E and D, with percentages of 21.40% and 10.96%, respectively. This suggests a significant concentration of sustainability initiatives and investments in the capital, potentially due to superior access to resources, infrastructure, and knowledge. Bucharest emerges as an epicenter of green innovation, potentially shaping national trends. The strategic importance of Constanța and Gorj is underscored by their percentages in categories E and D (Constanța: 5.92%, Gorj: 4.82% for E and Constanța: 6.71%, Gorj: 6.65% for D). These regions reflect key sectors in the green transition, including developing renewable energy and conservation initiatives. Their presence indicates the geographical diversification of commitment to sustainability and the need to leverage local resources efficiently. Highlighting Timiș, Ialomița, and Călărași in category A, with percentages of 4.70%, 4.17%, and 3.75%, respectively, signals emerging regions in the green economy. These could represent areas with innovative initiatives in organic agriculture, water resource management, and reforestation projects, contributing to the diversification and resilience of the green job ecosystem in Romania.

Evaluating the data on employees in national economic activities, we notice a nuanced trend across categories A, D, and E. From 2018 to 2022, category A shows an overall growth of approximately 2.64%, indicating a steady rise in employment within the primary sector. This could suggest bolstering the country's agriculture or related primary industries, possibly due to increased investment, policy support, or technological advancements in these fields. In contrast, Category D reveals a decline in the workforce of about 3.17% over the five-year period. The downtrend might reflect a shift in energy production methods, increased efficiency, or a transition to more sustainable energy sources requiring less human labor. Category E remains relatively stable, with a marginal increase of around 1.05% (Fig. 2a). The steadiness in this sector could be due to consistent demand for water and waste management services, which are essential and less susceptible to economic fluctuations. These trends are indicative of a broader economic transition. The slight but steady growth in Category A employment might emphasize developing sustainable agricultural practices or enhancing self-sufficiency in primary commodities. The reduction in Category D could signal a restructuring of the energy sector, aligning with global trends towards sustainable energy production. The stability in Category E suggests an ongoing need for employees to manage critical infrastructure services, which are crucial for environmental health and other economic sectors' functioning (Fig. 2).



(**a**)



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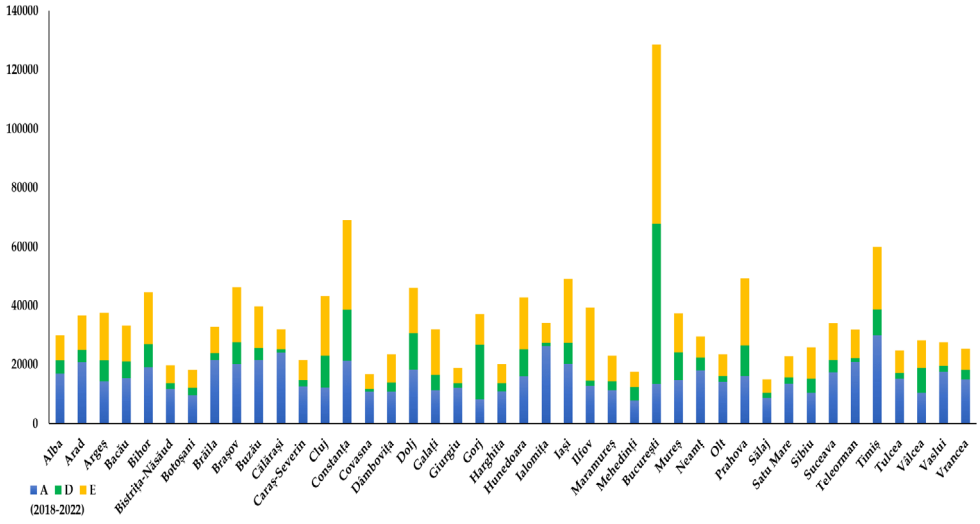

(**c**)

Fig. 2. The geographical distribution of green job employment by county at the end of the year 2022 (**a**); The trend in employee numbers within national economic activities from 2018 to 2022 (**b**); The number of employees at the end of the year 2022, by activities of the national economy (sections and divisions) NACE Rev.2, by counties (**c**). Legend: A = Agriculture, Forestry, and Fishing; D = Production and Supply of Electricity and Thermal Energy, Gas, Hot Water, and Air Conditioning; E = Water Distribution; Sanitation, Waste Management, And Remediation Activities.

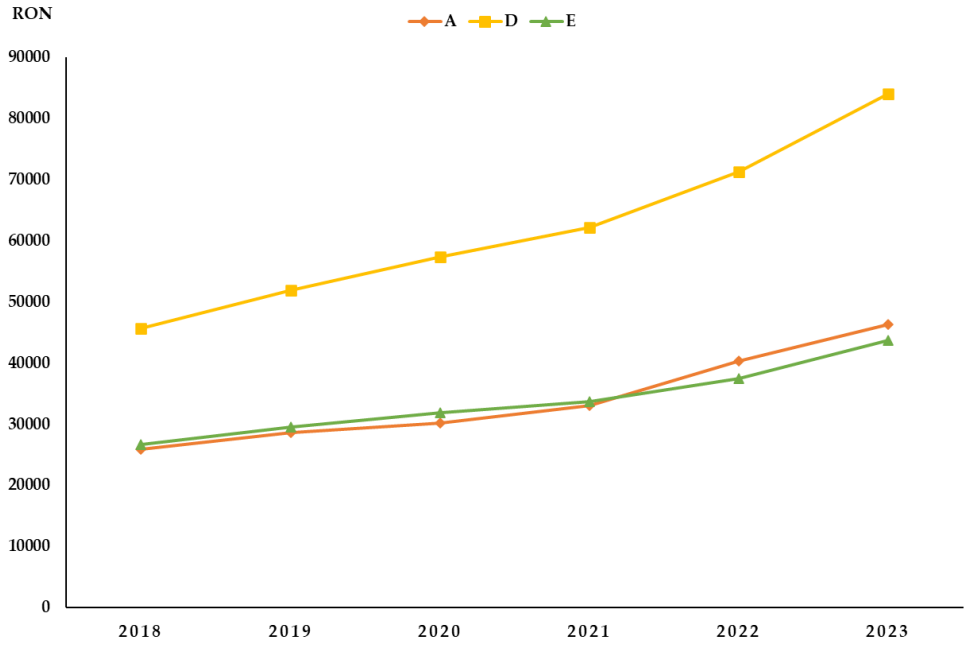

Fig. 3. The average annual net wage (RON) by activities (A, D, and E) of the national economy NACE Rev.2.

The average annual net wage trends analysis reveals significant increases from 2018 to 2023. Sector A observed a 78.37% increment in average annual net wages, ascending from 25,949 RON to 46,286 RON. This notable surge potentially reflects enhanced valuation of agricultural work, perhaps due to increased agricultural outputs or improved market conditions for agricultural products. In Sector D, wages experienced an 83.80% escalation, indicating the sector's dynamic wage growth from 45,716 RON to 84,027 RON. This substantial growth could be attributed to heightened energy demands, technological evolution within the sector, and a possible elevation in skill requisites and specialization for energy sector employees. Lastly, Sector E witnessed a 63.75% rise in wages, climbing from 26,687 RON to 43,699 RON (Fig. 3). Though less steep than the other sectors, this increase still represents significant growth, suggesting expanding requirements for environmental management services and possibly an augmentation in the sector's investment in human capital.

These sector-specific wage inflations underscore the economic vitality and appreciation of labor value within these fundamental sectors. They may indicate broader economic inflationary trends and sectoral shifts in the labour market, reflecting Romania's evolving economic landscape.

4. Discussion

The emergence of green jobs in Romania represents a pivotal shift towards ecological sustainability and economic resilience. This study's findings illustrate a significant trend toward the greening of the Romanian economy, particularly in sectors A (Agriculture, Forestry, and Fishing), D (Electricity, Gas, Steam, and Air Conditioning Supply), and E (Water Supply; Sewerage, Waste Management, and Remediation Activities), which align with global movements towards environmental conservation and reduced carbon footprints. The strategic importance of Bucharest, Constanţa, and Gorj in leading these transitions highlights regional strengths and potential for future development.

The data analyzed from 2018 to 2022 reveals an evolving labor market, with the primary sector showing growth, indicating an increase in sustainable agricultural practices or technological advancements. Conversely, the decline in sector D's workforce could suggest a shift towards more sustainable energy production methods, aligning with global sustainability goals. The stability in sector E emphasizes the ongoing need for essential water and waste management services, underscoring their critical role in ecological conservation.

The substantial increases in average annual net wages across sectors A, D, and E from 2018 to 2023 suggest an appreciation of labor value in these green jobs, potentially reflecting heightened demand, technological advancements, and a shift towards more specialized skill sets within these sectors. These trends demonstrate the economic vitality of green jobs and highlight broader economic and labor market shifts toward sustainability in Romania.

The discourse on green jobs represents a complex interplay between sustainability's ethical, environmental, and economic dimensions. On one hand, green jobs are lauded for their contribution to environmental conservation, promotion of energy efficiency, and the creation of equitable economic opportunities, underlining a societal shift towards sustainability and respect for natural resources. These roles are crucial in driving innovation, improving job quality, and fostering economic growth within sustainable development. On the other hand, the transition faces criticism concerning the economic viability, technological feasibility, and potential socio-economic disruptions, including job displacement, skill mismatches, and the environmental footprint of green technologies themselves.

Critiques extend to the uneven geographic distribution of green jobs, which might exacerbate regional inequalities and the risk of new power dynamics that could sideline disadvantaged communities. Concerns are also raised about the high initial investments required, the adequacy of current technologies to meet energy demands sustainably, and the comprehensive policy and training

strategies needed for a truly equitable transition. These challenges highlight the delicate balance between advancing green jobs and mitigating adverse effects on traditional sectors and vulnerable populations.

Navigating this transition demands a nuanced, holistic approach that integrates the positive aspirations of green job proponents with realistic assessments of potential hurdles. Effective policy-making and strategic planning must thus prioritize economic stability, technological advancement, and social fairness, ensuring that the move towards a green economy not only fosters environmental stewardship but also addresses the practical concerns of sustainability, equity, and inclusivity. This balanced perspective is essential for achieving a genuinely sustainable, equitable, and efficient green job market, paving the way for a future that harmonizes human economic activities with the planet's ecological limits.

Future research directions in the context of green jobs, especially within Romania or similar economies transitioning towards sustainability, can explore several key areas to build upon the current study's findings. These directions not only aim to address gaps identified but also to expand the understanding and impact of green jobs in fostering economic resilience and environmental sustainability:

- Longitudinal Studies: Future research could focus on longitudinal studies to track the evolution of green jobs over time, assessing the long-term impacts of economic policies, technological advancements, and global sustainability trends on the labor market;
- Sector-specific Analysis: There is a need for deeper sector-specific analyses that explore the dynamics of green jobs within particular industries, such as renewable energy, sustainable agriculture, or waste management. This can help identify specific challenges and opportunities within each sector and guide targeted interventions;
- Skill Gaps and Education: Investigating the skill requirements for green jobs and identifying potential skill gaps in the current workforce could be crucial. Research could also explore how educational programs and training initiatives are adapting to meet the demands of a greener economy;
- Comparative International Studies: Comparing the development of green jobs in Romania with other countries at similar stages of economic development or with leading countries in green employment can provide valuable insights into best practices and policy frameworks that support sustainable labor markets;
- Impact of Policy Interventions: Analyzing the effectiveness of existing policies and interventions promoting green jobs can help identify what works and what doesn't. This includes incentives for green businesses, subsidies for renewable energy projects, and regulations that drive demand for sustainable products and services;

- Technology Adoption and Innovation: Exploring the role of technological innovation in creating new green jobs and transforming existing ones could provide insights into future trends. This includes the impact of digitalization, artificial intelligence, and other emerging technologies (Nicula et al., 2022) on the green economy;
- Social and Economic Impacts: Further research is needed on the social and economic impacts of the transition to a green economy, including effects on employment levels, income inequality, and regional development. This can help ensure that the shift towards green jobs promotes social equity and inclusiveness;
- Barriers to Green Job Creation: Identifying and analyzing the barriers to creating green jobs, such as financial constraints, lack of infrastructure, or regulatory hurdles, can inform strategies to overcome these obstacles and accelerate the transition to a sustainable economy;
- Environmental Impact Assessments: Assessing the direct and indirect environmental impacts of green jobs, including reductions in carbon emissions and improvements in biodiversity, can provide a more comprehensive understanding of the benefits of transitioning to a green economy.

By addressing these future research directions, scholars and policymakers can further contribute to developing a robust, sustainable, and inclusive green job sector that supports economic growth and environmental preservation.

5. Conclusions

This study underscores the significant potential and evolving nature of green jobs in Romania, aligning with global sustainability and environmental conservation trends. The increased focus on sectors integral to the green economy, such as agriculture, energy, and waste management, reflects a crucial transition towards sustainable development and economic resilience. The findings suggest a dynamic shift in labor market dynamics, with increased investment in green jobs fostering economic growth, technological advancement, and labor market transformation.

Furthermore, the rise in average annual net wages across key green sectors highlights the growing recognition of the value of green jobs in the Romanian economy, suggesting a positive trajectory towards environmental sustainability and economic growth. This study contributes to the academic discourse on green jobs and provides valuable insights for policymakers, industry stakeholders, and the labor market in fostering a sustainable and resilient economy.

Future research should address the methodological limitations encountered in this study, particularly the need for updated and comprehensive data on the green job sector. Additionally, exploring the direct involvement of other NACE codes and sectors in the green economy and the impact of policy interventions and technological advancements on the growth and development of green jobs in Romania will be crucial in advancing the understanding and support for sustainable economic transformation.

These sections aim to encapsulate the study's findings within the broader context of sustainable development and economic transformation in Romania, offering a comprehensive overview of the current state and future prospects of green jobs in the region.

Reflecting on the comprehensive analysis presented in this paper, several key conclusions can be drawn that encapsulate the essence of the study and its implications for the future of the green economy in Romania.

- Significant Potential for Green Jobs: The study highlights the considerable potential and evolving nature of green jobs in Romania, which aligns with global sustainability and environmental conservation trends. It emphasizes the crucial transition towards sustainable development and economic resilience, with increased focus on sectors integral to the green economy, such as agriculture, energy, and waste management;
- Dynamic Shift in Labor Market Dynamics: There is a dynamic shift observed in labor market dynamics with increased investment in green jobs, fostering economic growth, technological advancement, and labor market transformation. This shift indicates a move towards more sustainable agricultural practices, energy production methods, and essential services in water and waste management;
- Appreciation of Labor Value in Green Jobs: The rise in average annual net wages across key green sectors (Agriculture, Forestry and Fishing; Electricity, Gas, Steam and Air Conditioning Supply; and Water Supply; Sewerage, Waste Management, and Remediation Activities) from 2018 to 2023 suggests a growing recognition of the value of green jobs in the Romanian economy. This trend reflects potentially heightened demand, technological advancements, and a shift towards more specialized skill sets within these sectors;
- Strategic Importance of Specific Regions: The study identifies the strategic importance of regions such as Bucharest, Constanța, and Gorj in leading the green transitions. These areas show a significant concentration of sustainability initiatives and investments, indicating regional strengths and potential for future development in the green job sector;

- ❖ Need for Future Research and Policy Intervention: The conclusions call for future research to address methodological limitations encountered in the study, particularly the need for updated and comprehensive data on the green job sector. Additionally, exploring the direct involvement of other sectors in the green economy and the impact of policy interventions and technological advancements on the growth and development of green jobs in Romania is deemed crucial for supporting sustainable economic transformation.

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DISTRIBUTION OF PROJECTS FINANCED BY MEANS OF THE NATIONAL RURAL DEVELOPMENT PROGRAMS IN CLUJ-NAPOCA METROPOLITAN AREA

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ABSTRACT. Distribution of Projects Financed by Means of the National Rural Development Programs in Cluj-Napoca Metropolitan Area. The measures and sub-measures included in the National Rural Development Programs of 2007-2013 and 2014-2020 have also been accessed by the 19 communes of the Cluj-Napoca Metropolitan Area. The present paper focuses on the most significant measures and sub-measures of these programs, in relation to their main purpose (supporting the modernization of agriculture, encouraging the diversification of the rural economy and improving the standard and quality of life in rural areas) and the distribution of contracted projects (and submitted projects - where the case) in this area, an area developing under the socio-economic influence of the nearby city. While for some communes the influence of the city is quite visible, some other communes still preserve accentuated rural features, and these different trajectories are also mirrored in the types of submitted or contracted projects from such communes, in the context of these development programs.

Keywords: *rural development, Cluj-Napoca, metropolitan area, projects, National Rural Development Program.*

1. Introduction

The National Rural Development Programs (NRDP) aimed at supporting different sectors of rural economies, while also targeting the improvement of the general standard of life of rural communities. Several measures comprised in

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these programs were meant to support the development and modernization of agriculture, by providing opportunities to individual farmers/farms (semi-subsistence farms, small-scale farms or young farmers) as well as to the larger production units or groups of producers. The aim of these measures was to increase the value of agricultural products, by upgrading the production, processing and marketing, thus bringing higher income to rural communities. In addition, several measures targeted the development and modernization of public infrastructures (which could in their turn act as supporting or restrictive factors for the development of entrepreneurship projects) by supporting the local authorities' initiatives, as well as the rehabilitation of cultural heritage (by individuals, associations, NGOs or local authorities). The programs also included measures targeting the development of non-agricultural businesses (by individuals and enterprises) from rural areas, by supporting the increased production of various merchandise or the expansion of different services - among which tourism held an important place.

Some of these measures have been previously analyzed by several authors, in studies focusing on the national situation (Bíró, 2015; Rusu, 2018) or in specific areas; Tănasă *et al.* (2018) focused on the North Eastern Development Region, while Munteanu and Drăgan (2020a, 2020b) focused on the Apuseni Mountains.

2. Materials and methods

In the present analysis, we addressed 15 measures targeting agriculture, four measures targeting other types of businesses and three measures targeting public infrastructures. First, our study focused on the spatial distribution of projects targeting agriculture implemented in the context of measures 112, 121, 123, 125, 141, 142 of the 2007-2013 NRDP and sub-measures 4.1, 4.1a, 4.2, 4.3, 6.1, 6.3, 9.1, 16.4 and 16.4a of the 2014-2020 NRDP. The beneficiaries of these measures were farmers, enterprises, associations, groups of producers, as well as local authorities. We also analyzed the territorial distribution of projects from non-agricultural sectors (including the ones addressing the standard of living in rural areas) that have been submitted in the context of measures 312, 313, 322 of the 2007-2013 NRDP and sub-measures 6.2, 6.4, 7.2 and 7.6 of the 2014-2020 NRDP.

We consulted various public documents, the general documentation of each National Rural Development Program and the specific guides and charts of each measure and sub-measure. The data used for the analysis of beneficiaries of the specific measures were retrieved from the official site of the implementing authority - the Agency for Financing Rural Investments.

For the 2007-2013 NRDP, projects have been selected by location of the implemented project (of the activity) and not in terms of the residence of the beneficiary. For the analyzed area, this criterion had complex implications because many projects implemented in the analyzed communes were actually submitted by persons living in Cluj-Napoca, as well as other neighboring cities (mainly Turda or Gherla), or even other areas (including other counties). However, this aspect was only relevant to the 2007-2013 program, because one requirement of the following program was for the beneficiary to reside in the same administrative-territorial unit as the location of the proposed project. We must also mention that for the 2014-2020 program, used data is still only intermediate, due to the continuation of some projects at the time of writing this paper. Data was successively imported into GIS software in order to provide a clear visual upon the spatial distribution and clustering of projects in the analyzed area.

Following the model of previous studies (Munteanu and Drăgan, 2020a, 2020b) we analyzed the measures of the two programs side by side, grouped by their aim, strategic objective or beneficiaries and by their relation: compatibility or continuity.

We did not analyze the measures included on the LEADER axis (we only referred to them briefly, where the case) because several analyzed communes are part of Local Action Groups (LAG) alongside other communes, outside the metropolitan area: Apahida, Bonţida, Borşa, Jucu and Vultureni are part of the Someş Transilvan LAG, alongside nine other communes from Cluj and Sălaj counties; Aiton, Feleacu, Ciurila, Petreştii de Jos and Tureni are part of the Lider LAG alongside other four communes; Căianu and Cojocna are part of the Câmpia Transilvaniei LAG together with 12 other communes, Gilău is included in the Napoca Porolissum LAG with other 12 communes and Huedin town, while Baciu, Floreşti, Gârbău, Sânpaul and Săvădisla are part of the Someş-Nadăş LAG.

3. Results and discussion

3.1. Study Area

Cluj-Napoca Metropolitan Area covers an area of 1.603 km^2 and includes 19 communes with their 107 composing villages (alongside the city). From a spatial and functional point of view, there are two rings of communes that can be differentiated: the first one, made up by the communes located closest to Cluj-Napoca - Floreşti, Baciu, Chinteni, Apahida, Feleacu and Ciurila, and the outer ring composed by the communes Gilău, Gârbău, Sânpaul, Vultureni,

Borşa, Bonţida, Jucu, Căianu, Cojocna, Aiton, Tureni, Petreştii de Jos and Săvădisla. However, if one considers the development of the analyzed communes, one may include Ciurila in the second ring, and Gilău and Jucu in the first ring, due to the main E-W direction of development of housing, economy, infrastructures etc (a differentiation that is used in the Integrated Urban Development Strategy of Cluj-Napoca, for the 2014-2020 period).

Although located near the city of Cluj-Napoca, some of the analyzed communes still maintain pronounced rural features. Agriculture is still present on extended surfaces of the area, with a total of 109,916 hectares (National Institute of Statistics), and to some extent, mostly in the marginal parts of the metropolitan area, faces the same struggles as the Romanian agricultural sector, in general.

The favorability for agriculture in the analyzed area is evident especially in the Someşul Mic floodplain, where both the soil quality and the terrain slope offer the most suitable conditions, and in the second ring of the metropolitan area, where agricultural areas still cover extended surfaces. Matter of fact, the second ring is described in the Development Strategy of the Metropolitan Area (2015) as a "support space, focused on agriculture and leisure activities" in which "the continuous support of entrepreneurship in agriculture and food industry, as well as services for the diversification of the local, rural economy is necessary", especially since the development level of such communes is not always very elevated. While in the communes of the first ring and some of the second ring, the economic and social development can be significant (Apahida, Baciu, Chinteni, Feleacu, Floreşti or Gilău), in the second ring there are many communes with a much lower level of socio-economic development (Aiton, Borşa, Căianu, Cojocna, Petreştii de Jos or Vultureni).

The communes in the second ring of the metropolitan area have large percentages of their surfaces registered as agricultural areas: 90.47% in Borşa, 88.91% in Cojocna (the analyzed commune with the widest agricultural areas, of 12,326 hectares), 83.43% in Aiton, 80.24% in Petreştii de Jos etc. Moreover, arable lands are very extended in some of the analyzed communes, representing more than half of the total area of Borşa and Cojocna (58.66% respectively, 53.06%), 49.45% in Căianu, 44.86% in Aiton, and 41% in Bonţida, Chinteni and Ciurila.

Besides, according to the General Agricultural Census of 2010, the numbers of agricultural holdings in the area are rather high (considering the area's location near Cluj-Napoca), representing 23% of the agricultural holdings in the county (still, a rather proportional value, since we analyzed 19 of the 75 communes of the county). There are some communes that stand out, for instance, Apahida, the commune with the highest number of agricultural holdings in Cluj County, 2440, or Baciu, with 1893 agricultural holdings. Ten communes in the

metropolitan area have between 1000 and 1600 agricultural holdings while the other seven communes have between 200 and 990 agricultural holdings. Out of the 22,371 agricultural holdings in the area, 55.7% have utilized agricultural areas and livestock, 43.7% only have utilized agricultural areas, while 0.6% only have livestock.

3.2. Measures targeting agriculture

Although dependency upon agriculture is not as strong in the analyzed area as in other rural areas of the county, and the number of semi-subsistence farms is rather low and concentrated in the second ring of the metropolitan area (e.g., Borșa, Bonțida, Săvădisla, Vultureni), much can still be improved in this sector. A substantial support for small farms and larger enterprises from this sector could come from those measures of the National Rural Development Programs targeting the development of agriculture and forestry, through several types of investments, analyzed as follows:

- Investments for the modernization of agricultural holdings were targeted by Measure 121 "Modernization of agricultural holdings" of the 2007-2013 NRDP and sub-measures 4.1 "Support for investments in agricultural holdings" and 4.1a "Support for investments in fruit-growing holdings" of the 2014-2020 NRDP. While having some differences in terms of the eligibility criteria of submitted projects (including a given minimum economic dimension of the farms), all measures implied the co-financing of the investments.

There were 12 contracted projects in Cluj-Napoca Metropolitan Area on Measure 121, in seven communes (most of the communes having one implemented project, and Apahida and Cojocna having three respectively, four projects) and four projects on Sub-measure 4.1 (in Bonțida, Ciurila, Feleacu and Săvădisla). There was only one contracted project on Sub-measure 4.1a, in Apahida, a commune that still holds relevant orchard areas, 220 ha, being surpasses in the area only by Baciu, with 511 ha and Cojocna, with 267 ha.

- Investments for the increase of products' value and the effective promotion of the merchandise were targeted by Measure 123 "Increasing the added value of agricultural and forestry products" of the 2007-2013 NRDP and Sub-measure 4.2 "Investments for processing/ marketing of agricultural products" of the 2014-2020 NRDP. Potential beneficiaries of these measures were larger holdings or producers' groups, which could receive substantial financial support for the implementation of eligible projects. There were only two contracted projects on Measure 123 in the area, in Apahida and Bonțida, and three contracted projects on Sub-measure 4.2 in Apahida, Bonțida and Căianu.

- Investments for the installation of young farmers as heads of agricultural holdings were targeted by Measure 112 of the 2007-2013 NRDP and Sub-measure 6.1 of the 2014-2020 NRDP. These two measures were very similar in terms of requirements and minimum economic dimension of the holding while having differences regarding the granted financial support (a higher support being provided by Sub-measure 6.1).

There were 72 beneficiaries of Measure 112 in Cluj-Napoca Metropolitan Area, located in almost all the analyzed communes - with the exception of Gârbău. Cojocna was the commune to concentrate the largest number of beneficiaries (11 implemented projects), followed by Apahida and Căianu (seven projects, each), Borşa and Săvădisla (six projects each), Chinteni, Ciurila, Gilău (five projects each) and Petreştii de Jos (four projects). The rest of the communes had one or two implemented projects on this measure.

However, we can note an increased number of beneficiaries for Sub-measure 6.1, with 124 projects contracted in 18 of the communes of the area. Aiton was the only commune where no project has been contracted on this sub-measure, and moreover, where no project has even been submitted. One explanation can be provided by the aging population of the commune, where the 65+ age group represents the largest percent of the population, 36.2%, and where the 15-29 age group holds the lowest percentage among the communes of Cluj-Napoca Metropolitan Area, 11.5%. Another factor that can contribute to the situation is represented by the very extended agricultural areas in the commune leased by agribusiness enterprises.

At the other end, the communes with the highest numbers of contracted projects were Sânpaul (22), Apahida (17), Săvădisla (15) and Cojocna (13). Nine projects were contracted in Borşa and Bonţida, seven projects in Căianu and Chinteni, while the other communes had between one and five projects each. The contracting degree was rather high, since there have been 168 projects submitted by 2021 in total, on this sub-measure.

- Investments for the development of semi-subsistence farms and small agricultural holdings were represented by Measure 141 “Supporting semi-subsistence agricultural holdings” of the 2007-2013 NRDP and Sub-measure 6.3 “Business start-up aid for development of small farms” of the 2014-2020 NRDP. While targeting different beneficiaries (different farms in terms of their economic dimensions), one may note how the second measure came as a follow-up to the previous measure, of the 2007-2013 program.

These measures registered more projects in comparison to the ones regarding young farmers in the study area, with higher figures for Measure 141 than for Sub-measure 6.3. There were 240 contracted projects in the area on Measure 141, in all the analyzed communes. The highest numbers of beneficiaries

were listed in Săvădisla (40), Gilău (32) and Căianu (25). Five other communes had more than 10 beneficiaries: Bonțida (19), Cojocna (17), Baciu (16), Apahida (13) and Floreşti (12), while the rest of the communes had between two and nine projects.

In the following development program, there were 47 contracted projects and 78 submitted projects (in total) on Sub-measure 6.3 by 2021. Of course, the number of projects per commune is also lower, with a maximum of eight contracted projects in Căianu, followed by five projects in Sânpaul and Jucu, while the other communes had between two and four projects. Ciurila, Feleacu, Floreşti, Tureni and Vultureni did not have any contracted projects (while the first four communes mentioned did not have any submitted projects either).

Among the last two sets of measures, dedicated to small farms, Measure 141 had the highest number of beneficiaries, the average in the area being of 12.63 projects/ commune, being followed by Sub-Measure 6.1, with 6.52 projects/commune, Measure 112 with 3.78 projects/commune and Sub-measure 6.3 with 2.47 projects/commune. Of course, the situation is much nuanced between the analyzed communes. In four communes there were more than 40 projects: Săvădisla (64), Căianu (47), Gilău and Cojocna (44 each) while in other four communes there were more than 20 projects: Apahida (40), Sânpaul (34), Bonțida (33) and Baciu (26). At the other end, the communes with the lowest number of projects were Aiton and Feleacu, with five respectively, six projects on all measures. The explanations rest in the extended leased areas and the aging population of Aiton, while for Feleacu, on the other hand, the explanations may reside in the reduction of agricultural areas in recent years and the increasing share of population that has found other means of making an income, the average number of employed persons having substantially risen from 283 in 2015 to 506 in 2019. However, we have to mention that among the communes of Cluj-Napoca Metropolitan Area, only Floreşti, Baciu, Apahida, Feleacu and Chinteni have a share of the active population that works in a different administrative unit of over 60% of the total active population (Benedek, 2019). From the same source, one may also note that the Suburban Area of Cluj-Napoca does not fully overlap the Metropolitan Area: Sânpaul, Vultureni and Borşa are excluded due to the low number of commuters, while Petreştii de Jos is included in the Turda Suburban Area.

However, the closeness of the city does have an impact upon the area, the communes' economy slowly distancing itself from agriculture, and thus the interest for agricultural projects also decreases. We can note this by analyzing the figures in the metropolitan area in comparison to the ones at the county level. In the case of measures supporting young farmers, the average of projects/commune is much lower in the studied area than in Cluj County.

While for Measure 112, the average in Cluj-Napoca Metropolitan Area is 3.78 projects/commune and in the county 4.36 projects/ commune, for Sub-measure 6.1 the difference is higher: 6.52 projects/commune in the metropolitan area and 8.10 projects/commune in the entire county. A similar situation can be remarked for other measures regarding agriculture as well: 12.63 projects/commune on Measure 141 in the metropolitan area vs. 29.5 projects/commune in the county (as a sign of the reduced dependency upon semi-subsistence agriculture in the analyzed area) and 2.47 projects/commune in the metropolitan area vs. 6.57 projects/commune in the county on Sub-measure 6.3.

- Investments for the support of producers' groups were directed through Measure 142 "Establishment of producers' groups" of the 2007-2013 NRDP and Sub-measure 9.1 "Establishment of producers' groups in the agricultural sector" of the 2014-2020 NRDP. There was only one contracted project on Measure 142, implemented in Apahida by "Someş Arieş Cooperativa Agricolă", while on Sub-measure 9.1, there was one project submitted by the "Cooperativa Agricolă Lunca Someşului Mic" group. Often times seen as an example of best practices, the group was founded in Apahida and Jucu, and has 13 members - farmers with agricultural holdings between 0.58 and 30 ha.

We must also mention Sub-measures 16.4 and 16.4a of the 2014-2020 NRDP "Support for the horizontal and vertical cooperation among the interested actors in the supply chain in the agricultural and fruit-growing sectors". Although these measures did not strictly refer to the producers' groups, they did imply the cooperation of several stakeholders, farmers, sellers (e.g., restaurants, tourist establishments), local administrations, NGOs etc. Besides, the main objective of these sub-measures was very much in line with the previous ones, and referred to the adaptation of production and products to the market. There were 11 contracted projects in the area on these two Sub-measures, that targeted local natural products, their distribution through short supply chains and local markets. Five projects were contracted in Apahida, two projects were implemented in Gilău and Chinteni, and one project in Petreştii de Jos and Cojocna. The projects were submitted by self-employed persons, small enterprises, local authorities (in the case of Petreştii de Jos) as well as the Napoca Porolissum LAG. Besides, there were 21 more projects submitted that were still in evaluation at the time of writing the present paper, seven in Apahida, four in Floreşti and three in Gilău. Also, Borşa, Căianu, Cojocna, Feleacu, Jucu, Sânpaul and Săvădisla each had one project.

- Investments in agricultural and forestry infrastructures were facilitated by Measure 125 "Improving and developing the infrastructure related to the development and adaptation of agriculture and forestry" of the

2007-2013 NRDP and Sub-measure 4.3 "Investments for the development, modernization or adaptation of agricultural and forestry infrastructure" of the 2014-2020 NRDP. These measures supported projects regarding agricultural or forest roads, that could have been contracted by local authorities, associations, or the forest administration. Such infrastructures could have had an impact on the development of other projects in the area as well.

All the projects that were submitted in the area regarded agricultural roads. However, their number was not very high, there were eight contracted projects on Measure 125 (in Apahida, Borşa, Cojocna, Floreşti, Gilău, Petreştii de Jos and Sânpaul) and one contracted project on Sub-measure 4.3 in Baciu. There were also some projects submitted from Apahida, Borşa, Tureni and Vultureni on this sub-measure but they have not been contracted.

3.3. Measures targeting the diversification of the rural economy and the quality of life

- Investments for the diversification of economic activities in the rural areas were supported by four measures: measures 312 "Support for the creation and development of micro-enterprises" and 313 "Encouraging of tourism activities" of the 2007-2013 NRDP, and sub-measures 6.2 "Support for the creation of non-agricultural activities in rural areas" and 6.4 "Investment in the creation and development of non-agricultural activities" of the 2014-2020 NRDP. These measures targeted various activities such as tourism, handcrafts, medical or veterinarian services etc., and the beneficiaries could be self-employed persons or small enterprises. The amount of the financial support was very different among the four measures, and so was the covered percentage of eligible expenses.

There were 45 contracted projects on Measure 312, distributed in 12 of the 19 communes of the metropolitan area. Almost half of these projects were implemented in Floreşti, while the other communes had between one and five projects. The high number of contracted projects in Floreşti is not surprising given the accelerated demographic increase in recent years years - in less than 20 years, the population of the commune has increased by 625.32%.

Measure 313, on the other hand, recorded less projects in the study area: 35 projects in 13 communes, with a maximum in Floreşti (eight projects), followed by Feleacu (seven projects). The rest of the communes with contracted projects had between one and four such financed investments. Gilău commune only had two beneficiaries of this measure regarding tourism, which is a rather surprising fact, considering its location in the Apuseni Mountains, its important natural potential and high number of tourism establishments. Most of the

projects were submitted by entrepreneurs or enterprises, and only four projects were submitted by local authorities, for the establishment of Tourist information and promotion centers (Bonțida, Chinteni, Petreștii de Jos and Tureni).

In the following development program, Sub-measure 6.2 generated slightly more interest. The number of projects in the area was thus quite high, 98 projects - on average 5.15 projects/commune. Again, the disparities were obvious, as there were 32 contracted projects in Florești, 15 in Apahida, 14 in Baciu, while the other communes had less than five projects. As in other cases, the only commune in the area where no projects are listed is Aiton. We can notice the concentration of projects in the communes of the first ring of the metropolitan area. In fact, the numbers are quite high even compared to other tourist areas of Cluj County, like the Apuseni Mountains, where the maximum numbers of projects occurred in Beliș (15 projects) and Călățele (12 projects).

The number of submitted projects (that have not been contracted or are still in evaluation) was also rather high, 352 projects submitted by 2021. The maximum number of submissions was recorded in Florești (90), followed by Săvădisla (44) and Apahida (42). Relevant numbers of submitted projects were also recorded in Baciu (29) and Gilău (26), the rest of the communes having between 3 and 16 submitted projects; the lowest numbers of proposals came from Gârbău, Aiton and Tureni (3-5 projects). However, the total number of submitted projects (contracted, under evaluation, and not selected projects) is quite impressive – 450 projects.

The situation is very different, however, for Sub-measure 6.4 on which there were only 31 contracted projects in 11 communes, by 2021. Yet again, the highest number of projects was registered in Florești (eight projects) followed by Apahida and Baciu (five projects each). The number of submitted projects was higher, 102 projects, out of which more than half were submitted from four communes: Florești (29), Apahida (16), Gilău (14) and Baciu (12). In Aiton, Borșa, Petreștii de Jos and Sânpaul no project has been submitted; one explanation might reside in the very high share of the elderly population of these communes e.g., 36.2% in Aiton, 27.8% in Borșa.

In what regards the total number of projects contracted on measures destined to increase the diversification of the rural economy, the results can only be intermediate at this point. However, on the four analyzed measures and sub-measures (312, 313, 6.2 and 6.4), a total of 209 projects has been contracted in Cluj-Napoca Metropolitan Area. Most communes of the area had between four and nine beneficiaries. Some communes of the first ring of the metropolitan area did however stand out due to the high numbers of contracted projects: Florești (68), Apahida (24) and Baciu (22). These are also the communes

with the younger population of the area, in Floreşti, the 30-44 years age group representing 34.4% of the total population (while the 65+years representing 6.5%), in Apahida the same group representing 27.7% and in Baciu 28.5%. At the other end, the communes with the lowest numbers of contracted projects (one or two projects) were Borşa, Sânpaul, Vultureni, Aiton and Gârbău, communes with an elderly population and a higher degree of ruralism.

The spatial distribution of projects indicates a contrasting situation between the communes in the first ring of Cluj-Napoca Metropolitan Area, where the average of contracted projects was 23.66 projects/commune, and those in the second ring where the average was much lower, 5.15 projects/ commune. However, these discrepancies between the two rings are somewhat attenuated when analyzing the situation of submitted projects. Still, there are some communes that stand out, in contrast: the communes with high numbers of projects, indeed located in the first ring - Floreşti, Baciu, Apahida and Gilău, and the communes with very low figures, indeed located in the second ring: Aiton, Borşa and Sânpaul.

Referring to the manner in which the influence of the city can be perceived in the case of measures targeting agriculture (the lower average in the metropolitan area in comparison to the county average), one may note a completely opposed statistic for these other measures. In the context of the 2007-2013 NRDP, for Measure 312, the average in the metropolitan area was 2.36 projects/commune and in the county 1.06 projects/commune, while for Measure 313, it was 1.84 in the metropolitan area vs 1.25 in the county. A similar rate was maintained in the following NRDP, when for Sub-measure 6.2 there were 5.15 projects/commune in the study area and 3.25 projects/commune in the county, while for Sub-measure 6.4 there were 1.63 projects/commune in the study area and 0.92 projects/ commune in Cluj County.

When comparing the number and distribution of projects contracted on these last four measures and the main measures regarding the development of agriculture (in terms of numbers of beneficiaries: Measure 141, Sub-measure 6.1, Measure 112 and Sub-measure 6.3) we note that in most of the analyzed communes the higher numbers of projects refer to the agricultural sector (Figure 1). In fact, Floreşti and Feleacu are the only communes where the number of projects targeting the diversification of the rural economy are higher than the projects from the agricultural sector.

In what regards the economic sectors of the projects contracted on Sub-measure 6.2, one may notice the pronounced heterogeneity of the sectors. There were however some sectors that did stand out: tourism (with more than 20 projects for the construction or upgrade of accommodation establishments), textile industry and tailor shops (13 projects) and crafts and arts (12 projects).

Projects were also contracted in other fields like photography, software development, beauty salons, constructions etc. Meanwhile, on Measure 6.4 most investments were accessed for auto shops and tourist establishments.

However, in 2021 tourism was definitely not a priority, as there were only two projects submitted on Sub-measure 6.2 and one on Sub-measure 6.4 concerning the development of camping sites or bungalows. Most submitted projects were from sectors such as: woodcraft, furniture production, various crafts, health services, outdoor relaxation services (horse-riding centers, ATV renting shops) etc. However, the decrease in interest for tourism projects came after the 2020 tourism crisis generated in the context of the COVID-19 pandemic.

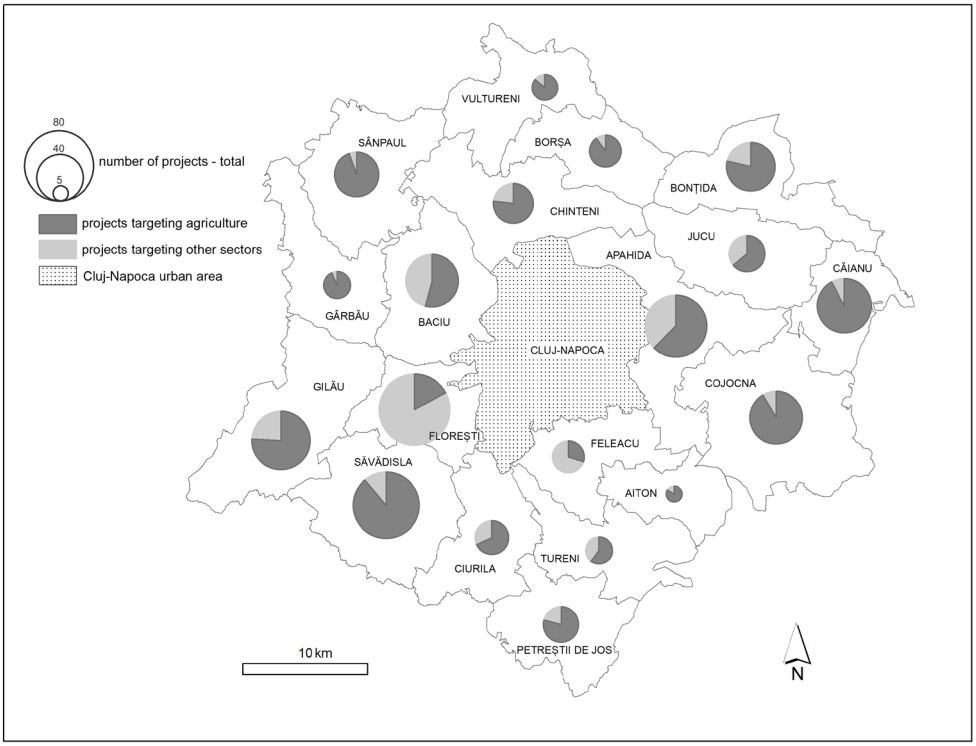

Fig. 1. Distribution of projects contracted on the main measures targeting agriculture (M. 112, M. 141, S.M. 6.1, S.M. 6.3) and the diversification of economic activities (M. 312, M.313, S.M. 6.2, S.M. 6.4) in the Cluj-Napoca Metropolitan Area, 2007-2021
Data source: own calculations based on data retrieved from AFIR)

- Investments for increasing the quality of life in rural areas were covered by Measure 322 "Village renewal and development, improvement of basic services for the economy and rural population and upgrading the rural heritage" of the 2007-2013 NRDP and sub-measures 7.2 "Investments in the creation and upgrade of small-scale infrastructure" and 7.6 "Investments related to cultural heritage protection" of the 2014-2020 NRDP. These measures included several directions of action, from the development of key infrastructure and services (including local roads, access to education or the water supply network), to the protection of heritage buildings.

At the time of implementation of the 2007-2013 program, not all the communes of the metropolitan area had a proper drinking water network, in fact, only 51 villages out of 107 even had one. Issues were being signaled in many communes like Aiton, Borşa, Cojocna, Ciurila, Gârbău or Vultureni. Still, there were only 11 contracted projects on Measure 322 in the study area. Two projects were contracted by the administration of Ciurila and one project in each of the communes: Apahida, Bonţida, Borşa, Chinteni, Cojocna, Floreşti, Gilău, Sânpaul and Tureni. The situation persisted in the context of the second development program, when again, not many projects have been contracted by the local authorities. There were, however, 16 contracted projects in 12 communes (Apahida, Bonţida, Gilău and Jucu had two projects each, while the other eight communes had one project each). Of the 16 projects, two were referring the water supply issues (in Jucu and Săvădisla), while five projects were dedicated to the construction of kindergartens (in Apahida, Bonţida, Floreşti, Gilău and Sânpaul) and the nine other projects addressed the road network improvement. Among the seven communes that did not have any contracted projects, there were five cases however, in which local authorities did not submit any project: Aiton, Borşa, Chinteni, Gârbău and Vultureni.

In what regards Sub-measure 7.6, referring the cultural heritage, this measure could have represented an opportunity for the analyzed area, which comprises more than 300 historical monuments, among which 119 A class monuments, many of them in need of restorations or renovations. Still, even though the number of monuments in need of rehabilitation is very high in the area, there were only seven contracted projects on Sub-measure 7.6, in Apahida, Bonţida, Cojocna, Petreştii de Jos, Săvădisla, Sânpaul and Vultureni. However, the projects submitted by local authorities were targeted at the modernization of the cultural community centers of the communes. There was only one project, submitted by the Orthodox Parish of Cojocna, that involved the rehabilitation of a monument, namely the wooden church in the village.

4. Conclusions

When drawing the line and analyzing the spatial distribution of all the contracted projects in the study area, on all the analyzed measures and sub-measures, one may note serious discrepancies among the 19 communes of the Cluj-Napoca Metropolitan Area. On the one hand, there are the communes with rather high total numbers of contracted projects: Floreşti (85), Apahida (80), Săvădisla (76) and Gilău (64), followed by some communes with 40-60 projects: Cojocna (56), Căianu (54), Baciu (50), Bonţida (49) and Sânpaul (42). The rest of the communes in the analyzed area have between 15 and 33 projects, with the exception of Aiton, the commune with the lowest number of contracted projects, seven projects, and most of them in the agriculture sector.

Although throughout the paper we could identify some disparities among the two rings of the metropolitan area, we can also remark some exceptions that clearly indicate that the mere inclusion in one ring or another is not an accurate predictive factor for the type or sum of initiatives in that commune. For example, the commune Feleacu has a rather modest number of projects, in spite of being included in the first ring of the metropolitan area, while a reversed situation can be observed for Săvădisla, Cojocna or Căianu, belonging to the second ring and having a high number of beneficiaries.

In terms of the type and sector of the lucrative activity, we have also noticed that the inclusion in one ring or another is clearly not decisive. For example, in Apahida, a commune in the first ring, more than half of the contracted projects involve investments in agriculture (47 out of 80 projects). Likewise, in Baciu, 27 projects out of the total of 50 are in the agricultural sector. It is only Floreşti commune that has more than three quarters of the contracted projects oriented toward the diversification of the economy (70 out of 85), but of course, this commune has had a very particular development in recent years.

Our research provides an insight upon the directions of development that are considered by the local population, by the local stakeholders, while also underlining some factors that can impact such initiatives and the ongoing development of the study area.

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MODEL ANALYSIS PRINCIPLES FOR THE DESIGN OF PUBLIC SPACES IN THE BISTRIȚA-TÂRGU MUREȘ URBAN AXIS

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ABSTRACT. Model Analysis Principles for the Design of Public Spaces in the Bistrița-Târgu Mureș Urban Axis. The physical urban terrain across cities continually evolves through insights, consultations, deliberate redesigning or random acts by community members and natural forces that reshape the urban landscapes and how urban spaces are used. This research establishes a set of normative principles that planners and others can use when planning and regulating the design and management of public space. Data were collected in the period March 2023 – January 2024. Based on a comprehensive analysis of public space in the city, the paper sets out a number of general principles relating to the essential, but often missing, strategic planning framework for developing and regenerating public spaces, providing seven more detailed considerations for assessing the quality of public space design and a proposal for spatial planning. This is an unreservedly positive framework for shaping public space, based on the idea that public spaces in our cities come in many different shapes and forms, but that together they add immense value to the experience and potential of urban areas. The research takes place in the Bistrița-Târgu Mureș urban axis, the field research carried out as part of the study results in a set of three principles of urban spatial planning that examine proposals for the design of public spaces.

Keywords: *public space, design principles, planning, Bistrița-Târgu Mureș urban axis*

1. Introduction

Public spaces range in form from informal street corners to grand civic set pieces. At a larger scale, formal public spaces have long had an important role as the perceived centres of settlements of all types and as the focus for public life, activities, and events. At a smaller scale, they might be somewhere

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to rest, hang out, or play whilst providing a visual pause in the flow of streets through urban areas. They encompass everything from traditional squares to incidental urban spaces, to a range of new sorts of spaces (e.g., Cho et al., 2016) that challenge our perceptions – physically, socially and in terms of their management – about what public spaces should be.

What is clear is that since the 1980s, public spaces of all forms have witnessed a renaissance in that they have increasingly become a key component of many regeneration and development schemes (both residential and commercial), worldwide, with far-reaching impacts on how the resulting places are perceived and used (Crowhurst Lennard and Lennard, 1995; Corbett, 2004). In such a context, it is vitally important to design public spaces well, although experience suggests that often our ambition is not met by reality. When we get them right, however, high-quality public spaces offer huge economic, social, and environmental benefits to their localities and communities (CABE, 2004).

This paper draws on research conducted in the city (Carmona and Wunderlich, 2012) to propose a set of rules, first, relating to the critical planning considerations for the development and regeneration of public spaces, and second, concerning the more detailed considerations for evaluating the quality of public space design. In doing so, it builds on, organises, and better articulates a set of new normative principles for public space that stemmed from the research underpinning this paper and that were originally offered as a provisional attempt to re-theorise public space discourse based on the actual experiences of public space creation, use and management, rather than based on its critique (Carmona, 2015).

2. Materials and methods

The working methodology was divided into: Basic Research and Applied Research.

2.1. Basic Research

Also known as pure or fundamental research, basic research refers to research designed and oriented towards exploring and explaining the basic principles behind the ordinary functioning of the world. The OECD (2002) defines basic research in the Frascati Manual as experimental or theoretical work undertaken purely to acquire new knowledge of observable land.

Pure research in urban planning, therefore, entails the engagement, often by the philosopher kings (those of high intellectual calibre) of the discipline, into examining existing theories explaining certain phenomena, redesigning these

theories, or, where they are found plausible, coming up with alternative theories to offer better explanations. Similarly, the researchers can examine completely new phenomena and propose new theories in areas that had not been explored before. Such would include the current drive to have green urban infrastructure to combat global warming, or studies to develop theories on smart cities (Palys, 2018).

Pure research largely involves observation, polls/surveys, interviews and focus group discussions as its primary means of investigation. Secondary research methods used here include online searches, literature searches and case studies (Palys, 2018; Parnell & Pieterse, 2015).

2.2. Applied Research

Unlike pure research, Palys (2018) as well as Baimyrzaeva (2018) state that applied research is practical and is aimed at offering immediate solutions to an existing problem. It bases its studies on pre-existing theories and assumptions made while undertaking pure research (pre-existing knowledge) to address real-world problems. It is hence problem-solving in nature (OECD, 2002).

Summarize the applied research process as shown in Figure 1 below:

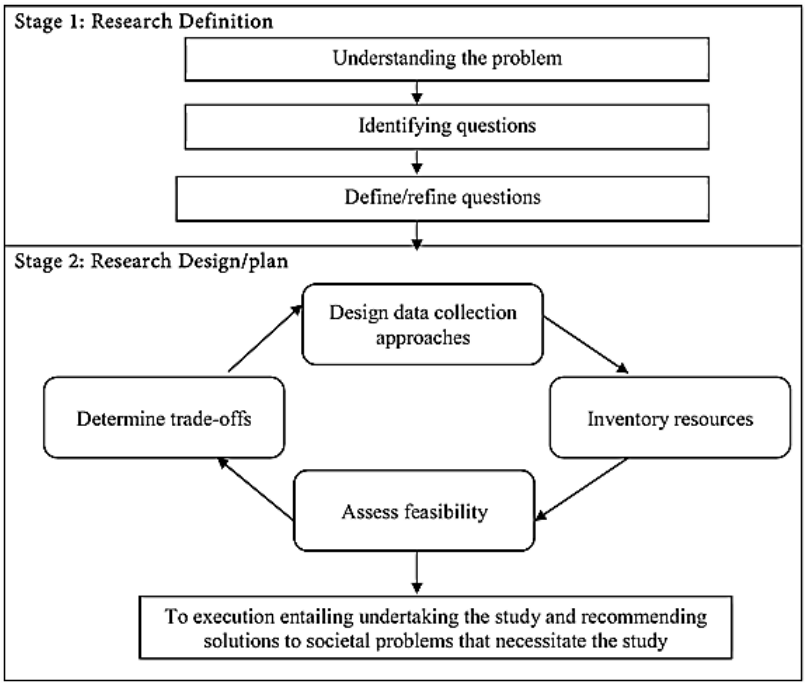

Fig. 1. The applied research process as outlined by Bickman & Rog (2008)

3. Results and discussions

3.1. Planning for Public Spaces

The issue of delivering better public spaces is seen here first through the prism of planning because planners have a critical role to play in the creation and shaping of public spaces; a role that manifests itself in two distinct ways. First, planners are often the initiators of public space projects, for example, recognising the need and potential for new or regenerated public spaces in particular locations through the auspices of the proactive site or area-based plans, frameworks, and briefs, or otherwise encouraging them in policy.

Second, planners are the guardians of how public spaces come into being through the regulatory processes of development management (granting or denying permission to develop). Both are critical roles in ensuring that public spaces fully serve the public interest as much as heralded success stories such as the Barcelona show (Monclus, 2003), arguably it is important to get the strategic decision-making framework for public space right before worrying about the detailed execution.

This is all the more important given that, globally, more often than not it is the private sector that is designing and delivering new public spaces, and which is ultimately also often responsible for their ongoing stewardship.

In such a context, planning is the gateway through which the public interest, as regards the design and management of public space, is tested, and if the opportunity is not taken to safeguard key qualities and interests, it is unlikely to quickly come again.

At this scale, the city research suggested that three key factors should be considered:

- What are the processes through which public spaces evolve, and how do planning and other forms of regulation interact with them?
- What types of public spaces should be provided, and where?
- How should rights and responsibilities for public spaces be safeguarded over the long term?

These are 'process'-related considerations and reinforce the argument made elsewhere (Carmona, 2014) that it is vital to understand and get the process of design right before focusing on desired outcomes.

3.2. Evolving public space (whether formal or informal)

Public spaces require something in their physical form that allows us to distinguish them from their surroundings as a clear and identifiable place. Typically, this is a sense of enclosure, where the buildings and landscape, to

greater or lesser degrees, first open up to create a space, and second, wrap around and 'contain' space to hold the eye and create a distinct place. Whilst the factors determining a sense of enclosure are contested many formal public squares are of this type and planners will need to work closely with developers and other interested parties to ensure they exhibit the sorts of qualities discussed in the second half of this paper.

A strong sense of enclosure is not, however, a prerequisite for a successful public space as increasingly very successful informal local spaces have been created by simply reclaiming small parcels of street parking or roadway from vehicles, or by paving over the end of a street to create a pause in the urban fabric and an informal space for pedestrians.

Other spaces have been given new character and purpose by the granting of temporary use rights, perhaps for a market, or have even been created as spaces on a temporary or occasional basis through actions as simple as painting markings on a road or repurposing a car park. In this regard, not everywhere needs to be finished and refined, but can also be transient, even rudimentary, in places of regeneration or rapid change. At the other end of the scale, recent years have also seen the character of many of the city's historic squares changing, most notably Trafalgar Square, as a result of traffic calming and significant public realm improvements.

All these sorts of processes will involve distinct planning inputs although they may be initiated outside of the formal planning processes, and most notably from within the highways/street management function of municipalities. In all cases, planners will need to be flexible enough to understand and embrace the evolving nature of public space, and mindful of the important role of the range of public sector agencies that impact the shaping of public spaces. In Bistrița for example, four forms of regulation have been critical when creating or re-shaping public spaces:

- Planning controls to sanction new public space proposals or where changes of use or alterations to the (non-highways related) built fabric occur in existing spaces;
- Highways orders, focusing on changes to highways themselves (including 'stopping up' existing rights of way);
- Street trading licencing if proposals involve uses concerned with selling goods or services in public space.

Planning therefore also has a vital coordinating function across the various actors to ensure that policies and approaches are in harmony and outcomes, including innovations in practice, are optimised.

Creating a place entails a broader view that goes beyond design; a successful public space possesses four key attributes: accessibility, activities, comfort, and sociability. These attributes depend on effective management and require the involvement of many different disciplines and interests.

3.3. Design of public space in the Bistrița-Târgu Mureș urban axis

The research remarked two stages of public space planning. The first phase is given by the way/architecture of the execution. It is the phase in which the organization and work in space are noted. In the second phase, the finality/ aesthetic aspect is noticed in the functionality, condition, and aesthetics of the work.

A. Bistrița

- The first phase of architectural works

Fig. 2. Bike path development (own source)

Fig. 3. Pedestrian alley landscaping, decking, and cladding; Street improvement, decking and cladding (own source)

Fig. 4. Aesthetics way of working (own source)

Fig. 5. Street improvement, decking and cladding (own source)

Fig. 6. Type of kerbing used (own source)

Fig. 7. Framework layout urban development works (own work)

B. Târgu Mureș

Fig. 8. Road resurfacing works (own source)

Fig. 9. Excavation operations (own source)

Fig. 10. Street improvement, decking and cladding (own source)

Fig. 11. Road network in work without asphalt pavement

It should be noted that due to the major public works under consideration, Târgu Mureş does not enter the second phase, the finality/aesthetic aspect of the work. Therefore, there is a difference in the urban axis.

- The second phase, the finality/aesthetic aspect of work

A successful public space generally needs to offer four qualities: it should be accessible, it should be comfortable and have a good image, people should be able to engage in an array of activities, and it should be sociable.

C. Bistriţa

Fig. 12. Final layout of the street works, bike path

Fig. 13. Design of the final layout pedestrian walkway, bicycle path

3.4. Diverse public space (avoiding one-size-fits-all)

The principle of cities, and by extension public spaces, for all has been fundamental to many discussions about the city at least as far back as Henri Lefebvre's call for a right to the city (Lefebvre, 1968).

But if one accepts that the city is for all and certain unalienable rights need to be guaranteed for everyone, then it also follows that the city will be one of diversity and difference, and not everyone will seek the same or even compatible things.

Consequently, not every public space will, or should, cater equally to every citizen or for every occasion, despite calls in some quarters that anything less is in effect exclusion (e.g., Malone, 2002).

The city research confirmed that public spaces take on different flavours as a result of the different groups of interests that create them and the particular range of uses they accommodate. It follows that just like rooms in a

house or buildings in a city, it would be not very smart to try and design all public spaces according to some idealised cloned blueprint so that each is equally appealing to all. Some spaces are vibrant and commercial, others focused on play (for children and/or adults), and others are serious and civic, or peaceful and relaxing.

This diversity recognises the diversity of lifestyles, preferences and needs amongst urban populations and that through the design of their public realm, there is the opportunity for urban areas to offer something for everyone in the right locations although not necessarily everything for all everywhere. Planners need to recognise this legitimate diversity, particularly in large cities, and avoid imposing one-size-fits-all aspirations on public space projects that play into critiques around the homogenisation of public space (e.g., Light and Smith, 1998; Sennett, 1990). In this respect, the public spaces of a town or city can be planned in a strategic sense just as the buildings are, with care taken to ensure that all sections of the community are catered for and that spaces are provided in locations that are safe, convenient, and inviting to use and that avoid conflict, for example, between skateboarders and commercial interests or between revellers and residents.

But whilst strategic planning for green spaces has long been on the agenda and is widespread (e.g., CABE, 2004), the notion of planning in a more systematic fashion for public spaces more generally has not been widespread and only a minority of cities such as Copenhagen and Melbourne can claim to do so. If the city experience is indicative of the situation elsewhere, then at the heart of such efforts should be planning for a diversity of provision and not just for a greater quantum of public space, and certainly not for an over-simplified and potentially homogenised vision of one-size-fits-all.

3.5. Free public space (securing rights and responsibilities)

The discussions about our rights to the city often focus on who owns and manages space, with the most polemical discourses denouncing processes of privatisation as the death of public space (e.g., Mitchell, 1995).

Empirical research, by contrast, has tended to show that ultimately the rights and responsibilities associated with spaces and what this implies about how public they are more important than who owns and manages them (Carmona et al., 2008).

Public spaces are owned and managed through multiple complex arrangements and always have been, and many are neither public nor private as regards who owns and manages them.

Moreover, restrictions on use apply to all spaces, regardless of ownership, not least as a means to ensure that their amenity value is distributed fairly across the range of potential users (Nemeth, 2012). Yet underpinning the notion of

'public' space in much of the literature is the idea that, as far as possible, space should be 'free', in three senses of the word: open, unrestricted, and gratis. Arguably, whatever the ownership, such guaranteed freedoms of use are best established by clearly setting out guaranteed rights and responsibilities for users and owners alike at the time that spaces are created or regenerated.

Fig. 14. Model: An indicative charter for public space rights and responsibilities
***Source**: Realised by the author*

This does not always happen, and particular problems occur when owners and managers seek to use the privilege of ownership to exclude key groups (such as teenagers), restrict access (for example, at night) or impose codes of behaviour that go beyond societal norms such as banning photography. Whilst, in common with many cities, these sorts of behaviours are not widespread in the city when they occur, they undermine the freedoms that public space users rightfully expect. For planners, it is therefore vital to negotiate these long-term management issues at the same time as more immediate quality concerns

are considered. If rights and responsibilities are not tied down at the time that regulatory permissions are given, it will be much harder to revisit them later. Municipalities, for example, might consider adopting a Charter for Public Space Rights and Responsibilities in policy or ordinance as a standard set of expectations that would relate to all public space proposals (Fig. 9).

3.6. Designing public spaces, delineated public space (clearly public in their use) and engaging public space (designing in active uses)

Beyond strategic considerations relating to how public spaces evolve and are regulated, the balance of space types across an urban area, and how to guarantee rights and responsibilities; at a more detailed level, planners are also often the guardians of how new public spaces are created and existing spaces are regenerated. Thus, through their plans, ordinances, frameworks, and policies, or discretionary negotiations on development proposals during the regulatory process, planners have the opportunity to set out and implement clear principles for the sorts of public spaces they would wish to see. Whilst every public space will be different and attempts to define universally applicable principles for 'good' public space design are often based on little more than supposition and intuitive analysis, extensive empirical testing revealed several critical factors that are likely to be important in the design of most public spaces (Carmona and Wunderlich, 2012).

The remainder of this paper takes these seven factors in turn and, drawing from the research suggests in a little more detail why they are important and, concerning each, which aspects planners might consider.

The problems associated with creating spaces that are neither public nor private in their use have been well documented in the urban design literature, at least since the writings of Oscar Newman (1973). This has long been a problem in residential areas but is also apparent in some commercial developments, whilst some retail schemes can appear overly exclusive and therefore not fully public, or at least not welcoming to all.

There remains an important need to carefully delineate the public and private realms of the city, recognising that public spaces in the wrong places can be more problematic than the absence of public space altogether. Instead, public spaces (including all varieties of pseudo-public space) should be designed to appear welcoming, inviting and visually and physically accessible, avoiding any doubt in users' minds that they are public, regardless of who owns and manages them. Equally, private spaces for relaxation such as private or communal gardens have an important and quite distinct role that is separate from the

shared public parts of the city. Through the way they are designed, these parts of the city should be private, even if visible from the public realm.

This is not segregation in the negative sense that it is sometimes viewed in the literature (e.g., Webster, 2001), but merely a positive division between the public and private functions of the city; the careful demarcation between which represents a fundamental quality of good urbanism (Carmona et al., 2010).

Whilst buildings, landscape and infrastructure define the physical limits of external public spaces, the land uses surrounding spaces, and those lining the streets leading from spaces will dictate what sort of places they will be; whether peaceful, gently animated, or full of life.

At all times it is important to be realistic about what will work and what will not in particular locations, and therefore about what sort of space can or cannot be created trying to create a vibrant commercial hub in a quiet residential area or a peaceful oasis in a busy urban centre is likely to be unrealistic.

Despite criticisms that public spaces have become over-commercialised and unduly dominated by the pressure to consume (e.g., Hajer and Reijndorp, 2001), much of the buzz associated with particularly active spaces will tend to be wrapped up in the activities of consumption of one sort or another – shops, cafes, bars, markets, etc. – and typically these processes animate and enrich public spaces and are welcomed by users.

If the intention is to create such a space, then active uses should be carefully designed into the public space from the start, helping to fill them with life and allowing users to engage with them. The importance of getting the use mix surrounding (and within) public spaces right is therefore an early and critical lesson in the public space design process and involves decisions in which planners almost always play a leading role.

3.7. Meaningful public space (incorporating notable amenities and features), social public space (encouraging social engagement) and balanced public space (between traffic and pedestrians)

Extensive interviews with users of spaces across London suggested that they are primarily concerned with how they experience space – good or bad, engaging or repellent, attractive or ugly – rather than with narrow stylistic concerns associated with the details of their design or whether they are narrowly 'authentic' or not; a concern of some of the literature on public spaces (e.g., New Economics Foundation, 2004). Over time, spaces become more meaningful as users interact with them and they acquire the patina of age and use. Spaces can also become more meaningful by incorporating key historic or landscape features (e.g., existing historic buildings or mature trees), and by hosting other amenities and features with which users can directly engage. These

might be active, such as big screens, band stands, kiosks, sports facilities, fountains, paddling pools, play equipment, skating opportunities, stages, amphitheatres, lighting displays and so forth. Equally, they may be restful, serious, or contemplative, such as public art, sculptural furniture, memorials and monuments, reflection pools, flower gardens/displays, Wi-Fi hot spots, and so on.

How we design public spaces can make them more or less conducive to social interactions of all types, from large-scale events and festivities to low-key humble encounters, and everything in between. Rather than a retreat from public space as predicted by some (e.g., Graham and Marvin 2001), the evidence from London suggested that, if conducive to such uses, public spaces still represent the definitive venues for public debate, protest, encounter, collective experience, communication and the rich and varied social life of towns and cities. Detailed observational work revealed that movement in public space predominantly flows along dominant movement corridors or 'desire lines' passing right through spaces, and from movement corridors to the active uses of space and vice versa. In the majority of spaces that are well integrated into the movement network, only a small proportion of users will stop within and engage directly with the space itself whilst the majority will pass straight through.

Nevertheless, high levels of through movement will generally stimulate high levels of activity in the space, with the highest density of such activities (and social encounters) typically occurring in the gaps between the dominant lines of movement and being drawn to and around key amenities and features.

Individual spaces (if large enough) can also work successfully as a series of distinct and separate subspaces, each with a different character and purpose and designed to attract different sorts of users (e.g., fountains for children, steps and ramps for skateboarders, nooks for quiet conversation, and so forth). In designing public space, it is important to consider the desired social outcomes and how the physical space and its context will or will not support them. Whilst particular social outcomes can never be guaranteed (Carmona et al., 2010), leaving such outcomes entirely to chance is unlikely to be a successful strategy.

The challenge of traffic dominance is a perennial problem that continues to blight many public spaces with severe knock-on impacts on their social life (Gehl and Gemzoe, 2000). The solution, however, does not have to be banning all traffic. Instead, a subtle re-balancing of space is often all that is required as traffic and pedestrians can harmoniously share public space with mutual benefits to both groups: allowing drivers direct access to and between important urban centres; and providing a background level of animation and surveillance in public spaces. This requires that enough space is given to pedestrians for movement and socialisation; that they are not corralled and kettled, but trusted to move and navigate freely; and, to enable this, that traffic is slowed sufficiently on roads leading into and through public spaces (Fig. 10).

Fig. 15. Model: Balanced public space between traffic and pedestrians
***Source**: Realised by the author using the SketchUp program*

3.8. Comfortable public space (feeling safe and relaxing) and robust public space (adaptable and distinct in the face of change)

Despite claims in the literature that there has been a general securitisation of public space (e.g., Minton, 2009, p. 240), in reality, security is expensive, and arrangements tend to be pragmatically defined to reflect the needs of different types of public spaces. Whilst some very busy spaces (e.g., the forecourts of major railway stations) may need and do possess highly visible security, most do not. Ultimately, the objective should be the wellbeing and sense of wellbeing of users, and their ability to use spaces in a relaxed and comfortable manner.

Interviews with the users of public spaces in the city confirmed the long-held view from Jane Jacobs (1961) that security (or at least a sense of security) is first and foremost determined by how busy spaces are, as active spaces will always seem safer than deserted ones, as good spaces that are well overlooked and visible from the outside. Second, how well spaces are managed also has an impact, with spaces that are clean and tidy and well maintained generally feeling safer than those that are not. Finally, spaces should be relaxing, with opportunities to stop and linger, for example, with good quality, comfortable and preferably moveable formal seating, informal seating opportunities (on steps, kerbs, and walls), toilet facilities, soft landscaping and careful consideration given to microclimate (places to sit in the sun, and to shelter from the wind and the rain).

Grass, for example, whilst requiring active maintenance, is very popular because it is comfortable, and flexible and allows users to position themselves to take advantage of micro-climatic conditions. It is also highly conducive to relaxation, play and social engagement.

Finally, the success of public spaces will depend on shaping places which, through their robust design (simple, uncluttered and with resilient natural materials, trees, and planting), and background level of activity, can adapt and change over time in a manner that can withstand the sorts of homogenisation pressures that are so derided in the literature (e.g., Boyer, 1993) and which still feel distinct, welcoming, and rooted in the local context. In the short term, this means spaces that can adapt to different uses and activities, perhaps at different times of the day (somewhere for workers to lunch or for children to play throughout the week, a market on a Monday and, without feeling deserted, quiet on a Sunday), or across the year (concerts in summer and ice skating in winter).

In the long term, it will mean successfully adapting to changes in the uses that surround the space or to the demands placed on spaces by changes (yet unknown) to society and technology. It will also mean design solutions that reflect the realities of management routines and the budgets available for the upkeep of public space, with materials and features that can age gracefully and in a timeless manner.

3.9. Proposals for the design of public spaces

The field research results in a set of three principles of urban spatial planning that may change the social character of citizens:

A. **Keep it simple**: In the first stages of your project, maintain a simple and adaptable design that will allow for future enhancement of the space as funds become available and the community more involved. A good design should be able to adapt to change. While buildings come and go, the streets and the public spaces last for a longer time. New developments and public realm improvements should be designed both to respect the existing context and to accommodate future changes;
B. **Make it accessible for everyone:** A good public space provides ease, safety, and choice to people when moving to and through places. Helping people to find their way around and understand how a place works is often overlooked but it is one of the most important factors in design. Create paths and wayfinding signage to improve accessibility, orientation, and connectivity of spaces and functions. A clear hierarchy of streets and paths should be established to enable pedestrians, cyclists, and people with physical disabilities to move around the city safely and quickly;

C. **Plan for people, not for cars**: The streets are the interface between the public and the private realm. A street should be designed to accommodate all sorts of functions, not dominated by one, as in our modern society by the car. If you plan cities for cars and traffic, you get cars and traffic. But if you try to incorporate the local car movement in streets with priority to pedestrians and cyclists, you can get amazing results in terms of quality and safety. By leaving your car at the limit of the residence area, and walking 100 or 150 meters to your house, crossing the neighbourhood, you have more space for other creative open-air activities and a more human-centred public space.

4. Conclusions

Normative frameworks for urban design have often been much criticised for the tendency that they encourage us to focus on a narrow view of defined physical outcomes in the absence of a proper understanding of their socio-political context (Sorkin, 2009; Biddulph, 2012; Arabindoo, 2014). Whilst this must be a dangerous and uncritical application of any design prescriptions in policy or projects that should be avoided, we should not be so weary that we are prevented from articulating the results of well-grounded research and analysis in normative terms as this paper has attempted to do.

Arguably, the issue is not normative prescription per se, but the caution (or absence of caution) with which prescriptions are applied. So, beginning with this heavy caveat and with the proviso that all the research underpinning the normative principles described in this paper was derived from analysis of the city (as the illustrations throughout have reinforced), it is postulated that the ideas presented provide a straight-forward and widely applicable framework against which planners and other regulators can assess their engagement with issues of public space design and management.

As the recent UN Habitat (2013) report on streets and public spaces as drivers of prosperity reminds us, these are universal concerns of equal or perhaps even greater significance to the cities of the globe. Such issues are too important to be left to chance or ad hoc case-by-case negotiation on individual projects and propositions. Instead, as has been argued, in advance of development there is huge value in setting out a series of well-grounded positive principles for public space design, set within a coherent strategic framework for the long-term planning and management of public spaces. This paper has attempted to show this at the urban axis level.

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SOCIO-ECONOMIC IMPACT OF NATURAL POPULATION DYNAMICS IN BISTRIȚA-NĂSĂUD COUNTY BETWEEN 2000 AND 2020

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ABSTRACT. Socio-Economic Impact of Natural Population Dynamics in Bistrița-Năsăud County between 2000 and 2020. Natural population dynamics is a topic that is largely dealt with at national level, but little analysed on a smaller scale (at county or basic administrative-territorial unit level), which could provide an opportunity for a more in-depth analysis and highlight possible areas where the situation is different from that existing at national level. Over time, the changes that have occurred in the natural dynamics of the population in Romania have highlighted numerous changes and shifts at the societal level, influencing either positively or negatively its subsequent trajectory. The aim of this paper is to capture the demographic evolution of Bistrița-Năsăud County and to outline the current situation. The focus will also be on capturing the impact of the current demographic evolution, an impact noted at territorial, demographic, social and economic level. Furthermore, possible solutions will be proposed to solve the emerging problems.

Keywords: *population, birth rate, mortality, marriage rate, divorce rate, Bistrița-Năsăud County, impact, solutions*

1. Introduction

Demographic issues have become more and more studied lately due to the problems that have arisen in this respect, namely demographic ageing, but there is no concrete approach at county or administrative-territorial unit level, thus providing more of an overview than a picture that takes into account each

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county. One of the counties analysed from this point of view is Bistrița-Năsăud, a county for which a great deal of information is provided in terms of economic development, but less in demographic terms. However, it is demographics that actually influence the economy positively or negatively.

At the national level, the situation is not very encouraging. The birth rate is lower than the death rate, which has a negative impact on the country's demography and economic development. The situation is similar in Bistrița-Năsăud county, which is a major problem in the ongoing development of Bistrița society, and has repercussions at national level.

The analysis is carried out over the period 2000-2020 as the period of the 2000s is the period when many changes occurred in all respects as a result of the fall of the communist regime and the return to democracy. Demographically, the situation has been very dynamic during this period, which is why it is even more important to address this subject.

The purpose of this paper is to shed light on the economic and social impact of these birth and death rates on the county's population, i.e. what changes in these two demographic indicators can lead to.

In order to carry out this study, statistical data available on specialized websites were consulted and indirect interactions were held with people in municipalities where exceptional situations are captured in order to complete a questionnaire to notice their perception of the situation.

Thus, this paper can provide a first, more concrete picture of the natural population dynamics by focusing on one of Romania's counties, namely Bistrița-Năsăud. Thus, the analysis will aim at capturing the way in which the four main indicators evolve: birth rate, mortality rate, marriage rate and divorce rate, to which natural balance, infant mortality and stillbirth rate can be added.

Focusing on the way in which these indicators evolve, graphs and cartograms will bring to light valuable and necessary information for the knowledge of the territory from this point of view, but more than that, we will try to draw an alarm signal to the authorities in order to stop the evolution of demographic ageing manifested by increasing mortality rate and decreasing birth rate.

2. Natural dynamics. Concept

The term natural dynamics is complex precisely because it is one of the key demographic elements underlying the evolution of society. This complexity is due to the increases and decreases that take place, influencing the whole structure of the population and highlighting its degree of development (Vert, 2001).

In fact, natural population dynamics is nothing more than population reproduction itself, the ability of the human being to contribute to the emergence of another human being, a cycle of life that repeats itself day after day, year after year. Even if, in principle, we are talking about people who contribute to reproduction, this movement also illustrates people who no longer show any vital signs (Petri, 2002).

At the heart of natural dynamics are the two biological events that cause it: births and deaths. These two allow the population to renew itself each year by the disappearance of old generations and the emergence of new ones (Vert, 2001).

The continuity of society and population is due to the natural dynamics which, through the interplay of two biological events, makes this possible. In the context of a higher birth rate and lower mortality, society continues to move forward, whereas in the case of a higher mortality and lower birth rate the situation changes, with the population becoming smaller and smaller (Inomjonova, 2022).

If from a numerical point of view the population can remain relative without undergoing much change, the natural dynamics drives society in such a way that the changes that take place can be easily noticed precisely in order to be able to tell whether or not their effect is a beneficial one on the society at the time (Vert, 2001).

Society is seen as a system in which there are inputs and outputs, each with its own impact. Inputs are represented by the birth rate (births) and outputs by mortality (deaths) (Petri, 2002).

From another perspective, we can understand that in order for the population to be numerically evolved, it is not enough for the birth rate to be high and the mortality rate to be low. Moreover, *"The analysis of reproduction must be much more detailed: a mother must give birth to at least one daughter who will continue reproduction in the future"* (Vert, 2001, p. 52).

In other words, the mother must give birth, or at least it would be necessary to give birth to a daughter who, in her fertile period between the ages of 15-49, will help to maintain the continuity of the generations through the emergence of new ones, and the descendants will be more numerous in numerical terms. The greater the number of daughters, the greater the chance of generations renewing themselves, but as the number decreases reproduction becomes increasingly unlikely and uncertain leading to a demographic decline (Vert, 2001).

The small changes that birth and death rates can undergo have enough capacity to generate huge changes in the structure of the population so that the situation takes on totally different turns, the initial situation being different from the resulting one (Peter, Bradshaw, Shaw, & Sidaway, 2008).

In order to be able to determine exactly how birth and death rates have evolved, the difference between the two indicators is analysed, which is called

the natural population balance. Moreover, other demographic indicators such as fertility, fecundity, infant mortality, stillbirth, morbidity, nuptiality and divorce are directly related to the two biological events (Vert, 2001).

The term birth rate is understood to be one of the basic elements of the natural demographic balance and is an essential demographic phenomenon at the biological, social, political, cultural, health and legislative levels, which is concerned with the total number of live births during a given period (month, year), and this total number is related to the average population of an administrative-territorial unit and expressed per thousand inhabitants (Cristea, şi alţii, 2020).

Man has a somewhat higher degree of intervention and control over births than mortality, which is why the changes that occur can be very short in time, and an essential characteristic of births is their very great variability over time. A good example of this is the year 1967 for Romania, when the birth rate jumped remarkably, leading to a doubling of the population (Ungureanu & Muntele, 2006).

Another element directly related to birth rate is fertility. According to Alexandru Ungureanu and Ionel Muntele, they define fecundity as *"The average number of children born to a woman in a given population during her lifetime"*. In fact, fecundity means the capacity of the population or of a couple to contribute to the reproduction process through the number of children they can have (Raboca & Surd, 1989). For this reason, a woman has the physiological capacity to conceive a maximum of 20 children, which generally applies within the population regardless of the geographical region studied, race, ethnicity, factors influencing her (Vert, 2001).

Alongside birth rate and fertility, fertility plays an important role, another element that influences birth rate positively or negatively. Fertility means the very manifestation of fertility as measured by the total number of live children born (Raboca & Surd, 1989).

Depending on marital status, one can consider legitimate (within marriage) and illegitimate (outside marriage) fertility, which can be addressed to each age group (Tihan, 2004).

Mortality is the demographic phenomenon that refers to the total number of deaths per thousand inhabitants of a given territory at a given time, expressed as the average population. It is an essential demographic element which determines the number of people leaving the population, the age structure, the health status of society, the efficiency of health services and how they could be improved (Nicolae, 2012).

Infant mortality is one of the first indicators to contribute to the final analysis of mortality. It is defined as the ratio of newborn deaths up to the age

of one year to the total number of live births in that year expressed per 1 000 population (Vert, 2001). This indicator is measured by the infant mortality rate (Cochino, 2005).

Morbidity is another key component of mortality and illustrates the health status and degree of illness of the population during a year. If the phenomenon of interest is morbidity, the event we will consider is the occurrence or presence of disease defined as a change in health (***, 2018).

Last but not least, the last indicators of natural dynamics addressed are nuptiality and divortiality.

The marriage rate is the ratio of the total number of marriages to the average population expressed per thousand inhabitants in a given territory in a calendar year (Biroul National de Statistica a Republicii Moldova, 2022).

From a legislative perspective, the age of marriage is as follows: 18 years for men, this age being already reached, and 16 years for women. There are certain exceptions to this, namely that the female population aged 15 and over may take part in the act of marriage, for a well-founded reason. However, situations can also vary, with religions allowing marriages at an even younger age, 12-14 (Trebici, 1979).

According to statistical data from 2019, Romania ranks among the top countries in terms of nuptiality with a value of 6.6‰ (Institutul National de Statistica, 2021).

Divortiality is the last indicator of natural dynamics and refers to the total divorces in relation to the average population and expressed per thousand inhabitants of a given territory (Biroul National de Statistica a Republicii Moldova, 2022).

Following on from the above, it is the natural dynamics of the population that provides the most information on the physical well-being of the population by means of certain indicators, the phenomenon of births and deaths being directly related to the state of health of the human population (Petri, 2002).

3. Data and Methods

The methodology used in this study is diverse, considering several methods and means by which the results were obtained.

In the first instance, graphical and cartographic representations play an important role in carrying out the study and a deeper analysis of the situation. The graphical representations were made in Excel, Microsoft Office Professional Plus 2019. They have been created for each year in the range 2000-2020 and for each demographic indicator and phenomenon with the help of statistical

data collected from the website of the National Institute of Statistics, more specifically from Tempo Online. In the same vein, another program was used alongside Excel, namely ArcMap 10.8, to design the cartographic materials. These were made in order to capture the evolution and dynamics between 2000-2010 and 2010-2020.

In order to complete the study, some field trips were also made, more specifically, a trip to the Public Health Department of Bistrița and to the Regional Statistics Department of Bistrița-Năsăud. These trips were carried out in order to obtain statistical data to complete the study and analysis at county level and, in the same vein, some complementary bibliographic resources were also obtained, touching on other areas directly related to demography, an example being medical geography. In order to carry out a more comprehensive analysis at county level, a questionnaire was also carried out to capture the various opinions that different communities have on the evolution of the population over the last 20 years. In this respect, the questions asked referred to possible underlying causes and consequences, and potential solutions were proposed to support communities with demographic problems, those where birth rates are lower than death rates, or in the case of communities with higher divorce rates than marriage rates. It was distributed online through the respective community groups or individuals from those communities were appointed as representatives and then those individuals distributed to other groups. In order to ensure the accuracy of the information, a question was asked at the beginning of the questionnaire to confirm that the respondents were indeed from communities belonging to Bistrița-Năsăud County.

4. Results and Discussions

At the level of Bistrița-Năsăud County, the demographic situation shows an ageing population, which means that mortality is higher than birth rate (Fig.1, Fig.2)

In this sense, there are certain factors that influence this evolution of the society of Bistrița, but at the community level there are also certain impacts, either positive or negative, that determine how progress will take place in the coming period.

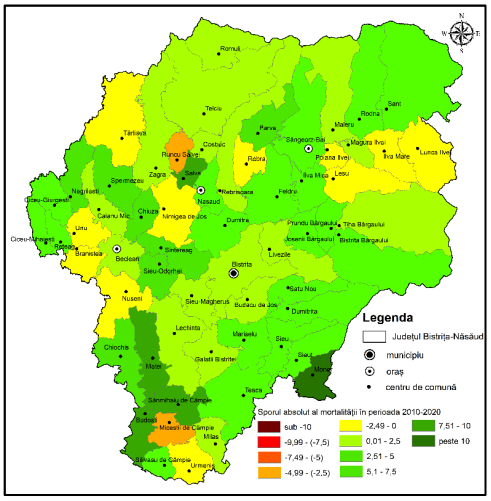

Fig. 1. Absolute birth rate increase 2010-2020
Data source: Tempo Online

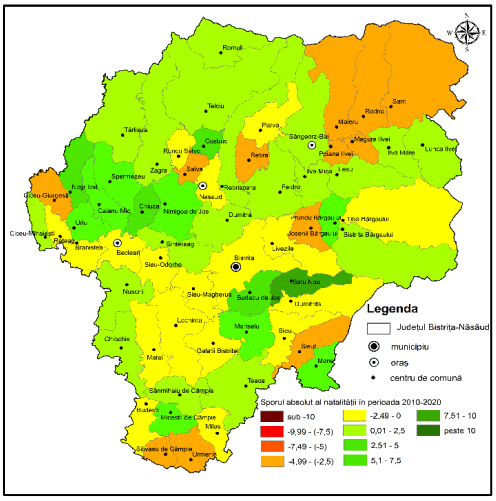

Fig. 2. Absolute increase in mortality between 2010-2020
Data source: Tempo Online

The first type of impact we can identify is at the socio-economic level, which is also essential for the development of society from an economic and social point of view. According to the research carried out, in Bistrița-Năsăud County, several types of impacts can be seen in this respect. Following the questioning of the communities, the most felt impact is that of a decrease in the workforce, identified by about 47% of respondents. A mortality rate higher than the birth rate leads to a reduced number of young people, which creates a discrepancy between the active and inactive population. In the north-eastern part of the country, in the communities of Ilva Mare, Ilva Mica, Poiana Ilvei, Măgura Ilvei, Leşu Ilvei, Lunca Ilvei, Sângeorz-Băi, Rodna, Maieru and Şanţ, the active population has high proportions in three of the ten communities listed, namely in Ilva Mare (52%), Poiana Ilvei (54%) and Lunca Ilvei (75%). In the other areas, the active population is very low, reaching a proportion of only 23 % (Gal Lider, 2022). In the southern area, in communities such as Budeşti, Miceştii de Câmpie, Milaş, Sânmihaiu de Câmpie, Silivaşu de Câmpie, Teaca, Galaţii Bistriţei, the labour force situation is the same. The number of employees decreased by 4.68%, from 1026 persons employed in 2004, to 978 persons in 2014. In 2011, the number of employed people in the region was 606. Of this number, 72.6% worked in agriculture (Gal Progres Transilvan, 2021). At the county level, the elderly population continues to be the most active in the agricultural sector, even though age no longer permits it. The situation remains similar even in the eastern region of the county in communities such as Bistrița-Bârgăului,

Budacu de Jos, Cetate, Dumitrița, Josenii Bârgăului, Prundu Bârgăului, Tiha Bârgăului, Livezile, Șieu, Șieuț, Monor, Mărișelu (Federatia pentru Dezvoltarea Zonei Rurale, 2018).

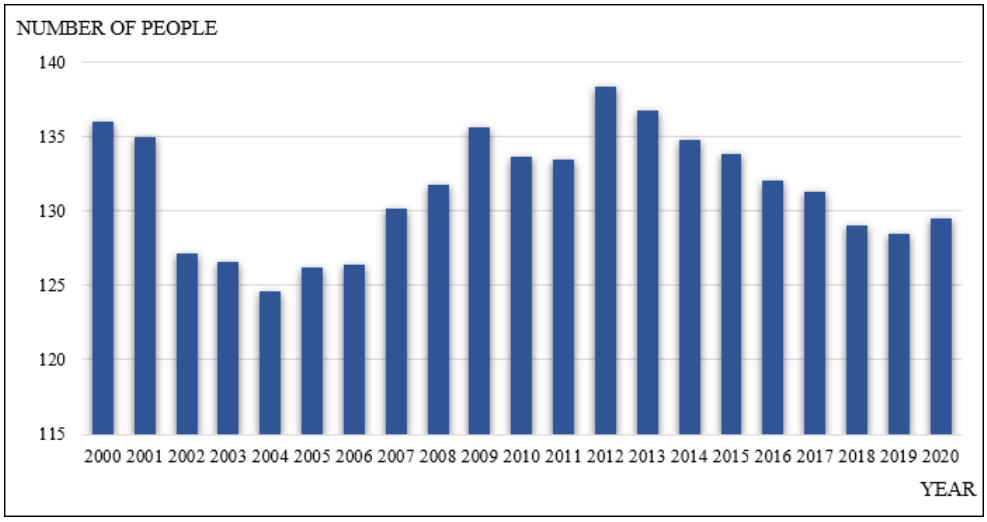

Fig. 3. Evolution of the workforce in Bistrița-Năsăud County between 2000-2020
Data source: Tempo Online

Another consequence reported from an economic point of view is the reduced number of jobs, a consequence noted by about 36% of the respondents to the questionnaire. In the first instance, this may be due to the low number of young people in the population, which means that funds are no longer attracted and investments are no longer made, as the vast majority of activities are in the agricultural sector, and these activities are carried out by older people, thus perpetuating traditional work. This highlights the poor development of even agriculture, the basic sector, with subsistence and semi-subsistence farming. The following can be highlighted for the whole county, especially in the southern region (Gal Progres Transilvan, 2021). The context is similar even in the eastern part of the county, where the decrease in the labour force is blamed on the small size of the young population, which represents a threat to society in Bistrița (Gal Lider, 2022). According to Fig.3, the labour force has fluctuated over the 20 years of analysis, with various fluctuations being observed. At the beginning of the 2000s, it started to decrease due to massive migration both to urban areas and especially to the outside world. There was a slight attempt to solve the situation in 2006 and 2007, and then, from 2012 onwards, there was no further increase but only a decrease until 2019 inclusive. This decrease can be attributed to the economic crisis that broke out in 2008, which was also felt in Romania.

The low number of pupils in educational institutions is another consequence that stands out in this context. This type of effect was illustrated by about 36% of respondents. Low birth rates and high mortality rates result in a low number of children, and this inevitably has a knock-on effect on education. Of course, this is not the only reason for this, as the low number of pupils also leads to a low number of teachers, investments in this area will no longer be made and there is a risk of illiteracy, school drop-outs and, not least, an imbalance in economic sectors. In the southern part of the county, the number of children enrolled in kindergartens has decreased, with the number of children enrolled in 2014 being 32.7% lower than in 2004 (Gal Progres Transilvan, 2021).

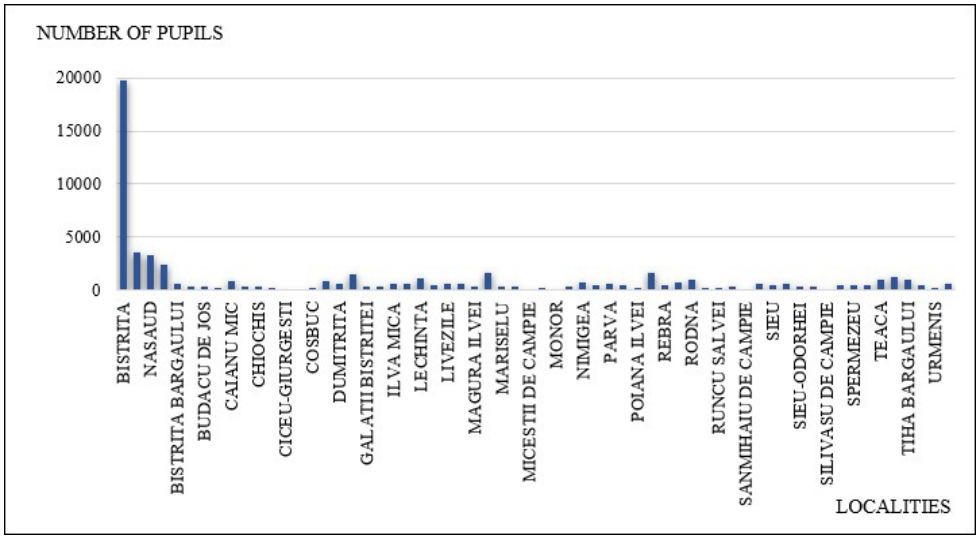

Fig. 4. Number of pupils in educational institutions in 2005
Data source: Tempo Online

According to Fig.4, one can notice that the number of students in 2005 at the county level is low. The urban centres are the exception, because the number of students is slightly higher, the city of Bistrița having the highest number of pupils.

In 2016 (Fig. 5), one noticed the same situation as in 2005, with the highest values in the city of Bistrița and the other three urban centres, while in the other areas the decrease was continuous.

Analysing the two illustrated graphical representations (Fig. 4, Fig. 5), one may remark that the values are high in communities such as Feldru, Maieru, Prundu Bârgăului, Teaca, Telciu, Tiha Bârgăului. However, a more detailed

study of the evolution between the two periods of the year in terms of values shows that the trend is downward. Thus, according to the data of the National Institute of Statistics, in Feldru, in 2005 the number of children was 1564, and in 2016 it was 1424; in Maieru, in 2005 the registered value was 1658, and in 2016 it was 1486; in Prundu Bârgăului in 2005 the number of pupils was 1679, while in 2016 it was 1178; in Teaca the number of pupils was 992, while in 2016 it was only 939, and in Tiha Bârgăului the situation was the same, in 2005 there were 988 pupils, while in 2016 there were only 866. Moreover, these values can be completed by the decrease in the number of school units over time.

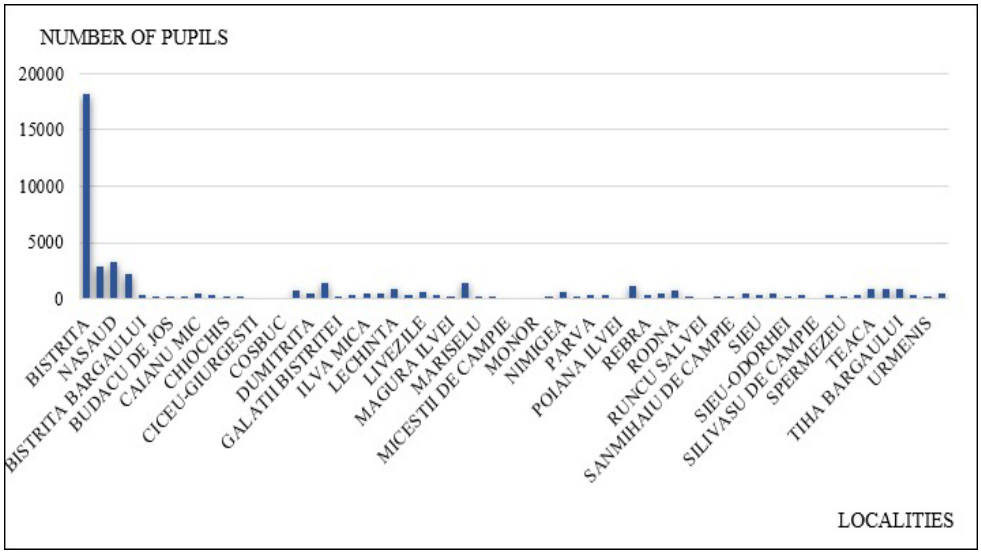

Fig. 5. Number of pupils in educational institutions in 2016
Data source: Tempo Online

Thus, in Feldru, if in 2000 there were 11 schools, in 2016 there were only 4 schools; in Maieru the situation is similar, the year 2000 shows 7 schools, and in 2016 there are only 2; in Prundu Bârgăului the downward trend is maintained, the year 2000 showing the existence of 5 schools, and in 2016 there is only one school; Teaca presents the same situation, there is a decrease from 9 educational institutions in 2000 to only one educational institution in 2016; Telciu presents a similar situation, from 11 educational institutions in 2000 to only one in 2016, and last but not least Tiha Bârgăului, where the situation is still decreasing, from 13 educational institutions in 2000 to only 2 in 2016 (Chira, 2018).

Also in this socio-economic context, one can add as an impact the high number of unemployed people and the high number of pensioners, an impact directly related to the low number of jobs and the dominance of the elderly population.

The high number of unemployed people is a result of low employment and weak economic development. In Bistriţa-Năsăud County this situation is found mainly in the southern area where, over the years, the number of unemployed has increased. In 2011, the number of unemployed registered a value of 771 people, 165 people more than the number of employees (Gal Progres Transilvan, 2021).

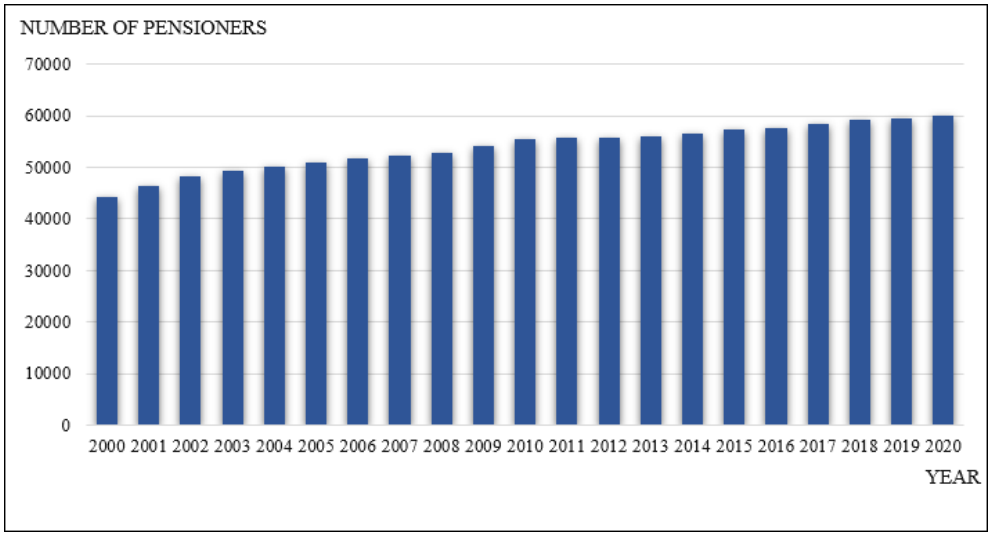

Fig. 6. Total number of pensioners in Bistriţa-Năsăud County, 2000-2020
Data source: Tempo Online

According to Fig.6, the number of pensioners does not fluctuate sharply, but is in a continuous evolution over the 20 years of analysis. This highlights the dominance of the phenomenon of demographic ageing, which is gradually taking hold in society and which, from an economic point of view, creates problems in the distribution of income and investment, part of which is needed to care for the elderly and ensure a decent living.

Other consequences resulting from the evolution of the county's natural movement concern nuptiality and divortiality. Within the area analysed, nuptiality is higher than divortiality, but there are also fluctuations, which means that decreases can also be noticed, but not significant. The trends of both influence the development of society, causing certain effects that are, of course, captured at the socio-economic level.

According to 58% of the respondents to the questionnaire, this context highlights the fact that the presence of a greater number of couples is also a great support in the maintenance of children or the child. This shows that the financial situation is an important element in this respect, and even more so in the case of two-parent families, where both members of the couple are present. The care of the child or children is not concentrated solely in the hands of the father and mother, but represents help from both sides which facilitates harmonious growth.

While birth rates are lower than death rates, one would assume that divorce rates should be higher than marriage rates, but at the county level the situation is different, i.e. divorce rates are lower than marriage rates. This can be attributed to three assumptions. The first hypothesis is that there are many marriages among adults, as Romania is already a country where marriages are no longer carried out at a young age, so the emphasis is no longer on traditions and customs, but rather on adapting to new social developments. The second hypothesis can be put down to fertility problems of either one or both members of the couple. At the same time, even though it is a high percentage of marriages, couples, especially women, prefer not to conceive children precisely in order to focus on their professional life, their personal life being less important.

In order to redress the situation, to increase the birth rate and decrease the mortality rate, and to maintain an upward trend in the marriage rate and a downward trend in the divorce rate, the questionnaire proposed possible solutions that could be applied.

The most popular solutions offered are the following: increasing the standard of living by increasing the number of jobs, investing in different areas of activity; developing the medical system to Western standards; a healthy lifestyle which involves a balanced diet without emphasis on animal fats and stress; investing time and resources in one's own education and health; carrying out campaigns to inform the population about the situation in which they find themselves precisely in order to raise awareness and take action to stop the situation from worsening; providing more capital for each newborn child; increasing allowances; offering vouchers to cover the cost of school supplies; focusing on high quality health and social care; making medical tests free of charge so that they can be carried out regularly; increasing the number of young people on account of reduced migration; making certain medical procedures free of charge for children under 18; self/partner awareness; moral, spiritual, sexual, psychological education; couple therapy/psychological counselling done for free or paid; improving economic situation; avoiding domestic violence by having more police stations; good communication between partners; avoiding as far as possible some consumption (of prohibited

substances/alcohol); the opportunity to own a home in the first years of marriage; changing people's mentality and behaviour so that humility, respect, trust, empathy, and moderation prevail in a family.

5. Conclusions

Analysing the situation of Bistrița-Năsăud County from the perspective of the evolution of the natural dynamics, it can be deduced that the population is regressing, the segment between 0-19 years is continuously decreasing, and the elderly population, over 60-65 years is in a slight progress. This inevitably leads to an accentuation of demographic ageing, which means a declining economy. As society gradually settles down, it undergoes numerous changes and shifts, which highlights a functional imbalance.

These demographic changes in the society of Bistrița, besides being influenced by certain factors, generate a number of negative consequences, from economic and social to territorial and demographic ones. These include the low number of inhabitants, demographic ageing, changes in the structure of the population by age group and gender, the distribution of the population in urban and rural areas, the low distribution of the labour force, the shortage of jobs, the low number of pupils in educational institutions and the high number of pensioners.

All of the above can predict the evolution of the county in the coming period, and according to the nature of these consequences and the current situation, it is possible to get a clear idea of the coming years from this demographic perspective.

In order to create a relative balance or an attempt to keep the situation under control, several solutions have been proposed, all of which have as their central point the economic development of society through the creation of jobs as a result of investment, the development and modernisation of various areas of activity which, to a certain extent, offer people security (education, health, administration), to which can be added the education of the population from certain psychological, moral, spiritual, and sexual perspectives, and the creation of a healthy lifestyle without excesses.

These proposed solutions would need to be implemented in a timely manner to help stop this decline or at least keep it under control. Even if it is impossible to apply all of them, it would help if at least some of them are considered, since the results they can have are visible after a long time.

Therefore, all the information presented throughout this paper leads to the conclusion that the current demographic situation of Bistrița-Năsăud County is leading the local society towards a functional decline, the impact of which has been noted from so many points of view, making its mark significantly, and everything is unfolding rapidly and surely.

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CHURCHES AND MONASTERIES IN NORTHERN TRANSYLVANIA IN PLANNING DOCUMENTS AND IN TOURISM DEVELOPMENT PROJECTS FINANCED BY EUROPEAN FUNDS

Magdalena DRĂGAN[1]

ABSTRACT. Churches and Monasteries in Northern Transylvania in Planning Documents and in Tourism Development Projects Financed by European funds. In the present paper we studied the manner in which county and regional authorities from Northern Transylvania view churches and monasteries located in this area as tourist landmarks. In order to do that, we analyzed the county and regional policies and strategies and looked for projects addressing cultural heritage in the area that were financed by European programmes. While highlighting the diverse tourism potential of the religious buildings, the counties' development strategies also recommended the preservation and rehabilitation of the historical monuments and promoting them in an integrated manner, as parts of cultural and/or religious routes. These objectives have been realized mostly with the help of the European funds – more than 40 churches were renovated and more than 80 have been promoted using REGIO and INTERREG funds, and wooden churches in Maramureş and Sălaj counties and medieval churches in Satu Mare County were included in thematic routes. Moreover, the creation and promotion of more cultural tourism routes is one of the main objectives of the Romania's National Recovery and Resilience Plan, adding more value to the region's tourism potential.

Keywords: *cultural heritage, tourist routes, European funds, churches, Northern Transylvania.*

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1. Introduction

In addition to their religious function, churches and other places of worship can also have a tourist function. They can be attractive to a wide range of tourists from an aesthetic perspective (e.g. architecture, exterior and interior decorations - churches being often the most imposing buildings in a village or a town), from a historical perspective (as places where important events took place, which are accompanied by legends or are associated with the image of certain historical figures), or they can host cultural events (such as artistic performances, exhibitions, etc).

In Northern Transylvania (the administrative North-West Region of Romania) about 750 churches are registered on the List of Historical Monuments (LMI 2015), but only a part of them possess characteristics interesting and valuable enough to become tourist attractions (despite their cultural importance as heritage sites, most listed churches do not possess the aesthetic and/or other elements to become attractive to other tourists than those represented by a specialized public, they are not different enough from other better-known churches located nearby, or they are severely deteriorated, etc.).

In a study on the tourism potential of the North-West Region coordinated by Cocean and Pop (2020), 295 churches and 85 monasteries and hermitages of interest for local and regional cultural tourism were identified. The tourism potential of churches and monasteries at county level is variable, high in Maramureș and Cluj, and lower in Satu Mare (Table 1).

Table 1. Assessment of the tourism potential of the churches and monasteries in Northern Transylvania. Calculation based on the methodology described in Cocean and Pop (coord.), 2020, pp. 51-58

Area	Churches with tourism potential (no.)	Cumulative score of churches with tourism potential	Monasteries with tourism potential (no.)	Cumulative score of monasteries with tourism potential
Bihor County	40	910	10	184
Bistrița-Năsăud County	48	970	11	175
Cluj County	51	1185	18	337
Maramureș County	77	1703	30	448
Sălaj County	47	926	8	114
Satu Mare County	32	706	8	146
Northern Transylvania	**295**	**6400**	**85**	**1404**

Also, eight wooden churches in Maramureș County are registered on the UNESCO World Heritage list (the Church "Intrarea în Biserică a Maicii Domnului" in Bârsana, the Church "Sf. Nicolae" in Budești, the Church "Sf. Paraschiva" in Deseşti, the Church "Naşterea Maicii Domnului" in Ieud-Deal, the Church "Sf. Arhangheli Mihail şi Gavril" in Plopiș, the Church "Sf. Paraschiva" in Poienile Izei, the Church "Sf. Arhangheli Mihail şi Gavril" in Rogoz, the Church "Sf. Arhangheli Mihail şi Gavril" in Șurdești), presenting interest for national and international tourists.

However, identifying a tourism potential is only the first step for tourism development, tourism planning and promotion being essential stages for attracting tourists and for creating genuine tourist destinations. Currently, only a small number of religious sites in Northern Transylvania are really known - according to the number of reviews on Tripadvisor on October 23, 2022, the top ten tourist attractions in the categories *churches&cathedrals* and *sacred&religious sites* in the region were: Bârsana Monastery in Maramureș (325 reviews), "St. Michael" Church in Cluj-Napoca (301), The church with Moon in Oradea (122), the wooden churches in Maramureș (134), the Orthodox Cathedral in Cluj-Napoca (98), Săpânța-Peri Monastery in Maramureș (88), The Roman-Catholic Cathedral in Oradea (70), the Neolog Synagogue in Oradea (63), the Reformed Church on M. Kogălniceanu Str. in Cluj-Napoca (53) and the Evangelical Church in Bistrița (46). For comparison, the Black Church in Brașov had 2191 reviews, the Church on the Hill in Sighișoara 446, and the Fortified Church in Biertan 336, all being located outside the region.

In this context, the objectives of this study were to analyze:

- how the religious sites (churches, monasteries, synagogues) in the North-West Region are seen in the strategies for tourism development at the regional and county levels and,
- how the European funds contributed to the tourism valorization of this kind of sites.

2. The Northern Transylvania's religious sites in the planning documents for tourism development

The ***Strategy for tourism development in the North-West Region*** (published as Cocean and Pop (coord.), 2020) gives to the cultural tourism in the region (based mainly on the existence of historical sites, religious buildings, cultural events, and other cultural landmarks), a less important role than to other forms of tourism (wellness tourism, rural tourism, speleotourism, adventure tourism and hunting tourism). Also, it was oriented especially towards the domestic demand, but acknowledging its potential to enrich the offer for foreign tourists as

well (Cocean and Pop (coord.) 2020, pp. 122-123). In the same document, there were two recommended directions for tourism development that address the valorization of religious sites, among other cultural sites – further developing specialized forms of tourism (including pilgrimages based on the monasteries in the region) and designing thematic routes (some of which are based on religious sites, such as the tourist circuits of wooden churches). The same publication identified 19 churches with tourism potential that were in urgent need for restoration and/or reconstruction, including 11 wooden churches and the Evangelical churches in Teaca and Jelna villages in Bistrița-Năsăud County (p. 55). In the case of monasteries and hermitages, the recommendation was to include them into religious tourist circuits based on their geographical proximity, their particular Christian denomination and on already established pilgrimage traditions: the Someșul Mare Circuit (consisting of the monasteries in Salva, Cormaia, Telcișor-Buscatu, Parva and Ilva Mare), the Maramureș Circuit (which includes the monasteries of Săpânța-Peri, Moisei, Petrova, Bârsana, Ieud, Botiza, Vișeu de Sus, Dragomirești, Baia Borșa), the Lăpuș Circuit (with the monasteries of Rohia, Rohița, Dumbrava, Ruoaia, Coroieni, Breaza), the Oaș Circuit (consisting of Bixad, Portărița and Moișeni monasteries) and the Beiuș Circuit (which includes Izbuc Monastery, Tărcaia wooden church, Rieni wooden church, Stâna de Vale Monastery and Huta Hermitage). Moreover, the authors advocated for the international promotion of three of the monasteries in the region - Săpânța-Peri Monastery (the tallest religious building made of wood in Europe), Rohia Monastery (the place where Nicolae Steinhardt lived) and Nicula Monastery (which houses a "miracle-performing" icon of Virgin Mary) (p. 58).

At county level, only Maramureș, Bihor and Satu Mare have prepared sectoral tourism strategies; in the case of the other counties in the region (Cluj, Sălaj and Bistrița-Năsăud), tourism is addressed in more or less detail within the general development strategies for the respective counties. The public authorities in Maramureș have shown lasting interest in valorizing the rich potential for tourism that the county possesses, and, over the years, a *Strategy for tourism development in Maramureș County (2007-2013)*, a *Prospective study for promotion and branding* (2018), and an updated *Strategy for the development and promotion of tourism in Maramureș* were being written and implemented.

Regarding the religious sites, the first strategy highlights the very large number of wooden churches with tourism potential (starting with the eight ones registered on the UNESCO World Heritage list), but also the need for restoration works to many sites and for adequate tourism promotion. Consequently, one of the priorities the strategy specified was the "restoration and valorization of tangible and intangible cultural, historical and religious heritage, and the preservation of the identity of tourist areas", and among the recommended

actions: "restoration, consolidation, protection and conservation of the heritage buildings", "restoration, protection and conservation of the interior and exterior paintings, frescoes and murals" and other investments for setting-up of these buildings for tourism (architectural facade lighting, equipping them with sanitary facilities, air conditioning and fire protection systems, construction and rehabilitation of the access roads, etc.), but also "creating support programs for the religious tourism" based on pilgrimages to the monasteries in the county (CJ Maramureş, 2006, pp. 44-45).

The *Prospective study for promotion and branding* (which is based on previous attempts to create a tourism logo for the county) proposed two stylized and superimposed images of a church and a traditional wooden gate to represent Maramureș (together with the message "Gateway to tradition"), which illustrates both the identification of local actors with the tradition represented by these symbols, as well as the perception of the territory among tourists.

The Strategy for the sustainable development of Maramureș County (2014-2020) lists rural tourism and cultural-religious tourism among the most suitable forms of tourism for this county, in accordance with the already existent tourism development and the potential for future development (CJ Maramureş, 2016, p. 144). The section on tourism of this document reviews the numerous actions for tourism development and promotion that already took place in the county, including the creation of a route of wooden churches comprising 16 sites. According to this strategy, until 2035, Maramureș will become "a tourist destination of European importance and a Romanian national brand, capitalizing on the authenticity of its architecture, „wood" culture, folk art, folklore, crafts and well-preserved local traditions, gastronomy, museums, contemporary cultural production, but also on the uniqueness of the landscapes, the diversity of natural touristic resources or the historical heritage of the county" (p. 318), a goal supported by measures such as "sustained and sustainable development of the forms of tourism with high potential at the county level" and "increasing the offer for cultural tourism through the appropriate conservation and valorization of built heritage and the development of the cultural infrastructure" (p. 334).

The *Strategy for tourism development in Bihor County* and the associated *Operative Action Plan* published in 2003 describe the county's potential for tourism, to which the religious buildings in Oradea and the wooden churches in the rural area make an important contribution. In these documents, cultural and heritage tourism is seen as having good potential for further development, but with lesser importance than the wellness tourism, business tourism and ecotourism (CCI Bihor, 2003, pp. 27-34). In terms of measures addressing the built heritage in the county, it is noteworthy the "architectural rehabilitation of

cities and villages, especially of the heritage buildings", while, in what regards the religious tourism, "organizing visiting circuits" of churches, the restoration of degraded buildings, and "the harmonization of the religious life of the local communities with the presence of tourists" (pp. 71-73).

Within the *Integrated Strategy for sustainable development of Bihor County (2021-2027)*, one of the main objectives is "the sustainable development of the tourism based on local identity and heritage", and among the proposed actions: increasing the value of the cultural-historical (and religious) heritage by "supporting protection, conservation, restoration and the sustainable valorization of the county's natural tourism potential and built heritage" (CJ Bihor, 2021, pp. 528-530). However, the same document also highlights the need for an updated sectoral strategy on tourism.

The *Development strategy of Satu Mare County until 2020* identifies tourism as a sector in which there is further potential for development (based on thermal water resources, cultural and historical landmarks of importance for both local and Hungarian tourists, and traditional local products), highlighting at the same time "the competition from other counties in the region, that have a similar cultural, natural and heritage profile, but which are much more accessible, have greater notoriety and an increased diversity of the services and facilities they offer to the tourists (Cluj and Bihor)" (CJ Satu Mare, 2016, pp. 150-153). Hence, one important objective is to "support and promote the local identity" through tourism development and promotion of local tangible and intangible heritage (with six measures, including "promotion of cultural and historical tourism" and "rehabilitation of tangible heritage elements") (pp. 415 -417).

The *Strategy for tourism development of the heritage in Satu-Mare County (2014-2020)* lists the county's heritage tourism products, among which the route "Pilgrimage in the footsteps of past times" which includes cultural and religious landmarks, the "Circuit of medieval churches" and a part of "Via Mariae", a European pilgrimage route, which passes through Carei, Petreşti, Căuaş, Hotoan and Tăşnad (CJ Satu Mare, 2014, pp. 90-103). According to this document, one of the three main priorities for developing tourism in the county is "enhancing the image of Satu Mare County as a tourist destination" based on a marketing strategy (pp. 68-85) and by promoting the county's tourist attractions on digital channels (TripAdvisor, Youtube and Facebook).

The *Strategy for the territorial development of Cluj County* lists among the priorities for the 2020-2030 period the "sustainable capitalization of the county's heritage in order to develop the tourism sector", further detailed in several measures including "the restoration of the county's historical monuments", "the preservation and promotion of the traditional architecture and cultural

heritage of the villages in the county" and "effective and active promotion of the county as a tourist destination" (with an example of a direct action - "creating a web portal for tourism promotion of the county") (CJ Cluj, 2020, pp. 9-10 of chapter II).

In what regards tourism, the *Strategy for sustainable development of Sălaj County (2021-2027)* declares a very ambitious goal - "to support the development of the local tourism sector through integrated efforts to rehabilitate the infrastructure, developing and promote tourist attractions, so that the number of tourists doubles in the 2021-2027 period" (CJ Sălaj, 2021, p. 544). Among the recommended measures one can find "supporting actions to achieve and consolidate county branding and promote tourist attractions" (the most important of which are briefly described in a separate chapter on tourism - pp. 452-456). In the context of the county authorities' interest for creating a brand for tourism, we must note the fact that the current coat of arms of the county includes the silhouette of a wooden church (in Sălaj there are several dozen such landmarks), and that through an EU funded project a route of wooden churches in the county was created and promoted. At the same time, the competition represented by Maramureș limits the potential development of the religious heritage tourism in Sălaj to tourists from the county area.

The *Development strategy of Bistrița-Năsăud County (2021-2027)* pays special attention to tourism in an extended chapter and focuses on four main objectives: "within ten years Bistrița-Năsăud County will become an attractive and well-known destination at the national level; placing the architectural heritage at the center of the county's "proposal" for tourism; promoting the niche tourism (...), but also the integrated development of tourism" (CJ Bistrița-Năsăud, 2021, p. 118). Among the actions derived from these objectives are "the restoration and repurposing of some key landmarks in the county (the mansions in Posmuș and Comlod, the Evangelical churches in Teaca, Vermeș, Chiraleș)", "the registration of the rehabilitated sites in existing tourist routes" and implementing the project *Via Nösnerlandia* – an integrated tourist route proposing a combination of heritage tourism, cycle tourism, wine-gastronomy tourism and ecotourism based on Saxon churches (Teaca, Vermeș, Chiraleș, Corvinești and Livezile), restored/rehabilitated mansions, villages with well-preserved traditional architecture, a 35 km tourist train route (Mocănița Transilvaniei) and vineyards in the county.

3. Rehabilitation and tourism promotion of the religious heritage in Northern Transylvania using European funds

After Romania joined the European Union, a major funding source for rehabilitating heritage buildings have been the European funds - parishes, non-profit associations, municipalities, regional and county public authorities were taking advantage of these opportunities to renovate and promote for tourism purposes many of the major landmarks in the region. In order to have an overview on this activity, we analyzed the following programs: the Regional Operational Program Regio 2007-2013 (POR 2007-2013), the Regional Operational Program 2014-2020 (POR 2014-2020), INTERREG RO-HU 2007-2013 and 2014-2020 and the National Plan for Recovery and Resilience (PNRR).

From the lists of financed projects available on the Ministry of Regional Development and Public Administration website we selected the churches and other religious sites in the North-West Region that benefited from restoration, rehabilitation and promotion through POR 2007-2013 (under the priority-axis 5 "Sustainable development and promotion of tourism", major intervention field 5.1. "Restoration and sustainable valorization of the cultural and built heritage, as well as the creation/rehabilitation of the related infrastructures") and POR 2014-2020 (priority-axis 5 "Improving the urban environment and preservation, protection and sustainable exploitation of the cultural heritage"). We listed them below together with the identification code from the national List of Historical Monuments (LMI 2015):

- the Reformed Church on 16 Kogălniceanu Str., Cluj-Napoca, Cluj County (CJ-II-m-A-07380),
- the Roman-Catholic Church "Sf. Mihail" in Cluj-Napoca, Cluj County (CJ-II-m-A-07469),
- the Lutheran Episcopal Church in Cluj-Napoca, Cluj County (CJ-II-m-B-07306),
- the „Învierea Domnului"/ Bob Church in Cluj-Napoca, Cluj County (CJ-II-m-B-07277),
- the Reformed Church in the Old Turda, Turda, Cluj County (CJ-II-m-A-07793),
- the Reformed Church in Dej, Cluj County (CJ-II-m-A-07598),
- the church and the cloister of the Franciscan Monastery in Gherla, Cluj County (CJ-II-a-B-07641),
- the Reformed Church in Huedin, Cluj County (CJ-II-m-A-07679),
- the Reformed Church in Sic, Cluj County (CJ-II-m-A-07759),
- the Roman-Catholic Cathedral in Satu Mare, Satu Mare County (SM-II-m-A-05225),

- the Roman-Catholic Church "Calvaria" in Satu Mare, Satu Mare County (SM-II-m-B-05209),
- the Orthodox Cathedral "Adormirea Maicii Domnului'' in Satu Mare, Satu Mare County (SM-II-m-B-05226),
- the Reformed Church in Acâș, Satu Mare County (SM-II-m-A-05253),
- the Evangelic Church in Bistrița, Bistrița-Năsăud County (BN-II-m-A-01450),
- the wooden church "Sf. Arhangheli Mihail și Gavril" in Gersa, Rebrișoara Commune, Bistrița-Năsăud County (BN-II-m-A-01659),
- the wooden church in Șurdești, Șișești Commune, Maramureș County (MM-II-a-A-04769),
- the wooden church in Buzești, Fărcașa Commune, Maramureș County (MM-II-m-A-04533),
- the circuit of the wooden churches in Northern Transylvania, Maramureș County, http://www.bisericimaramures.eu/ (seven UNESCO churches and nine other churches registered on the national List of Historical Monuments located in Bârsana, Bogdan Vodă, Budești, Botiza, Călinești, Desești, Ieud, Poienile Izei, Plopiș and Șurdești in Șișești Commune, Remetea Chioarului, Rozavlea, Ocna Șugatag, Săcălășeni and Copalnic Mănăștur),
- the circuit of the wooden churches in Northern Transylvania, Sălaj County (churches located in Baica and Racâș villages in Hida Commune, Porta Sălajului and Ciumărna villages in Românași Commune, Fildu de Sus village in Fildu de Jos Commune, Sânmihaiu Almașului village in Sânmihaiu Almașului Commune and Bârsa village in Someș-Odorhei Commune).

In the context of mainly individual sites benefiting from renovation works and promotion, the two circuits of wooden churches in Northern Transylvania listed above stand out in terms of connecting the separate landmarks in tourism routes and promoting them under a common brand. However, while, in general, the projects contributed to a better visibility of the targeted heritage monuments and sites, to increasing access for larger categories of tourists (e.g. people with locomotor disabilities), in certain cases the selected architectural and technical solutions do not fit harmoniously in the surrounding landscape or tend to overshadow the very landmark with their size (Fig. 1.).

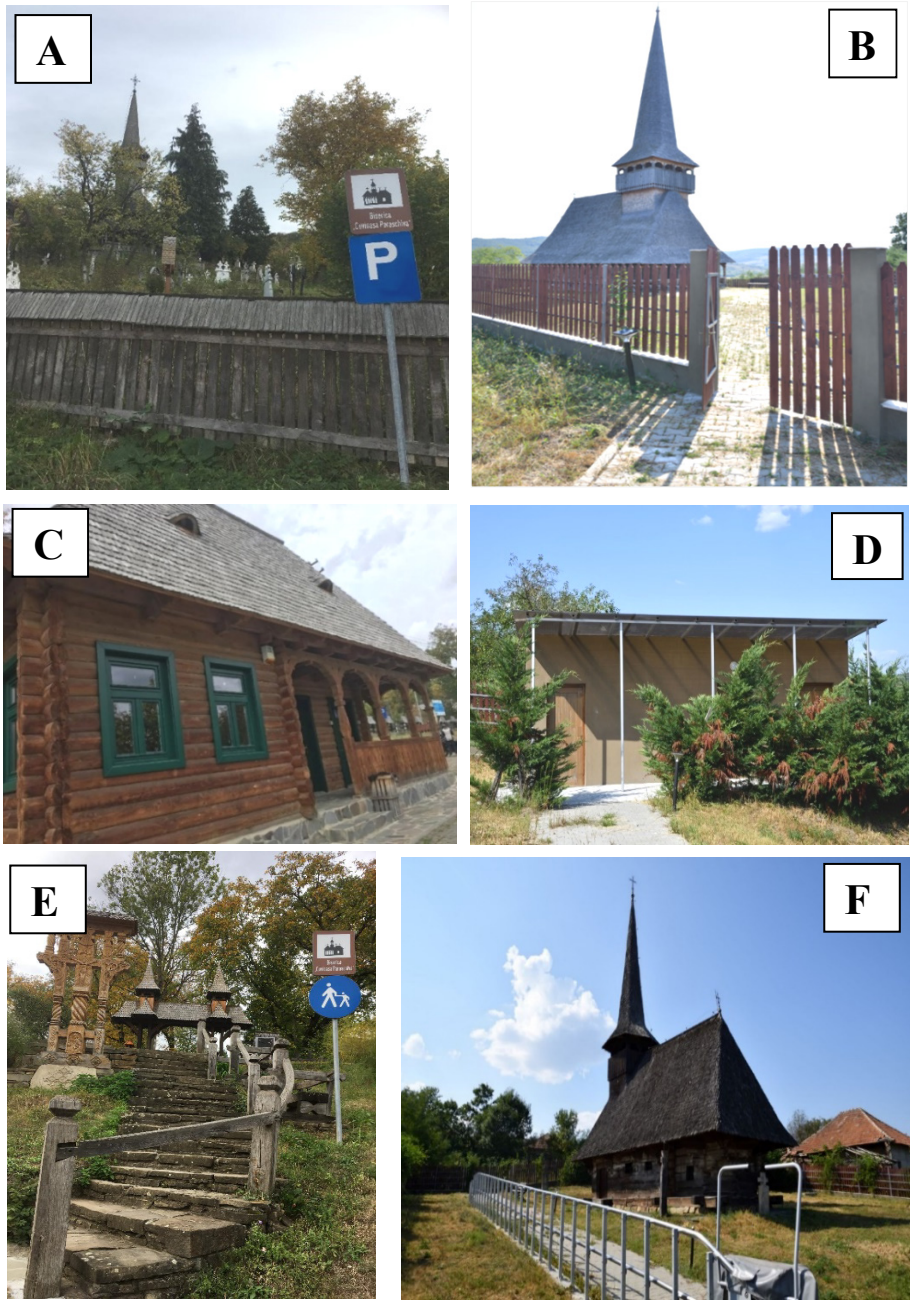

Fig. 1. Positive (A, C, E - the wooden church in Deseşti, Maramureş county) and negative examples (B the wooden church in Sânmihaiu Almaşului, Sălaj county, D, F - the wooden church in Baica, Sălaj county) of set-up for tourism of heritage churches in the region.

A, B – fences, C, D – additional new buildings (administrative buildings, toilets), E, F – access ways. Photos: Magdalena Drăgan and Călin Drăgan.

Renovations, rehabilitation and tourism promotion of the cultural heritage in the region were also carried out through the Cross-Border Cooperation Programs between Romania and Hungary. "*The Path of Medieval Churches*" is one of the successful projects financed through this program (EPICAH Interreg Europe, 2019, pp. 75-79). It started as a cooperation project between Romania and Hungary (Temple Route-HURO/1101/149/2.1.3), then continued through the Hungary-Slovakia-Romania-Ukraine Cross-Border Cooperation Program. At present, it includes 37 churches in Hungary, 16 in Ukraine and 13 churches in Satu-Mare County (located in Acâș, Ciumești, Șeghea, Vetiș, Negrești-Oaș, Agriș, Livada, Berea, Căpleni, Corund, Bixad, Beltiug and Tășnad).

At first, the project aimed to promote the selected churches by means of historical studies, a web page, promotional leaflets and brochures, signages and informative panels. In a second stage, several churches were rehabilitated, out of which in Romania the churches in Berea, Țeghea, and Ciumești, and a visitor center was set-up for the church in Acâș (http://www.templomut.hu/uk/churchroad). A very important aspect of this project was the attention given to the promotion of the sites connected by tourist routes – a thematic route of medieval churches, and, also, including them with other cultural-historical landmarks into complex routes such as "Journey through the world of churches, palaces and castles" (which includes sites in Hungary and Romania), the "Historical Heritage Route", which includes churches, fortresses and memorial houses in Satu Mare County, etc. (http://www.templomut.hu/uk/heritagetour).

Another important international project was *Promoting religious tourism by capitalizing on the heritage of the Jewish communities in Oradea and Debrecen.* For the Romanian part, the main outcome of it was the rehabilitation of the Neolog Synagogue in Oradea and valorizing it by cultural tourism (art exhibitions, concerts, book launches, etc.).

The National Plan for Recovery and Resilience (PNRR) addresses tourism through the *Component 11 Tourism and culture* and pursues three directions: establishing a network of Regional Tourism Destination Management Organizations and supporting local investments in tourism, promoting the active tourism through cycling routes and the establishment of a National Cycling Tourism Coordination Center, the proposal and promotion of 12 cultural tourism routes, and the establishment/rehabilitation of several memorial houses. Within the cultural routes in Northern Transylvania, the following churches were selected for renovation and/or promotion (we listed them together with the type of activity supported by PNRR funds and the route they are part of):

- the Evangelic church in Herina (BN-II-m-A-01661), Galații Bistriței Commune, Bistrița-Năsăud County (promotion, the fortified churches route),
- the fortified Evangelic church in Jelna (BN-II-a-A-01663), Budacu de Jos Commune, Bistrița-Năsăud County (promotion, the fortified churches route),
- the wooden church "Sf. Prooroc Ilie" in Petriș (BN-II-m-A-01683), Cetate Commune, Bistrița-Năsăud County (promotion, wooden churches route),
- the wooden church "Sfinții Arhangheli Mihail și Gavril" in Beznea (BH-II-m-B-01141), Bratca Commune, Bihor County (promotion, wooden churches route),
- the wooden church in Tilecuș (BH-II-m-A-01217), Tileagd Commune, Bihor County (promotion, wooden churches route),
- the wooden church "Sf. Arhangheli Mihail și Gavril" in Margine (BH-II-m-A-01174), Abram Commune, Bihor County (promotion, wooden churches route),
- the wooden church "Sf. Ioan Gură de Aur" in Bunțești Commune, Bihor County (restoration and promotion, wooden churches route),
- the abbey in Sâniob, Bihor County (restoration and promotion, Saint Ladislau route),
- the wooden church from Leurda, located in the premises of Bistrița-Năsăud Museum, Bistrița, Bistrița-Năsăud County (promotion, wooden church route),
- the wooden church from Chiraleș located in the premises of „Romulus Vuia" Ethnographic Park in Cluj-Napoca, Cluj County (promotion, wooden churches route),
- the wooden church "Sf. Mucenic Dimitrie" in Larga (MM-II-m-A-04594), Suciu de Sus Commune, Maramureș County (restoration and promotion, wooden churches route),
- the wooden church "Sfinții Arhangheli" in Rogoz (MM-II-m-A-04618), Târgu Lăpuș town, Maramureș County (promotion, wooden churches route).

The Ministry of Entrepreneurship and Tourism ranks the cultural routes by their importance as local, regional, national, transnational and European. An inventory of the cultural routes in Romania is available on the Ministry's website (we accessed it on October 3, 2022, at https://turism.gov.ro/web/rute-cultural-turistice/). A tourism route is called national if it connects landmarks from at least three different counties. Religious landmarks in the North-West Region are included in several national routes: *the cultural tourism route of the wooden churches in Romania*, *the route of the open-air ethnographic museums in*

Romania, *The gates of Transylvania* route (which includes landmarks in Braşov, Sibiu and Bistriţa-Năsăud counties), *the multi-ethnic heritage route in Romania*, the route of the "*Wooden Civilization" in Romania* (with tourist attractions located in Maramureş, Suceava and Neamţ counties), the route *Via Mariae*, the *UNESCO material heritage route in Romania* and the "*miracle-performing" icons route*. Several of these routes extend to the neighboring countries, as it is the case with the *cultural tourism route of the wooden churches in Romania and the Republic of Moldova* (a transnational cultural route) or are a part of European cultural routes such as the "*European Cemeteries Route*" (which includes the Central Cemetery in Cluj-Napoca) and *Via Mariae* pilgrimage route.

Regional cultural tourism routes must include landmarks from at least two municipalities. In Northern Transylvania, the following regional routes (that include religious sites) were certified:

- „*The route of the wooden churches in Bihor County*" was proposed in 2020 by a county public agency on tourism (the Agency for the Management of the Tourism Destinations in Bihor). It includes the wooden church in Gheghie, Auşeu Commune, the wooden churches in Beznea and Valea Crişului villages in Bratca Commune, the wooden church in Fânaţe, Câmpani Commune and Izbuc Monastery in Cărpinet Commune - https://www.vacantelatara.ro/ruta-bisericilor-de-lemn-din-judetul-bihor;
- „*The circuit of the wooden churches in Maramureş*" was proposed by the County Council of Maramureş (https://www.visitmaramures.ro/ro/places/circuitul-bisericilor-de-lemn-din-maramures) based on the project „The circuit of the wooden churches in Northern Transylvania, Maramureş County" financed by POR 2007-2013;
- The Romanian Orthodox Bishopric of Maramureş and Sătmar (by its Office for pilgrimages), in collaboration with the tourism agency Pelerinul Creştin/the Christian Pilgrim proposed two cultural tourism routes: „*The circuit of the wooden churches and monasteries in Maramureş and Satu Mare – the way to sanctity (Drumul spre Sfinţenie)*" including 101 religious wooden buildings in the two aforementioned counties (https://www.directmm.ro/comunitate/drumul-spre-sfintenie-101-biserici-si-manastiri-din-maramures-si-satu-mare-au-fost-atestate-ca-ruta-culturala-turistica/), and the route of the "*Miracle-performing icons in Maramureş and Satu Mare*" connecting monasteries such as Rohia, Moisei, Dragomireşti, Bixad, etc.
- „*The wooden civilization in the ecotourist destination Mara - Cosău - Creasta Cocoşului area in Maramureş County*" route proposed by the Association Ecologic Baia Mare (https://www.ecomaramures.com/descopera-zona/2-2-civilizatia-lemnului/) includes traditional households, wooden churches and traditional technical installations;

- „*The circuit of the wooden churches in Bistriţa-Năsăud*" proposed by the Association „Turism în Bistriţa-Năsăud" (https://www.bnpoartatransilvaniei.ro/) includes 21 wooden churches connected in two different routes: Bistriţa – Petriş – Sărata – Budurleni – Silivaşu de Câmpie – Sălcuţa – Sângeorzu Nou – Bungard – Manic – Apatiu – Strugureni – Ţigău – Arcalia – Bistriţa, and Bistriţa – Cormaia – Gersa –Runcu Salvei – Zagra – Suplai – Păltineasa – Dobricel (https://www.complexulmuzealbn.ro/ro/publicatii/circuitul-bisericilor-de-lemn-din-bistrita-nasaud);
- Two cultural tourism routes in Cluj County, described on the https://clujtourism.ro/ webpage (belonging to the County Council of Cluj): „*The ecumenic Cluj*" including 21 religious sites, most of them in urban areas – 11 religious sites in Cluj-Napoca, the Church "Sf. Cuvioasa Paraschiva" in Feleacu, four churches in Turda, Nicula Monastery, the Armenian-Catholic Cathedral in Gherla, the Reformed-Calvinist Church and the Synagogue in Dej, and Vad Monastery, and „*The route of the wooden churches in Cluj County*" including 12 churches in rural areas and "Sf. Nicolae" Church from Cizer, located within the "Romulus Vuia" Ethnographic Park in Cluj-Napoca;
- „*The route of the wooden churches in the Land of Lăpuş*" proposed by the Center for Information and Tourism Promotion in Târgu Lăpuş.

4. Conclusion

There is a large number of churches and other religious sites in Northern Transylvania which, in addition to their main role into the religious life of the local communities are also of interest for tourism, due to certain aesthetic characteristics and/or historical importance. At the same time, they are the elements of the cultural heritage with the largest territorial distribution - due to the presence of this kind of landmarks registered into the national List of Historical Monuments in all cities and almost in every commune. Also, the ethnic and religious diversity specific to Transylvania often resulted in the presence of different kind of places of worship in every city, town and, sometimes, even village. Due to the dispersed territorial distribution, their tourism exploitation may represent a way of redistributing the tourists arriving in large urban centers, diversifying the offer at the county level and increasing the length of the tourists' stays in the region.

However, the importance for tourism of the religious sites in the region rarely exceeds the local and county level (there are several exceptions such as the eight wooden churches on the UNESCO World Heritage List in Maramureş

county, several churches in the cities of Oradea and Cluj-Napoca, a few well-known monasteries). That is why in terms of the national and regional tourism they are seen, most often, as complementary elements for other forms of tourism (urban and rural tourism). On the other hand, the counties pay more attention to the religious landmarks highlighting their tourism potential. Also, within the tourism development strategies and general development strategies of the counties in Northern Transylvania, the measures addressing the historical cultural heritage (and religious buildings) most frequently mention rehabilitation works and tourism promotion.

Most of the analyzed documents for this study identified the precarious state of many religious heritage buildings and the need for renovation and restoration works in order to be able to capitalize on them through tourism. This applies especially to the buildings that have lost their main function – they are no longer used for regular religious services due to a lack of practitioners (as is the case with many Evangelical churches or synagogues in the region), or because new, larger, more comfortable churches were built for the use of the rural communities where most heritage wooden churches are located.

Another frequently encountered approach for the tourism development of the religious sites is to include them into cultural or mixed routes. The promotion of these routes and of the landmarks along them may contribute to the greater visibility of the historical heritage in the region consisting of places of worship and to the tourism development of the rural area where many of them are located. Such positive results at local level were noticed in the case of the European cultural routes: preserving and promoting the built heritage and local traditions (especially if the routes include heritage elements located in peripheral areas), creating new sources of income for the local communities, offering learning opportunities for tourists, and, on a more general note, the orientation towards the sustainable tourism development (European Commission and Council of Europe, 2020).

The rehabilitation of religious buildings and their promotion both individually and/or in thematic routes was put into practice more consistently with the help of the European funds. By using them, several emblematic religious sites in the region were renovated or rehabilitated (the UNESCO churches in Maramureș, the Evangelical Church in Bistrița, the Church of St. Michael in Cluj-Napoca, etc.) and wooden churches in Maramureș and Sălaj counties and medieval churches in Satu Mare County and in the neighboring counties in Hungary were united in thematic routes. Thus, over 40 religious landmarks have been restored/rehabilitated and set up for tourism, and over 80 have benefited from tourism promotion through the REGIO and INTERREG Romania-Hungary programs, adding more value to the region's tourism potential.

Recently, the investments in tourism financed by the National Plan for Recovery and Resilience are oriented towards the tourism promotion of the national built heritage (including religious sites) in an integrated manner (in cultural routes) and creating package tours that harmoniously and sustainably value the potential of these objectives.

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IDENTIFYING THE MAIN MOTIVATIONS TO VISIT SALT MINES: DO SOCIO-DEMOGRAPHIC VARIABLES MATTER?

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ABSTRACT. Identifying the Main Motivations to Visit Salt Mines: Do Socio-Demographic Variables Matter? Salt has been extracted from mines in Europe for thousands of years. More recently, some of these salt mines reinvented themselves as new tourism objectives attracting hundreds of thousands and even millions of visitors each year. This research aims to investigate the main reasons tourists visit a former salt mine, focusing on Turda Salt Mine, in Romania, as a case study. The study found that the main motivations for visiting the former salt mine were leisure/relaxation, learning, adventure, to try something new and to escape the daily routine whereas participation in various cultural/religious and sport events as well as socialization with like-minded people were considered the least important motivations. The results also show that some socio-demographic factors could influence motivation to visit a salt mine. The findings of this research have a number of practical implications for the marketing and management of salt mines which are outlined at the end of the paper.

Keywords: *tourism motivation, salt mines, Turda Salt Mine, Romania, socio-demographic variables.*

Introduction

Salt has been an important mineral throughout the history of humanity (Sandu et al., 2009). Besides playing a crucial role in maintaining our health, it made it possible to preserve food and/or transport it over long distances. Because

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of these qualities, salt was highly valued in history and, because it was often difficult to obtain, it was expensive and used to pay for other goods or for work (for example Roman soldiers were often paid their monthly allowance in salt; hence the concept of "salarium" or salary).

There are different ways to obtain salt. Most of the salt, at least in Europe had, historically, been extracted from mines; however, more recently, some of these mines which had in the past been operational for hundreds and even thousands of years closed and/or started to serve other purposes (Kimic et al., 2019). Some salt mines have even added new activities and attractions to broaden their appeal (Mandelartz, 2018), a move that led to the commodification of salt mines (Pine & Gilmore, 2013). Some of the former salt mines were very successful in reinventing themselves as new tourism attractions (Smith, 2009; Rybár and Hvizdák, 2010; Sauri-Pujol & Llurdes i Coit, 1995) which may represent a sustainable model for preserving, conserving and reviving geoheritage and industrial/archaeological/cultural heritage (Torabi Farsani et al., 2019; Wu et al., 2015). Some salt mines have become in the last decades important tourism attractions receiving millions of visitors each year. For example, Wieliczka Salt Mine in Southern Poland received almost 1.3 million visitors in 2014 (Mandelartz, 2018) becoming one of the most popular tourist attractions in Poland (Kruczek & Szromek, 2011).

However, in order to replicate the success of these former industrial sites, we need to understand the motivation of tourists (Wu et al., 2015). Why do tourists visit salt mines? Why are some salt mines more visited than others? What are the main factors that contribute to the overall attractiveness of salt mines? While motivation is one of the most researched concepts in tourism, very little research has been done to understand the motivation of visitors to historical salt mines.

Visits to salt mines have been conceptualized in previous studies as a form of spa or health tourism (Molnár et al., 2023; Wiewiórka et al., 2009; Plaziak & Szymańska, 2014; Schofield, 2004), geotourism (Kim et al., 2009; Hueso-Kortekaas & Iranzo-García., 2022; Wiewiórka et al., 2009; Herrera-Franco et al., 2020), mining (Torabi Farsani et al., 2019; Kazancı et al., 2019; Jelen, 2018) or industrial (Lageard & Drew, 2015; Kimic et al., 2019) heritage tourism or a combination between cultural/heritage and geotourism (Hueso-Kortekaas & Iranzo-García, E., 2022; Kimic et al., 2019).

Attracting more visitors to salt mines is important for the development of alternative tourism (Egresi, 2016). However, it is essential to keep in mind that tourists may be visiting salt mines for a variety of reasons. For example, if we consider the visitation of salt mines to be a form of heritage tourism, there are three main reasons for visiting them: for the heritage experience, for the

learning experience and for the recreational experience (Poria et al., 2004). Vargas-Sanchez et al. (2013) also concluded that tourists generally visit industrial sites driven by a desire for learning, but sometimes learning is combined with entertainment or with an emotional motivation. In the absence of a specific study, it is very difficult to identify the exact reasons people are traveling to any specific location.

This research aims to investigate the main reasons tourists visit a former salt mine that is open for tourism. Are tourists motivated by the search for knowledge? Do they visit to take advantage of the curative properties of the old salt mine (for health and medical tourism)? Do they mainly come for the cultural events or to engage in different sports? Is the need for socialization an important reason for visiting the former mine? If we assume that salt mines are visited for more than one reason, can we identify differences in motivation between different socio-demographic segments?

Knowledge of tourist motivation is very important for tourism destination management and marketing (Hatano et al., 2021; Pesonen and Komppula 2010) because knowing why people travel helps us understand their needs and wants at the destination (Crompton & McKay, 1997; Sancho Esper & Álvarez Rateike, 2010). By knowing what motivates tourists to travel to their destination, tourism destination marketers and planners are able to offer them exactly what they need and want (Murphy et al., 2000), thus, making the destination more attractive and more competitive (Oh et al., 1995). This will, also, have a positive impact on tourists' satisfaction (Caber & Albayrak, 2016) and subsequently on their decision to re-visit and/or to recommend the destination to others (Albayrak & Caber, 2018; Crompton & McKay, 1997; Hosany et al., 2019; Kim & Prideaux, 2005). Moreover, by identifying that different tourists visit salt mines for different reasons our research could make an important contribution to the management and marketing of these salt mines as different groups of consumers could be approached differently and offered different services tailored specifically for their needs and wants (Poria et al., 2004).

Romania boasts a number of salt mines that can be visited by tourists; some of these (Turda, Slănic Prahova, Ocnele Mari, Praid, Cacica) have been modernized after 1990 (Kimic et al., 2019). These salt mines are popular with Romanian and foreign visitors for their specific microclimate and spa facilities that make them ideal for halotherapy (Sandu et al., 2009; Stănciulescu & Molnar, 2016) and for their cultural, religious and recreational facilities.

This research will focus on the former salt mine of Turda as a case study. Turda Salt Mine is situated about 6 km from Turda, a small city situated in Northern Transylvania, Romania. Salt had been extracted at Turda for 2000 years since the Roman occupation of Dacia. First mentioned in official documents

in the 11th century[3], it operated as a salt mine until 1932, after which the Franz Joseph Gallery was used to store ammunition (during the war) and cheese (after 1950[4]). In 1992 the mine was open for tourism[5] but the number of visitors was low. In 2008, the former mine was modernized using European Union funds of almost six million euro[6] and reopened in 2010[7]. After this year, the number of visitors increased dramatically. In 2023, it was visited by more than 601 thousand people, 12% more than in 2022. Of these 15% came from abroad[8].

Literature Review

Motivation to travel

Motivation is a concept in psychology that explains a person's behavior (Iso-Ahola, 1980). It refers to the "engine" that propels a person to act in a certain way in order to fulfil a need (Crompton & McKay, 1997). An individual's need creates a state of tension in the body and mind and motivation is what stimulates an attitude or behavior that works towards reducing that state of tension and achieving the satisfaction desired (Kim & Ritchie, 2012).

In tourism studies, motivation has been a central focus for research for several decades (Huang, 2010). According to Dann (1981, p.205) tourism motivation is "a meaningful state of mind which adequately disposes an actor or group of actors to travel, and which is subsequently interpretable by others as a valid explanation for such a decision."

There are two major theories that are trying to explain why people travel and why they select certain destinations:

1. The push and pull theory, elaborated by Graham M.S. Dann (1977; 1981), explained that people are motivated to travel by their emotional needs which act as push factors and select their destination based on what these have to offer (which constitute the pull factors). This theory was strengthened by the work of Crompton (1979) who identified nine motivations to travel: getting away from the routine environment and escaping from monotonous everyday life, exploration, and evaluation of self, relaxation, prestige, nostalgia, developing

[3] https://historia.ro/sectiune/travel/turda-1000-de-ani-de-bunastare-provenita-din-575390.html
[4] https://www.welcometoromania.eu/Turda/Turda_Salina_Turda_e.htm
[5] https://gazetadecluj.ro/salina-turda-spectacol-pe-bani-europeni/
[6] https://www.mediafax.ro/economic/nou-record-de-turisti-la-salina-turda-anul-trecut-numarul-s-a-apropiat-de-populatia-clujului-17811797
[7] https://www.europafm.ro/cum-ii-cucereste-salina-turda-pe-vizitatori-galerie-foto/
[8] https://turdanews.net/peste-601-000-de-turisti-au-vizitat-salina-turda-in-2023/#:~:text=Salina%20Turda%20a%20fost%20vizitat%C4%83,compania%20turdean%C4%83%20pentru%20Ziarul%20F%C4%83clia.

kinship relationships, facilitating social interaction, novelty and education. A few years later, Yuan & McDonald (1990) identified five push factors out of 29 motivational items, namely: escape, novelty, enhancement of kinship relationships, prestige, and relaxation/hobbies. Of these the most important were found to be novelty and escape. Push factors are of emotional, internal or socio-psychological nature whereas pull factors are considered to be rather external or situational to the tourist (Yoon & Uysal, 2005). In general, it is believed that pull factors only matter after emotional needs are already present and manifest themselves (Yoon & Uysal, 2005). Pull factors are those that are specific to a certain destination (Wu & Pearce, 2014), such as a pleasant climate, white sandy beaches, hospitable people, good food, attractive culture and traditions, beautiful scenery, shopping, recreation, and entertainment facilities (Dann, 1977, 1981). Destination attributes can be improved and destination image can be enhanced through marketing and promotion in order to make it more attractive (Yoon & Uysal, 2005).

2. The seeking and escaping theory (Iso-Ahola, 1990) was derived from an earlier theory that tried to explain people's pursuit for leisure activities (Iso-Ahola, 1980) and argued that people decide to travel outside their place of residence for two main reasons: to escape their stressful or boring lives and to seek relaxation or personal rewards or a combination of the two. For example, Verbeke & Rekon (1996) identified "escape from the daily routine" as one of the main reasons to visit museums. It may be worth mentioning here that even the most exciting living environment could sometimes become mundane and boring to those living there. Traveling to places with a different physical and social environment could be a good way to temporarily escape this mundane environment (Crompton, 1979).

Later, Park et al. (2008, p. 162) have distinguished two major categories of travel motivators: extrinsic (which emerge outside the person) and intrinsic (which are formed inside the person). The latter is more complex and could be further subdivided into physical, mental (cognitive, affective and conative) and spiritual. Thus, a person has two major categories of needs that motivate them to travel. One is manifested at personal level (for example, the need for cultural enrichment which is a psychological need) and the other one is visible at the interpersonal level (the need for socialization) (Iso-Ahola, 1990).

Literature on motivation to visit a mine is very scarce. To our knowledge, the study by Torabi Farsani et al. (2019) may, in fact, be the only one. Doing research in Iran, they found that the main motivations for visiting a mine are (Torabi Farsani et al., 2019: 686):

- Education in Earth and geosciences
- Discovering new tourist destinations and curiosity

- Escape from repetitive daily activities
- Being in a natural and calm environment
- Being with my friends
- Taking advantage of earth energy and geo-therapy
- Being with others
- Mental relaxation

The authors also discovered that tourists visit mines for new experiences, to stay in specific accommodations, to visit eco-museums and to participate in sports, such as underground hiking or climbing (Torabi Farsani et al., 2019).

Demographic factors and travel motivations

Previous studies have found that different tourist groups have different motivation attributes (Hall et al., 2016). Indeed, demographic characteristics could influence participation in different tourism activities and destination choices (Moscardo et al., 1996; Collin & Tisdell, 2002, Fan et al., 2015; Aziz et al., 2018). For example, a number of studies have revealed that gender could be an important factor when studying tourism motivation (Chen et al., 2018; Kaufman & Upchurch, 2007; Meng & Uysal, 2008; Vespestad & Mehmetoglu, 2015; Xie et al., 2008). Thus, it has been found that men generally travel more and for longer distances than women (Collin & Tisdell, 2002). Men also exhibit a different travel behavior and have different motivations to travel than women. Previous studies have found that women may be more strongly motivated to travel than men (Andreu et al., 2005). While men are more likely to be motivated by adventure, women are more interested in shopping and cultural activities as well as learning about places and cultures (Xie et al., 2008; McGehee et al., 2007; Vespestad & Mehmetoglu, 2015). Also, whereas men prefer physical activities and having fun while traveling, women are more likely to travel for mental relaxation, escape, socialization and family togetherness (Meng et al., 2008; Meng & Uysal, 2008; Andreu et al., 2005).

Other studies have shown that age may be an important discriminant in tourism motivation studies (Ma et al., 2018; Irimiás et al., 2016; Park & Mok, 1996; Mohsin, 2008; Aziz et al., 2018). Younger travelers are more interested in physically demanding activities (Spence, 2002) whereas older tourists are more likely to look for more relaxing activities and nature exploration (Ma et al., 2018). A study by Jönsson & Devonish. (2008) revealed that older people are more novelty-driven in their travels, although this is contradicted by Luo & Deng (2008). Senior travelers are also more motivated to travel by a desire to learn than younger tourists (Irimiás et al., 2016).

Education level was also found in some studies to influence travel motivation (Chen et al., 2018; Ma et al., 2018; Mohsin, 2008). Tourists with higher education level were generally found to travel farther from home (Zimmer et al., 1995) and to seek relaxation, knowledge and novelty (Sangpikul, 2008).

Finally, a number of studies have highlighted the importance of nationality and place of residence in tourism motivation studies (Hatano et al., 2021; Kim & Prideaux, 2005; Ma et al., 2018; Jönsson & Devonish, 2008; Pizam & Sussman, 1995; Allaberganov & Preko, 2022; Egresi, 2017). For example, a study by Kozak (2002) has demonstrated that motivation to travel could vary across different nationalities and Ma et al. (2018) have shown that there are clear differences between Chinese and Western tourists. Similarly, Egresi & Kara (2014) have reported that there may be differences in motivation to travel even based on the distance traveled, meaning that tourists who traveled longer distances may have different motives to visit an objective than tourists who traveled a shorter distance.

Methodology

Data collection

The main instrument to collect data for this study was a self-administered questionnaire initially distributed to visitors as they exited the mine in April 2023. A number of 89 usable questionnaires were collected this way. Subsequently, due to the low number of responses in the initial stage, the questionnaire was also distributed online, on different social media platforms. This way, 78 responses were received to a total of 167.

The questionnaire was divided into four parts. In the first section, we asked questions about our respondents' travel behavior when visiting the Turda Salt Mine (whether or not they have visited the former mine in the past, how often, for how long, with whom and how much they usually spend during each visit). The second part included nine statements about their motivation to visit the salt mine. Participants were asked to evaluate these statements on a Lickert scale from 1 to 5, with 1 meaning total disagreement and 5 total agreement. Part three of the questionnaire attempted to measure our respondents' level of satisfaction with their experience visiting the former mine. The findings of this part will be discussed in another paper. Finally, in the last section, we collected socio-demographic data about the participants: gender, age, level of education, occupation and place and country of residence.

Data processing

We employed SPSS 26 to process the data resulting from the questionnaires collected. We used descriptive statistical methods (frequencies, percentage of total, median and IQR) to understand the socio-demographic make-up of our sample and their visiting behavior, as well as evaluate participants' answers to our statements. We, then, used inferential statistics (Mann-Whitney U Test and Kruskal-Wallis H Test) to test whether or not there were any statistically significant differences between groups based on socio-demographic characteristics.

Analysis of findings and discussion

Socio-demographic characteristics of our respondents

Most of our respondents were female, under 40 years of age, residing in Romania, and employees or students, with less than higher education (table 1). Most have visited the Turda salt mine in the past (generally they visit the salt mine once every few years) and have also visited other salt mines in Romania. They prefer to visit the mine with their family, for 2-4 hours each time. Most visitors spend under 100 lei in the mine (approximately 20 euro) (table 2).

Table 1. Socio-demographic characteristics of respondents

Socio-demographic characteristic	**Frequency**	**% from total**	**Socio-demographic characteristic**	**Frequency**	**% from total**
Gender (n=166)			***Education*** (n=167)		
Male	69	41,6	High School or less	63	37,7
Female	97	58,4	Associate degree and other (less than higher education)	31	18,6
Age group (n=167)			Undergraduate studies	60	35,9
18 – 23 years	67	40,1	Postgraduate studies	13	7,8
24 - 39 years	47	28,1	***Occupation*** (n=167)		
40 -52 years	33	19,8	Employee	72	43,1
53+ years	20	12,0	Student	57	34,1
Residence (n=167)			Entrepreneur	13	7,8
Cluj County	26	15,6	Retiree	10	6,0
Romania (excl. Cluj)	112	67,1	Other	15	9,0
Abroad	29	17,4			

Table 2. Traveling characteristics of respondents

Travel characteristics	Freq.	% from total	Travel characteristics	Freq.	% from total
Have you visited other salt mines in Romania? (n=167)			***How much money did (do) you spend in the mine?*** (n=163)		
Yes	104	62,3	Under 50 lei	43	26,5
No	63	37,7	50 – 100 lei	69	42,3
Have you visited the salt mine in Turda in the past? (n=167)			Over 100 lei	51	31,3
Yes	110	65,9	***On average, how much time do (did) you spend in the mine?*** (n=161)		
No	57	34,1	Under 2 hours	44	27,3
If you answered yes, how many times do you visit the mine in a year? (n=108)			2-4 hours	102	63,4
Once every few years	73	67,6	Over 4 hours	15	9,3
1 – 3 times a year	27	25,0	***Who do you prefer to visit the mine with?***		
3 – 5 times a year	4	3,7	With family	88	54,3
More than 5 times a year	4	3,7	With friends	40	24,7
			With my partner	26	16,0
			Alone	8	4,9

Motivation of tourists visiting the Turda Salt Mine

Our study shows that tourists visit this salt mine mainly for leisure/ relaxation (median= 5) but also for knowledge, adventure, to try something new and to escape the daily routine (median= 4). The least important motivations were to participate in various cultural or religious events or in various sports that take place in the mine (for each of these motivations the median was 1) as well as to socialize with like-minded people (median= 2) (table 3).

Table 3. Motivation of tourists visiting the Turda Salt Mine

Tourists' motivation	Totally disagree (%)	Disagree (%)	Not sure (%)	Agree (%)	Totally agree (%)	Median	IQR
Leisure/relaxation (n=165)	1.8	3.6	12.7	22,4	59.4	5.00	1.00
Medical treatment (this includes accompanying persons) (n=165)	32.1	12.7	20.6	8,5	26.1	3.00	3.00

Tourists' motivation	Totally disagree (%)	Disagree (%)	Not sure (%)	Agree (%)	Totally agree (%)	Median	IQR
Knowledge (to learn something new) (n=164)	5.5	9.1	29.3	30,5	25.6	4.00	1.00
Adventure (n=162)	11.1	9.9	26.5	29,6	22.8	4.00	1.00
I wanted to try something new (n=162)	8.6	9.9	21.6	24,7	34.6	4.00	2.00
To escape the daily routine (n=162)	8.00	8.6	23.5	26,5	32.7	4.00	2.00
To participate in various cultural or religious events that take place in the salt mine (n=163)	53.4	14.7	14.7	8,0	9.2	1.00	2.00
To participate in various sports events that take place in the salt mine (n=163)	53.4	19.0	12.9	5,5	9.2	1.00	2.00
To socialize with people like me (n=163)	40.5	16.6	16.0	11,7	15.3	2.00	3.00

What is somewhat surprising in our findings is that there are so few people who visit the former salt mine to participate in various cultural/religious or sporting events although these types of events are not lacking. These events are planned to enhance the experience of the visitor, yet our results show that they do not really matter. This finding confirms the results of a report by del Chiappa & Napolitano (2019) that most people visiting salinas in Italy do not really care about events. Another surprise is that our survey participants were ambiguous (median 3) about visiting the salt mine for medical treatment, although the beneficial effects of speleotherapy have been scientifically documented (Oleksa et al., 2023). Other studies have also noted this issue. For example, Stănciulescu & Molnár (2017) have reported that the potential for speleotherapy in Romania is far from being met. There may be several explanations for this failure. Among these, Çılgınoğlu & Yazgan (2023) mention the lack of promotion in the social media and the shortage of scientific reports on the effectiveness of salt therapy to human health. Less surprising was to find out that socialization with like-minded people was not an important motive to visit the salt mine. This finding is not difficult to understand as the environment in such a salt mine is not really conducive to socialization.

Differences in motivation among socio-demographic groups

We found no statistically significant differences in motivation between men and women (table 4) which is consistent with findings of other studies that gender is not an important discriminant in terms of motivation to travel or to visit certain destinations or tourist objectives (Aziz et al., 2018; Allaberganov & Preko, 2022).

Table 4. Differences in motivation based on gender

Motivation (The reason(s) I am visiting the salt mine is)	**Gender**	**N**	**Mean ranks**	**Test statistics**	**p-value**
For leisure/relaxation	Male	69	77.84	U= 3599.0 Z= 1.213	.225
	Female	95	85.88		
Medical treatment (this includes accompanying persons)	Male	68	76.85	U= 3648.0 Z= 1.323	.186
	Female	96	86.50		
Knowledge (to learn something new)	Male	69	84.34	U= 3081.5 Z= -.563	.574
	Female	94	80.28		
Adventure	Male	68	79.34	U= 3275.0 Z= .399	.690
	Female	93	82.22		
I wanted to try something new	Male	67	85.65	U= 2837.5 Z=-1.106	.269
	Female	94	77.69		
To escape the daily routine	Male	69	76.86	U= 3459.5 Z= 1.010	.312
	Female	92	84.10		
To participate in various cultural or religious events that take place in the salt mine.	Male	68	86.11	U= 2882.5 Z= -1.163	.245
	Female	94	78.16		
To participate in various sports events that take place in the salt mine	Male	68	86.46	U= 2858.5 Z= -1.253	.210
	Female	94	77.91		
To socialize with people like me	Male	68	85.73	U= 2908.0 Z= -1.018	.309
	Female	94	78.44		

* Significant at 95% confidence level

Our study, however, contradicts the findings of a research by Allaberganov & Preko (2022) which concluded that age is not important in differentiating among travel motives. In terms of age groups, we found that tourists aged between 24 and 52 years are more likely to visit the mine to learn something new than both younger (18-23 years) and older (53+ years) tourists ($\chi 2$= 8.699; p= .032) (table 5). This was somewhat surprising, especially in light of previous research that argued that older tourists tend to be more interested in travelling for the sake of learning (see, for example, Irimiás et al., 2016). Also, studies by

Jang & Wu (2006), Fleischer & Pizam (2002) and Horneman et al. (2002) have highlighted that knowledge-seeking is an important motivation for senior tourists. However, even among senior travelers, a number of studies (Cleaver Sellick, 2004; Otoo et al., 2020a; b) have determined that those in the younger segment (55-59 years) are more likely than older seniors to travel for learning. This means that the most interested in learning while travelling are not necessarily the oldest tourists. In the same line, we found that tourists younger than 40 were more likely to visit the salt mine for adventure than tourists 40 years of age or older ($\chi2$= 8.998; p= .029). On the other hand, tourists older than 52 are more likely to be motivated by a desire to socialize than younger tourists ($\chi2$= 9.599; p= .022) (table 5). These findings were expected and need no further commenting.

Table 5. Differences in motivation based on age

Motivation (The reason(s) I am visiting the salt mine is)	**Mean ranks for age groups**				**Test stat. (DoF= 3)**	**p value**	**Pairwise comp ****
	18-23 yrs (N)	***24-39 yrs (N)***	***40-52 yrs (N)***	***53+ yrs (N)***			
For leisure/ relaxation	84.80 (67)	72.17 (45)	86.35 (33)	95.83 (20)	5.163	.160	
Medical treatment (this includes accompanying persons)	80.98 (67)	77.08 (45)	89.50 (33)	92.38 (20)	2.338	.505	
Knowledge (to learn something new)	73.36 (67)	92.63 (46)	94.30 (32)	69.61 (19)	8.699	**.034***	**none**
Adventure	88.56 (67)	87.28 (45)	72.95 (31)	56.87 (19)	8.998	**.029***	53+/18-23 (p= **.044**)
I wanted to try something new	76.48 (67)	90.95 (44)	81.63 (31)	77.33 (20)	2.912	.405	
To escape the daily routine	84.59 (66)	72.18 (44)	83.88 (32)	88.00 (20)	2.670	.445	
To participate in various cultural or religious events that take place in the salt mine.	80.65 (67)	84.41 (45)	68.61 (31)	101.85 (20)	7.383	.061	
To participate in various sports events that take place in the salt mine	87.60 (67)	82.98 (45)	71.78 (32)	77.16 (19)	3.176	.365	
To socialize with people like me	78.40 (67)	76.78 (45)	78.98 (32)	112.16 (19)	9.599	**.022***	14-39/ 53+ (p=**.026**) 18-23/ 53+ (p=**.025**)

* Significant at 95% confidence level

** Dunn's (1964) procedure with a Bonferroni correction

Our study has also shown that those with a postgraduate degree are more likely to visit the salt mine to seek medical treatment than visitors with lesser education ($\chi2=8.216$; p= .042) (table 6). This may be because more educated visitors are more knowledgeable of the medical benefits of salt than less educated vistors.

Table 6. Differences in motivation based on education

Motivation (The reason(s) I am visiting the salt mine is)	**Mean ranks for education groups**				**Test stat. (DoF= 3)**	**p value**
	HS or less (N)	***Other non-HE ed. (N)***	***Undergrad. (N)***	***Postgrad. (N)***		
For leisure/relaxation (n= 165)	85.52 (61)	75.79 (31)	86.53 (60)	72.08 (13)	2.423	.489
Medical treatment (this includes accompanying persons) (N=165)	77.07 (63)	72.90 (30)	88.13 (59)	111.77 (13)	8.216	**.042***
Knowledge (to learn something new) (N= 164)	76.89 (62)	82.42 (30)	91.51 (59)	68.58 (13)	4.422	.219
Adventure (N=162)	77.90 (62)	77.32 (31)	91.49 (57)	63.42 (12)	5.291	.152
I wanted to try something new (N= 162)	84.59 (61)	77.18 (31)	86.22 (58)	54.13 (12)	5.583	.134
To escape the daily routine (N= 162)	89.40 (61)	75.68 (31)	80.87 (57)	61.08 (13)	5.023	.170
To participate in various cultural or religious events that take place in the salt mine (N= 163)	86.27 (62)	75.29 (31)	83.27 (58)	71.13 (12)	2.159	.540
To participate in various sports events that take place in the salt mine (N= 163)	91.73 (62)	73.06 (31)	76.18 (57)	82.46 (13)	5.505	.138
To socialize with people like me (N= 163)	82.19 (62)	91.73 (31)	80.14 (57)	66.08 (13)	3.137	.371

* Significant at 95% confidence level; no pairwise comparison was found to be statistically significant

Another finding of our study is that foreign tourists are the least likely to visit the salt mine for medical treatment ($\chi2= 14.769$; p= .001). They are also the least likely to participate in various cultural/ religious events ($\chi2= 13.291$; p=.001) and were less motivated than local people to participate in sport events ($\chi2= 13.088$; p= .001). On the other hand, local visitors were more likely to visit the salt mine motivated by a desire to socialize than visitors arriving from other

parts of Romania or from abroad ($\chi 2$= 8.058; p= .018) (table 7). These findings are logical because it is very unlikely to travel long distance to participate in cultural/religious or sport events that are not unique and could be found closer to home. Similarly, tourists originating from other Romanian counties or from abroad have opportunities to socialize in places much closer to home and do not need to travel all the way to the Turda salt mine to satisfy their needs. Finally, there could be several explanations as of why very few foreign tourists visit the former salt mine for speleotherapy or other salt-related medical treatment. Firstly, as mentioned earlier, those who administer the salt mine may do a very poor job in advertising the place as a medical tourism objective. Secondly, there may be salt mines that are better known for their therapeutic effects and are closer to the foreign visitors' homes. These findings support the results of previous research (Egresi & Kara, 2014) which demonstrated the tourists coming from far away may have different reasons to visit a destination or a tourist objective than tourists originating from the nearby area.

Table 7. Differences in tourists' motivation based on their place of residence

Motivation (The reason(s) I am visiting the salt mine is)	**Mean ranks for places of residence**			**Test stat. (DoF=2)**	**p value**	**Pairwise comparisons ****
	Cluj County (N)	***Romania (N)***	***Abroad (N)***			
For leisure/ relaxation (n= 165)	90.58 (26)	83.20 (110)	75.45 (29)	1.776	.411	
Medical treatment (this includes accompanying persons) (N=165)	92.54 (26)	88.45 (111)	52.55 (28)	14.769	**.001***	Abroad/Rom (p= **.001***) Abroad/Cluj (p= **.005***)
Knowledge (to learn something new) (N= 164)	76.35 (24)	86.40 (111)	72.66 (29)	2.581	.275	
Adventure (N=162)	74.44 (24)	83.64 (109)	79.29 (29)	.888	.642	
I wanted to try something new (N= 162)	74.88 (24)	80.47 (110)	91.23 (28)	1.864	.394	
To escape the daily routine (N= 162)	91.34 (25)	83.66 (108)	64.97 (29)	5.291	.071	
To participate in various cultural or religious events that take place in the salt mine (N= 163)	107.90 (24)	81.02 (110)	64.28 (29)	13.521	**.001***	Abroad/Rom (p= **.001***) Abroad/Cluj (p= **.001***)
To participate in various sports events that take place in the salt mine (N= 163)	104.40 (25)	82.25 (109)	61.76 (29)	13.088	**.001***	Abroad/Cluj (p= **.001***)

Motivation (The reason(s) I am visiting the salt mine is)	**Mean ranks for places of residence**			**Test stat. (DoF=2)**	**p value**	**Pairwise comparisons ****
	Cluj County (N)	***Romania (N)***	***Abroad (N)***			
To socialize with people like me (N= 163)	105.40 (25)	78.57 (109)	74.71 (29)	8.058	**.018***	Rom/Cluj (p= **.023***) Abroad/Cluj (p= **.039***)

* Significant at 95% confidence level
** Dunn's (1964) procedure with a Bonferroni correction

Conclusion and recommendations

The purpose of this research was two-fold:

1. To identify the main reasons tourists visit a (former) salt mine;
2. To test whether or not there are statistically significant differences in motivation between various socio-demographic segments.

Based on this research we can conclude that most people visit salt mines for leisure/relaxation, knowledge, adventure, to try something new and to escape the daily routine. Our findings, also, show that some socio-demographic factors (age, place of residence, and, less importantly, education level) could influence motivation to visit a salt mine.

The main limitation of this study is the relatively low number of questionnaires collected. Also, fieldwork was done during a short period of time when the first author found a gap in her busy schedule. There was no attempt to stretch the distribution of questionnaires over multiple weeks or even months (during weekdays, weekends, school holidays, mornings, afternoons, etc.) to get a more representative sample of participants. Thus, the results of this study may have been influenced by abnormal events that took place during the few days when the fieldwork was conducted (e.g. school trips). Also, we do not claim that our sample is representative for the population that visits the salt mine. It is not and it could not be since the profile of this population is not known. However, in spite of these limitations, this study is not without merits. To our knowledge, this is the first research that attempted to identify the main motivations to visit a salt mine. For a pioneering study, the results are encouraging. However, more research is needed to better understand what motivates people to visit a salt mine.

The results of this study have a number of practical implications for the marketing and management of salt mines. Firstly, we know that motivation to visit the salt mine may differ based on age, level of education and place of residence. This means that marketing campaigns need to be more targeted. For

example, it is clear that foreigners are not interested in Turda Salt Mine as a venue for events; there is no need to put too much emphasis on these opportunities when advertising the mine to them. On the other hand, these events are attractive to potential visitors living in the proximity of the mine (mainly in Cluj County) so more effort should be put into advertising these events to them.

Secondly, our findings show that Turda Salt Mine is not sufficiently known for its medical and spa tourism potential. This should be better advertised, especially abroad. As mentioned earlier in this paper, it may be difficult to attract people from Western Europe for this purpose as they can access places to practice speleotherapy or halotherapy that are closer to home. Therefore, we need more studies to help us understand what can Turda Salt Mine offer to medical tourists that other places cannot.

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EVALUATION OF THE GEOTOURISM POTENTIAL OF THE MOUNTAIN LAKES IN THE CĂLIMANI MASSIF: COLIBIȚA LAKE, IEZER LAKE AND ZÂNELOR LAKE

Vasilica Valentina ISOPESCU[1]

ABSTRACT. Evaluation of the Geotourism Potential of the Mountain Lakes in the Călimani Massif: Colibița Lake, Iezer Lake and Zânelor Lake. This paper evaluates the key geosites in the Călimani National Park: Colibița Lake, Iezer Lake and Zânelor Lake. The internationally recognized methodology used in this study has a crucial role in the development of tourism and the conservation of natural resources. The obtained results show that these geosites have a significant potential for tourism development. Colibița Lake, an artificial lake, attracts tourists with its picturesque landscape and recreational activities. Iezer Lake impresses with its natural beauty and ecological importance, being a crucial habitat for local flora and fauna. Zânelor Lake offers a unique cultural experience, thanks to the charming landscape and local legends. The evaluation and management of these geosites will contribute to the management and conservation of natural resources in the Călimani Massif. The development of sustainable tourism requires appropriate management strategies that ensure responsible use and conservation of the environment. Promoting sustainable tourism and respecting conservation principles will ensure the preservation and sustainable exploitation of these geosites, benefiting both local communities and visitors.

Keywords: *Geotourism, Geosite, Călimani Massif, Carpathian Mountains, Romania.*

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Introduction

The expression "geosite" refers to a particular category of geographical characteristics or geological phenomena that holds substantial significance in comprehending the Earth's developmental history (Chakraborty et al., 2018; Martins & Pereira, 2018; Panizza, 2001).These geosites are evaluated according to their scientific importance as well as other aspects such as their cultural-historical, ecological, economic and aesthetic value (Pereira & Pereira, 2010; Reynard et al., 2009). In recent years, the increased focus on environmental conservation has changed the direction of research in geomorphology, paying special attention to landscapes and geosites as an integral part of natural heritage (Panizza, 2001; Pralong, 2005; Brilha, 2016). This has led to the development of geodiversity and geosite research and assessment methods (Phuong et al., 2017; Gordon, 2018; Catana and Brilha, 2020). In the area of the Carpathian Mountains in Romania, including the Călimani Mountains, numerous studies have been carried out to inventory, evaluate and use geosites (Bâca, 2010, 2011; Cocean, 2011; Rus, 2018; Stoleriu, 2014).

Geotourism and geomorphology play a significant role in understanding terrestrial systems and can be used in education to foster a solid comprehension of the changes occurring on Earth over time (Amiri, Nohegar, and Bouzari, 2018). Moreover, they can yield economic benefits by promoting sustainable tourism, which encourages the cultural and environmental interpretation of a region and supports local communities (Pralong, 2005). This work focuses on assessing the scientific and cultural value of three important geosites in Călimani Massif: Colibiţa Lake, Iezer Lake, and Zânelor Lake. Colibiţa Lake, despite being an artificial lake, serves as a tourist attraction due to its picturesque scenery and recreational activities. Iezer Lake impresses with its natural beauty and ecological significance, while Zânelor Lake offers a unique cultural experience, featuring charming landscapes and local mythology. Evaluating these geosites will contribute to the management and conservation of natural resources in the Călimani Massif, considering their potential for sustainable tourism development. Through this study, we aim to identify the scientific and cultural value of the mentioned geosites and explore opportunities for sustainable tourism development.

Data and Methods

Study area

Călimani National Park is located in the Călimani Massif and covers an area of 24,041 hectares. It was designated as a protected area according to law no. 5/2000 and Government Decision no. 230/2000, being classified in category II

according to the IUCN (see Fig. 1 for the geographical localization of the Călimani Massif).

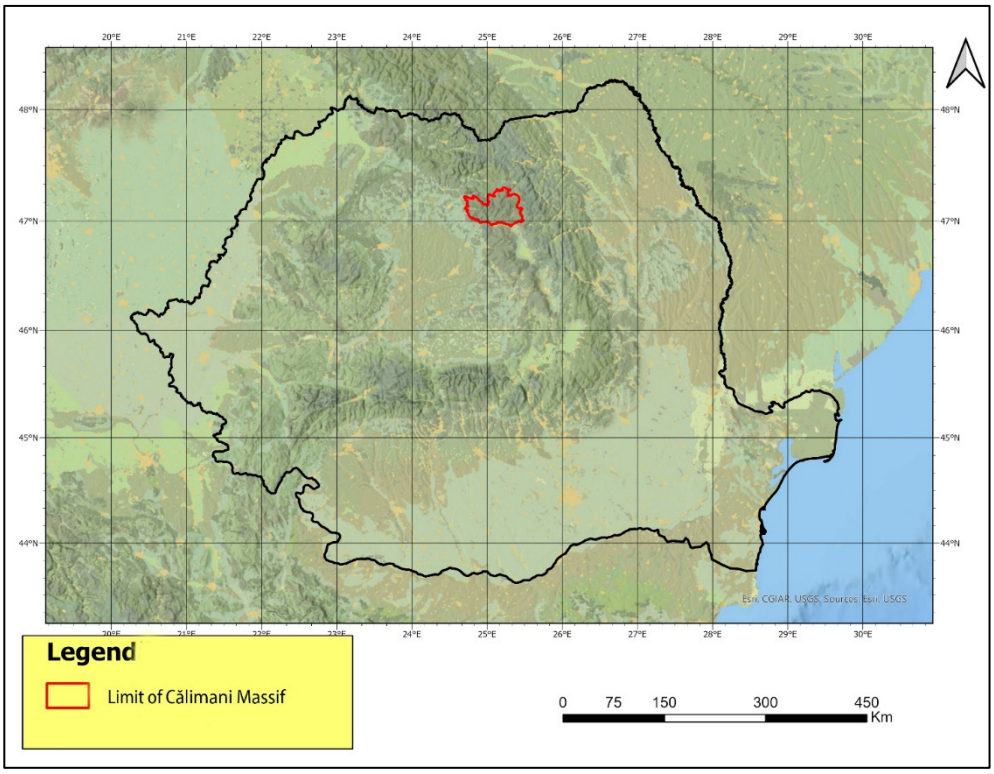

Fig. 1. Geographical localization of the Călimani Massif

Within the Călimani National Park there are several notable scientific reserves, including the Jneapăn Scientific Reserve with *Pinus cembra*, which covers an area of 384.2 hectares and is part of the IV category according to the IUCN. The Park also includes the Iezer Lake Reserve in Călimani, which covers an area of 322 hectares and is also classified in category IV according to the IUCN. In addition, the 12 Apostoli Geological Reserve, with an area of 200 hectares, is also included in category IV according to the IUCN (Romsilva, 2022).

The procedure of inventorying and assessing geomorphosites is executed through multiple phases. These stages encompass the review of specialized literature and the retrieval of available maps, which may also comprise satellite imagery. Subsequently, a field expedition is undertaken to comprehensively

document geosites, culminating in the development of inventory documents for each distinct geosite. The concluding steps involve the cartographic representation and assessment of the recognized geosites using the standards advocated by Pralong and Warowna (Pralong, 2005; Warowna et al., 2014). The evaluation of geomorphosite exploitation involves considering the extent and manner of usage, taking into account variables like the area utilized, infrastructure availability, the level of seasonal occupation, and the daily duration of use (Pralong, 2005). To determine the total value of a geomorphological site, the structural and functional values are combined, with any restrictive value being subtracted (Pralong, 2005).

These assessments are conducted following the analysis model established by Pralong (2005) and the Warowna method, which is employed for the evaluation of geomorphosites and the determination of their value and significance within the realms of geotourism and geomorphological heritage preservation (Warowna, et al., 2014).

The methodologies used are rooted in the principles and practices developed by Pralong and Warowna (Pralong, 2005; Warowna, et al., 2014), making them essential tools for comprehending and evaluating geosites in the context of geotourism and geomorphological heritage conservation.

Through the application of these methods, a more profound understanding of the scientific, cultural, aesthetic, ecological, and economic worth of geosites like Colibița Lake, Iezer Lake, and Zânelor Lake can be achieved (see Fig. 2 for location of geosites of interest: Colibița Lake, Iezer Lake and Zânelor Lake). The assessment of these geosites plays a pivotal role in their safeguarding and preservation, as well as in fostering the development of sustainable tourism in these regions. Hence, this paper concentrates on appraising the scientific and cultural values of the aforementioned geosites and examines their potential for advancing sustainable geotourism. By utilizing the Pralong and Warowna methodologies, the goal is to pinpoint and evaluate specific criteria that reflect the significance and tourism potential of these geosites.

This approach contributes to a deeper comprehension of the geosites in the Călimani Mountains and the formulation of appropriate strategies for their preservation and promotion. By harnessing the tourism potential of these geosites in a sustainable manner, it becomes possible to ensure the protection of the environment and the economic and cultural advancement of local communities.

In conclusion, the evaluation of the Colibița Lake, Iezer Lake and Zânelor Lake geosites by means of the Pralong and Warowna methods represents an important step in understanding and capitalizing on their tourist potential and in promoting sustainable tourism in the Călimani Mountains. This paper focuses on the scientific, cultural, aesthetic, ecological and economic evaluation of these geosites and explores ways of conservation and sustainable development in this scenic area.

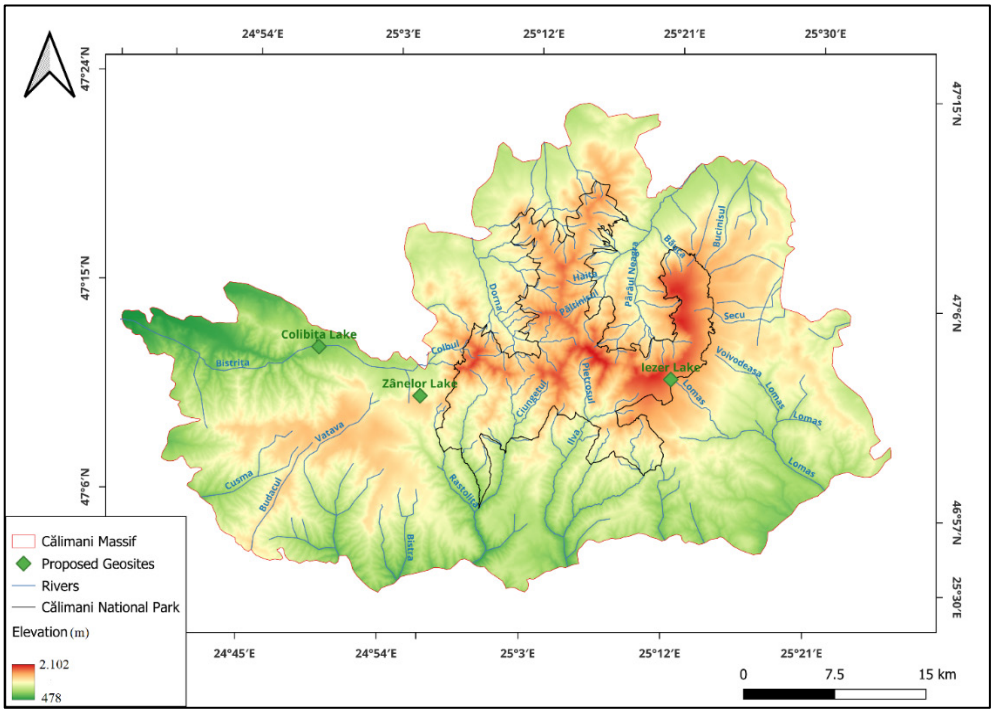

Fig. 2. Location of geosites of interest: Colibiţa Lake, Iezer Lake and Zânelor Lake

Results and discussion

Anthropogenic Geosite, Colibiţa Lake

Colibiţa Lake is an anthropogenic lake located in the Călimani Mountains, Bistriţa-Năsăud County, Romania. Built in the 1990s as a result of the Bistriţa River's development, the lake is considered one of the most beautiful and largest artificial lakes in the country with an approximate surface area of 270 hectares and a maximum depth of around 70 meters, Colibiţa Lake impresses with its picturesque landscape, surrounded by forest-covered slopes and mountain peaks (refer to Fig. 3 for a photo of Colibiţa Lake). Colibiţa Lake impresses with its extremely clear water and the variety of blue shades, creating a relaxing and tranquil atmosphere. It is a popular destination for tourists and nature enthusiasts, offering numerous recreational activities such as fishing, boating or kayaking, paddleboarding, swimming in the crystal-clear waters, hiking, cycling, as well as wildlife and flora observation. Colibiţa Lake also holds significant economic importance for the region due to the development of tourism. Facilities such as

guesthouses, hotels, and restaurants have been built to ensure the comfort of visitors.

However, it is crucial to adopt sustainable tourism practices in the Colibiţa Lake area to protect the environment and natural resources. Local authorities and the community are involved in conservation initiatives for the lake and the promotion of responsible tourism, adhering to environmental protection rules and promoting ecotourism.

Through proper management and the promotion of sustainable tourism, Colibiţa Lake remains an attraction for tourists, contributing to economic development and the conservation of natural resources in the area (Bâca & Şteff, 2014).

Fig. 3. Personal photo of Colibiţa Lake

Table 1. Inventory sheet for the Colibiţa Lake

Name	Colibiţa Lake
Indicative	23
Location	Located in the eastern part of the county
Territorial administrative unit	Colibiţa village, Bistriţa Bârgăului commune, Bistriţa – Năsăud County
Typology	Geosite, reservoir
Total value	22.5
Structural value	7
Functional value	15.5
Restrictive attributes	1

STRUCTURAL VALUE		
TYPE	**SCORE**	**JUSTIFICATION**
GEOMORPHOLOGICAL	2.25	• Formed by a single relevant factor, it is an artificial lake (0.25 p). • More than 3-4 points of interest (0.75 p). • Unchanged relief form (0.25 p). • Affected geosite (0.5 p). • Nationally unique geosite (0.75 p)
AESTHETICAL	3.75	• Geosite with common physiognomy (0.25 p). • Chromatic contrast (1 p). • Altitude of 830 m (1 p). • Landscape is an essential component in the overall panorama (0.75 p). • Panoramic receptive geosite (0.75 p).
ECOLOGICAL	1	• Common forest vegetation (0.5 p). • Representative biotope of the area's fauna (0.5 p). • Unprotected geosite (0 p).
FUNCTIONAL VALUE		
TYPE	**SCORE**	**JUSTIFICATION**
CULTURAL	3.5	• Defining vestiges on a national scale (1 p). • Presence of prehistoric sites (1 p). • Sunk church (0.5 p). • Over 50 representations in works of art (literature, photography) (1 p).
SCIENTIFICALLY	3.5	• Geosite with national representativeness (0.75 p). • Appearance of the geosite in multiple scientific works in international journals (1 p). • A good example of processes but moderate pedagogical interest (0.75 p). • Versatile educational resource (1 p).
ECONOMIC	8.5	• More than 5 feasible activities (1 p). • Direct car access from the main road (1 p). • Distance of less than 5 km to modern and complete service centers (1 p). • Urban areas and centers with over 10,000 inhabitants located within 50 km (0.25 p). • Tourist attraction of national interest (0.75 p). • Accommodation facilities in hotels, villas, guesthouses near the attraction (1 p). • Modern facilities and services within the geosite perimeter (1 p). • Permanent tourist exploitation (1 p). • Tourist exploitation between 6 and 9 hours per day (0.75 p). • National-level tourism promotion (0.75 p).
RESTRICTIVE ATTRIBUTE		
SCORE	**JUSTIFICATION**	
1	• The geosite has intensive tourist exploitation (0.25 p) • The presence of household waste, industrial residues (0.75 p)	

Source: These data represent the analysis of geosites using the Pralong method

Iezer Lake

Within the Călimani National Park, there is an exceptionally interesting area known as the Iezer Lake. This reserve falls under the IV category according to the IUCN and is located at the base of Răchitiș Peak. It covers an area of 1,200 square meters, with a length of 45 meters and a width of 35 meters. Situated in the northwestern part of Harghita County, it is part of the European ecological network Natura 2000, as per the information provided by Romsilva in 2022. Iezer Lake is fed by two springs and flows into the Puturosul stream, with a water depth ranging from 3 to 5 meters (refer to Fig. 4 for a photo of Iezer Lake taken by Administration of Călimani National Park). Although its correct name is Iezerul Răchitiș, it is also known as Iezerul Călimani due to its proximity to Răchitiș Peak, which stands at an elevation of 2021 meters. This peak is popular among mountain enthusiasts and features a well-equipped weather station cabin.

The Iezer Lake is a natural dam lake surrounded by a variety of shrubs and plant species. Here, one can find species such as pine tree (*Pinus mugo*), mountain rhododendron (*Rhododendron kotschyi*), bird's-foot violet (*Viola dacica*), sword-leaved helleborine (*Cephalanthera longifolia*), long-leaved hawkweed (*Bupleurum longifolium*), globeflower (*Trollius europaeus*), spotted gentian (*Gentiana punctata*), wood cranesbill (*Geranium sylvaticum*), spring sandwort (*Minuartia verna*), and exalted lousewort (*Pedicularis exaltata*). These floral species are protected at the European level in accordance with the EU Directive 92/43/EEC dated May 21, 1992. The reserve hosts a rich variety of animal species, including mammals, insects, reptiles, amphibians (including species on the IUCN Red List), and birds (according to Romsilva, 2022). In this area, you can encounter red deer (*Cervus elaphus*), gray wolves (*Canis lupus*), red foxes (*Vulpes vulpes crucigera*), wild boars (*Sus scrofa*), Eurasian lynx (*Lynx lynx*), squirrels (*Sciurus carolinesis*), and otters (*Lutra lutra*) (information from Romsilva, 2022; according to Stoica, 2007). In addition to its natural beauty, Iezer Lake is also of interest because very few official records are available regarding its formation. It is considered to be a natural dam lake in the volcanic mountains, a rare example in this region. Therefore, Iezer Lake attracts a steady flow of tourists during the warm season, offering a wide range of tourist activities. Here, you can experience various forms of tourism, such as scientific, sports, cultural, educational, religious, and ecotourism.

It is crucial to harness and protect this geosite potential to conserve the natural heritage and promote sustainable tourism in this area.

Fig. 4. Photo of Iezer Lake taken by Administration of Călimani National Park

Table 2. Inventory sheet for the Iezer Lake

Name	Iezer Lake	
Indicative	17	
Location	It is located at the northwestern tip of Harghita County, at the foothills of Mount Răchitiș.	
Territorial administrative unit	Toplița, Harghita County	
Typology	Nature reserve of mixed type, natural dam lake	
Total value	20.75	
Structural value	10.5	
Functional value	10.25	
Restrictive attribute	0	
STRUCTURAL VALUE		
TYPE	**SCORE**	**JUSTIFICATION**
GEOMORPHOLOGICAL	4	• Complex genesis, with the involvement of several morphogenetic, volcanic, tectonic, geomorphological, hydrological and level-glacial processes (1 p) • More than five elements of interest: geological, volcanological, hydrological, biological and tectonic (1 p)

		• Slow-evolving landforms (0.5 p) • Unaffected geosite (1 p) • Unique regional geosite (0,5 p)
AESTHETICAL	4	• Geosite with chromatic contrast provided by nearby vegetation and the lake water (1 p) • Geosite protected due to its landscape content (1 p) • Located at an altitude of 1650 meters (1 p) • Common physiognomy (0.25 p) • Geosite appreciated from a viewpoint perspective (0.75 p)
ECOLOGICAL	2.5	• Geosite with glacial relic plants, a multitude of shrubs, numerous species of mountain pine (*Pinus mugo*), mountain rhododendron (*Rhododendron kotschyi*), bird's-foot violet (*Viola dacica*), sword-leaved helleborine (*Cephalanthera longifolia*), long-leaved hawkweed (*Bupleurum longifolium*), globeflower (*Trollius europaeus*), spotted gentian (*Gentiana punctata*), wood cranesbill (*Geranium sylvaticum*), spring sandwort (*Minuartia verna*), and exalted lousewort (*Pedicularis exaltata*). These floral species are protected at the European level under the EC Directive 92/43/EEC of May 21, 1992 (1 p). • Faunal biotope representative of the area, Fauna is represented by mammals, insects, reptiles, amphibians (which are on the IUCN red list), and birds. We mention the following animals: deer (*Cervus elaphus*), gray wolf (*Canis lupus*), fox (*Vulpes vulpes crucigera*), wild boar (*Sus scrofa*), Eurasian lynx (*Lynx lynx*), squirrel (*Sciurus carolinesis*) and otter (*Lutra lutra*) (0.5 p). • Completely protected area, the Iezer Lake is an area of interest inside the Călimani National Park, included in the IV category of the IUCN, being a mixed type reserve and located at the foot of the Răchitiș Peak (1p).
FUNCTIONAL VALUE		
TYPE	**SCORE**	**JUSTIFICATION**
CULTURAL	1	• More than 50 representations in works of art (photo, personal albums) (1 p)
SCIENTIFICALLY	4.75	• Geosite with national representativeness (0.75 p) • Featured in multiple scientific works in international journals (1 p) • A good example of processes and a valuable educational resource (1 p) • Geosite of very high paleogeographic interest (1 p) • With versatile addressability (1 p)

ECONOMICAL	4.5	• Over 5 activities that can be carried out in this geosite. The forms of tourism that can be practiced in this geosite are: scientific tourism, sports tourism, cultural tourism, educational tourism, religious tourism, and ecotourism (1 p) • Accessible forest roads (0.5 p) • Within a distance of less than 25 km from modern centers and full services (0.5 p) • Urban areas and centers with over 10,000 residents located within 50 km (0.25 p) • National tourist attraction (0.75 p) • Accommodation facilities ranging from 2 to 10 km from the attraction, as the weather station is located near the geosite (0.25 p) • Seasonal tourist exploitation, 2 seasons (0.5 p) • National-level tourism promotion (0.75 p)
RESTRICTIVE ATTRIBUTE		
SCORE	**JUSTIFICATION**	
0	The site is not vulnerable (0 p) Absence of destructive activities (0 p)	

Source: These data represent the analysis of geosites using the Pralong method

Zânelor Lake

Zânelor Lake geosite is a nationally recognized area and has been declared a natural reserve in accordance with Law No. 5 of March 6, 2000 (Bâca, 2010). It falls into the IV category of the International Union for Conservation of Nature (IUCN) and is located in eastern Transylvania, in Bistrița-Năsăud County (Integrated Management Plan for the Natura 2000 Site ROSCI0051 Cuşma, 2015). The reserve covers an area of approximately 15 hectares and is also part of the Cuşma Site of Community Importance (Integrated Management Plan for the Natura 2000 Site ROSCI0051 Cuşma, 2015).

Zânelor Lake is situated at an altitude of approximately 1214 meters and has an area of around 500 square meters with a depth of about 4 meters. This lake was formed as a result of the collapse of volcanic rocks from the slope of Mount Țiganca, which belongs to the Călimani Massif and the surrounding area. The area is predominantly forested with spruce trees (*Picea abies*) and hosts a variety of European protected flower species, including mountain snowdrop, fritillary, checkered lily, darie, buttercup, and harebell.

The fauna of the reserve is also significant, with species such as the stoat, wildcat, pine marten, yellow-bellied toad, Carpathian salamander, crested newt, fire-bellied toad, and the European fire-bellied toad, all of which are included in the IUCN Red List (Integrated Management Plan for the Natura 2000 Site ROSCI0051 Cuşma, 2015). Zânelor is a natural dam lake formed by the

collapse of volcanic conglomerates from the slope. It is fed by a surface spring located near the slope, which gives rise to the stream known as the Upper Zânelor Stream (Bâca, 2010).

There is also a popular story associated with the lake. It is said that on a full moon night, two shepherds named Pasăre and Scurtu were wandering through the Poiana Zânelor and noticed fairies dancing naked in the meadow. The fairies made a pact with the shepherds not to come to that place on full moon nights anymore. In return, the shepherds received a mountain and a stream from the fairies. However, the shepherds did not honor the pact and returned on another full moon night to admire the fairies once again. That night, the fairies became angry and caused a powerful storm. A mountainside was struck by lightning and collapsed onto the shepherds, and as a result of this event, Zânelor Lake was formed (Bâca, 2010).

Thus, Zânelor Lake is a potential geosite with cultural significance and associated legends (refer to Fig. 5 for a photo with Zânelor Lake). It is considered a natural curiosity in the Călimani Mountains, with picturesque beauty and remarkable ecological richness. The protection and conservation of this geosite are essential for maintaining biodiversity and promoting cultural and tourist values in the area.

Fig. 5. Personal photo of Zânelor Lake

Table 3. Inventory sheet for Zânelor Lake

Name	Zânelor Lake	
Indicative	19	
Location	At the north-eastern base of the Țiganca Peak (north-west Călimani Mountains)	
Territorial administrative unit	Bistrița – Bârgăului commune, Bistrița - Năsăud County	
Typology	Geosite – Natural dam lake	
Total value	18	
Structural value	9	
Functional value	9	
Restrictive attribute	1	
STRUCTURAL VALUE		
TYPE	**SCORE**	**JUSTIFICATION**
GEOMORPHOLOGICAL	3	• Genesis involving at least two significant morphogenetic factors: volcanic and geomorphological processes (0.5 p). • Two points of interest: the steep slope nearby (Mount Pasăre) and Zânelor Lake (0.5 p). • A slowly evolving landform (0.5 p). • An unaffected geosite (1 p). • A regionally unique geosite (0.5 p)
AESTHETICAL	3.5	• Geosite with interesting physiognomy (0.5 p). • Color harmony (0.5 p). • A geosite protected due to its landscape content (1 p). • Selectively received geosite (0.5 p). • Zânelor Lake is located at an altitude of approximately 1214 meters (1 point).
ECOLOGICAL	2.5	• Plants protected under the EU Directive 92/43/EEC dated May 21, 1992, flora that is protected at the European level, such as wild hyacinth, globe flower, fritillary, gentian, pasque flower, cowslip, and hawkweed (0.75 p). • Rare faunistic biotope, listed on the IUCN Red List (spadefoot toad, wildcat, pine marten, yellow-bellied toad, Carpathian salamander, crested newt, red frog of the forest and mountains) (0.75 p). • Protected area, a zone of national interest declared a natural reserve by Law No. 5 dated March 6, 2000, included in IUCN category IV, being a mixed-type reserve (1 p).
FUNCTIONAL VALUE		
TYPE	**SCORE**	**JUSTIFICATION**
CULTURAL	1.75	• The presence of captions (0.75 p) • More than 50 representations in works of art (1 p)
SCIENTIFICALLY	3.75	• National representativeness (0.75 p) • Appearance in at least one scientific paper in national journals (0.5 p)

		• A good example of processes and a great pedagogical resource (1 p) • Geosite of moderate paleogeographical interest (0.5 p) • Polyvalent formative addressability (1 p)
ECONOMICAL	3.5	• 5 possible activities: hiking, geotourism, recreation, educational, scientific (1 p) • Car access on forest roads (0.5 p) • Distance under 25 km from modern centers and full services (0.5 p) • Areas and urban centers over 10,000 inhabitants located less than 50 km (0.25 p) • Tourist objective of national interest (0.75 p) • Accommodation bases from 2 km to 10 km from the objective (0.25 p) • Lack of complete services (0 p) • Occasional tourist exploitation (0 p) • Local tourism promotion (0.25 p)
RESTRICTIVE ATTRIBUTE		
SCORE	**JUSTIFICATION**	
1	• The site is partially vulnerable (0.25p) • Logging of nearby forests (0.75 p)	

Source: These data represent the analysis of geosites using the Pralong method

Colibița Lake, as an anthropogenic geosite, stands out for its artificial origin and impressive dimensions (Table 1). Its large area of approximately 270 hectares and maximum depth of 70 meters place it among the most beautiful and largest artificial lakes in Romania (Bâca & Șteff, 2014). Colibița Lake attracts tourists and nature lovers with its picturesque landscape and clear waters, offering a diverse range of recreational activities. The development of tourism around the lake has also had a significant impact on the local economy, attracting investment in tourism facilities and creating development opportunities for the community.

Iezer Lake stands out for its location in the Călimani Mountains and its ecological value (Table 2). This geosite, located within the Călimani National Park, protects a natural dam lake surrounded by a variety of shrubs and floristic species protected at European level. The reserve provides habitat for a variety of mammals, insects, reptiles, amphibians and birds, and its ecological importance is underlined by its inclusion in the European ecological network Natura 2000. Iezer Lake is also a popular destination for tourists, who can explore its landscape beautiful and can engage in various tourism and recreation activities.

Zânelor Lake highlights its value as an area of national interest, declared a nature reserve. Located in the east of Transylvania, this geosite includes a lake formed by a landslide and hosts a diversity of protected flora and fauna species (Table 3). The surrounding area offers opportunities for cultural and

scientific tourism, with defining vestiges and the presence of prehistoric sites. Zânelor Lake is surrounded by picturesque landscapes and benefits from tourist facilities nearby, contributing to the economic development of the region. Comparatively, Colibița Lake stands out for its impressive dimensions and extensive tourist development, having a significant economic impact. Iezer Lake emphasizes its ecological value and the importance of biodiversity conservation. Zânelor Lake is distinguished by its cultural and scientific aspects, including the presence of vestiges and prehistoric sites.

Thus, the comparative interpretation of the results (see Fig. 6 for the graph of Pralong Assessment) shows that each geosite has its specific peculiarities and its distinct values. Colibița Lake stands out for its size and tourist development, and Iezer Lake for its ecological value and biodiversity conservation. Zânelor Lake attracts attention with its cultural and scientific aspects. This comparison reveals the diversity of geosites and their importance in the geographical and tourism context, providing a broad perspective on the different values and attractions that the respective regions can offer.

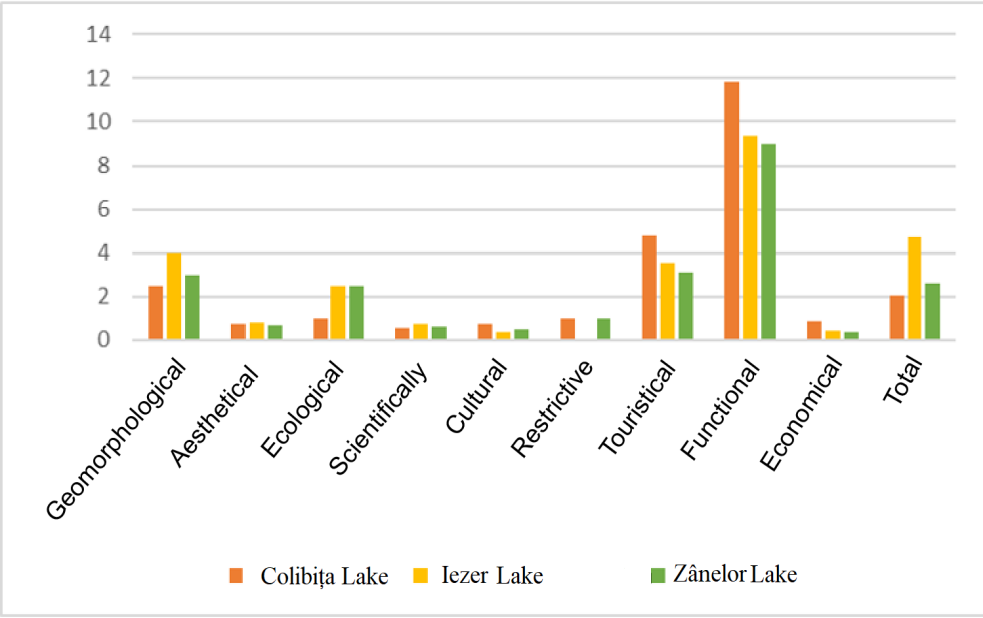

Fig. 6. Graph of Pralong Assessment

From a structural point of view: Iezer Lake obtains the highest score, respectively 10.5, indicating a significant structural value due to its complex genesis, the presence of several elements of interest, the relief form with slow

evolution, the unaffected character of the geosite and the regional uniqueness. Zânelor Lake receives a score of 9, also reflecting a high structural value due to its specific genesis, the presence of several elements of interest and regional uniqueness. Colibiţa Lake receives a score lower than 7, indicating a lower structural value compared to the other two geosites. From a functional perspective: Colibiţa Lake obtains a functional value score of 15.5, indicating the highest functional value among the three geosites. Iezer Lake receives a score of 10.25 for functional value, while Zânelor Lake receives a score of 9 for functional value. Both Colibiţa Lake and Zânelor Lake score 1 for restrictive attributes.

For Colibiţa Lake, this is due to intensive tourist exploitation and the presence of household waste and industrial residues. For Zânelor Lake, the restrictive attribute refers to the partial vulnerability of the site and the forestry exploitation of nearby forests.

Iezer Lake does not have any restrictive attributes.

The Colibiţa Lake geosite has the highest score in terms of geomorphological, aesthetic, scientific, cultural and functional values, indicating that it has a high potential in these areas. The superior functional and touristic value of this geosite is particularly noteworthy. However, the ecological and economic values are relatively moderate compared to the other two geosites. The Iezer Lake scores high in all aspects analyzed, except economic value. The geosite has excellent structural and aesthetic value, and scientific and functional values indicate significant potential in these areas. However, the economic aspect of the reservation is more limited. Zânelor Lake achieves moderate scores in most aspects analyzed. The geosite has good values in terms of aesthetics, ecology and functionality. It also has significant cultural value and reasonable tourism potential. However, the geomorphological and scientific values are less pronounced compared to the other two geosites.

Overall, the three geosites have distinct characteristics and offer potential in different areas. Colibiţa Lake stands out for its touristic and functional value, Iezer Lake for its scientific and aesthetic value, and Zânelor Lake for its cultural and functional value. Zânelor Lake geosite is a valuable resource from a scientific and educational point of view, with relevant publications and information (Table 4). It is considered rare and unique in the region, being legally protected and unaffected by degradation. The geosite offers a diverse range of educational features and presents significant tourism potential. With cultural, aesthetic and biotic value, it contributes to the natural landscape and provides additional nearby attractions. However, accessibility and tourism infrastructure are limited, and educational trails and paths are absent. Nevertheless, the Zânelor Lake geosite has a high protection status, underlining its importance and values within the Warowna method.

Iezer Lake geosite represents a valuable resource from a scientific point of view, with potential for research and education. It also has significant tourism value due to additional attractions, biotic and aesthetic value. However, it is important to pay attention to infrastructure and tourism services, as well as to continue protection and conservation efforts to maintain the integrity of this valuable geosite.

Colibița Lake is a geosite with a special touristic and functional value, benefiting from excellent facilities for visitors. However, there are opportunities for improvement in terms of the scientific and educational value as well as the biotic value of the geosite.

Table 4. Geosite Analysis Using the Warowna Method

Criteria	Indicators	Colibița Lake	Iezer Lake	Zânelor Lake
Scientific and educational value	A1. Scientific knowledge	0.5	1	0.5
	A2. Rarity	0	1	0.5
	A3. Geo-diversity	0	1	0
	A4. Level of degradation	0	1	1
	A5. Educational content	0	0	0.5
	A6. Legal protection status	0	1	1
	A7. Exposure	1	1	1
	A8. Existing educational products	0	0.5	0.5
	A9. Available educational products	0.5	0.5	0.5
Functional value	B1. Accesibility	1	0	0.5
	B2. Direct access	1	1	1
	B3. Website capacity	1	1	1
	B4. Presence of tourist infrastructure	1	0	0.5
	B5. Ownership form	0	0.5	0.5
	B6. Fragility (risks)	0.5	1	0.5
	B7. Food and accommodation services	1	0	0
Touristic value	C1. Cultural value	1	0.5	1
	C2. Additional attractions	1	1	1
	C3. Biotic value	0.5	1	1
	C4. Aesthetic value	1	1	1
	C5. Nearby viewpoints	1	1	1
	C6. Surrounding landscape	0.5	1	1
	C7. Presence of tourist trails and educational paths	1	1	1
	C8. Location in relation to major tourist centers	1	0	0
	C9. Demand potential	1	0	0.5
D. Restrictive attributes		1	1	1

Source: These data represent the analysis of geosites using the Warowna method

Conclusions

Analyzing the three geosites, namely Zânelor Lake, Iezer Lake, and Colibița Lake, using both the Pralong method and the Warowna method, we can draw some important conclusions regarding their scientific, educational, functional, and tourist values.

Recommendations for these geosites include promoting and developing educational products and scientific knowledge related to each geosite. Additionally, investment in infrastructure to enhance accessibility and tourist facilities is advisable. Maintaining and protecting the restrictive attributes is crucial for the conservation and sustainability of these geosites.

In conclusion, these analyses based on the Pralong and Warowna methods have provided a detailed perspective on the values of the Zânelor Lake, Iezer Călimani, and Colibița Lake geosites, highlighting both their strengths and opportunities for improvement. This information can be used in the planning and management of these geosites, with the aim of promoting responsible tourism and preserving natural heritage.

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THE NATURAL POTENTIAL AS A PREMISE FOR THE DEVELOPMENT OF TOURISM IN DÂMBOVIȚA COUNTY, ROMANIA

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ABSTRACT. The Natural Potential as a Premise for the Development of Tourism in Dâmbovița County, Romania. The tourism potential of a region is influenced by all the specific elements of the natural and man-made environment. A region can be integrated into the tourist circuit if it has a series of natural and anthropogenic resources that can be exploited (Bacal, Cocoș 2012). In this paper we have approached the natural resources specific to Dâmbovița County by analysing the following types of tourism potential: geology, relief, climate, water, biogeography and nature reserves. Dâmbovița County has a diversity of mountain, hilly and lowland landscapes that provide a varied habitat for a wide range of biotic species, which creates a significant tourism potential linked to the biogeographical components. The mountainous area of the county, including Bucegi Natural Park, is a major attraction for ecotourism and wildlife watching. The emblematic fauna of the Carpathians and thus of Dâmbovița County includes the black goat (*Rupicapra rupicapra*), frequently found on high ridges, the brown bear (*Ursus arctos*), important for forest ecosystems, and the Carpathian red deer (*Cervus elaphus*), present in forests. The county of Dâmbovița has a significant natural potential, which has not yet been capitalized. In this sense the development of tourism infrastructure in Dâmbovița County is essential for attracting tourists and for the economic growth of Dâmbovița County.

Keywords: *natural potential, tourist potential, Dâmbovița County, monuments and natural heritage reserves*

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Introduction

The tourism potential of a region includes all the specific elements of the natural or man-made environment, exploited through tourist facilities, which attract both local and international tourists. Tourists are consumers of tourism products when travelling to different areas that attract them through their natural and/or man-made potential (Dinu, 2005).

The World Tourism Organization defines ***tourism potential*** as "the set of natural, cultural and socio-economic components that offer opportunities for tourism and give a certain functionality to the territory, having an essential role in the development of tourism activities" (Cândea, Simon, and Bogan, 2012). These components of tourism potential become tourist attractions, which have the ability to attract both national and international tourists (Turcu and Weisz, 2008).

According to the authors Turcu and Weisz, the elements of the natural setting are represented by relief and geology, climate, hydrography, vegetation, fauna and protected areas (Turcu and Weisz, 2008).

The anthropogenic framework includes the cultural-historical potential, the technical-economic potential and the social and demographic potential.

The degree of attractiveness of a region is determined by a series of elements such as: *the landscape value of the relief units; the variety of genetic types and landforms; the therapeutic, relaxing qualities of certain climatic factors, which are emphasized by the types of bioclimate; the quality, distribution and density of the components of the hydrosphere* (Cândea, Simon, and Bogan, 2012).

In the county of Dâmbovița, we find a variety of natural and anthropogenic resources. Specialists in the field have delimited the resources in tourist areas, being created six such tourist sub-areas, as follows:

1. Mountainous area, with a great variety of landscapes, caves, gorges, represented by Bucegi and Leaota Mountains;
2. Dâmbovița Valley, an area with many historical relics from the period of the Romanian people's forging, but also from the primitive period;
3. Ialomița Valley, an area recognized for its picturesque landscapes;
4. Târgoviște, the county seat and peri-urban areas with many attractive museums and monuments;
5. Potlogi - Răcari, in particular with the Brâncoveanu Palace Complex in Potlogi, considered by many experts to be the most precious monument of Brâncoveanu architecture;
6. The southern part of the county with historical and architectural monuments of special value.

The natural tourism potential of Dâmbovița County is emphasized by the landscapes and protected areas in the Carpathian space, such as Bucegi Natural Park, 12 nature reserves and 25 natural monuments, all covering 20134 hectares. The region is crossed by 15 rivers and has 11 mountains (with peaks over 1500 m) and 10 man-made lakes (with a total area of over 60 hectares) (Dumitrescu, Baltălungă, and Iancu, 2012).

Methodology

In this paper we have analysed the natural tourism potential of Dâmbovița County based on descriptive and explanatory analysis (Bhattacherjee 2012). In this paper we have used secondary data analysis as a research method. In this regard, we analysed the works written by other authors who analysed the natural tourism potential of Dâmbovița County, as well as strategic documents produced by various institutions in Romania and abroad. The method used to analyse the topic was the qualitative method, the emphasis being placed on the importance and description of the specific elements of the natural tourism potential of Dâmbovița County (Bhattacherjee 2012).

At the basis of the article is the analysis of social documents, which is a method by which the information found in documents such as: newspapers, documents made and published by press centres, documents related to certain institutions, certain websites of various centres and institutes, etc. are analysed (Mayring 2014).

Results and discussions

The county of Dâmbovița is located in the South - Muntenia development region, in the south-central part of Romania, 80 km from Bucharest. In the northern part of Dâmbovița County is Brașov County; in the southern part are Teleorman, Giurgiu and Ilfov counties; in the eastern part is Prahova County and in the western part is Argeș County. In terms of geographical coordinates, the county of Dâmbovița is located at the intersection of the parallel of 45° north latitude and the meridian of 25.30° east latitude and is situated in the southern part of the Southern Carpathians, at the point where the Muntenia Subcarpathians meet the Romanian Plain (Cozmanca, 1994).

The county of Dâmbovița is laid out in the shape of a relatively right-angled triangle and has a north-south layout, over a distance of 115 km, with the maximum altitude in the north, at the Omu Peak in the Bucegi Mountains,

2505 m, and the minimum in the south, in the Titu Plain, where the altitudes are around 120-125 m (Cozmanca, 1994).

The relief of the county is laid out in three stages from north to south, with mountains (Bucegi and Leaota representing 9%), hills (41%) and plains (50% of the county's area).

In terms of waters, Dâmbovița County is crossed by the Dâmbovița and Ialomița rivers and their tributaries.

Among the smallest counties in Romania, Dâmbovița County has an area of approximately 4054 km^2 (which represents 1.7% of the country's territory, ranking 37th). According to the 2021 census, the population of the county was 479,404 inhabitants, of which 129,948 live in urban areas and 349,456 in rural areas. In relation to the population of Romania, Dâmbovița County represents 2.51% (Population and Housing Census 2021).

From an administrative perspective, Dâmbovița County is composed of 2 cities (Târgoviște, Moreni), 5 towns (Fieni, Pucioasa, Găești, Titu, Răcari), 82 communes and 353 villages. Târgoviște is the county seat, and most economic, cultural and social events and activities take place here. For almost three centuries, from 1396 to 1714, Târgoviște was the capital of Wallachia, known as Valahia (Dumitrescu, Baltălungă, and Iancu 2012).

As regards the natural tourism potential of Dâmbovița County, there are important tourist resources on its territory. The natural tourism potential is determined by the presence of landscapes and protected areas that we find in the Carpathian area, such as Bucegi Natural Park, nature reserves and natural monuments.

Tourism potential of the geology.

The mountainous area of Dâmbovița County has a long evolution. The originality of the Bucegi Mountains is due to their specific relief, geological evolution and the changes that have occurred over time (Cozmanca, 1994).

Tourism potential of the relief.

As we mentioned at the beginning of this article, the relief plays an important role in the tourist activity and the attractiveness of a region for tourists.

In the county of Dâmbovița, 50% of the relief is plain, 40% hills and 9% mountains. The difference in level between the three relief units is about 2400 m. The highest altitudes are represented by: Omu Peak in Bucegi Mountains (2505 m) and Leaota Peak (mountains of the same name, 2404 m). The lowest altitude in Dâmbovița County is in Poiana in the Romanian Plain (128.9 m) (Cozmanca, 1994).

Natural physical factors, as well as the geological structure, have determined the creation of varied relief forms in Dâmbovița County. One of the most famous types of relief in this county is the residual relief, formed by columns and towers, emblematic in this respect are the natural tourist attractions Babele and the Sphinx, which have bizarre shapes (Cozmanca, 1994).

The specific relief of Dâmbovița County can be analysed from the perspective of attractiveness. Therefore, the analysed elements are the following: physiognomy of the landforms, dimensions, variety of composition, genesis, degree of individualization and spectacular form. The attractiveness of landforms is represented by the following elements: peaks and ridges, gorges, karst, glacial, volcanic, Black Sea coastal and wind-created landforms (Ielenicz and Comănescu, 2006).

Peaks and summits are specific to mountain massifs, and their attractiveness is given by their altitude, the physiognomy of the shapes, the type of relief, and the way they are formed. In terms of the tourist attractiveness of these landforms, the choice of a mountain route is also based on the shapes and types of relief and the panoramic views they offer. The peaks in Dâmbovița County are Coștila Peak and Bucura Dumbravă Peak. They all offer breathtaking views, are mountain attractions for visitors and are on the list of hiking and mountaineering lovers (Cândea, Simon, and Bogan 2012).

Gorges are spectacular landforms created by complex geological processes of rock erosion and dissolution. They form narrow valleys, steep slopes, rocky ledges and boulder accumulations. Gorges are most commonly found in nature parks and protected areas. In Dâmbovița County, these formations are found mainly in limestones, shaped by the flowing waters that cross the Bucegi Mountains. They are important tourist attractions due to their impressive landscapes and their geological and ecological value. In terms of gorges, in Dâmbovița County we identify the following ones located in the Bucegi Mountains: ***Cheile Tătarului***, these gorges are formed by the Ialomița River and offer spectacular landscapes and opportunities for hiking and exploration; ***Cheile Orzei***, they have impressive landscapes and attractive tourist trails; ***Cheile Zănoagei***, known for their natural beauty and hiking trails (Cândea, Simon, and Bogan 2012).

Soluble rocks such as limestone, dolomite, gypsum and salt dissolve as a result of acidic water and ***form karst landforms***. As a result of this chemical process, distinct landscapes are formed, both above and below ground. Mountains and plateaus are among the most attractive karst landforms. In the county of Dâmbovița, *Ialomița Cave* (located in the Bucegi Mountains, one of the most visited caves in Romania, known for its spectacular stalactites and stalagmites)

and the *Rătei Cave* (a smaller karst cave) are among the best known karst landforms.

Glacial landforms are created by the action of glaciers and the processes of erosion and deposition. Large masses of moving ice led to the formation of glacial cirques, valleys and glacial sills, which become attractive to tourists. In Dâmbovița County, this type of landform is found in the *Horoabei Valley*, a glacial valley in the Bucegi Mountains, where glacial cirques and moraines can be found, and Bolboci Lake, an artificial lake whose surroundings are typical of glacial landforms (Cândea, Simon, and Bogan 2012). In the Bucegi Mountains, there are also significant traces of the Quaternary glaciation, which shaped the present landscape through a series of distinct glacial landforms, such as:

- **Glacial valleys:** *Gaura Valley,* characterized by a typical U-shape, formed by the action of glaciers.
- **Lateral and terminal moraines:** rock and sediment deposits transported and left by glaciers.
- **Glacial lakes:** *Lake Țigănești*, which is formed in glacial depressions, temporarily, depending on the melting of the snow.

Aeolian landforms were formed by the action of wind on the Earth's surface. Wind, as a geomorphologic agent, has the ability to erode, transport and deposit sedimentary materials, resulting in a variety of characteristic landforms. These landforms are predominant in arid and semi-arid regions, but can also occur in other environments where wind plays an important role in shaping the landscape. In the county of Dâmbovița, wind landforms are rare and are not significant in terms of tourism or geography (Ielenicz and Comănescu, 2006).

The Babele and the Sphinx are spectacular rock formations that were not formed directly by glaciers. These structures are mainly the result of wind and pluvial (water) erosion processes, which have acted on conglomerate and sandstone layers over millions of years. Although glaciation has played a role in the overall landforms, the specific shapes of the Babele and the Sphinx are mainly due to differential erosion and weathering (Ielenicz and Comănescu, 2006).

The specific relief of Dâmbovița County can also be analysed from the ***perspective of restriction***. This perspective focuses on natural or anthropogenic events that have an impact on tourist objectives. For example, following landslides, dense and compact vegetation formations appear, which hinders the access and exploration of some tourist attractions and the practice of some tourist activities (Ielenicz and Comănescu, 2006).

In the county of Dâmbovița, the impossibility of visiting certain tourist attractions or practicing some mountain trails is due to the following types of morphogenetic processes: erosion, landslides and tectonic activity. A relevant example is the morphogenetic processes that occurred in the Bucegi Mountains, which made some tourist attractions unvisitable.

Climate and tourism potential.

The second important component of natural tourism potential is **climate.** It influences and determines the practice of tourism activities specific to a region or country. Romania's specific climate is moderate temperate continental and is influenced by the country's position on the globe, i.e. in the area where the parallel of 45° north latitude and the meridian of 25° east longitude meet. The succession of the four seasons and the changes in climate both inside and outside the Carpathian arch determine the differences in climate in our country (Cândea, Simon, and Bogan, 2012).

One of the important climate parameters is **temperature**, which influences certain forms of tourism and sports (Cândea, Simon, and Bogan, 2012).

In 2023, the mean annual maximum temperature recorded in Târgoviște was 18.9°C and the mean annual minimum temperature was 6.6°C, resulting in a mean annual temperature of 12.4°C. In the town of Titu, according to the data from 2022, the maximum mean annual mean temperature was 19.6°C, and the minimum mean annual mean temperature was 6.3°C, thus resulting in a mean temperature of 12.4°C (Anuarul Statistic al Județului Dâmbovița, 2024).

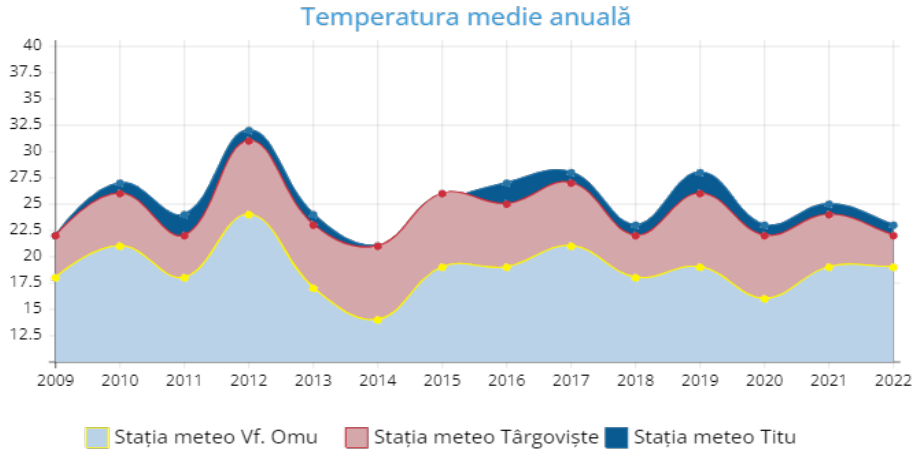

Fig. 1. Average annual temperature in Dâmbovița County
Source: Statistical Yearbook of Dâmbovița County (2024)

Besides temperature, **precipitation** is another important parameter influencing climatic conditions. Thus, there are situations where precipitation has a negative influence on certain types of tourist activities, but winter sports are dependent on precipitation and the accumulation of snow in the form of the snow cover needed for activities such as skiing (Cândea, Simon, and Bogan, 2012).

As for the precipitation recorded at the Târgoviște meteorological station (station no. 153750), in 2023, it amounted to 531.91 mm, with a total of 133 days with rain, 12 days with snowfall and 35 days with thunderstorms. In the town of Titu, in the year 2022, at weather station 154190 the annual precipitation recorded was 494.74 mm, with a total of 97 days with rain, 12 days with snow and 31 days with thunderstorms (Anuarul Statistic al Județului Dâmbovița 2024).

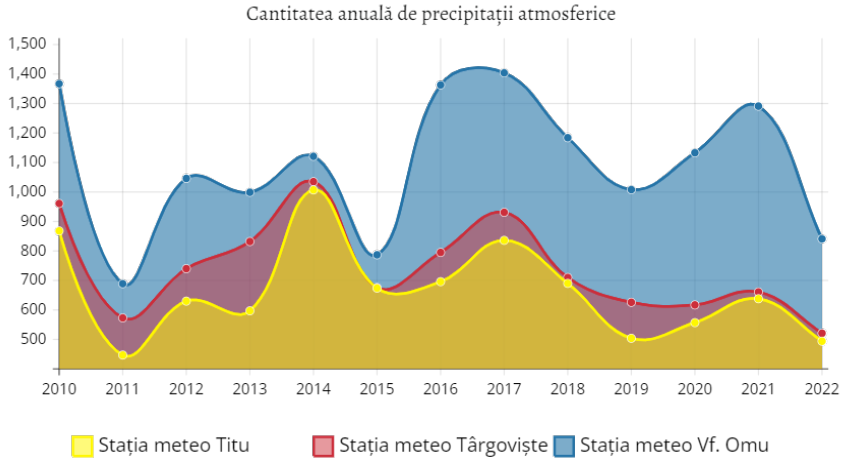

Fig. 2. Annual precipitation in Dâmbovița County
Source: Statistical Yearbook of Dâmbovița County (2024*)*

Wind is an important climatic factor influencing tourism. Similar to precipitation, wind has a positive role (e.g. wind is desirable for some water sports with boats), but it can also have a negative role when it makes certain tourist activities more difficult (Cândea, Simon, and Bogan, 2012).

As for the average wind speed, in the city of Târgoviște, for the year 2023, it was 8.2 km/h, and in the town of Titu, in 2022, the wind speed was 6.1 km/h.

On the territory of Dâmbovița County, one finds two types of climate. In the Romanian Plain (which covers about 50% of the county) and in the Subcarpathian area (covering about 30%) there is a continental-type climate. In the area of medium and high mountains (which account for 20% of the county), we identify a moderate continental climate. In terms of temperature,

in Dâmbovița County, summers are usually warm, winters are not very cold, moderate precipitation and rare blizzards (Cozmanca, 1994). On average, the air temperature is about 10°C in the lowland areas and 6°C in the hilly and mountainous areas. In the high massifs, the average recorded temperatures range between -2 and -3°C (Cozmanca, 1994).

Over time, in the county of Dâmbovița the maximum recorded temperature had a value of +40.4°C in the locality of Găești (on August 20, 1946), and the minimum recorded temperature had a value of -33.8°C on February 11, 1929 on Omu Peak (Cozmanca, 1994).

Tourism potential of the waters.

Water is a natural component, whose importance is vital both for living beings and for economic and tourist activities. On the one hand, from a tourism point of view, water plays an important role in various tourist activities (e.g. food production or hygiene care), on the other hand, water can be a tourist attraction, with the ability to attract tourists to different places.

The tourism potential of water resources includes all groundwater and mineral waters, rivers, natural and artificial lakes, seas, deltas and estuaries, which contribute to the attractiveness of a tourist destination. These resources allow tourism to take place both on weekends and for longer periods (e.g. a week), providing opportunities for activities such as fishing, spa treatments, water sports and heliomarin tours (Turcu and Weisz, 2008).

The hydrographic network of Dâmbovița County is linked to the rivers Argeș, Ialomița and Dâmbovița and their tributaries, and the density of this network is relatively high (Cozmanca, 1994). In addition to these rivers, in Dâmbovița County there are anthropogenic lakes (Bolboci, Scropoasa, Pucioasa and Văcărești) and lakes that are used for fishing activities (the latter are located in the localities of Nucet, Comișani, Băleni, Butimanu, Crevedia (ibid.).

Tourism potential of the biogeographical components.

Flora and fauna play a crucial role in diversifying the natural tourism potential of a region. Vegetation, consisting of forests, meadows, woodlands, arboreta and others, serves as a tourist attraction through nature parks, dendrological parks and nature reserves. In addition to being an attraction in itself, vegetation enhances the attractiveness of the other components of tourism potential. Vegetation is also essential for recreational and leisure tourism activities (Turcu and Weisz, 2008).

Fauna has a threefold importance: (***a) hunting and fishing*** through the variety of existing species; ***(b) aesthetic***, which contributes to increasing the attractiveness of a tourist area; ***(c) scientific***, in this sense nature reserves and parks that are home to endangered species play an extremely important role. They constitute a motivation for the practice of fishing, hunting, sport, scientific and knowledge tourism (Turcu and Weisz, 2008).

Given the geographical layout of the Dâmbovița County, on the three morphological steps, which follow from north to south, mountain, hills and plain, the fauna and vegetation show a characteristic staging. The difference in level from north to south is about 2 400 m, which results in a very diversified vegetation and fauna.

The vegetation includes rich oak forests, with species such as Turkey oak and pedunculate oak, deciduous forests and spruce forests. Alpine and subalpine areas are dominated by mountain meadows with red fescue, juniper, and mountain ash thickets. The fauna is predominantly forest, with species such as red deer, wild boar, bear, lynx, but also squirrel, deer, and in the south of the county, rabbit and gopher. The lynx is protected by law as a symbolic cat of the Carpathian Mountains. In the alpine regions, the fauna is dominated by the chamois.

Nature Reserves are essential for the protection and conservation of natural habitats and species of floristic, faunistic, forest, hydrological, geological, speological, paleontological and pedological interest (ANAP 2024). In Dâmbovița County there are 12 such reserves, covering a total area of 1596 hectares (Anuarul Statistic al județului Dâmbovița, 2024).

Table 1. Protected areas in Dâmbovița County

Protected area categories	Number	Area (ha) - Dâmbovița County
Bucegi Natural Park	1	16141
Nature reserves	12	1596
Monuments of nature	25	2397

Source: Statistical Yearbook of Dâmbovița County (2024)

Dâmbovița County, with its diversity of mountain, hill and lowland landscapes, offers a varied habitat for a wide range of biotic species, which creates a significant tourism potential linked to the biogeographical components. The mountainous area of the county, including Bucegi Natural Park, is a major attraction for ecotourism and wildlife watching. Trails such as Cheile Zănoagei and Scropoasa Lake are appreciated for their unique biodiversity and specific

microclimates, favoring rare species of plants and animals such as *Anchusa barellieri* (Barrelier's bugloss), *Pinus cembra* (stone pine) and *Astragalus depressus* (milkvetch).

The emblematic fauna of the Carpathians and thus of Dâmboviţa County includes the chamois (*Rupicapra rupicapra*), frequently found on high ridges, the brown bear (*Ursus arctos*), important for forest ecosystems, and the Carpathian red deer (*Cervus elaphus*), present in forests.

Nature reserves, such as Neagra Wisent Reserve, offer opportunities to see the wisent in a protected and controlled environment. Neagra Wisent Reserve is home to one of the largest populations of wisents (European bison) in Romania, attracting visitors interested in species conservation.

Nature reserves and natural monuments in Dâmboviţa County

The natural monuments of Dâmboviţa County are mainly located in the northern part of the county, in Bucegi Mountains, which are recognized and called "the cradle of Romanian tourism" (Dâmboviţa Tourist Guide, 2011). These mountains have been integrated into Bucegi Natural Park in order to support the conservation of the natural environment, biodiversity and geodiversity.

Law No. 5 of 2000, officially known as the Law on the Approval of the National Spatial Plan - Section III - Protected Areas, regulates the protection and management of protected natural areas. It covers national parks, nature parks, nature reserves, nature monuments, protected areas of national interest, nature sites and other similar areas (Law 5/2000).

The main objectives of Law 5/2000 are: the identification and classification of protected areas, establishing the types and criteria for their identification and classification; the protection of biodiversity, plant and animal species, natural habitats, landscapes and remarkable geological formations; the management of protected areas, defining the responsibilities of central and local authorities in the administration and protection of these areas, as well as the role of research and education institutions in the promotion and conservation of natural heritage (Law 5/2000).

According to Law 5/2000, the Nature Reserves and Monuments in Dâmboviţa County are the following:

1. ***Cocora Cave Nature Reserve*** consists of the ***Cocora Cave*** (including the Bear Gorges), located in the commune of Moroeni, with an area of 307 ha. Cocora Cave, located in Bucegi Mountains in Dâmboviţa County, is a relatively unknown and little explored karst cave, but it impresses by its natural beauty and the diversity of its speleological formations. It is

famous for its spectacular stalactites and stalagmites, as well as other limestone formations such as columns and draperies. The cave is home to various species of bats and other cave-dwelling organisms adapted to the specific underground conditions.

The ***Bear Gorges*** are one kilometre long and are located in the northern part of the Padina basin. These gorges were formed by the erosion of the Ialomița river water on limestone and other sedimentary rocks in the area. The gorges are a popular destination for hiking and mountain exploration. Trails in the area vary in difficulty, from easy walks to hikes of high difficulty. The steep, rocky walls of the gorges offer excellent opportunities for mountaineering and rock climbing, attracting extreme sports enthusiasts.

2. ***Tătarului Gorges Nature Reserve*** is located in the commune of Moroeni, covering an area of 144.30 ha. This nature reserve includes the Tătaru karst system (sinkholes), the Bears Cave and the Small Cave, as well as the Tătarului Gorges (a natural monument). The nature reserve also contains abundant fossil fauna and rare floristic elements.
3. ***Horoabei Valley***, in Moroeni commune, covering an area of 5.7 ha. It is one of the most beautiful karst valleys in the Bucegi Mountains, also known as Horoabei Canyon. It is a steep valley, which was formed as a result of the collapse of a cave ceiling, marked by thresholds and waterfalls. The landscape is characterized by steep rock walls, waterfalls, springs and sinkholes, providing a particularly spectacular natural setting. One of the main attractions of the Horoabei Valley is its canyon, which offers an adventurous route through the cliffs, over waterfalls and through narrow passages.
4. ***Orzea-Zănoaga***, commune of Moroeni, covering an area of 841.2 ha. Orzea Gorges, formed by the Ialomița River, are one of the most picturesque karst formations in the region, ideal for hiking and exploring. Characterized by steep rock walls and various karst formations, the gorges offer a diverse landscape, including imposing cliffs, waterfalls and clear streams. At the exit of the gorge is the dam of the Scropoasa reservoir, located on the Ialomita Valley at an altitude of 1197 meters. Lake Scropoasa was created in 1929 and has clear turquoise waters. The lake has a length of 2.5 km and a depth of 15 meters and is used for hydroelectric power and water supply to the local settlements. Near Scropoasa Lake is the 7 Izvoare Waterfall, one of the most famous and appreciated waterfalls in Romania. It is famous not only for its natural beauty, but also for the extraordinary purity of its water, considered to be one of the cleanest in the world. Legend has it that the water comes directly from a sacred Dacian spring, untouched by pollution and with therapeutic properties.

5. ***Zănoaga - Lucăcilă***, commune of Moroeni, covering an area of 259.4 ha. Lucăcilă Cave, located in the Zănoaga - Lucăcilă Nature Reserve in Dâmbovița County, is famous for its impressive speleological formations and unique biodiversity. The cave features stalactites, stalagmites, calcite columns, stone draperies and cave pearls in a complex network of underground galleries and halls. A detailed caving map is required for exploration. Inside there are small underground streams and temporary lakes, which contribute to the ecological diversity, harbouring species of bats, insects and other organisms adapted to subterranean conditions.
6. ***Plaiul Domnesc Reserve,*** commune of Moroeni, covering an area of 0.50 ha. Plaiul Domnesc is a paleontological reserve famous for its fossils and geological strata that reveal the region's past. Valuable for scientific research, the reserve helps reconstruct environments and ecosystems millions of years ago. It contains deposits from different geological periods and the fossils discovered range from microorganisms to large vertebrates. This site offers opportunities for paleontological studies, facilitating the understanding of the evolution of biodiversity and climate change in history.
7. ***Răteiu Cave***, commune of Moroeni, 1.50 ha. Rătei Gorges, located in Leaota Mountains, are known for their impressive rock formations and spectacular natural landscapes carved by the Rătei River. Ideal for hiking and outdoor exploration, they offer tranquillity and a sense of seclusion. Răteiu Cave, with its extensive galleries and formations of calcite, gypsum and aragonite, is 7,224 meters long, one of the longest in Romania. Access to the cave is by permit and guide only, due to the risks. The surrounding area includes natural attractions such as the Zănoaga and Orza Gorges and various mountain trails. The cave is part of the Bucegi Natural Park, a protected area.
8. ***Lăptici peat bog***, Moroeni commune, covering an area of 14.9 ha. Lăptici peat bog is a botanical nature reserve formed with the aim of protecting biodiversity and endangered natural elements. Within the nature reserve there are rare flowers such as *Salix myrtilloides* - a glacial relict of northern origin, *Salix phylicifolia*, *Valerina simplicifolis*, *Balkan oreophyte Swertia* etc.
9. ***Poiana Crucii***, commune of Moroeni, 0.50 ha. This nature reserve is known for its impressive natural scenery and for offering a peaceful retreat in the middle of nature, being an open mountain meadow surrounded by coniferous and deciduous forests. Poiana Crucii is not as well known or frequented as other tourist destinations in Bucegi Mountains, such as Sphinxul, Babele or Ialomița Cave.

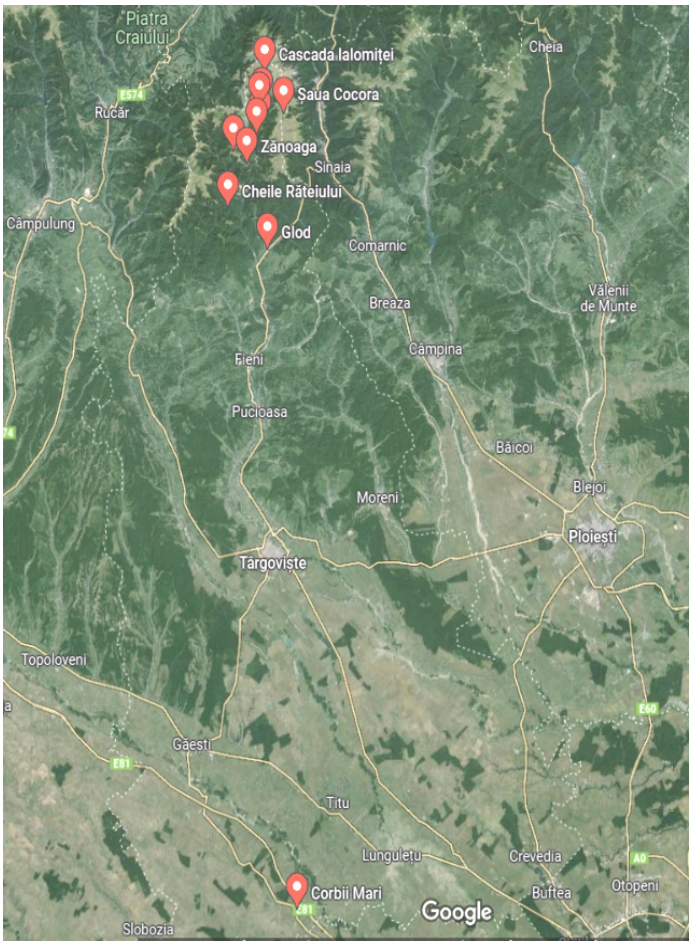

Fig. 3. Location of the 12 nature reserves in Dâmbovița County.
Source: Google Maps, 2024

10. ***Plaiul Hoților Nature Reserve***, located in Bucegi Mountains, is renowned for its spectacular landscapes and ecological diversity. Its name, derived from local folklore, adds cultural interest, reflecting the region's history as a haven for thieves and bandits. The rugged terrain and dense forests provided ideal shelter for smugglers. Protecting this habitat is essential for maintaining biodiversity and natural value.
11. ***Corbii Ciungi spring***, located in the commune of Corbii Mari, covering 5 ha. The nature reserve was designated a protected area by Government Decision No. 2151 of November 30, 2004. Located in Dâmbovița County, it covers 15 hectares and protects a natural meadow on the banks of the

Neajlov River. This reserve is notable for its population of *Narcissus stellaris* daffodils and other palustrine grass species, providing an essential habitat for the local flora and fauna and exemplifying biodiversity conservation in Muntenia region.

12. ***Obârşia Ialomiţei Valley*** with Mecetul Turcesc and Ialomiţa Waterfall. Ialomiţa Valley, also known as Obârşia Valley, is the most important glacial valley in Bucegi Mountains, with a U-shaped profile and numerous waterfalls, including Ialomiţa waterfall. Mecetul Turcesc is a limestone spur notable for its white color and distinctive physiognomy. Strunga Col, or Strunga Customs, is a "gateway" to Bucegi Mountains, offering panoramic views of Rucăr-Bran Corridor, Ialomiţa Valley and Leaota Mountains. Situated at about 1900 meters above sea level, it is a popular crossing point, linking Ialomiţa Valley to Cerbu Valley and providing access to popular mountain trails, including Omu Peak. The Strunga Col is renowned for its spectacular scenery and opportunities to observe mountain wildlife.

Conclusions

As mentioned in this paper, Dâmboviţa County is characterized by an impressive natural potential, which plays an essential role in the development and promotion of tourism activities. The diversity of mountain, hill and plain landscapes offers a variety of natural attractions that attract visitors from Romania and abroad. Bucegi Mountains, with their nature reserves and spectacular karst formations such as Orza Gorges and Cocora Cave, offer opportunities for hiking, caving and ecotourism. Ialomiţa Valley and its impressive waterfalls add a special charm to the region, inviting exploration and outdoor recreation.

The rich biodiversity, including rare plant and animal species, also underlines the importance of preserving and protecting these natural habitats. Bucegi Nature Park and nature reserves such as Plaiul Domnesc and Corbii Springs in Neajlov Valley are true sanctuaries for the local flora and fauna, attracting both researchers and nature lovers.

The contribution of these natural resources to tourism is significant not only from an economic point of view, by generating income and jobs, but also from an educational and cultural perspective, offering visitors the opportunity to learn about the importance of environmental conservation. In conclusion, the natural potential of Dâmboviţa County is a central pillar of tourism activity, with multiple benefits for the community and the environment. The promotion and

sustainable use of these resources are essential for the sustainable development of the region, ensuring both economic prosperity and the protection of the natural heritage for future generations.

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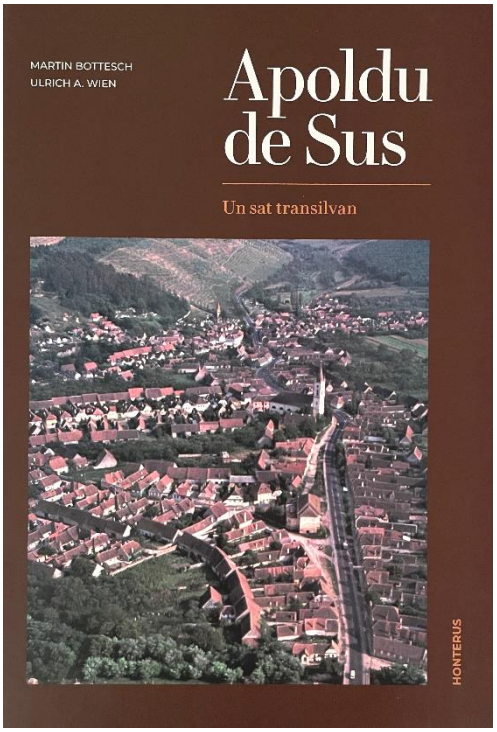
STUDIA UBB GEOGRAPHIA, LXIX, 1, 2024 (p. 145-151)
(RECOMMENDED CITATION)

BOOK REVIEW

Bottesch, Martin; Wien, A. Ulrich, 2023, *Apoldu de Sus: un sat transilvan*, 512 p., Editura Honterus, Sibiu.

În anul 2023 a văzut lumina tiparului la Editura Honterus din Sibiu, monumentala lucrare monografică ***„Apoldu de Sus: un sat transilvan”***, sub semnătura autorilor Martin Bottesch și dr. Ulrich A. Wien, traducere după ediția princeps din limba germană ***„Großpold. Ein Dorf in Siebenbürgen”***, 2011, Editura Dössel, Germania.



Simbolistica copertei volumului monografic.

Încă de la prima vedere, volumul impresionează prin calitatea înaltă a tehnoredactării: tipar, hârtie de calitate superioară, mulțimea, expresivitatea, documentaritatea și calitatea imaginilor care completează în mod armonios textul, precum și aparatul critic vast, care este parte întregitoare a volumului.

Prima impresie a lucrului bine făcut se confirmă și se întărește mai ales atunci când cititorul lecturează volumul; el este structurat în șapte capitole, are un aparat critic extins, respectiv *„Anexe”*, *„Note”*, *„Indice de localități și persoane”*, *„Glosar”*, *„Abrevieri”*, *„Sursa imaginilor”*, *„Bibliografie”* și o scurtă notiță *„Autorii”*. *„Cuvânt înainte al autorilor”,* precum și *„Rezumat”* și *„Postfață și mulțumiri”*, preced și încheie volumul monografic.

Autorii argumentează în *„Cuvânt înainte”* motivația realizării vastei monografii: *„Dorința de a cunoaște trecutul propriei localități este una firească, istoria locului fiind pentru mulți legată de istoria strămoșilor lor și totodată o părticică a istoriei țării. În cazul unui sat ca Apoldu de Sus, în care au conviețuit mai multe etnii, este interesant de*

văzut care au fost relaţiile dintre ele, ce obiceiuri a avut fiecare, ce porturi populare, cum şi ce au sărbătorit oamenii, şi nu în ultimul rând care a fost viaţa de zi cu zi în vremurile despre care se mai ştie acest lucru. [...] *în atenţia autorilor a stat folosirea unui număr mare de fotografii şi tipărirea cărţii în condiţii grafice bune*" (p. 9). Realizarea monografiei a izvorât, mărturisesc autorii, din dorinţa etnicilor germani emigraţi în Germania, care doreau *„a avea o publicaţie despre localitatea lor de baştină"* cu scopul *„de a-şi defini identitatea"*! (p. 9), autorii menţionând onest sursele de documentare, colaboratorii, precum şi finanţarea lucrării.

Unul dintre argumente este de-a dreptul provocator: *„Apoldu de Sus este o localitate atipică pentru sudul Transilvaniei, întrucât aici s-au vorbit, pe lângă română şi romani, două dialecte germane diferite"* (cap. 4), respectiv a saşilor stabiliţi acolo începând cu secolul al XIII-lea, şi a luteranilor deportaţi din Austria în Transilvania în secolul al XVIII-lea, din motive religioase!

Capitolul 1, *„Apoldu de Sus în anul 2023"* permite autorilor, după descrierea succintă a localizării aşezării, aducerea la zi a situaţiei demografice şi locative a populaţiei din intervalul 2011 (anul ediţiei germane a lucrării) şi 2023 (anul publicării ediţiei în limba română), ei constatând într-un registru neutru de sentimente, printre altele: *„după 1990 romii formează majoritatea locuitorilor"* (p. 14), reprezentând *„două treimi din numărul total de locuitori ai satului"* (*idem*), că *„singura instituţie tradiţională a germanilor care mai funcţionează este biserica evanghelică"* (p. 15) şi că *„din cele 327 de case deţinute în 1970 de locuitorii germani ai satului, în anul 2010 se aflau încă 182 în posesia lor, dintre care doar 21 erau locuite permanent. Restul de 145 de case ale germanilor din 1970 au fost cumpărate de români (87), de romi (52), una de un cetăţean turc, pe când 5 erau înregistrate pe numele unor instituţii sau firme. Până în 2023 situaţia nu a suferit modificări majore"* (p. 16). Cititorul are libertatea să reflecteze la cele de mai sus, conform propriei conştiinţe! Eu unul o fac cu mare tristeţe, cu o strângere de inimă.

Capitolul 2 oferă un succint tablou istoric al satului Apoldu de Sus, autorii prezentând *„în manieră condensată"* evenimente care s-au derulat în arealul aşezării care cunoaşte o veche locuire, demonstrate arheologic. În succesiune cronologică, este vorba de o aşezare neolitică, continuată în antichitate de villæ rustica, *„administrate de către veterani ai armatei romane"* (p. 20). Locuirea arealului se dovedeşte arheologic şi în perioada *„epocii migraţiilor"* (sec. IV-XIII), apoi locuirea a fost continuă odată cu colonizarea saşilor – *„hospites saxones"*, proces început la iniţiativa regelui Géza al II-lea al Ungariei (p. 21), în arealele din teritoriul numit *„Pământul Crăiesc"*, parte a domeniului regal însuşit de monarhii maghiari, proces statutat ulterior în documentul emis în 1224 de regele Andrei al II-lea, cunoscut ca *„Andreanum"* şi care, ulterior, a fost *„reconfirmat, la solicitarea saşilor, de către suveranii maghiari, de 21 de ori până în anul 1627"*! (p. 21).

Din perspectiva *„celor doi piloni ai administraţiei saşilor"*, respectiv *„scaunul"* şi *„capitlul"*, autorii prezintă evenimente istorice care au marcat aşezarea, începând de la consemnarea existenţei sale, datat 1291, până în prezent, cu ajutorul a numeroase imagini şi hărţi sugestive care însoţesc textul; de altfel, bogata reprezentare imagistică este o trăsătură definitorie a monografiei, ea constituindu-se într-o succesiune de *„dovezi imagistice"* excepţionale !

Un eveniment important ce a urmat la câteva secole după acela al aşezării saşilor la Apoldu de Sus ca *„hospites”*, se referă la *„aşezarea, în fapt deportarea […] unor familii din Austria care nu mai erau tolerate în locurile lor de baştină din pricina credinţei lor”* (p. 37), acei evanghelici luterani, respectiv a *„landlerilor”*, *„pe la mijlocul veacului al XVIII-lea”*, care, trebuie spus, au dat un impuls economic semnificativ aşezărilor în care s-au stabilit.

Capitolul 3, *„Evenimente şi evoluţii din secolele XVIII-XXI”* consemnează date majore, interesante, referitoare la administraţia locală, inclusiv *„prima conducere românească”* a localităţii aleasă în 1934; despre *„stabilirea landlerilor în Apoldu de Sus”*; *„emigrarea în America”*; *„amenajarea reţelei de transport”*; Primul Război Mondial cu etapele lui reverberate în Apoldu de Sus; *„anii frământaţi ai epocii interbelice”* cu reformele şi crizele ei; Apoldu de Sus *„în vremea celui de-al Doilea Război Mondial”*, apoi ocuparea samavolnică a României de către Armata Roşie, cu *„deportările în Uniunea Sovietică 1945-1949”*, urmată de, cum altfel!, instalarea comunismului în România, cu prezentarea aspectelor locale: impact, emigrarea germanilor înainte şi după 1989, adaptarea şi transformarea mentalităţilor; *„revoluţia din 1989”* cu aspectele ei locale, respectiv aşezarea masivă *„după plecarea germanilor”* a unor alogeni, inclusiv *„abordarea fenomenului de imigrare şi integrare în Germania”* a saşilor apolzeni.

Capitolul 4 – *„Locuitorii satului Apoldu de Sus”*, face referiri la evoluţia demografică, redată în date şi imagini sugestive în mod diferenţiat, pe etnii: saşi şi landleri, români, romi, inclusiv analize punctuale precum *„conştiinţa de sine a romilor apolzeni”* (p. 181) şi *„drumul lor spre egala îndreptăţire”* (pp. 181-182), ocupaţiile lor (pp. 181-184), precum şi *„convieţuirea diferitelor etnii în Apoldu de Sus de-a lungul veacului al XX-lea”* (pp. 184-186). Şi aici, cititorul, mai ales cel avizat, poate întrevedea evoluţii ulterioare nefericite…

Remarcăm şi la acest capitol, alegerea unui vast material iconografic, cu precădere fotografii şi litografii, care surprind locuitorii în varii ipostaze din epoci diferite, adevărate documente de factură etnografică de o importanţă covârşitoare!

Capitolul 5 – *„Biserică şi şcoală în Apoldu de Sus”*, este util şi interesant capitol prin valenţele sale identitare, care reflectă opinia îndreptăţită a autorilor privitoare la importanţa acestor două instituţii în viaţa comunităţii apolzene, ca de altfel în viaţa oricărei comunităţi: biserica şi şcoala! Sunt descrise în parcursul lor evolutiv biserica, cu trecutul ei catolic, formele de organizare şi conducere, zestrea sa edilitară şi patrimoniul *„decorativ-artistic”*, dovada unei culturi materiale superioare, inclusiv necesitatea permanentă a *„întreţinerii şi renovării clădirilor parohiei”*, precum şi reforma protestantă şi reverberaţia ei în Apoldu de Sus. Acelaşi interes manifestă autorii monografiei şi pentru parohia ortodoxă, descriind viaţa ei spirituală, cuprinsă între 1793, de când datează cea mai veche mărturie scrisă despre confesiunea ortodoxă în Apoldu de Sus, şi până în prezent, edificarea zestrei sale materiale, prezentată în date tabelare şi în imagini. Sunt apoi descrise *„grupările religioase neoprotestante”*.

Referitor la instituţia şcolii, cea mai timpurie dovadă de existenţă a şcolii datând din 1488 când, într-un document se consemnează *„existenţa unui director şcolar (rector scholæ)”*! la exact un secol de când – remarcă autorii – la 1388, *„în matricolele Universităţii din Viena este evocat un anume «Pesoldus plebanus de Apoldia Superior»”*! Autorii deschid apoi o listă de doisprezece apolzeni care în Evul Mediu au urmat *„cursuri ale unei şcoli înalte”* (p. 231).

Şcoala săsească din Apoldu de Sus este în continuare prezentată ca parte integrantă a şcolii transilvănene, începând din secolul al XVIII-lea şi până în prezent. Edificiile şcolare, încadrarea şcolii cu învăţători şi profesori, precum şi seriile de elevi ne sunt înfăţişate şi descrise în texte şi imagini elocvente. Surprinde plăcut plasticitatea comparaţiilor – spre exemplu, în prezentarea celei mai vechi fotografii cu elevi din Apoldu de Sus, datată 1907 (p. 236), împreună cu învăţătorul lor Johann Pobster, se menţionează şi porecla lui: *„«Schwartenkracher»* […] *care le spunea deseori copiilor: «Ich schlag euch, bis die Schwarte kracht» («Vă bat până vă crapă şoricul»)"*! (p. 236). Amuzant procedeu didactic… Dar ce elevi frumoşi apar în fotografie, ce educaţie inspiră poziţia lor, atitudinea şi…privirea lor inteligentă focusată în obiectivul aparatului fotografic, astfel că a meritat… bătaia!

Autorii prezintă inclusiv structura învăţământului în date statistice şi imagini revelatorii, de unde cititorul poate cu uşurinţă constata evoluţia lui pozitivă, ascendentă. La fel şi pentru şcoala românească din Transilvania ale cărei începuturi sunt dovedite la 1495 în Scheii Braşovului şi la 1805 la Apoldu de Sus. În construirea clădirii şcolii româneşti din localitate este menţionat dascălul Moise Albu, a cărui iniţiativă s-a materializat abia în 1863, fiind catalogată ca *„o realizare cu totul deosebită"*, având etaj, trei clase şi locuinţa dascălului ! (pp. 247-248). Imagini frumoase relevă evoluţia şcolii româneşti din Apoldu de Sus, precum la p. 250 – *„Copii de grădiniţă în 1931"* şi *„Clasă de elevi la 1934"* (p. 252).

Nu sunt omişi romii, pentru educaţia cărora s-au făcut eforturi încă din 1929/1930, când se menţionează Dumitru Ivan, directorul şcolii, care le predă, încercând integrarea lor în societate. Sunt descrise apoi aspecte din perioada 1948-1990, odată cu *„introducerea ideologiei comuniste în şcoală"* şi *„transformările ei de după 1990"*, inclusiv înnoirea bazei sale materiale.

Capitolul 6 – *„Viaţa comunităţii"*, este unul dintre cele mai frumoase, fiindcă redă specificitatea inconfundabilă a localităţii, unicitatea ei derivând din viaţa efervescentă a comunităţii de locuitori. Saşii s-au organizat în aşa-zisele *„vecinătăţi"*, ele imprimând unitatea şi farmecul acestei comunităţi, atât ale saşilor şi landlerilor, trăsături răsfrânte apoi şi asupra românilor şi romilor. Superbe fotografii însoţesc textul, cum ar fi cele legate de botez, confirmare, tinereţe cu ale sale *„frăţietăţi de feciori şi asociaţii de fete"* cu *„reuniunile"* lor, balurile, nunţile cu fazele şi particularităţile ei locale, înmormântarea, descrisă la fiecare etnie. Având un pronunţat caracter etnografic evocator, cu reale calităţi documentare, capitolul conţine şi descrieri ale unor *„obiceiuri la diferite ocazii"* ale avanghelicilor, ortodocşilor, romilor, inclusiv versuri şi note muzicale, nemaivorbind de imaginile sugestive luate de-a lungul vremii.

O notă aparte a capitolului rezumă portul popular descris amănunţit şi exemplificat cu imagini. Tot în cadrul specificităţilor aşezării cu origini saxone, autorii descriu *„asociaţiile din Apoldu de Sus"*, atât culturale, cât şi social-economice, modelul asociativ fiind preluat şi de populaţia românească ale cărei asociaţii sunt de asemenea descrise. Capitolul se încheie cu *„viaţa muzicală"* din Apoldu de Sus, iarăşi o caracteristică a aşezărilor saxone transilvănene, ale cărei începuturi coboară până în Evul Mediu, respectiv: muzica bisericească şi şcolară săsească, descrisă inclusiv cu texte şi note muzicale, activitatea fanfarei şi a corului, însoţite de imagini.

Capitolul 7 – *„Diverse”*, continuă seria prezentării elementelor de specificitate locală care încântă cititorul. Astfel, remarcăm *„evoluția edilitară a Apoldului de Sus”*, documentată cu ajutorul hărților, planurilor și a imaginilor satelitare. Autorii abordează felul *„construcției caselor”* – tipologia habitatului, amprenta la sol a clădirilor. Organizarea gospodăriei, planuri și imagini ale interiorului și exteriorului caselor, descrierea clădirilor instituțiilor locale – biserici, școli, primărie, poștă, cămin cultural, precum și ale unor ateliere, precum moara. Un interesant subcapitol este acela al *„celor două dialecte germane din Apoldu de Sus”* și al *„microtoponimiei locale”*, extrem de sugestivă; autorii analizează toponimia hotarului satului, cu exemplificări concrete. Analiza coboară punctual până la fiecare locuință, materializată în două hărți revelatoare ale fenomenului surprins în două momente: 1930 și 1980. Nu mai puțin interesante sunt relatările privind antroponimia, cântecele populare ale sașilor și landlerilor, proverbele, zicătorile. Nu lipsesc scurta trecere în revistă a *„personalităților apolzene”* care au dus în lume faima așezării lor natale.

Capitolul 8 – *„Rezumatul”*, sintetizează în date și cifre esențiale apariția și parcursul evolutiv al acestei așezări transilvănene, cu suișurile și coborâșurile ei, datorate istoriei uneori zbuciumate.

„Anexele” sunt o parte componentă importantă a acestei vaste monografii, unde cu o acribie specific germană, proprie omului de știință, autorii au consemnat în texte, tabele și imagini alte date asupra așezării. În desfășurarea lor, sunt consemnate colindele, *„documentația cimitirelor”*, inclusiv planurile lor cadastrale, precum și numeroase imagini. Urmează date amănunțite despre: preoții din Apoldu de Sus și perioada în care au slujit; dascălii școlilor; a apolzenilor căzuți în cele două războaie mondiale. De un interes aparte, mai ales sub aspect economic și social, este *„lista contribuabililor în 1970 și 2010”*, precum și *„statistica locuințelor în Apoldu de Sus în anul 2010”*, date care reflectă transformările fundamentale ale așezării, precum și posibilitatea întrevederii evoluției ei ulterioare.

„Notele” (pp. 455-488) întregesc și explicitează afirmațiile din capitole, inclusiv din anexe, iar *„Indice de localități și persoane”*, *„Glosar”* – ul, și *„Abrevieri”* – le sunt in corpore utile, date fiind desele referiri la parcursul administrativ al acestei emblematice așezări săsești transilvănene.

„Sursa imaginilor” acolo unde *„nu se menționează sursa, proprietarul sau fotograful”* aparține autorilor Martin Bottesch și dr. Ulrich A. Wien, care încheie volumul cu o vastă *„Bibliografie”* (pp. 503-510) și o scurtă autoprezentare.

Imagini, inclusiv fotografiile, gravurile, hărțile, planuri cadastrale etc., minunate documente, redau aspecte ale vieții și activității locuitorilor satului, ale evoluției așezării care, tragem concluzia, a fost și este profund dragă apolzenilor... Uneori, prin realismul lor, ele sunt de-a dreptul documente înduioșătoare. Spre exemplu: vedem pe Johan Meierhofer tânăr, căsătorit cu Elisabeth în 1910, ca soldat în 1914, ca apoi s-o vedem numai *„pe tânăra văduvă Elisabeth Meierhofer cu doi copii, când soțul ei căzuse curând după înrolare”* (pp. 79, 82); remarcăm *„Tată și fiu deportați în URSS, 1945”* (p. 114); ca apoi, mulți sași, *„Întorși din lagăre s-au angajat ca lucrători”...* (pp. 122, 123); ei însă nu sunt abandonați, dovadă *„Președintele Germaniei Federale, Karl Carstens, în vizită la Apoldu de Sus în 1981”* (p. 148).

Numeroase fotografii au ca subiect și locuitorii români, precum *„Primul autobuz al unui apolzan în 1931”* (p. 76), *„Pereche românească de miri, 1936”* (p. 92), *„Familie românească din Apoldu de Sus în port de duminică, 1939”* (p. 94), sau sași și români

împreună: *„Tineri apolzeni, români și germani, la instrucția militară, 1941"* (p. 94), *„Familia Wallner (nr. 361, cu ajutoare) la seceriș, în 1941"* (p. 97), *„Fără tensiuni naționale: româncă și săsoaică pe Calea Rodului, 1940"* (p. 185) și încă multe altele…

Dragostea ardentă pentru locul natal, se pare o trăsătură de caracter generalizată a apolzenilor, i-a făcut ca de-a lungul timpului să surprindă în texte și imagini aspecte ale vieții lor în comunitatea pe care au întemeiat-o la Apoldu de Sus.

Colonizarea sașilor și apoi a landlerilor în Transilvania s-a dovedit un fapt benefic pentru Transilvania și, ulterior, pentru România. Serioși și muncitori, ei au pus în valoare spațiul locuit de ei introducând agrotehnici moderne în exploatațiile agricole pe care le-au înființat și dezvoltat, au adus și dezvoltat meșteșuguri noi, au înființat sate și orașe, au croit drumuri, au introdus o administrație performantă, au promovat o etică și un cult al muncii, o rigoare în administrație, și, cu toate că era o comunitate aproape închisă, modelul lor a fost observat și a influențat !

După realizarea statului național unitar român, ei au fost cetățeni loial ai Regatului României, participând asiduu la dezvoltarea lui. Apariția și dezvoltarea unor doctrine social-politice malefice în Europa, a condus la exacerbarea politicii revizioniste în unele state europene care au tulburat de o manieră dezastruoasă, inclusiv pentru ele însele, pacea instaurată pe baza principiilor wilsoniene. Intrarea României în sfera de influență sovietică după al Doilea Război Mondial, cu corolarul ei de consecințe nefaste, a determinat emigrarea masivă a etniei germane din România în Germania. Astfel, am pierdut o populație cu care noi, românii, am conviețuit în pace de-a lungul timpului și pe care o regretăm.

Scrisă cu acribia proprie omului de știință, dar și cu mult suflet, îndelung pritocită, această lucrare monografică este un model al genului! Dată fiind bogăția imaginilor și a datelor consemnate de-a lungul timpului, prezentate cititorilor de o manieră atractivă, suntem convinși că locuitorii acestui sat au fost și sunt intim legați de locul lor de baștină, pe care l-au transformat prin muncă tenace într-o așezare minunată din sudul Transilvaniei. Dragostea ardentă pentru locul natal, se pare că l-a motivat pe unul din autori care, împreună cu coautorul monografiei, au realizat *„Ab imo pectore"*, o monografie care iese din tiparele uneia obișnuite.

Renunțând, aparent, la o prezentare cu o morgă strict științifică, autorii au ales să prezinte Apoldu de Sus convivial, fără însă a face rabat de la acuratețea proprie demersului științific! Astfel, lectura este ușoară, captează cititorul, introducându-l în mod plăcut în lumea devenirii lui.

Recomand cu căldură acest volum, atât geografilor, cât și istoricilor, etnografilor și altor specialiști, dar și persoanelor interesate de elementele identitare ale locurilor, de „memoria" lor, atât de frumos și de atractiv prezentată de autorii volumului monografic dedicat Apoldului de Sus. Parcă anume ei, autorii, au transpus în practică îndemnul lui George Vâlsan, profesorul chemat să pună bazele învățământului geografic superior la Universitatea din Cluj care, scriindu-i în 1927 celui mai bun student de-al său de la Cluj, Nicolae Dragomir, îl îndemna să scrie monografia satului său, Sălișteː astfel: *„…Un sfat care să te conducă în alcătuirea lucrării D[umitale]: Gândește-te cât mai concentrat la întrebările: Prin ce se deosebește Săliștea de alte comune? Care sunt caracterele ce o deosebesc și o fac să îmi pară atât de frumoasă și de interesantă? Cum să o descriu mai bine ca să o*

cunoască și să o iubească și cel ce nu a văzut-o? Care sunt frumusețile naturale, înfățișarea originală a acestei comune, viața caracteristică a locuitorilor? Cum a crescut cu încetul până la starea de acum? Cine a ajutat-o din factorii naturali și din puterile omenești? Are întâmplări din trecutul ei demne să fie povestite? I s-a schimbat menirea acum? Are nădejdi de dezvoltare în viitor?...În sfârșit...socotește-o ca pe o mamă iubită care te-a născut, te-a crescut cu drag și merită să o răsplătești cu o lucrare în care să arăți lumii întregi cât îi ești de recunoscător. Și asta se poate face fără exagerări, ci numai spunând curatul adevăr despre natura dimprejuru-i, despre așezarea ei și despre viața locuitorilor ei. Nu ai decât să adâncești în comoara D[umi]tale de amintiri și să scoți mărgăritarele cu care să-i făurești un colan frumos, așa ca să se mândrească întotdeauna și să-ți rămâie și ea recunoscătoare. – De altfel e de prisos tot ce spun eu aici; vei găsi D[umnea]ta mai bine decât îți arăt eu ce va trebui să spui în lucrarea pe care o aștept cu plăcere..." Citind și recitind de nenumărate ori această scrisoare, sunt pe deplin convins de universalitatea ideilor valoroase, precum și de apariția lor sub diferite forme, dar în fond, cu același mesaj; așa și în cazul minunatei monografii pe care tocmai am recenzat-o.

À bon entendeur, salut!

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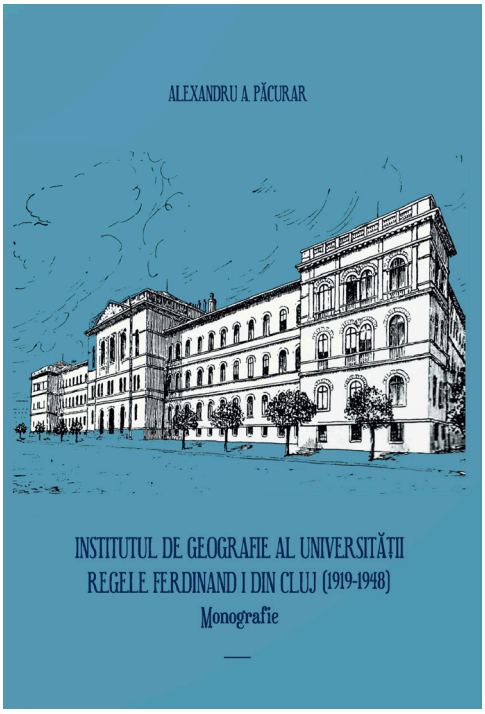
STUDIA UBB GEOGRAPHIA, LXIX, 1, 2024 (p. 153-156)
(RECOMMENDED CITATION)

BOOK REVIEW

Alexandru A. Păcurar, I*nstitutul de Geografie al Universităţii din Cluj (1919-1948): L'Institut de Géographie de l'Université de Cluj (1919-1948). Monographie, (Geography Institute of the University of Cluj: Monography)* Cluj-Napoca: Argonaut, 2023, 755 pagini

La patru ani de la aniversarea Centenarului Şcolii Geografice Clujene, ocazie cu care s-a lansat volumul omagial *Lucrările Institutului de Geografie al Universităţii din Cluj* (*1922-1947*), avându-l ca autor pe conf. univ. dr. Alexandru A. Păcurar, care, cu sârgul şi pasiunea ardentă cunoscută, îmbogăţeşte din nou literatura geografică românească cu cel de-al doilea volum închinat instituţiei de pe malurile Someşului Mic – monografia *Institutul de Geografie al Universităţii Regele Ferdinand I din Cluj* (*1919-1948*).

Apărut la debutul anului universitar 2023-2024, la aceeaşi editură Argonaut din Cluj-Napoca, volumul cuprinde între copertele sale un număr de 755 pagini, în format mare A4, în care, pe lângă text, sunt incluse 170 de imagini, constând în reproduceri de acte şi diverse afişe, respectiv fotografii, completate în mod armonios cu materiale grafice (4) şi tabelare (11), precum şi de trei hărţi, sub formă de planşă, dintre care una este inedită, respectiv distribuţia spaţială a adreselor de domiciliu ale cadrelor didactice şi ale personalului administrativ de la Institutul de Geografie din Cluj, în perioada 1919-1940.



Coperta cu simbolistica Universităţii „Regele Ferdinand I" din Cluj.

Urmând șablonul cărților sale, profesorul Alexandru A. Păcurar cuprinde în partea de încheiere a lucrării un auxiliar deosebit de extins, alcătuit mai întâi din *Note* (pp. 547-646), unde roagă cititorul să *„îngăduie această diferențiere a notelor bio-bibliografice, apărută din motive obiective"* ce țin de economia cărții, întrucât a purces la o prezentare *in extenso* doar la noile personalități la care se face referire în volum, în timp ce la ceilalți, *„spațiul este mai redus"* (nota de subsol numărul 4, pagina 547), cuprinzând aproape 400 de referințe.

Pentru instituții, întocmește cu multă migală un *Indice instituțional* (pp. 647-678), iar cu răbdare, perseverență și multă atenție ne pune la îndemână un *Indice onomastic* (pp. 679-708) și un *Indice toponimic* (pp. 709-732), facilitând posibilitatea de identificare rapidă a problemelor ce vor fi urmărite.

Chiar dacă la *Bibliografie* (pp. 733-755) figurează 409 surse clasice și 186 de trimiteri spre pagini web, cea mai mare parte a informației a fost distilată din surse arhivistice inedite, pe care hazardul a făcut ca însăși autorul să le recupereze în mare parte dintr-un maldăr de moloz, salvând în ultimul moment bibliorafturi cu mii de documente din anii 1926-1935, 1939-1940 și 1947-1948; ulterior, după apariția monografiei *Lucrările Institutului de Geografie al Universității din Cluj* (*1922-1947*), în 2019, conducerea Facultății de Geografie i-a pus la dispoziție alte cinci bibliorafturi, tot cu documente neclasate din anii 1941-1945, în timp ce secvențele 1919-1925 și 1936-1938 au fost pierdute pentru totdeauna. Aceste viduri de informație au fost totuși suplinite de documentația găsită la Serviciul Arhive Naționale Istorice Centrale, București, respectiv la Serviciile Județene ale Arhivelor Naționale din Cluj, Bistrița-Năsăud și Brașov.

Revenind la structura volumului, acesta debutează cu un *Cuprins* bilingv, în română și engleză (pp. 5-12), după care urmează un *Cuvânt introductiv* (pp. 13-14), semnat de Președintele Academiei Române, acad. Ioan-Aurel Pop, și o *Prefață* (pp. 15-18) întocmită de geograful bucureștean prof. univ. dr. Ioan Ianoș.

Apoi, autorului îi revine sarcina de a semna un *Argument*, format bilingv, în română (pp. 19-33) și engleză (pp. 35-49), unde face o radiografie completă asupra a ceea ce conține demersul său, împletindu-l sfios cu o dragoste genuină față de Neam și Țară, prin citate atent alese și bine inspirate.

Departe de a fi un paseist care să tânjească după existența efemeră a Institutului de Geografie al Universității Regele Ferdinand I din Cluj, o spune deschis și sincer că tocmai din cauza lipsei de prelucrare arhivistică a documentelor la care a avut acces se simte obligat ca la apariția volumului de față să le prezinte în copie (p. 31), în format electronic, făcând un mare serviciu cercetătorilor, care acum, la un click distanță, au posibilitatea de a consulta întregul corpus de documente care au stat la baza cărții sale, găzduite de biblioteca virtuală a Editurii Argonaut (cca 3 000 de acte oficiale, pe care le-a ordonat cronologic pe ani, începând din 1920 până în 1948).

Ținând cont de logica științifică în evidențierea problemei analizate, la fel ca și în volumul precedent, primul capitol – *Universitatea Daciei Superioare – Regele Ferdinand I din Cluj: înființare, organizare, misiune* (pp. 51-82) este consacrat aspectelor legate de contextul geopolitic al înființării universității, cu întreg corolarul ei de probleme organizatorice, respectiv scopul sau „misiunea" acesteia, așa cum a fost gândită de fondatori, aici menționându-i pe Regele Ferdinand I Întregitorul, Vasile Pârvan, Valeriu Branișteș, Sextil Pușcariu, Ion Borcea și Șerban Lungu (p. 77).

Capitolul II – *Secția de Geografie și Institutul de Geografie ale Facultății de Științe din Cluj* (pp. 83-104), debutează cu o scurtă digresiune, în care se prezintă amănunțit baza materială a campusului universitar ce se dorea materializat, poziționat în afara orașului, aidoma modelului anglo-saxon (p. 85), după care se revine la istoricul Facultății de Științe al Universității din Cluj, cu accent pe Secția de Geografie, care cuprindea Catedra de Geografie Generală și Umană și Catedra de Geografie Descriptivă și a României, iar pentru cercetare era prevăzut un institut, format din membrii celor două catedre. Farul călăuzitor pentru aceștia a fost savantul George Vâlsan, venit de la Universitatea din Iași, pentru a pune bazele învățământului geografic superior clujean.

Capitolul III – *Misiunea programatică a Institutului de Geografie al Universității din Cluj și materializarea ei* (pp. 105-134) surprinde marile direcții de cercetare gândite și articulate de George Vâlsan, având la bază metodele de lucru ale școlii geografice franceze. Spațiul vizat pentru studiu a fost cel *„din Apusul Carpaților"*, adică provinciile geografico-istorice Transilvania, Banat, Crișana, Maramureș, Bucovina și Basarabia, misiune la care s-au raliat întocmai toți membrii institutului, prin studiile lor revărsate în paginile publicației *Lucrările Institutului de Geografie al Universității din Cluj – Travaux de l'Institut de Géographie de l'Université de Cluj (Romanie).*

Capitolul IV – *Elemente ale „Memoriei" Institutului de Geografie al Universității din Cluj* (pp. 135-249), analizează perioada prodigioasă 1919-1939, numită de autor prin expresia latinească *„portentosi anni"*, unde se descriu în primă fază aspectele legate de locația institutului și eforturile de dotare ale bibliotecii acestuia, alături de întreg evantaiul vieții universitare (activitatea științifică și culturală, protecția socială a ambilor actori – universitari și studenți).

Pentru ca textul să nu devină monoton, autorul a inserat o multitudine de fotografii, hărți și reproduceri de acte, acestea din urmă fiind atât sub formă transliterată, cât și ca facsimile.

Capitolele V, *Triumful politicii revizioniste în Europa – Dezastrul cedărilor teritoriale pentru România. Refugiul secției și a Institutului de Geografie ale Universității Regele Ferdinand I la Timișoara și Sibiu* (pp. 251-281) și VI, *Refugiul Secției de Geografie a Facultății de Științe a Universității Regele Ferdinand I din Cluj și a Institutului său de Geografie la Timișoara și Sibiu* (pp. 283-411), arată calvarul rapturilor teritoriale la care a fost supusă România, cu accent pe Diktatul de la Viena, *„calamitatem pridie anni"* – 1939-1940, din care a recurs scindarea Secției de Geografie timp de un an (1940-1941), urmare a refugiului membrilor Catedrei de Geografie Fizică și a României la Timișoara, împreună cu Institutul de Geografie, ambele conduse de Vasile Meruțiu, în timp ce Catedra de Geografie Generală și Umană s-a aflat la Sibiu, sub atenta îndrumare a lui Sabin Opreanu.

În *„heroicii ani"* 1941-1944, autorul prezintă într-o manieră aproape exhaustivă sforțările care s-au făcut în perioada refugiului cu privire la dotările de mobilier și a celor necesare procesului instructiv-educativ, coroborate cu aspectele de viață universitară specifice acelui moment, precum și legăturile de colaborare cu diverse personalități și instituții din țară și străinătate.

Într-un subcapitol consistent se reliefează contribuția vajnicilor membrii ai Institutului de Geografie din Cluj în Biroul Păcii (Laurian Someșan, Sabin Opreanu, Tiberiu Morariu, Romulus Vuia și Fabiu I. Dumbravă), activitate care a constat îndeosebi în realizarea unor monografii tematice și reprezentări cartografice (diagrame) și hărți, sub formă de planșe.

Capitolul VII – *Reîntoarcerea la Cluj. Disoluția morală și fizică a Institutului de Geografie a Universității Regele Ferdinand I din Cluj în contextul procesului alterității proletcultiste de la finele celui de-al Doilea Război Mondial, după ocuparea țării de Armata Roșie. Instituirea terorii staliniste* (pp. 413-505), zugrăvește o altă perioadă extrem de dificilă, acei *„terribles anii"* 1945-1948, în care se arată întregul itinerar al *„revenirii corpului profesoral și al studenților clujene la Alma Mater Napocensis"*, văzut *„prin prisma documentelor arhivistice"* găsite *„în arhiva Institutului de Geografie, atât cât a mai rămas din ea, fiindcă a fost îndelung «periată»"* (p. 423). Nu sunt scăpate din vedere nici acum acțiunile de dotare ale școlii, legăturile cu instituțiile și personalitățile de seamă, participările la conferințe și congrese, excursiile didactice ș. a. m. d.

Partea tenebroasă a acestui capitol o reprezintă *„sarabanda epurărilor"* cadrelor didactice și a funcționarilor, adică ceea ce numim acum nesiguranța locului de muncă, care a atras cu sine zeci de destine frânte, între care se numără Ioan A. Vătășescu, Nicolae Dragomir, Laurian Someșan, Fabiu I. Dumbravă, ș. a.

În ultimul capitol, VIII – *Anno MCMXLVIII (1948) – Almae Matris Ferdinandae I Geographici Instituti Claudiopolitanae Universitatis Finis* (pp. 507-545), cititorul va sesiza schimbările radicale survenite în evoluția institutului pe fondul instalării noului regim al Republicii Populare Române, caracterizat prin cenzură, îndoctrinare ideologică și constrângeri de tot felul, care, în sumă, au dus la inevitabila alterare a societății românești, sub toate aspectele.

Cartea Domnului Profesor Alexandru A. Păcurar impresionează atât din punct de vedere al extensiunii, prin bogăția de informații, demonstrând eforturile colosale, de natură variată, știute doar de dumnealui, la care remarcăm, ca la fiecare apariție editorială sub semnătura sa, valențele estetice, grafica și hârtia de cea mai bună calitate, elementele indispensabile ale unei ediții de calitate.

Chiar dacă numărul exemplarelor tipărite în format clasic este redus, nu putem omite generozitatea autorului, care pune la dispoziție în mod gratuit volumul sub formă de e-book, împreună cu anexa celor aproape 3 000 de documente.

Lucrarea de față se adresează în primul rând geografilor, fiind o excelentă carte de vizită a Facultății de Geografie din Cluj-Napoca, singura instituție de profil din țară care beneficiază de o astfel de monografie, ivindu-se acum posibilitatea de a fi inclusă în premieră, în planurile sale de învățământ sub forma unui curs obligatoriu la toate specializările, nivel licență și masterat, pentru a trezi interesul și dragostea studenților săi față de trecutul acesteia, cunoscându-l în cele mai profunde straturi. Ar fi superfluă speranța ca la Școala Doctorală de Geografie să nu se continue în a scoate la lumină personalitatea și opera marilor geografi clujeni care au făcut cinste acestei școli!

De asemenea, cartea poate deveni și un instrument de lucru pentru istorici și etnografi, care pe viitor, pot prelua modelul prezentei monografii în conturarea identității altor instituții de profil.

În final, îl felicităm din suflet încă o dată în mod public pe autor pentru această monumentală lucrare, urându-i mult succes și inspirație în elaborarea celei de-a treia părți dedicată membrilor Institutului de Geografie, demers care va încununa vastul șantier început în urmă cu aproape trei decenii de cercetare.

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