

Avem deosebita plăcere să vă adresăm invitația de a participa la manifestările prilejuite de:

We are very pleased to invite you to participate in the events:

Nous sommes très heureux de vous inviter à participer aux événements:

**SEMINARUL GEOGRAFIC
INTERNAȚIONAL
„DIMITRIE CANTEMIR”**

XLIVth Edition



&

The Sino-European Tourism Conference

XIth Edition

&

The International Academic Conference on Tourism

XVth Edition

17 - 20 Oct. 2024

**Universitatea „Alexandru Ioan Cuza” din Iași
Facultatea de Geografie și Geologie
Departamentul de Geografie**

Iași, 2024

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| 14. Mimi Li, <i>Hong Kong Polytechnic University</i> | |

Comitetul de organizare / The Organizing Committee / Le Comité d'Organisation

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Programul manifestărilor / The program of events / Le programme des événements

A) Joi / Thursday / Jeudi 17.10.2024

- 10³⁰ – 12⁰⁰ WEBINAR organizat de Agenția pentru Dezvoltare Regională Nord-Est și Universitatea „Alexandru Ioan Cuza” din Iași**
Online: <https://geo.uaic.ro/uclar/#webinar>
- 18⁰⁰ – 20⁰⁰ Recepție de bun venit / Welcome reception / Réception de bienvenue**
Corp/Building/Bâtiment B, etaj / floor / étage 3, Universitatea „Alexandru Ioan Cuza” din Iași

B) Vineri / Vendredi / Friday 18.10.2024

- 8⁰⁰ – 8³⁰ Înregistrarea participanților / Registration of participants / Inscription des participants - Sala Pașilor Pierduți / Hall of Lost Steps / Salle de pas perdus**
Corp/Building/Bâtiment A, Universitatea „Alexandru Ioan Cuza” din Iași
- 8³⁰ – 9⁰⁰ Alocuțiuni de deschidere / Opening statements / Allocutions d'ouverture – Aula Magna „Mihai Eminescu”**
Corp/Building/Bâtiment A, Universitatea „Alexandru Ioan Cuza” din Iași
- 9⁰⁰ – 11⁰⁰ Comunicări în plen / Plenary communications / Conférences plénières – Aula Magna „Mihai Eminescu”**
Corp/Building/Bâtiment A, Universitatea „Alexandru Ioan Cuza” din Iași
- 11⁰⁰ – 11³⁰ Pauză de cafea / Coffee break / Pause café**
- 11³⁰ – 13³⁰ Comunicări în plen / Plenary communications / Conférences plénières – Aula Magna „Mihai Eminescu”**
Corp/Building/Bâtiment A, Universitatea „Alexandru Ioan Cuza” din Iași
- 13³⁰ – 14³⁰ Pauză de prânz / Lunch break / Pause déjeuner - Sala Pașilor Pierduți / Hall of Lost Steps / Salle de pas perdus**
Corp/Building/Bâtiment A, Universitatea „Alexandru Ioan Cuza” din Iași
- 14³⁰ – 16³⁰ Comunicări pe secțiuni / Parallel sessions / Sessions parallèles**
Corp/Building/Bâtiment B, etaj / floor / étage 3, Universitatea „Alexandru Ioan Cuza” din Iași
- 16³⁰ – 17⁰⁰ Pauză de cafea / Coffee break / Pause café**
- 17⁰⁰ – 19⁰⁰ Comunicări pe secțiuni / Parallel sessions / Sessions parallèles**
Corp/Building/Bâtiment B, etaj / floor / étage 3, Universitatea „Alexandru Ioan Cuza” din Iași
- 20⁰⁰ – 23⁰⁰ Serată festivă / Festive dinner / Soirée festive – Hotel Unirea, Restaurant Panoramic (etaj / floor / étage 13)**

C) Sâmbătă / Saturday / Samedi 19.10.2024

9⁰⁰ – 11⁰⁰ **Comunicări în plen / Plenary communications / Conférences plénières**

Sala / Room / Salle B8, Corp/Building/Bâtiment B, etaj / floor / étage 3, Universitatea „Alexandru Ioan Cuza” din Iași

11⁰⁰ – 11³⁰ Pauză de cafea / Coffee break / Pause café

11³⁰ – 13³⁰ **Comunicări pe secțiuni / Parallel sessions / Sessions parallèles**

Corp/Building/Bâtiment B, etaj / floor / étage 3, Universitatea „Alexandru Ioan Cuza” din Iași

13³⁰ – 14³⁰ Pauză de prânz / Lunch break / Pause déjeuner

Corp/Building/Bâtiment B, etaj / floor / étage 3, Universitatea „Alexandru Ioan Cuza” din Iași

14³⁰-17⁰⁰: **Tur ghidat în aria centrală a Municipiului Iași / Guided tour in the central area of Iași / Visite guidée dans la zone centrale de Iași**

Tematică/Topic/Thème: *Municipiul Iași între moștenirea istorică și dezvoltarea durabilă / The city of Iasi between historical heritage and sustainable development / La ville de Iasi entre patrimoine historique et développement durable*

D) Duminică / Sunday / Dimanche 20.10.2024

7³⁰-20³⁰: **Aplicație practică de teren / Practical field application / Application pratique sur le terrain**

Județul Neamț / Neamț County / Le département de Neamț

RO: Această excursie în județul Neamț se va axa pe turismul sustenabil și ecodestinații. Activitățile includ o vizită la Muzeul Etnografic Nicolae Popa din Târpești, care reflectă tradițiile populare ale satului moldovenesc, urmată de explorarea Mănăstirii Agapia, un reper important al istoriei și culturii monahale românești, unde se va vizita atelierul de broderie și țesătorie și biserica „Sf. Arhangheli Mihail și Gavril”. Excursia va continua cu o vizită la Parcul Natural Vânători Neamț, unde se va discuta despre provocările reintroducerii în libertate a zimbrului (*Bison bonasus*), un exemplu de inițiativă ecologică de succes. Ulterior, participanții se vor bucura de un EcoBrunch la Complexul Turistic Zimbru, care va include degustarea de preparate și băuturi tradiționale, un moment artistic oferit de un ansamblu folcloric local, expoziții ale meșteșugarilor locali. La finalul experienței, participanții la conferință vor putea avea un dialog constructiv cu actorii locali implicați în dezvoltarea turismului sustenabil. Excursia se va încheia cu vizita la Mănăstirea Neamț, un reper al arhitecturii medievale ștefaniene.

ENG. This trip to Neamț county will focus on sustainable tourism and eco-destinations. The activities include a visit to the Nicolae Popa Ethnographic Museum in Târpești, which reflects the popular traditions of the Moldovan village, followed by the exploration of the Agapia Monastery, an important landmark of Romanian monastic history and culture, where we will visit the embroidery and weaving workshop and the church "St. Archangels Michael and Gabriel". The trip will continue with a visit to Vânători Neamț Natural Park, where we will discuss the challenges of reintroducing the bison (*Bison bonasus*) into the wild, an example of a successful ecological initiative. Afterwards, the participants will enjoy an EcoBrunch at the Zimbru Tourist Complex, which will include the tasting of traditional dishes and drinks, an artistic moment offered by a local folk ensemble, exhibitions of local craftsmen. At the end of the experience, conference participants will be able to have a constructive dialogue with local actors involved in the development of sustainable tourism. The excursion will end with a visit to the Neamț Monastery, a landmark of Stefanian medieval architecture.

FR. Cette excursion dans le département de Neamț portera sur le tourisme durable et les éco-destinations. Les activités comprennent une visite au musée ethnographique Nicolae Popa à Târpești, qui reflète les traditions folkloriques du village moldave, suivie de l'exploration du monastère d'Agapia, un monument important de l'histoire et de la culture monastique roumaine, où nous visiterons l'atelier de broderie et de tissage et l'église "St. Archanges Michel et Gabriel". Le voyage se poursuivra par une visite au parc naturel Vânători Neamț, où nous discuterons des défis liés à la réintroduction du bison (*Bison bonasus*) dans la nature, un exemple d'initiative écologique réussie. Ensuite, les participants profiteront d'un EcoBrunch au Complexe Touristique Zimbru, qui comprendra la dégustation de plats et de boissons traditionnels, un moment artistique offert par un ensemble folklorique local, des expositions d'artisans locaux. A la fin de l'expérience, les participants au colloque pourront avoir un dialogue constructif avec les acteurs locaux impliqués dans le développement du tourisme durable. L'excursion se terminera par une visite du monastère de Neamț, un monument de l'architecture médiévale stéfanienne.

Programul conferinței / Conference programme / Programme du colloque

Secțiunea/ Session	Ziua/Day/ Jour	Sala / Room / Salle	Ora /Hour/ Heure
WEBINAR	17.10.2024	ONLINE	10³⁰-12⁰⁰
Recepție de bun venit / Welcome reception / Réception de bienvenue	17.10.2024	Building B, etaj / floor / étage 3	18⁰⁰-20⁰⁰
Deschiderea conferinței / Conference opening / Cérémonie d'ouverture	18.10.2024	Aula Magna „Mihai Eminescu” (Building A)	8³⁰-9⁰⁰
Comunicări în plen / Plenary communications / Conférences plénières	18.10.2024	Aula Magna „Mihai Eminescu”	9⁰⁰-13³⁰
	19.10.2024	B 8, Building B	9⁰⁰-11⁰⁰
Comunicări pe secțiuni / Parallel sessions / Sessions parallèles	18.10.2024	Building B	14³⁰-19⁰⁰
	19.10.2024		11³⁰-13³⁰
SS 01. Contemporary Research on Transport Geography	19.10.2024	B 660	11³⁰-13³⁰
SS 02. Driving Socio-Economic Development in a Turbulent World	19.10.2024	B 629	11³⁰-13³⁰
SS 03. Emerging Trends in Destination Management: Pioneering the Future of Tourism	18.10.2024	B 629	14³⁰-16³⁰ 17⁰⁰-19⁰⁰
SS 04. Wellbeing, Economic Freedom, Democracy and Sustainability: Theoretical Developments and Territorial Perspectives	19.10.2024	B 8	11³⁰-13³⁰
SS 05. Développement local durable, innovation sociale et résilience territoriale	18.10.2024	B 660	14³⁰-16³⁰
ST 01. Geomorfologie și pedologie / Geomorphology and pedology / Géomorphologie et pédologie	18.10.2024	B 658	14³⁰-16³⁰
ST 02. Riscuri climatice și Gestiunea resurselor hidrologice/ Climatic risks and Water resources management / Risques climatiques et Gestion des ressources en eau	18.10.2024	B 657	14³⁰-16³⁰ 17⁰⁰-19⁰⁰
ST 03. GIS aplicat în geografie / GIS applied in geography / SIG appliqué en géographie	18.10.2024	B 658	17⁰⁰-19⁰⁰
ST 04. Geografie regională și a mediului / Regional and environmental geography / Géographie régionale et environnementale	18.10.2024	B 622	14³⁰-16³⁰
ST 05. Turism, patrimoniu și biodiversitate / Tourism, Heritage, Biodiversity / Tourisme, Héritage, Biodiversité	18.10.2024	B 627	14³⁰-16³⁰
ST 07. Geografia populației / Geography of Population / Géographie de la Population	18.10.2024	B 8	14³⁰-16³⁰
ST 08. Geografie economică / Economic geography / Géographie économique	18.10.2024	B 662	14³⁰-16³⁰
ST 10. Didactica geografiei / Didactics of Geography / Didactique de la Géographie	18.10.2024	B 664	14³⁰-16³⁰ 17⁰⁰-19⁰⁰
Prezentări Postere / Posters presentations / Session d'affiches	18.10.2024	Corp / Building / Bâtiment B	14³⁰-16³⁰ 17⁰⁰-19⁰⁰
Tur ghidat / Guided tour / Visite guidée	19.10.2024		14³⁰- 17⁰⁰
Aplicație de teren / Field application /Sortie terrain	20.10.2024		7³⁰-20³⁰

Joi / Thursday / Jeudi 17.10.2024

10 ³⁰ - 12 ⁰⁰	WEBINAR organizat de Agenția pentru Dezvoltare Regională Nord-Est și Universitatea „Alexandru Ioan Cuza” din Iași Online: https://geo.uaic.ro/uclar/#webinar
18 ⁰⁰ - 20 ⁰⁰	Recepție de bun venit / Welcome reception / Réception de bienvenue

Vineri / Friday / Vendredi 18.10.2024

8 ³⁰ – 9 ⁰⁰	Alocuțiuni de deschidere / Opening statements / Allocutions d'ouverture, Aula Magna „Mihai Eminescu”: Prof. univ. dr. Corneliu IAȚU , Președinte Comitet organizare - Universitatea „Alexandru Ioan Cuza” din Iași Prof.univ.dr. Liviu MAHA , Rectorul Universității „Alexandru Ioan Cuza” din Iași Costel ALEXE , Președintele Consiliului județean Iași Mihai CHIRICA , Primarul Municipiului Iași Conf. univ. dr. Adrian URSU , Decanul Facultății de Geografie și Geologie, Universitatea „Alexandru Ioan Cuza” din Iași Conf. univ. dr. Ionuț MINEA , Directorul Departamentului de Geografie, Universitatea „Alexandru Ioan Cuza” din Iași
9 ⁰⁰ – 11 ⁰⁰	Comunicări în plen / Plenary communications / Conférences plénières - Aula Magna „Mihai Eminescu”: Ionuț MINEA (“Alexandru Ioan Cuza” University of Iași, Romania) : <i>120 de ani de geografie la Universitatea Alexandru Ioan Cuza din Iași</i> Corneliu IAȚU (“Alexandru Ioan Cuza” University of Iași, Romania): <i>Emil Racoviță – 125 de ani de la Expediția Belgica</i> Hans WESTLUND (KTH Royal Institute of Technology, Sweden): <i>Springtime for Regional Science!</i> Sebastien BOURDIN (EM Normandie Business School, France): <i>Décrypter le mécontentement local et l'acceptabilité sociale de la transition énergétique</i>
11 ⁰⁰ - 11 ³⁰	Pauză de cafea / Coffee break / Pause café <i>Sala Pașilor Pierduți / Hall of Lost Steps / Salle de pas perdus</i>
11 ³⁰ – 13 ³⁰	Comunicări în plen / Plenary communications / Conférences plénières - Aula Magna „Mihai Eminescu”: Frédéric DOBRUSZKES (Université Libre de Bruxelles, Belgium): <i>Air travel and climate change: The tyranny of distance</i> Carlos COSTA (University of Aveiro, Portugal): <i>Tourism destinations planning and management: moving into the future</i> Honggang XU (Sun Yat-sen University, China): <i>Sustainable tourism monitoring: theory and practice in China</i>

13³⁰ – 14³⁰	Pauză de prânz / Lunch break / Pause déjeuner <i>Sala Pașilor Pierduți/ Hall of Lost Steps/ Salle de pas perdus</i>
14³⁰ – 16³⁰	Comunicări pe secțiuni / Parallel sessions / Sessions parallèles Departament Geografie / Department of Geography / Département de Géographie, Corp / Building / Bâtiment B, etaj / floor / étage 3
16³⁰ – 17⁰⁰	Pauză de cafea / Coffee break / Pause café <i>Corp / Building / Bâtiment B, etaj / floor / étage 3</i>
17⁰⁰ – 19⁰⁰	Comunicări pe secțiuni / Parallel sessions / Sessions parallèles Departament Geografie / Department of Geography / Département de Géographie, Corp / Building / Bâtiment B, etaj / floor / étage 3
20⁰⁰ – 23⁰⁰	Serată festivă / Festive dinner / Soirée festive <i>Hotel Unirea, Restaurant Panoramic (etaj/floor/étage 13)</i>

Sâmbătă / Saturday / Samedi 19.10.2024

9⁰⁰ – 11⁰⁰	Comunicări în plen / Plenary communications / Conférences plénières – Sala / Room / Salle B8, Corp/Building/Bâtiment B, etaj / floor / étage 3, Universitatea „Alexandru Ioan Cuza” din Iași Rosella NICOLINI (Universitat Autònoma de Barcelona, Spain): <i>Ageing: spatial disparities and growth</i> André OZER (Université de Liège, Belgium) : <i>Le contexte géographique de l'Abbaye de Stavelot. Un géomorphosite particulier au cœur de l'Ardenne septentrionale</i>
11⁰⁰ – 11³⁰	Pauză de cafea / Coffee break / Pause café
11³⁰ – 13³⁰	Comunicări pe secțiuni / Parallel sessions / Sessions parallèles Corp/Building/Bâtiment B, etaj / floor / étage 3, Universitatea „Alexandru Ioan Cuza” din Iași
13³⁰ – 14³⁰	Pauză de prânz / Lunch break / Pause déjeuner Corp/Building/Bâtiment B, etaj / floor / étage 3, Universitatea „Alexandru Ioan Cuza” din Iași
14³⁰ – 17⁰⁰	Tur ghidat în aria centrală a Municipiului Iași / Guided tour in the central area of Iași / Visite guidée dans la zone centrale de Iași

Duminică / Sunday / Dimanche 20.10.2024

7³⁰ – 20³⁰	Aplicație de teren / Field application/ Sortie terrain <i>Județul Neamț / Neamț County / Le département de Neamț</i>
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SS 01. Contemporary Research on Transport Geography

**Moderatori / Moderators / Modérateurs: Professor Frédéric DOBRUSZKES,
Lecturer Mihail EVA**

11³⁰ – 13³⁰, Sâmbătă / Saturday / Samedi 19.10.2024

Sala: B 660

1. Frédéric DOBRUSZKES (Université Libre de Bruxelles), Martin GRANDJEAN, Arthur NIHOUL (UCLouvain): *Public transport for all? Assessing the access to the city in Brussels*
2. Mihail EVA (“Alexandru Ioan Cuza” University of Iași), Vitalie MAMOT (Ion Creangă State Pedagogical University of Chișinău): *Accessibility studies, environmental concerns and social justice issues: a state of the art and future research directions*
3. Martin BĀRTA (Palacký University Olomouc): *Evaluating Public Transport Accessibility Efficiency: A Case Study of Liberec and Zlín in Czechia*
4. Alexandru GAVRIȘ (Bucharest University of Economic Studies), Mihail EVA (“Alexandru Ioan Cuza” University of Iași): *Minutes matter: A Bibliometric Exploration of x-minute cities and beyond*
5. Dorin LOZOVANU (Moldova State University): *Aspects regarding the transport infrastructure in the southern region of the Republic of Moldova*
6. Alexandru RUSU, Octavian GROZA (“Alexandru Ioan Cuza” University of Iași): *Measuring the green accessibility of the Romanian airports – a methodological framework*

SS 02. Driving Socio-Economic Development in a Turbulent World

**Moderatori / Moderators / Modérateurs: Researcher Alexandra SANDU,
Lecturer Alexandru BĂNICĂ**

11³⁰ – 13³⁰, Sâmbătă / Saturday / Samedi 19.10.2024

Sala: B 629

1. Alexandru BĂNICĂ (“Alexandru Ioan Cuza” University of Iași), Peter NIJKAMP, Karima KOURTIT (Open University): *A Knowledge Network Analysis of Urban Resilience Strategies in a Global Context*
2. Alexandra SANDU (Cardiff University), Andrés Rodríguez-Pose (London School of Economics): *Understanding the determinants of financial access in Central, Eastern, and South-Eastern Europe: does geography matter?*

3. Ema CORODESCU-ROȘCA (“Alexandru Ioan Cuza” University of Iași): *Structural vs. agentic factors in regional path development process - evidence from literature*
4. Constantin-Alexandru STOIAN (“Alexandru Ioan Cuza” University of Iași), Alexandra SANDU (Cardiff University): *Profit-driven urban sprawl and its detrimental impact on community well-being: A case study of the Iasi Metropolitan Area*
5. Cristian-Manuel FOȘALĂU, Lucian ROȘU, Corneliu IAȚU, Oliver-Valentin DINTER (“Alexandru Ioan Cuza” University of Iași): *Mapping urban sprawl’s footprint. A spatio-temporal balance between built environment and vegetation in Iași periurban area*

SS 03. Emerging Trends in Destination Management: Pioneering the Future of Tourism

Moderatori / Moderators / Modérateurs: Professor Carlos COSTA, PhD student Margarida CUNHA

14³⁰ – 16³⁰, Vineri / Friday / Vendredi 18.10.2024

Sala: B 629

1. Filipa BRANDÃO, Carlos COSTA, Zélia BREDÁ, Sara ARAÚJO (University of Aveiro): *Leveraging Visitor Profiles for Tailored Tourism Experiences: The Role of Mobile Recommendation Systems*
2. Margarida CUNHA, Hélder CAIXINHA, Carlos COSTA (University of Aveiro): *Smart Tourist Destinations: Qualitative Analysis of Best Practices in Europe*
3. Cenhua LV, Yongjun SU, Xueji WANG (Joint Institute of Ningbo University and University of Angers, Ningbo University): *The digitalization of intangible cultural heritage tourism — the case of Zhejiang, China*
4. Alexandra CEHAN, Mihai BULAI (“Alexandru Ioan Cuza” University of Iași): *The role of Destination Management Organizations during war-induced crises. Case study on Iasi, Romania*
5. Bianca-Sorina POP-RĂCĂȘAN, Istvan EGRESI, Ștefan DEZSI (Babes-Bolyai University) : *Destination Management Organizations (DMOs) in Romania. Case study: DMO Maramureș*

17⁰⁰ – 19⁰⁰, Vineri / Friday / Vendredi 18.10.2024

Sala: B 629

6. Mihai BULAI, Lucian-Ionuț ROȘU (“Alexandru Ioan Cuza” University of Iași): *Opportunities and challenges of local Destination Management Organisations in Romania*
7. Da SHI, Fangfang SHI, Bowen YI (Faculty of Dongbei University of Finance and Economics): *Relocation, Heritage Tourism Development and Community Sustainable Development*
8. Alexandru RUSU, Marinela ISTRATE, Oana-Mihaela STOLERIU, Octavian GROZA (“Alexandru Ioan Cuza” University of Iași): *Mapping the visitors experiences – a case study on selected Airbnb datasets*
9. Zixi JIANG, Honggen XIAO, Mimi LI (School of Hotel & Tourism Management, The Hong Kong Polytechnic University): *Tell the China story well: Chinese visitors’ narrative construction in communist heritage sites*
10. Ana Maria MALTA, Carlos COSTA, Susana SARGENTO, Mariana MARTINS, Vitor RODRIGUES (University of Aveiro): *Exploring the impact of Blockchain Technology adoption in the tourism organisations: a systematic literature review*
11. Yajun GE (Tianjin University of Commerce): *Legal Protection and Use on UNESCO Heritage Certified Grand Canal under Beijing-Tianjin-Hebei Coordination Mechanism*

SS 04. Wellbeing, Economic Freedom, Democracy and Sustainability: Theoretical Developments and Territorial Perspectives

Moderatori / Moderators / Modérateurs: Professor Peter NIJKAMP, Professor Corneliu IAȚU, PhD student Mihaela CLINCU

11³⁰ – 13³⁰, Sâmbătă / Saturday / Samedi 19.10.2024

Sala: B 8

1. Mihaela CLINCU, Ioana BEJENARU, Daniela-Andreia DAMIAN (“Alexandru Ioan Cuza” University of Iași): *Exploring the dimensions of sustainable well-being: a theoretical perspective*
2. Lucian ROȘU (“Alexandru Ioan Cuza” University of Iași): *Cultural Routes as Catalysts for Local Development: Via Transilvanica’s Role in Enhancing Community Wellbeing*

3. Bogdan-Constantin IBĂNESCU, Alexandra GHEORGHIU (“Alexandru Ioan Cuza” University of Iasi), Sébastien BOURDIN (EM Normandie Business School), Alexandru BĂNICĂ (“Alexandru Ioan Cuza” University of Iasi): *Exploring the link between circular economy behaviours and resilience in rural and urban communities*
4. Corneliu IAȚU, Daniela-Andreia DAMIAN (“Alexandru Ioan Cuza” University of Iași): *Gross National Happiness Index and Human Development Index: a comparison*
5. Corneliu IAȚU, Sofia-Bianca TEODORU (“Alexandru Ioan Cuza” University of Iași): *The Happy Planet Index – an analysis of the dynamics by country*

Posters:

6. Daniela-Andreia DAMIAN, Corneliu IAȚU (“Alexandru Ioan Cuza” University of Iași): *Human capital, well-being and territory: Insights from a two-decade bibliometric study*

SS 05. Développement local durable, innovation sociale et résilience territoriale

Moderatori / Moderators / Modérateurs: Professeur Jean-Paul CARRIERE, Professeur Abdelillah HAMDouch, Professeur Corneliu IAȚU

14³⁰ – 16³⁰, Vineri / Friday / Vendredi 18.10.2024

Sala: B 660

1. Jean-Paul CARRIERE (Université de Tours): *La prospective territoriale, un outil nécessaire à l'élaboration de stratégies de développement local. Eclairages à partir du cas de la Région Centre-Val de Loire*
2. Nessrine ABBASSI EP BOUBAKRI (Université de Tunis), Zouhaier HADHEK (Université de Gabès): *Vers une approche basée sur le lieu dans les pays en développement : Etude de cas de la région du Sud-Est de la Tunisie après Covid-19*
3. Shiwei SHEN, Yuejiao WANG (Joint Institute of Ningbo University and University of Angers, Ningbo University): *Comment représenter et pratiquer les paysages ordinaires au sein des villages touristiques? Exemple de Ningbo*
4. Amelia CAZACU, Antonio-Valentin TACHE, Oana-Cătălina POPESCU (NIRD URBAN-INCERC, NIRD Turism), Alexandru-Ionuț PETRIȘOR (Ion Mincu University of Architecture and Urbanism, Technical University of Moldova, NIRD URBAN-INCERC, NIRD Turism): *Green blue infrastructure planning methodology: Roadmap for the Masterplan – Case studies*

Affiches:

5. Iulian MITOF (University of Bucharest): *Les réseaux urbains de tramway en Roumanie: de l'histoire à l'avenir*

6. Ștefan MĂTRESCU, Oana-Elena CHELARIU (“Alexandru Ioan Cuza” University of Iasi): *Implementation of the SMART Village concept in Romania regarding sustainable development and improvement of living quality*

ST 01. Geomorfologie și pedologie / Geomorphology and pedology / Géomorphologie et pédologie

Moderatori / Moderators / Modérateurs: Prof. univ. dr. Dan DUMITRIU, Conf. univ. dr. Dan Cristian LESENCIUC

14³⁰ – 16³⁰, Vineri / Friday / Vendredi 18.10.2024

Sala: B 658

1. Dan DUMITRIU (“Alexandru Ioan Cuza” University of Iasi): *Flashiness of mountain streams using hydro-geomorphological parameters*
2. Dan Cristian LESENCIUC, Cristian SECU, Andrei URZICĂ (“Alexandru Ioan Cuza” University of Iasi): *Caracteristici ale stresului termic de la nivelul abrupturilor carbonatice din Masivul Rarau in perioada 2022 - 2024*
3. Mihai NICULIȚĂ (“Alexandru Ioan Cuza” University of Iasi): *Planation surfaces in the light of the tectonic plate theory*
4. Vitalie SOCHIRĂ, Tatiana NAGACEVSCHI, Sergiu MATEEV (Universitatea de Stat din Moldova), Vlad VORNIC (Agenția Națională Arheologică): *Aspecte geopedologice privind monumentul arheologic „Vahurile lui Traian” din Republica Moldova*

Posters:

5. Georgiana VĂCULIȘTEANU, Mihai NICULIȚĂ, Nicușor NECULA (“Alexandru Ioan Cuza” University of Iasi): *Pasture degradation in the Moldavian Plateau. Insights of a methodological approach*
6. Daniela RĂDUCU, Irina-Carmen CALCIU, Alina-Carmen GHERGHINA, Alexandrina MANEA, Olga VIZITIU, Anca-Rovena LĂCĂTUȘU (ICPA Bucharest): *Landscape peculiarities in driving the soil pedogenesis*
7. Elena-Diana BOBRIC, Alexandra Petronela STOLERIU, George ALION, Ioana ZAIȚ, Marius ADUMITROAEI, Lilian NIACȘU, Iuliana Gabriela BREABĂN (“Alexandru Ioan Cuza” University of Iasi): *Dynamics of Land Use and Impact on Carbon Stock in the Iasi Metropolitan Area*
8. Ana-Maria ANASTASIEI, Lilian NIACȘU, Marina IOSUB (“Alexandru Ioan Cuza” University of Iasi): *Geomorphological and Pedological Impacts of Flash Floods on Geosites: A Case Study from the Moldavian Plateau, Emphasizing Precucuteni and Horodiștea-Erbiceni/Godinești Sites*

ST 02. Riscuri climatice și Gestiunea resurselor hidrologice / Climatic risks and Water resources management / Risques climatiques et Gestion des ressources en eau

**Moderatori / Moderators / Modérateurs: Prof. univ. dr. Adina-Eliza
CROITORU, Lect. univ. dr. Pavel ICHIM**

14³⁰ – 16³⁰, Vineri / Friday / Vendredi 18.10.2024

Sala: B 657

1. Adina-Eliza CROITORU, Csaba HORVATH, Zsolt SASKA-MAGYARI (Babes-Bolyai University): *Changes in temperature indices related to the heating and cooling energy demand in Southeastern Europe over the period 1951-2023*
2. Csaba HORVATH, Zsolt SASKA-MAGYARI, Blanka BARTOK, Gheorghe ROȘIAN, Rozalia BENEDEK (Babes-Bolyai University): *Using bioclimatic indicators to assess climate change impacts on the Transilvanian terroir*
3. Pavel ICHIM, Maria-Andreea BALTAG, Liviu-Valentin RĂDUC, Iustina TĂRNĂUCEANU, Ioana STOIAN, Lucian SFÎCĂ, Robert-Sebastian ȚURCANU, Claudiu-Ștefănel CREȚU (“Alexandru Ioan Cuza” University of Iasi): *Microclimatic changes induced by newly developed residential areas. Case study: Iași city*
4. Robert HRIȚAC, Iuliana-Gabriela BREABĂN (“Alexandru Ioan Cuza” University of Iasi): *Fenomenele de iarnă în contextul schimbărilor climatice: O analiză bibliometrică a literaturii științifice*
5. Csaba HORVATH, Adina-Eliza CROITORU, Zsolt SASKA-MAGYARI (Babes-Bolyai University): *Air Quality Assessment in Cluj-Napoca: Six-Month Analysis of Pollution Patterns*
6. Alexandru-Constantin COROCĂESCU, Lucian SFÎCĂ, Pavel ICHIM, Adrian GROZAVU, Ruben MIRON (“Alexandru Ioan Cuza” University of Iasi): *Metode SIG aplicate în analiza efectului de răcire microclimatică a unui parc urban. Studiu de caz: Parcul Canticov din municipiul Bacău*
7. Robert ȚURCANU, Pavel ICHIM, Liviu-Valentin RĂDUC, Ioana STOIAN, Lucian SFÎCĂ, Claudiu-Ștefănel CREȚU (“Alexandru Ioan Cuza” University of Iasi): *Simulation of the biometeorological comfort conditions in urban pedestrian areas using ENVI-met Software*
8. Ștefănel-Claudiu CREȚU, Lucian SFÎCĂ, Pavel ICHIM, Vlad-Alexandru AMIHĂESEI, Iuliana-Gabriela BREABĂN (“Alexandru Ioan Cuza” University of Iasi): *Long-term Land Surface Temperature Trends in Major Cities of Northeastern Romania using Landsat Satellite Data*

**Moderatori / Moderators / Modérateurs: Conf. univ. dr. Ionuț MINEA, Conf.
univ. dr. Mihai NICULIȚĂ**

17⁰⁰ – 19⁰⁰, Vineri / Friday / Vendredi 18.10.2024

Sala: B 657

9. Ionuț MINEA, Marina IOSUB, Daniel BOICU, Oana-Elena CHELARIU (“Alexandru Ioan Cuza” University of Iasi): *Analysis of Hydrogeological Drought during the last decades in Eastern Romania*

10. Mihai NICULIȚĂ (“Alexandru Ioan Cuza” University of Iasi), Tatiana BUNDUC, Iurii BEJAN (Moldova State University), Andra Cosmina ALBULESCU (“Alexandru Ioan Cuza” University of Iasi), Ioana CHIRIAC (Moldova State University), Oana-Elena CHELARIU (“Alexandru Ioan Cuza” University of Iasi), Aliona BOTNARI (Moldova State University), Andreea Daniela FEDOR, Mihai Ciprian MĂRGĂRINT (“Alexandru Ioan Cuza” University of Iasi): *Pрут – one river, two sides: hydrological hazard and risk differences between Romania and Republic of Moldova*

11. Ana JELEAPOV (Moldova State University): *Hydrological regime of the internal rivers of the Southern Development Region of the Republic of Moldova*

12. Florian BODESCU, Theodor Ioan BODESCU (Multidimension SRL): *Evaluarea volumului de apă din corpuri de suprafață prin mijloace de teledetecție în condițiile schimbărilor climatice - studiu de caz Balta Albă*

13. Moise KA'ARDI DIKAMDI (Université Paris Nanterre): *Analyse géohistorique de la dynamique spatio-temporelle du risque d'inondation et politique publique de sa gestion dans la ville de Maroua (Extreme-nord Cameroun)*

Posters:

14. Alin MIHU-PINTILIE (“Alexandru Ioan Cuza” University of Iasi): *Landslide dams in the Eastern Carpathians: Contribution to the upcoming European database*

15. Vasile JITARIU, Alexandra-Cătălina MORARIU, Adrian URSU, Ion CONSTANTIN (“Alexandru Ioan Cuza” University of Iasi): *The impact of drought on wetlands in Iasi County and its implications on some groups of birds*

16. Anca-Maria CHIRILĂ, Ioana BEJENARU, Adrian GROZAVU (“Alexandru Ioan Cuza” University of Iasi): *Evaluating flood impacts on quality of life*

17. Vasile JITARIU, Nicolae-Robert NIȚĂ, Adrian URSU, Lilian NIACȘU (“Alexandru Ioan Cuza” University of Iasi): *Mapping the heat stress for apple and plum orchards in the Moldavian Region (Romania)*

ST 03. GIS aplicat în geografie / GIS applied in geography / SIG appliqué en géographie

**Moderatori / Moderators / Modérateurs: Conf. univ. dr. Mihai Ciprian
MĂRGĂRINT, Cercetător Nicușor NECULA**

17⁰⁰ – 19⁰⁰, Vineri / Friday / Vendredi 18.10.2024

Sala: B 658

1. Mihai NICULIȚĂ, Andra Cosmina ALBULESCU, Lilian NIACȘU, Mihai Ciprian MĂRGĂRINT (“Alexandru Ioan Cuza” University of Iasi): *Platform for helping small and medium farmers to incorporate digital technology for equal Opportunities (PHITO) – a HORIZON project implemented in Iași and Botoșani Counties*
2. Nicușor NECULA, Mihai NICULIȚĂ (“Alexandru Ioan Cuza” University of Iasi): *EGMS Insights – A data management tool for processing and managing EGMS products*
3. Aurelian-Nicolae ROMAN (“Alexandru Ioan Cuza” University of Iasi): *Exploring the Technical Capabilities of Toy-Grade Remote Operated Vehicles for Underwater Data Collection: A Case Study of Reefs in the Northern Part of the Red Sea*

Posters:

4. Marina IOSUB, Ionuț MINEA, Oana-Elena CHELARIU, Dan LESENCIUC (“Alexandru Ioan Cuza” University of Iasi): *Multi-criteria mapping of plastic pollution: anAHP approach*
5. Alexandra Petronela STOLERIU, Iuliana-Gabriela BREABĂN, Elena-Diana BOBRIC, Andreea-Florina STOLERIU (“Alexandru Ioan Cuza” University of Iasi): *Earth environment monitoring: vegetation and water quality assessment*
6. Adrian George ISTRATE, Iuliana-Gabriela BREABĂN, Robert HRÎȚAC, Alexandra Petronela STOLERIU (“Alexandru Ioan Cuza” University of Iasi): *The use of Sentinel-2 for forest analysis through vegetation and biophysical indices*
7. Marius ADUMITROAEI, Ioana ZAIȚ, Iuliana-Gabriela BREABĂN (“Alexandru Ioan Cuza” University of Iasi), Răzvana DEJU (ANANP, Iași Territorial Service): *Integrating Remote Sensing and GIS Techniques for Monitoring Vegetation Dynamics in Protected Forest Ecosystems*
8. Andreea-Florina STOLERIU, Iuliana-Gabriela BREABĂN, Alexnadra-Petronela STOLERIU (“Alexandru Ioan Cuza” University of Iasi), Marian Daniel BURUIANĂ (Prut Barlad Water Basin Administration): *Monitoring water quality with satellite images: analyzing key parameters and distribution patterns*
9. George-Ștefan ALION, Iuliana-Gabriela BREABĂN, Marian-Daniel BURUIANĂ (“Alexandru Ioan Cuza” University of Iasi): *GIS-Based Assessment of Groundwater Vulnerability Using DRASTIC and Susceptibility Index Overlay Methods*

10. Denisa-Ștefania BOGDAN, Vasile JITARIU (“Alexandru Ioan Cuza” University of Iasi): *Monitorizarea suprafețelor acvatice prin metode de teledetecție și SIG – studiu de caz: lacurile de acumulare Galbeni, Răcăciuni și Berești, județul Bacău*

ST 04. Geografie regională și a mediului / Regional and environmental geography / Géographie régionale et environnementale

Sesiune organizată în memoria Prof. univ. dr. emerit Irina Brândușa
UNGUREANU

Moderatori / Moderators / Modérateurs: Prof. univ. dr. Ioan Cristina IOJĂ, Dr. Vadim CUJBĂ

14³⁰ – 16³⁰, Vineri / Friday / Vendredi 18.10.2024

Sala: B 622

1. Ioan Cristian IOJĂ, Alina HOSSU, Mihai NIȚĂ, Cristina MITINCU, Maria CALOTĂ (University of Bucharest): *Inclusive nature-based solutions. A European perspective*

2. Daniela BURDUJA, Vadim CUJBĂ (Moldova State University): *Distinctive characteristics of water basins used in the Southern Region of the Republic of Moldova*

3. Vadim CUJBĂ, Daniela BURDUJA (Moldova State University): *The peculiarities of use and management of water resources within Răut Hydrographic Basin, Republic of Moldova*

ST 05. Turism, patrimoniu și biodiversitate / Tourisme, Héritage, Biodiversité / Tourism, Heritage, Biodiversity

Moderatori / Moderators / Modérateurs: Lect. univ. dr. Oana Mihaela STOLERIU, Lect. Dr. Ivan MOROZ

14³⁰ – 16³⁰, Vineri/Friday/Vendredi 18.10.2024

Sala: B 627

1. Ivan MOROZ, Petru BACAL (Universitatea de Stat din Moldova): *Dinamica și proveniența fluxurilor turistice din Bazinul Cursului Inferior al Fluviului Nistru*

2. Teodora Georgiana MIHĂILĂ, Oana Mihaela STOLERIU (“Alexandru Ioan Cuza” University of Iasi): *Exploring the Online Tourist Image on Instagram: A Systematic Literature Review and Descriptive Statistical Analysis*

3. Gina BORDEA, Corneliu IAȚU (“Alexandru Ioan Cuza” University of Iasi): *The motivation and interest of wine tourists and the impact on the development of niche tourism in Vrancea County*
4. Gabriel Valentin GEORGESCU (“Ion Mincu” University of Architecture and Urban Planning): *Tourism, heritage and biodiversity in Sighisoara*
5. Ștefan-Florin VOICU (“Alexandru Ioan Cuza” University of Iasi): *Perspective on the current situation of agricultural microtoponymy. Case study: Valea Dâmboviței, between Cândești and Produlești*

Posters:

6. Andreea Cătălina POPA, Teodora UNGUREANU, Antonio-Valentin TACHE, Adrian SIMION (INCD URBAN-INCERC): *Implementing Green-Blue Infrastructure in the Râmnicu-Vâlcea Metropolitan Area: Strategies for Sustainable Urban Growth*
7. Mara LĂZĂRESCU, Oana-Mihaela STOLERIU (“Alexandru Ioan Cuza” University of Iasi): *The impact of the Covid pandemic on the tourist experience in the hotels of Iasi city*
8. Maria Cristina CIMPOEȘU, Adrian GROZAVU (“Alexandru Ioan Cuza” University of Iasi): *Exploring the risks of mountain activities: a quantitative overview a accidents in the Ceahlau Massif*
9. Marian CRUDU (Institutul Național de Cercetare Textile-Pielărie), Elena BADEA (Institutul Național de Cercetare Textile-Pielărie), Liliana Gabriela ANIȚEI (“Alexandru Ioan Cuza” University of Iasi), Lucreția MIU (Institutul Național de Cercetare Textile-Pielărie): *Cercetări privind utilizarea inovativă a unor extracte din alge brune la obținerea de biotananți cu conținut proteic*

ST 07. Geografia populației / Geography of Population / Géographie de la Population

Sesiune organizată în memoria Prof. univ. dr. emerit Alexandru UNGUREANU

**Moderatori / Moderators / Modérateurs: Prof. univ. dr. Ionel MUNTELE,
CS. dr. Dorin LOZOVANU**

14³⁰ – 16³⁰, Vineri / Friday / Vendredi 18.10.2024

Sala: B 8

1. Ionel MUNTELE, Marinela ISTRATE, Victoria BUZĂ (“Alexandru Ioan Cuza” University of Iasi): *Performanța școlară – expresie a inegalităților social-economice. O analiză statistico-teritorială*

2. Dorin LOZOVANU, Petru BUNDUC (Moldova State University): *Conducting the 2024 Population and Housing Census in the Republic of Moldova: methodology, innovation and geographic applicability*
3. Ionel BOAMFĂ (“Alexandru Ioan Cuza” University of Iași): *Considerations regarding the inventory of anthroponyms*
4. Alexandra SANDU, Jennifer KEATING, Katy HUXLEY, Rob FRENCH (Cardiff University): *Geographic Patterns and Socio-Economic Determinants of Educational Attainment in Wales*
5. Radu Ionuț DIMITRIU, Petru BUNDUC (“Alexandru Ioan Cuza” University of Iași): *Despre influența structurii confesionale asupra migrațiilor internaționale ale populației din Moldova*
6. Andreea-Mădălina COZMA (căs. GANIA), Octavian GROZA (“Alexandru Ioan Cuza” University of Iași): *Territorial intensity of permanent emigration in post-communist Romania*
7. Victoria BUZĂ (“Alexandru Ioan Cuza” University of Iași): *Dinamica rețelei serviciilor educaționale primare în mediul rural*

Posters:

8. Ioana BEJENARU, Lucian ROȘU, Corneliu IAȚU (“Alexandru Ioan Cuza” University of Iași): *Assessing smart city frameworks - The interplay between smart technologies and quality of life in Romania*
9. Petru BUNDUC, Nicolae BODRUG (Moldova State University): *Considerations regarding the structure and dynamics of general population mortality from the Southern Development Region (RDS) of the Republic of Moldova*

ST 08. Geografie economică / Economic geography / Géographie économique

Moderatori / Moderators / Modérateurs: Lect. dr. Marinela ISTRATE, Lect. dr. Alexandru RUSU

14³⁰ – 16³⁰, Vineri/Friday/Vendredi 18.10.2024

Sala: B 662

1. Marinela ISTRATE (“Alexandru Ioan Cuza” University of Iasi): *Visualizing a Sustainable Energy Future in Romania*
2. Lucian SFÎCĂ (“Alexandru Ioan Cuza” University of Iasi), Igor SÎRODOEV (Ovidius University of Constanța), Robert HRIȚAC, Vlad-Alexnadru AMIHĂESEI (“Alexandru Ioan Cuza” University of Iasi): *Impact of Climate Change on Maize and Wheat Annual Yields in Southern Romania*

3. George ȚURCĂNAȘU, Ana Zamfira ȚURCĂNAȘU ("Alexandru Ioan Cuza" University of Iasi): *How much money do Romanian employees have in their pockets?*
4. Alexandru BĂNICĂ ("Alexandru Ioan Cuza" University of Iasi), Alexandra SANDU (Cardiff University), Ionel MUNTELE ("Alexandru Ioan Cuza" University of Iasi): *Assessing Spatial Economic Resilience of City-Region Systems in Central and Eastern Europe*

Posters:

5. George ȚURCĂNAȘU ("Alexandru Ioan Cuza" University of Iasi): *A8 motorway, coherent regional development policies and regionalization – the keys to territorial cohesion and regional competitiveness of Moldavia*
6. Ana-Maria OPRIA ("Alexandru Ioan Cuza" University of Iasi): *Towards Territorial Cohesion in Rural Areas: A Chrono-Spatial Insight into the Second Pillar of CAP*
7. Miruna Cosmina ZAHARIA ("Alexandru Ioan Cuza" University of Iasi): *Evoluția litoralului românesc în imagini*

ST 10. Didactica geografiei/ Didactics of Geography / Didactique de la Géographie

Moderatori / Moderators / Modérateurs: Prof. dr. Mihaela LESENCIUC, Prof. dr. Viorel PARASCHIV

14³⁰ – 16³⁰, Vineri / Friday / Vendredi 18.10.2024

Sala: B 664

1. Octavian GROZA, Alexandru RUSU, Lucian-Ionuț ROȘU, Vicențiu GABOR (Universitatea "Alexandru Ioan Cuza" din Iași): *Pourquoi un atlas de a francophonie universitaire en Europe Centrale et Orientale ?*
2. Mihaela LESENCIUC (Inspectoratul Școlar Județean Iași): *Aplicarea metodelor de evaluare inițială standardizată în județul, Iași în perioada 2021-2024*
3. Cornelia FISCUTEAN (Colegiul Național Iași), Dorin FISCUTEAN (Colegiul Național Iași), Mihai CIPRIAN (Liceul Tehnologic "Victor Mihăilescu Craiu", Belcești): *Aplicarea metodei modelării la Geografie, prin utilizarea modelelor culinare*
4. Daniel RADUIANU (Colegiul Național Pedagogic „Vasile Lupu” Iași): *Reprezentări cartografice întâlnite pe bancnotele lumii*
5. Viorel PARASCHIV (Liceul Tehnologic Economic de Turism, Iași): *Galápagos-Tărâmul dezvoltării durabile prin turism*
6. Flaviana CORDUNEANU (Școala Gimnazială "George Călinescu" Iași): *The incitement and progress of natural intelligence through didactic activities in primary*

clases /Stimularea si dezvoltarea inteligentei naturaliste in activitatea scolara din ciclul primar

Moderatori / Moderators / Modérateurs: Prof. dr. Mihaela LESENCIUC, Prof. Dorin FISCUTEAN

17⁰⁰ – 19⁰⁰, Vineri / Friday / Vendredi 18.10.2024

Sala: B 664

7. Flavia CORDUNEANU (Școala Gimnazială "George Călinescu" Iași): *Prezentare de carte "Liviu Apostol. Profesorul, cercetătorul, omul" autor Viorel Paraschiv, Editura Pim Iași, 2024*

8. Cătălina HOLIC (Școala Gimnazială "Otilia Cazimir" Iași): *Strategii de instruire pentru învățarea vizibilă*

9. Dana COMAN (Colegiul Național Pedagogic „Vasile Lupu" Iași), Bogdan COMAN (Școala Profesională "Ionel Teodoreanu" Victoria): *Erori în evaluarea didactică*

10. Crina ELEFTERIU (Colegiul Tehnic de Căi Ferate „Unirea" Pâncuți): *Schimbările climatice: O provocare, o oportunitate. GIS ne arată cum*

11. Constantin GHEORGHIȚĂ (Liceul Tehnologic de Electronică și Telecomunicații "Gheorghe Mârzescu", Iași): *Tematica și organizarea conferinței anuale a EUROGEO, Porto, 2024*

12. Gabriela BORONIA (Școala Gimnazială "Titu Maiorescu", Iași): *Importanța feedback-ului în procesul educațional*

13. Silviu IORDACHE (Colegiul Național Emil Racoviță Iași): *Cadrul natural și microregiunile din bazinul hidrografic al râului Șacovăț*

WORKSHOPS

Joi / Thursday / Jeudi, 17.10.2024

WEBINAR: Evaluarea condițiilor climatice specifice orașelor din Regiunea de Dezvoltare Nord-Est ca element suport pentru elaborarea planurilor de acțiune locală pentru adaptarea la schimbările climatice

Organizatori: Agenția pentru Dezvoltare Regională Nord-Est, Universitatea „Alexandru Ioan Cuza” din Iași.

Data, oră și formă de desfășurare: 17 octombrie 2024, interval orar **10:30-12:00**, ONLINE, în cadrul Seminarului Geografic Internațional „Dimitrie Cantemir”, ediția XLIV.

Acces webinar: <https://geo.uaic.ro/uclar/#webinar>

Municipalități vizate: Iași, Pașcani/Piatra-Neamț, Roman/ Suceava, Fălticeni, Rădăuți/Botoșani, Dorohoi/Vaslui, Bârlad, Huși/Bacău, Onești, Moinești, Comănești.

Descrierea evenimentului: Evenimentul oferă ocazia decidenților implicați în politicile de urbanism din orașele din Regiunea de Dezvoltare Nord-Est a României să stabilească legături cu mediul academic pentru sprijinirea politicilor locale de adaptare la schimbările climatice și conformarea cu privire la noile criterii de monitorizare DNSH ale proiecte viitoare. În cadrul acestui eveniment vor fi prezentate provocările climatice cu care orașele din RDNE se confruntă în prezent și cele estimate pentru următoarele decenii. De asemenea, decidenții vor fi informați asupra produselor climatice pe care mediul academic le poate pune la dispoziție municipalităților pentru fundamentarea politicilor de adaptare la schimbările climatice.

Program:

1. 10:30-10:40: **Reprezentant ADRNE, Director Gabriela Macoveiu/Șef birou Agatha Filimon** – Linii de finanțare disponibile pentru adaptarea orașelor la schimbarea climatică.
2. 10:40-10:50: **Prorector UAIC, Conf. Dr. ing. hab. Lilian Niacșu** – Resurse ale Universității „Alexandru Ioan Cuza” din Iași în sprijinul studiilor de adaptare a localităților la schimbarea climatică.
3. 10:50-11:25: **Conf. univ. Dr. Lucian Sfică (UAIC)** – Condițiile climatice din orașele Regiunii de Dezvoltare Nord-Est a României și identificarea regiunilor critice din cadrul acestor orașe în contextul schimbării climatice.
4. 11:25-11:35: **Lect. univ. Dr. Pavel Ichim (UAIC)** – Modelarea climatului urban ca element cheie în identificarea soluțiilor locale de adaptare la schimbarea climatică.
5. 11:35-11:45: **Drd. Vlad-Alexandru Amihăseși (UAIC)** – Imagine generală asupra schimbării climatice estimate în orașele din Regiunea de Dezvoltare Nord-Est în intervalul 2025-2100.

Evenimentul reprezintă sinteza rezultatelor proiectului de cercetare cu tema *“Evaluarea climatului urban: condiție de bază a dezvoltării rezilienței locale la schimbările climatice în regiunea de dezvoltare Nord-Est a României”*, finanțat de Ministerul Cercetării, Inovării și Digitizării, CNCS-UEFISCDI, proiect cu numărul PN-III-P1-1.1-TE-2021-0882 în cadrul PNCDI III.

APLICAȚIE PRACTICĂ DE TEREN

Practical Field Trip / Application Pratique de Terrain

Duminică / Sunday / Dimanche 20.10.2023, 07:30h – 20:00h

07:30 Plecarea de la UAIC Iași, corp A (la cei Doi Lei). Plecare pe traseul Iași – Miclăușeni – Hanu Ancuței- Târpești

Departure at UAIC Iași, Building A, „at the Two Lions”. Departure on the route Iași – Miclăușeni – Hanu Ancuței - Târpești

Départ depuis UAIC Iași, bâtiment A, „aux Deux Lions”. Départ sur la route Iași – Miclăușeni – Hanu Ancuței – Târpești

10:00 Vizită Muzeul Etnografic Nicolae Popa din Târpești – scena tradițiilor populare ale satului moldovenesc

Visit to the Nicolae Popa Ethnographic Museum in Târpești – The Stage of Folk Traditions of the Moldavian Village.

Visite au Musée Ethnographique Nicolae Popa de Târpești – La Scène des Traditions Populaires du Village Moldave

11:30 Vizita Mănăstirii și a satului monahal Agapia – reper al istoriei și culturii monahale românești (explorarea atelierului de broderie și Biserica Sf. Arhangheli Mihail și Gavril pictată de renumitul Nicolae Grigorescu)

Visiting the Agapia Monastery and Monastic Village – a landmark of Romanian monastic history and culture (exploring the nuns' embroidery workshop and the Church of the Holy Archangels Michael and Gabriel painted by famous Romanian Nicolae Grigorescu)

Visite du Monastère et du village monastique d'Agapia – un repère de l'histoire et de la culture monastique roumaine (exploration de l'atelier des sœurs et de l'église des Saints Archanges Michel et Gabriel peinte par le fameux Nicolae Grigorescu).

12:30 Centrul de Vizitare al Parcului Natural Vânători Neamț – Sanctuar al zimbriilor în libertate

Visitor Centre of Vânători Neamț Natural Park – Sanctuary of Free-Roaming Bisons
Centre d'accueil du Parc Naturel Vânători Neamț – Sanctuaire des Bisons en Liberté

14:00 EcoBrunch – Complex Turistic Zimbru (mâncare tradițională, ansamblu folcloric, meșteri populari, întâlnire cu actori implicați în turismul sustenabil)

EcoBrunch – Zimbru Tourist Complex (traditional food, folklore ensemble, local craftsmen, meeting stakeholders involved in sustainable tourism)

EcoBrunch – Complexe Touristique Zimbru (nourriture traditionnelle, ensemble folklorique, artisans, rencontre avec des acteurs impliqués dans le tourisme durable)

17:30 Mănăstirea Neamț – exemplu de arhitectura medievală ștefaniană din Moldova

Visit to Neamț Monastery – an example of Stephanian medieval architecture of Moldavia

Visite au Monastère de Neamț – un exemple d'architecture médiévale stefanienne de Moldavie.

20:30 Sosirea la Iași / Arrival to Iași / Arrivée à Iași

REZUMATE/ABSTRACTS/RÉSUMÉS

Vers une approche basée sur le lieu dans les pays en développement : Etude de cas de la région du Sud-Est de la Tunisie après Covid-19

Nessrine ABBASSI EP BOUBAKRI^{1,2}, Zouhaier HADHEK¹

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²*Merian Centre for Advanced Studies in the Maghreb (MECAM), Université de Tunis, Tunisie*

Dans la Tunisie de l'après-révolution, un développement régional plus équitable est au cœur de toutes les stratégies socio-économiques. Cependant, la crise sanitaire de Covid-19 a fait écho aux réalités régionales de ce pays. A ce stade, une analyse régionale est essentielle pour comprendre et gérer pleinement les impacts inégaux de la pandémie actuelle, (Bailey et al., 2020). L'objectif de cet article est d'étudier les réalités régionales du secteur de la santé et leur relation avec le niveau de développement régional. Basé sur le principe de l'approche par les lieux, nous formulons des recommandations scientifiques pour un développement pour tous. Nous utilisons la méthode de l'Analyse Exploratoire des Données Spatiales (AEDS) appliquée aux données relatives au secteur de la santé et à d'autres données, tout en comparant les profils de la région du sud-est de la Tunisie. Cela prouve que la situation du secteur de la santé dans le sud-est de la Tunisie exige un changement des politiques territorialisées, plutôt que celles du passé qui semblent être aveugles sur le plan spatial.

Integrating remote sensing and GIS techniques for monitoring vegetation dynamics in protected forest ecosystems

Marius ADUMITROAEI¹, Ioana ZAIT^{1,4}, Iuliana Gabriela BREABĂN^{1,2,3}, Răzvan DEJU⁴

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This research presents an in-depth analysis of vegetation dynamics within a protected forest ecosystem, employing advanced remote sensing and GIS methodologies. The study utilizes Sentinel-2 satellite imagery, covering a seven-year period (2017–2024),

in the Natura 2000 site Bârnova-Repedea Forest, to calculate and interpret key vegetation indices such as NDVI and NDMI, allowing for a detailed assessment of both seasonal and long-term changes in vegetation health. By integrating high-resolution remote sensing data with local GIS layers, including species distribution, topography, and land use, the research explores the relationships between vegetation indices and environmental factors. Climatic variables, such as precipitation, temperature, and soil moisture, are also analyzed using data from the ERA5 Land dataset to provide further context for vegetation dynamics. Through the use of spatial analysis and cluster methods, the study identifies correlations between vegetation patterns and variables such as terrain and species composition. This approach not only highlights key areas of interest but also provides insights into how these factors interact across the landscape. The findings contribute to a better understanding of vegetation dynamics and support sustainable management and conservation efforts within protected forest ecosystems.

GIS-based assessment of groundwater vulnerability using DRASTIC and susceptibility index overlay methods

George-Stefan ALION, Iuliana-Gabriela BREABĂN, Marian-Daniel BURUIANĂ

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Groundwater is an important resource for drinking water, agriculture, and industry worldwide. However, increasing urbanization, industrial activities, and agricultural practices pose significant threats to groundwater quality through pollution. Assessing groundwater vulnerability is crucial for implementing effective protection measures and sustainable management strategies. This study employs the DRASTIC and Susceptibility Index (SI) overlay methods to evaluate groundwater vulnerability in the metropolitan area of Iași. These models integrate various hydrogeological parameters—such as depth to water, net recharge, aquifer media, soil media, topography, impact of the vadose zone, and hydraulic conductivity—to generate vulnerability maps. Utilizing a Geographic Information System environment enhances the analysis by spatially representing areas with a high risk of contamination. The results highlight the importance of integrated methodological approaches in groundwater vulnerability assessment and underscore the need for continuous monitoring to adapt to the continuously changing environmental and anthropogenic condition.

Geomorphological and pedological impacts of flash floods on geosites: a case study from the Moldavian Plateau, emphasizing Precucuteni and Horodiștea-Erbiceni/Godinești sites

Ana-Maria ANASTASIEI, Lilian NIACȘU, Marina IOSUB

Department of Geography, Alexandru Ioan Cuza University of Iași, Romania

This research delineates the geomorphological and pedological repercussions of flash floods on more than 300 designated geosites throughout the Moldavian Plateau, emphasizing regions rich in cultural and archaeological import, notably those linked to the Cucuteni culture and preceding Precucuteni and Horodiștea-Erbiceni/Godinești civilizations. Characterized by its profound historical landscape and fragile ecological equilibrium, the Moldavian Plateau is progressively vulnerable to the deleterious effects of climate change, manifesting as increasingly frequent and severe hydrological events. These events pose substantive threats to the structural integrity of geosites and challenge the stability of soils and landscape morphology—important factors in the preservation of invaluable archaeological artifacts.

Our study adopts an interdisciplinary methodology, integrating hydrological assessments with pedological examinations to assess the vulnerability of these sites to erosion and sediment displacement due to flash floods. This assessment includes detailed analyses of soil composition, drainage configurations, and archival flood data, enabling a nuanced evaluation of the risks and potential damage to these cultural landmarks.

Our findings elucidate a critical interplay between geomorphology and pedology, fundamental to devising effective flood risk mitigation strategies. The research discusses the necessity for a sophisticated understanding of these disciplines to implement measures addressing both immediate and long-term flood risks and landscape alterations. Moreover, the study proposes integrative strategies that utilize geomorphological and pedological insights to fortify the resilience of these sites against flooding, thereby ensuring their preservation and continued contribution to geotourism and geoscience education.

The investigation advocates for the integration of this scientific research into local policy-making, underscoring the imperative for updated and thorough geosite management plans that incorporate climate adaptation measures tailored to the unique characteristics of the Moldavian Plateau. Such measures are critical to safeguarding these geosites as vital resources of cultural heritage and educational value for future generations.

Evaluating public transport accessibility efficiency: a case study of Liberec and Zlín in Czechia

Martin BÁRTA

Palacký University Olomouc, Czechia

The study addresses the issue of calculations and map visualizations for evaluating and comparing horizontal, vertical, frequency, and connectivity factors of public transportation accessibility. Two hilly regional cities in the Czech Republic were chosen as examples, both featuring a trimodal structure in their networks: Liberec (bus, tram, commuter rail) and Zlín (bus, trolleybus, commuter rail).

The methodology involves linking population (address points), transportation, and hypsometric data from the digital terrain model, separately for urbanized and other areas based on Urban Atlas. Horizontal accessibility is considered the most important factor, defined as the distance within the transportation network from the nearest stop. The second factor, vertical accessibility, measures the elevation in meters between the starting point and the nearest stop, depending on the hilliness of the terrain. Frequency refers to the average number of connections from the nearest stop, while connectivity is expressed as the percentage of lines from the nearest stop relative to the total number of lines operating in the city.

Overall, Zlín demonstrates slightly better accessibility results across all factors and land cover types, particularly within urbanized areas. However, results vary significantly with respect to population distribution from address points and the accessibility of uninhabited areas.

The main advantage of decomposing accessibility into individual factors expressed by relative indicators is the ability to overlay layers and identify the most poorly accessible areas with precise numerical differences between indicators. Map and tabular results can be used for both simple intercity comparisons and detailed analyses of specific urban areas, street differences, and the built-up versus other components of the territory.

A knowledge network analysis of urban resilience strategies in a global context

Alexandru BĂNICĂ¹, Peter NIJKAMP², Karima KOURTIT²

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²Open University, The Netherlands

Cities are complex interconnected systems subject to significant turbulence in today's risk society. Unable to avoid or stop the manifestation of increasingly frequent and intense natural and manmade extreme phenomena, urban areas are forced to adapt and transform to become more resilient. The resilience strategies realized and implemented by more and more cities around the world are not only tools for managing multiple, interconnected, and complex risks but also a chance to enhance sustainable development and quality of life. Through this, risks and disasters become "blessings in disguise", and their threat can lead to opportunities to improve the functionality of cities with environmental, social, economic or institutional co-benefits. This paper analyses the content of Resilience strategies developed within the 100 Resilient Cities Network to identify distinct and characteristic clusters of urban areas ("clubs") and knowledge networks that could shape resilience and sustainability approaches. Analyzing the specific risks of each city, but also the different approaches in managing them in a systemic context in the short, medium and long term, we try to discover not only the formal networks of good practices (collaborations between cities) but also similarities in approaches that lead to similar results for cities different and located in distinct spatial and geopolitical contexts. Using content analysis, cluster analysis and network analysis and corroborating the results with statistical indicators that reflect sustainable urban development, we try to identify which strategies lead to transformative positive changes and which fail to do so. The approach can become significant in the Romanian context, as urban resilience strategies are completely missing up to this moment. With the selected sample of various cities from the Global North and South, the analysis and exemplification can constitute models of good practices that could inspire urban decision-makers to design and implement such strategies not just for more efficient risk management but also for healthier, safer, happier and more sustainable cities and metropolitan areas.

Assessing Spatial Economic Resilience of City-Region Systems in Central and Eastern Europe

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This study uses resilience to analyse the regional and urban patterns of socioeconomic transformations in Central and Eastern Europe in the last 22 years. By analysing the multiannual evolution of GDP/capita and Employment accounting for significant disturbances like the 2008 financial crisis and the COVID-19 pandemic that started in 2020, this study seeks to understand the resilience mechanisms through three specific phases: economic resistance, recovery and stabilization. Using time series data and employing (geo)statistical analysis (novel resilience indices, cluster analysis, trajectories assessment), the outline of a complex territory is drawn, one in which the cities and regions with the highest resilience performance are included in balanced urban networks. Larger cities are not always also the most resilient as connected and competitive cities and regions can be more affected by major and rapidly diffusing shocks, at least in their first phases. Finally, this study emphasizes the resourcefulness of the resilience framework in shaping urban and regional strategies, guiding long-term trajectories toward a more sustainable and secure future.

Assessing smart city frameworks - The interplay between smart technologies and quality of life in Romania

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In the contemporary digital transformation era, smart city paradigms and quality of life (QoL) have emerged as pivotal components in fostering sustainable urban development, creating an environment conducive to elevated living standards (Yigitcanlar et al., 2019). These two constructs are intrinsically linked, as the integration of smart technologies in urban ecosystems directly influences the well-being of urban dwellers. This investigation examines this relationship within the Romanian context, focusing on the city of Iași. The research methodology employs a comprehensive data collection and analysis approach, encompassing multiple Romanian urban centers. The study's primary objective is to present smart city data through a novel lens, utilizing alternative indicators to those conventionally employed,

thereby providing a holistic perspective encompassing a diverse range of localities, extending beyond Romania's frequently highlighted major urban centers.

The research uses data from the Citadini.ro platform, incorporating 65 indicators stratified into subjective and objective categories. These metrics capture a nuanced reality by mitigating demographic variables and concentrating on elements intrinsic to the smart city concept. The impact of smart technology implementation on community service quality is evaluated against criteria aligned with the six fundamental dimensions of the smart city framework (Lombardi et al., 2012). The findings offer a comprehensive assessment of the current status of Iași and other cities vis-à-vis smart city concepts and quality of life, identifying areas for potential enhancement and proposing specific recommendations to augment the synergy between these two domains.

Geographic Information System (GIS) technologies were employed to visualize the multidimensional aspects of the smart city concept based on the derived indicators. This study contributes significantly to the body of knowledge surrounding urban development and the impact of smart technologies on residents' quality of life within a specific urban milieu, aligning with the growing emphasis on data-driven urban governance and citizen-centric smart city initiatives (Dameri and Cocchia, 2013).

References

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Considerations regarding the inventory of anthroponyms

Ionel BOAMFĂ

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We propose to point out some aspects related to the inventory of onomastics from the Romanian space (and, by extension, from the Carpathian-Balkan space). If for antiquity and, above all, for the current period, the inventory could be carried out to a large extent – in the first case, either at the level of the provinces of the Roman Empire, or, as a conventional base map, at the Carpathian-Balkan regional one, and in

the second, on a global level, on a country level, on a local level, on Romanian localities – for the Middle Ages and the modern era and even for the first part of the contemporary one (the interwar period) there are some limitations. For the medieval era, it is about the incomplete publication of the document collections or the unequal access to these documents. Also, the fact that, for some collections – for example, Documente regarding the History of Romania / Documente privind Istoria României (DIR) – the absence of the name index makes the documentation for the registration of onomastic elements difficult, chronophagous. In other cases – for example, the collection of statistical-fiscal data (catagrophies) Moldova in the era of feudalism / Moldova în epoca feudalismului – the difficulty of the inventory is related to the fact that the information is provided in the Cyrillic alphabet. On the other hand, although it is a monumental work (or precisely because of that), the SOCEC Yearbook of Greater Romania / Anuarul SOCEC al României Mari only allows searching by viewing the information published in its 3000 pages page by page. The extremely long time that should be given to the complete inventory of the data prevented their complete registration. Thus, for more than 160 current anthroponyms (of which almost 60 have certain or probable attestations from antiquity), the inventory will be carried out source by source (collections of inscriptions, then of documents, statistical-fiscal records – urbaria, conscriptions, catagrophies, yearbooks, dictionaries, etc.) and, for each source, volume by volume, recording in a file with all these sources which of them and how many volumes have already been read.

Dynamics of land use and impact on carbon stock in the Iași Metropolitan Area

Diana BOBRIC¹, Alexandra Petronela STOLERIU^{1,2}, George ALION³, Ioana ZAIȚ (căs. LAZĂR)³, Marius ADUMITROAEI³, Lilian NIACȘU¹, Iuliana Gabriela BREABĂN^{1,2}

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In the context of climate change and accelerated urbanization, sustainable land management and carbon stock monitoring are becoming critical issues for city development. The study explores the relationship between land use and organic carbon stock distribution in the Iasi Metropolitan Area, using CLC data from 2012-2018. The land use map shows a significant fragmentation of the landscape, characterized by the expansion of discontinuous urban areas and road infrastructure networks, and, contributing to a decrease in carbon storage capacity in highly urbanized areas. On the other hand, the carbon stock distribution map highlights high concentrations of organic carbon in soil in agricultural and forestry regions, particularly in the south and

southeast of the area. This research underlines the need for sustainable land management, maintaining a balance between urban development and the preservation of natural spaces, to support carbon sequestration capacity and help reduce greenhouse gas emissions.

Evaluarea volumului de apă din corpuri de suprafață prin mijloace de teledetecție în condițiile schimbărilor climatice - studiu de caz Balta Albă

Florian BODESCU, Theodor Ioan BODESCU

Multidimension SRL

În contextul schimbărilor climatice, evaluarea volumului de apă din corpurile de apă de suprafață reprezintă o necesitate, în condițiile în care acestea condiționează servicii ecosistemice de care depind sisteme socio-ecologice. În acest sens standardizarea metodelor spațiale aplicate la scară mare este obligatorie, pentru a permite furnizarea în timp real de date credibile legate de cuantificarea volumului de apă. Metoda propusă și studiul de caz - Balta Albă permit cuantificarea volumului de apă într-un mediu cu apă salină, care nu este utilizată în alte aplicații uzuale. Utilizarea metodelor de teledetecție bazate pe imaginile de tip multispectral SENTINEL 2 cu indicatori derivați de tipul indicele normalizat al apei (NDWI) oferă rezultate bune în evidențierea terenurilor acoperite cu apă. Rezultatele metodei de evaluare confirmă o strânsă legătură între intrările și ieșirile din rezervorul lacustru în corelație cu condițiile climatice.

Monitorizarea suprafețelor acvatice prin metode de teledetecție și SIG – studiu de caz: lacurile de acumulare Galbeni, Răcăciuni și Berești, județul Bacău

Denisa-Ștefania BOGDAN, Vasile JITARIU

Department of Geography, Alexandru Ioan Cuza University of Iași, Romania

This paper analyzes changes in the water-covered surfaces of Galbeni, Răcăciuni and Berești lakes using Sentinel-2 satellite images and the Normalized Water Difference Index (NDWI). The rationale for choosing this study derives from the observation that fluctuations in water levels, in the context of climate change, have a significant impact on biodiversity and water resource management in these ecosystems. The hypothesis from which it was started proposes that, due to climate change, through variations in temperatures and, especially, precipitation, have a direct impact on the water-covered surfaces of these lakes. The objectives of this work are to monitor the changes of the aquatic surfaces of Galbeni, Răcăciuni and Berești lakes by using Sentinel-2 satellite

images, analysis by applying NDWI to highlight fluctuations in water levels in lakes and assessing the impact of climate change on these ecosystems. Methodologically, the work involved stages such as the collection and processing of Sentinel-2 satellite images, the application of NDWI for the delimitation and monitoring of water-covered surfaces, and, creating a Model Builder to more easily and ergonomically perform the necessary steps and analyze and interpret the results obtained. As a result, the aquatic surfaces of Galbeni, Răcăciuni and Berești lakes have fluctuated due to periods of drought and quantitatively rich rainfall in the context of climate change, this fact is possible to identify with satellite images. In conclusion, this paper brings new insights into how remote sensing and SIG methods can be used effectively for monitoring and managing water resources in the context of global climate change.

The motivation and interest of wine tourists and the impact on the development of niche tourism in Vrancea County

Gina BORDEA, Corneliu IAȚU

Department of Geography, Alexandru Ioan Cuza University of Iași, Romania

Wine tourism is an increasingly important branch of the tourism sector, with accelerated growth internationally due to the increased interest of tourists for authentic and cultural experiences. This type of tourism is not limited to tasting and purchasing local wines, but includes an integrated experience that capitalizes on the cultural, gastronomic heritage and traditions of the wine regions. In Vrancea county, one of the most famous wine-growing areas in Romania, wine tourism has the potential to become an important engine of economic and social development because this type of tourism is not so developed at the present time or does not reach levels specific to western countries European.

Tourists visiting the Vrancea region for wine tourism contribute to the development of the local economy by consuming traditional products, participating in local festivals and events. They are interested not only in the quality of the wines, but also in the story of each wine, the production process, the specifics of each winery and the deep connection between wine and local culture.

In this context, the research carried out in Vrancea county, through the use of a questionnaire, aimed to evaluate the perceptions and attitudes of tourists who visit the vineyards here. The study analyzed aspects related to the motivations that attract tourists to the area, the level of satisfaction regarding the tourism and wine offering, as well as the impact of tourist experiences on the intention to return or to recommend this destination to others.

The results of the study revealed that tourists appreciate not only the quality wines produced in Vrancea, but also the diversity of activities offered, such as guided visits to wineries, themed tastings, walks through vineyards and interaction with the local community. At the same time, the research emphasized the need for the development of oenological and general tourist infrastructure and for more effective promotion of the county in order to attract a greater number of visitors, both from the country and from abroad.

Thus, wine tourism in Vrancea county not only has the potential to become an essential component of the local economy, but it can also contribute to strengthening the cultural identity of the region. The active involvement of the community, the improvement of tourism services and the sustainable promotion of viticultural and cultural resources are key factors in the growth of this tourism sector.

Leveraging visitor profiles for tailored tourism experiences: the role of mobile recommendation systems

Filipa BRANDÃO, Carlos COSTA, Zélia BREDA, Sara ARAÚJO

University of Aveiro, Portugal

In the fiercely competitive landscape of global tourism, personalization has emerged as a pivotal competitive advantage for catering to consumer preferences. Within this context, an innovative form of tourist service is emerging through mobile recommendation systems. By considering travellers' preferences and characteristics, these systems can offer tailor-made tourism products that significantly enhance tourist satisfaction and increase their intention to revisit and recommend the destination. This study aims to determine how the specific characteristics of tourists can be used to design personalized routes, optimized by recommender systems embedded in mobile applications. An online survey was conducted with 349 tourists who visited a region in Portugal. The results allow to profile the visitors and show how these profiles significantly influence route choices and tool utilization. Understanding the specific characteristics of tourists enables tourism businesses to design targeted tourism products and services and develop strategies accordingly. Additionally, this knowledge provides a foundation for destinations to create innovative tourism products and services capable of delivering memorable and authentic experiences. It also provides Destination Management Organisations with relevant knowledge that supports informed decision-making processes. Therefore, the findings provide a robust foundation for designing tailored products and services and managing the territory in an integrated way, enhancing the overall visitor experience and destination competitiveness.

Opportunities and challenges of local Destination Management Organisations in Romania

Mihai BULAI, Lucian-Ionuț ROȘU

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This study investigates the role of tourism policies and the involvement of national, county, and local governments in establishing a strong network of Destination Management Organisations (DMOs) in Romania. Worldwide, DMOs have become essential for the efficiency of tourism development of destinations, by providing a balanced collaboration network across public and private entities, bottom-up initiatives and empowerment of different key stakeholders, professionalisation of the destination management, public legitimacy, ensuring transition to destination competitiveness and sustainability. The research assesses the viability of some existing local-level DMOs across Romania which were certified in August 2022, when the national law on DMOs was approved, by conducting interviews with destination managers and other key stakeholders. The aim is to assess the effectiveness of the existing DMOs: financial sustainability, collaboration networks, support from local administration. Moreover, the research examines the constraints these organisations face, such as funding, bureaucracy, communication between different stakeholder, tic hurdles, and fragmented communication between governance levels. A focal point of the study is the application of the penta helix model, which integrates government, academia, industry, civil society, and media in the decision-making process. The model helps observe how well DMOs are incorporated into the governance framework of the destination, the level of cooperation between DMOs and various stakeholders, engagement with local communities and businesses' overall role in policy-making and destination development.

While DMOs in Romania are strengthening their role at the local level, they often face financial constraints, variability of funding depending on political stage and interests, various changes in the tourism board of the DMO, and a limited role in decision-making processes regarding tourism policies and development. When discussed with destination managers and other stakeholders, the penta helix model offers them a better vision of each one's role in the destination, with potential of leading to organic and long-term development. The research concludes that creating a stable and predictable financial framework for DMOs, allowing them to participate in policy and decision-making, and fostering multi-stakeholder collaboration are critical in order to create a more resilient and effective network of DMOs in Romania.

Considerations regarding the structure and dynamics of general population mortality from the Southern Development Region (RDS) of the Republic of Moldova

Petru BUNDUC, Nicolae BODRUG

Institute of Ecology and Geography, Moldova State University

The Southern Development Region of the Republic of Moldova includes 8 districts: Basarabeasca, Cahul, Cantemir, Căușeni, Cimișlia, Ștefan Vodă, Leova and Taraclia. The population of the region represents 15% of the total population of the country and is concentrated in 10 cities (Basarabeasca, Cahul, Cantemir, Căușeni, Căinari, Cimișlia, Leova, Iargara, Ștefan-Vodă and Taraclia) and 278 rural localities.

Regarding the analysis of the structure and dynamics of the main causes of death of the general mortality of the population of the RDS, it was carried out with the help of the basic indicators of the population's health for the period 2010-2023. The general mortality of the population shows an obvious upward trend, the highest values being highlighted in the period 2020-2023. The total average value is 1280.4 cases per 100,000 inhabitants, being the highest compared to other regions of the country. The analysis of the general mortality structure of the population established that cardiovascular diseases are in the first place, with about 57% of the total number of deaths. The dynamics of this group of diseases are in a permanent positive trend (about 21%), compared to the reference year. Tumors are the second cause of death, constituting about 15% and registering a considerable upward trend of about 54%. Deaths caused by diseases of the digestive system remain on the third place, with about 9%, with an obvious increasing trend (12%). Thus, we can conclude that with the outbreak of the Covid-19 pandemic (in 2020), this disease becomes one of the main causes of death, but in the period 2020–2023, deaths from Covid-19, compared to the total number, occupy IV place or about 6%.

Distinctive characteristics of water basins used in the southern region of the Republic of Moldova

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Lakes and artificial water basins, alongside their ecological functions, ensure regulation and respond to recreational pressures, contributing to water supply for irrigation and other purposes. Currently, there are 4275 natural lakes and artificial basins in the Republic of Moldova, covering an area of approximately 43100 hectares. Although there are 626 water accumulation bodies in the southern regions of the country, almost half the number compared to the central region, these occupy an area

of 12000 hectares, with the largest located in Cahul raion (4135 hectares), including two large natural lakes in Manta (1747 hectares) and Crihana Veche (1358 hectares), owned by the Fisheries Unit. Additionally, in Cahul raion, there is the natural lake - Beleu, located in the „Prutul de Jos” scientific reservation, with an area of 628 hectares.

There are important water accumulations in Ștefan Vodă raion, and include the artificial basin in Palanca, covering 449 hectares, and another of 193 hectares located in the city. In Autonomous Territorial Unit (ATU) of Găgăuzia, there are 63 water accumulations with a total area of 1823 hectares, the largest being located along the Ialpuș river, including one in Comrat (152 hectares) and one in Congaz (308 hectares). Most water accumulations are found in larger raions, specifically Căușeni (100) and Ștefan Vodă (119), where 95% are situated along river courses. Our research was designed to assess the use of water accumulations in this region, utilizing a mixed methodology. The results highlighted a predominant use for fishery, accounting 60% of the total, particularly in the riverine areas of the Dniester river, such as Căușeni (89%) and Ștefan Vodă (73%) raions.

Most lakes are publicly owned and leased to operators who often do not implement ecological and hydrotechnical exploitation requirements. This leads to the degradation of aquatic ecosystems and a decline in water quality within the region. Only 34 lakes, representing 5% of the total, are effectively utilized for various activities, furthermore recreational activities being non-existent, except for one lake in Cimișlia.

In the Southern Region of the Republic of Moldova, the condition of lake dams is considered satisfactory, with 80% in the regional raions and 78% in ATU Găgăuzia. The situation is better in Cimișlia raion, where over 95% of the dams are in good condition. However, the status of water accumulations is more problematic, with only 30% of lakes having a basin in satisfactory condition. Additionally, the presence of protective buffer strips is alarmingly low, at just 51%, with Cimișlia raion having only 8%, therefore contributing to pollution, eutrophication, and the degradation of water accumulations. In contrast, ATU Găgăuzia has protective strips for all lakes. Furthermore, 30% of the lakes lack of bottom drains, with only 13% in ATU Găgăuzia having them, and none in Basarabeasca raion.

This research underscores the importance of lakes in the Southern Region of Republic of Moldova not only for biodiversity but also for water resources and the development of local communities. It serves as a call to action for more responsible management of these fragile ecosystems, encouraging collaboration among various stakeholders to ensure the future of these essential resources. Awareness of the ecological and economic value of lakes is crucial for promoting a culture of conservation and sustainable use.

Dinamica rețelei serviciilor educaționale primare în mediul rural

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Acest studiu are în vizor schimbările distribuției spațiale ale școlilor primare în mediul rural, între 2015-2021. Restructurarea rețelei școlare primare vine în contextul tendinței generale de scădere a numărului de copii, implicit, a populației școlare în cohortele 6-10 ani. Adoptarea finanțării școlilor per capita prin Legea Educației Naționale 1/2011 a determinat închiderea treptată a unităților cu puțini elevi prin absorbția sau fuziunea cu o școală mai mare și transferarea elevilor către aceasta. La scară națională modelul de restructurare a rețelei a vizat 730 de UAT-uri unde a fost închisă cel puțin o unitate, iar în două comune - desființarea definitivă a ultimelor școli. Concomitent cu declinul numărului de școli, arealele proxime orașelor mari înregistrează creșteri semnificative ale populației școlare, pe seama migrației și expansiunii periurbanului, unde infrastructura educațională primară existentă se adaptează cu dificultate cererii exponențiale de dată recentă, fiind tot mai frecvente situațiile de supraaglomerare a claselor.

La prospective territoriale, un outil nécessaire à l'élaboration de stratégies de développement local. Eclairages à partir du cas de la Région Centre-Val de Loire

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Le développement territorial, que ce soit aux échelles locales ou régionales, ne peut s'envisager sans vision prospective (CESER de France, 2023). Comme le dit H. de Jouvenel (2014) : « Sortir de l'esclavage du quotidien est indispensable pour gérer le changement dans le sens du souhaitable ». Cette maxime s'applique pleinement à la définition de stratégies d'action publique conçues pour promouvoir un développement local inclusif et durable. Mais au-delà de la gestion du changement, la prospective, en tant qu'outil d'aide à la décision et démarche destinée à explorer la pluralité des avenir possibles dans le temps long, sous forme de scénarios alternatifs, constitue aussi l'un des leviers majeurs de l'innovation territoriale, dans toutes ses dimensions, technique, organisationnelle, sociétale (Carrière & Hamdouch, 2024).

Telles sont les hypothèses sur lesquelles se fonde notre communication. En effet, concevoir et mettre en œuvre des stratégies innovantes de développement territorial durable (DTD) nécessite de disposer de visions à long terme du devenir de leurs territoires de mise en œuvre ; des territoires par définition qui relèvent d'échelles méso- ou micro-spatiales.

L'action publique locale, en vue d'un développement plus cohésif et répondant aux principes de la durabilité, implique en effet une démarche dépassant la simple prévision économique et statistique (Carrière, 2020) et permettant de croiser les échelles des territoires d'étude, et celle du „global”, sociétal et planétaire. C'est à partir d'une telle approche qu'il devient possible de repenser tout à la fois les orientations, les périmètres, et les innovations (notamment en matière de gouvernance et de participation démocratique à la décision publique) du développement et de l'aménagement des territoires.

Toutefois, force est de constater que la démarche prospective appliquée au territoire, depuis ses origines américaines avec la création de la Rand Corporation et les travaux de trois grands pionniers que furent Olaf Helmer, Gordon et Herman Kahn au sein du Hudson Institute, ou françaises, à la suite des travaux de G. Berger (1958) et de B. De Jouvenel, a surtout été menée aux échelles des nations ou de grandes régions (H. De Jouvenel & M-A. Roque, 1994).

Ainsi, en France, la fin des années 50 a vu se développer des études prospectives nationales, dans un contexte marqué par l'essor de la planification « à la française », à la fois centralisée (à l'échelle de la Nation) et indicative. On pense ici aux travaux du Commissariat Général au Plan des années 60, ayant pour horizon les années 80 ou à ceux menés sous l'égide de la Délégation à l'Action Territoriale et à l'Action Régionale (DATAR) organisme national en charge de la prospective placé directement auprès du Premier ministre. Ces travaux de grande ampleur, tels que ceux des programmes Territoires 2030, puis Territoires 2040, s'inscrivaient alors dans le périmètre national.

Mais depuis, les échelles territoriales comme les thèmes d'étude ont fortement évolué. En particulier, plusieurs Conseils Economiques, Sociaux et Environnementaux (les CESER) de Régions françaises ont réalisé, depuis une vingtaine d'années, des travaux de prospective territoriale, en essayant d'anticiper les évolutions à long terme de leurs régions respectives, ce qui explique que la récente Loi 3DS de 2022 ait confié explicitement aux CESER la mission de conduire des études de prospective régionale.

Dans cette communication, en nous appuyant sur les principaux résultats des exercices de prospective menés dans des Régions françaises, en particulier Centre-Val de Loire (CESER Centre-Val de Loire, 2020 et 2023), nous entendons souligner la portée de la démarche prospective, mais aussi mettre en évidence la nécessité de la conduire à des échelles territoriales plus restreintes, de façon à permettre la conception de projets de territoire locaux et innovateurs, y compris dans des territoires ruraux à faible densité, en France comme en Roumanie.

Green blue infrastructure planning methodology: Roadmap for the Masterplan – Case studies

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The rehabilitation and expansion of the blue-green infrastructure (BGI) constitutes a complex planning process, for the support of which it is necessary both developing a specific strategy (a master plan) and involving several actors at local level and beyond. Within the master plan for the implementation of the BGI, it is necessary to establish some stages representing the roadmap that must be followed to achieve the proposed objective. In this material, general aspects regarding the development of BGI and its implementation in the urban environment are presented. Also, several case studies are presented regarding planning guidelines and methodologies, in order to further identify possible stages to be included in a BGI implementation methodology in Romanian localities. The material was developed within the project PN 23 35 06 01 - "Integrated computer-urban planning system for the evaluation of blue green infrastructure of municipalities and cities in Romania with a view to implementation in urban development plans. Case study: Râmnicu Vâlcea Municipality", financed by the Ministry of Research, Innovation and Digitization and carried out within the ECODIGICONS Nucleus Program.

The role of Destination Management Organizations during war-induced crises. Case study on Iasi, Romania

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The recent political context determined by the 2022 Russian invasion of Ukraine had severe negative effects on the world economy. The tourism sector has been particularly affected, especially in Ukraine and the neighbouring countries, because of the conditions induced by the war which prevented tourism activities from developing properly. On the other hand, the tourism sector, and more specifically the tourism stakeholders, are regarded in such contexts as having an important role in managing such a crisis and helping the affected territories. The current paper aims at exploring the role of tourism stakeholders in the management of war-related crises, with

particular focus on the involvement of Destination Management Organizations. This study is conducted against the background of the refugee crisis determined by the war in Ukraine in 2022 and Iasi City was chosen as case study due to its proximity to Romania's border with Ukraine, which determined a significant involvement of its inhabitants and stakeholders during this crisis. The study relied on a semi-structured interview applied to a number of 11 stakeholders involved directly or indirectly in the tourism activity in Iasi City, Romania, belonging to various sub-fields of the tourism sector. Data obtained through these interviews were analysed through thematic content analysis and Social Network Analysis. The information gathered through the interviews and the results of the analyses point out an intensive involvement of tourism stakeholders in the first stages of the crisis, showing high levels of solidarity for the refugees. Destination Iasi, the Destination Management Organization, stands out as one of the stakeholders with a very important role in the network of stakeholders created for providing support to the refugees, a role strengthened through its numerous connections inside the network and a high capacity of bringing stakeholders together for finding solutions in the management of the crisis.

Evaluating flood impacts on quality of life

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Floods are among the most significant natural hazards, causing large-scale disruption to communities, especially in areas prone to recurrent events. This study investigates the impact of floods on the quality of life (QoL) of residents in 5 rural areas within the Suceava river basin: Sucevița, Voievodeasa, Dornești, Țibeni, and Satu Mare. These localities have experienced severe flooding in the past, making them important for understanding how such events affect residents well-being and daily lives.

A structured survey, consisting of 22 questions, was disseminated in person to a representative sample of residents across these communities. The survey incorporated a range of question types, including Likert scales, open-ended, and multiple-choice questions, to obtain a comprehensive view of residents' experiences with floods. It analyzed perceptions of flood risk, direct flood experiences, and the physical, emotional, and social impacts on their lives. Additionally, the study explored the effectiveness of existing flood mitigation strategies and the preparedness of these communities for future flood events.

Initial results reveal that flood events significantly affect both the physical environment and the emotional health of residents, with prolonged economic impacts due to damage to homes and livelihoods. The study also identifies major gaps in infrastructure and social support systems, highlighting the need to improve aid

measures and community resilience. The role of local authorities, governmental and non-governmental organizations, and community leaders in strengthening flood preparedness and response efforts is very important for mitigating these impacts.

By combining qualitative and quantitative data, this research provides a detailed analysis of how floods influence QoL in the Suceava river basin. The findings highlight the need for clear communication about flood risks, flexible strategies, and active community and authorities' involvement to minimize the long-term negative effects of floods.

Exploring the risks of mountain activities: a quantitative overview a accidents in the Ceahlau Massif

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Mountain-related accidents have various repercussions, including affecting public opinion and society. However, there is a growing interest in high-altitude mountain tourism in Europe. The Ceahlau Massif in Neamt County (Romania) attracts many tourists every year due to its accessibility and popularity, which exposes tourists to potential risks.

This study aims to analyse the threats related to bears' presence on mountain trails and accidents associated with tourist activities in the Ceahlau Massif, focusing on hiking. The study involves assessing the proportion and types of accidents (fractures, sprains, exhaustion, etc.) by month and season, considering the tourist profile (age, gender) and the kind of trail.

The approach is based on the quantitative and qualitative analysis of data provided by the Neamț Mountain Rescue Service, the Administration of the Ceahlău National Park, and the "Petrodava" Emergency Inspectorate of Neamț County. This includes using GIS techniques, creating relevant maps, and interpreting the results using mathematical statistics and spatial measurement methods such as the Lorentz curve and the Gini coefficient to analyse the spatiotemporal distribution pattern and the causal mechanism of accidents.

The results indicate that the distribution of accidents in the Ceahlău Massif area is not uniform during the period analysed.

Exploring the dimensions of sustainable well-being: a theoretical perspective

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Understanding the concept of well-being implies a broader approach that considers the complexity of the human, natural, economic and social spheres. The study seeks to explore alternative and sustainable well-being analysis models based on the interaction of multiple dimensions. It aims to examine the theoretical approaches to the construct of sustainable well-being in the academic literature and the relationships between various well-being dimensions. The analysis is grounded on the Organisation for Economic Co-operation and Development (OECD) Well-being Framework (2020) that includes as key dimensions: income and wealth, work and job quality, housing, health, knowledge and skills, environment quality, subjective well-being, safety, work-life balance, social connections and civil engagement. The methodology is based on a literature review and spatial analysis of well-being dimensions using the OECD Well-being Framework and the European Commission Eurobarometer on Quality of Life in European Cities (2015). The study emphasizes the interdependencies between well-being dimensions as a form of better understanding the dualism and synergies between sustainability and well-being. By fostering knowledge of sustainable well-being there are gained broader insights into criteria needed to sustain well-being into the future.

The incitement and progress of natural intelligence through didactic activities in primary classes

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According to the theory of multiple intelligences people possess a unique cognitive profile. We choose to organize the didactic activities in agreement with its principles because offers the teachers opportunity to become creators of their own content. The paper proposes: the project method, the 5 minutes essay and the investigation, practices which provide a clear and real picture of students engagement level. They gather interactive strategies who help them to acquire knowledge through optimal engagement of the mind, attention and motivation. We consider that a detailed analysis of the relationship between the effects of applying the theory of multiple intelligence at Geography, during the fourth grade, and the level of some dependent variables (the level of self-esteem and motivation, the school performance respectively) is required.

Metode SIG aplicate în analiza efectului de răcire microclimatică a unui parc urban. Studiu de caz: Parcul Cancicov din municipiul Bacău

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Efectul de răcire al parcurilor urbane, în special a celor acoperite cu vegetație forestieră, a fost evaluat în numeroase studii în vederea definirii într-o manieră mai cuprinzătoare a impactului termic pe care îl produc. Studiile din domeniul climatologiei urbane axate pe această tematică au arătat că parcurile urbane pot contribui la scăderea temperaturii suprafeței terenului (Land Surface Temperature - LST) și a aerului și, în cele din urmă, au un rol major în atenuarea și limitarea efectelor insulei de căldură urbană (ICU). Efectul de răcire al Parcului Urban Cancicov din orașul Bacău a fost evaluat în urma analizei, sintetizării și aplicării metodelor SIG utilizate în studiile dedicate acestui subiect în vederea avansării unei metodologii de evaluare a fenomenului termic microclimatic numit „Parc Cool Island” (PCI). Rezultatele au arătat că Parcul Cancicov, prin caracteristicile sale de configurație și compoziție poate dezvolta un efect de răcire microclimatică într-o zonă în care intensitatea ICU atinge cele mai mari valori. La nivel diurn, media PCI a Parcului Cancicov din perioada 2013-2023 este de 2,4°C, valoare extrem de ridicată pentru dimensiunile relativ reduse ale parcului în comparație cu alte parcuri de dimensiuni similare situate în zone climatice temperate. Valoarea maximă PCI este înregistrată în luna iunie, atunci când valorile LST ale parcului sunt cu 3,7°C mai scăzute în comparație cu zonele dens construite din proximitatea parcului. Studiul de față are rolul de a evalua prin metode SIG efectul de răcire a parcurilor asupra zonelor afectate de efectele ICU, oferind astfel informații importante atât pentru instituțiile publice, cât și pentru planificatorii urbani în vederea dezvoltării unor politici de mitigare și atenuare a insulei de căldură urbane prin maximizarea intensității PCI și chiar la proiectarea designului parcurilor viitoare pentru a diminua efectele schimbărilor climatice.

Structural vs. agentic factors in regional path development process - evidence from the literature

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Deindustrialization, technological changes, increased competition among territories, as well as different kind of turbulent events are increasingly reflected in regional studies

and economic geography. A flourishing branch of qualitative research is currently exploring factors, actors and detailed mechanisms that allow regions to adjust or to create new industrial paths. However, few studies reuse existing frameworks for further validation or focus on similar questions, therefore systematic evidence is rather difficult to grasp. The present study aims to bridge this gap, by a systematic literature review on path development process at urban and regional level. How does the role of structural and agentic factors vary across the territorial type and across the path development phases? This is our main question that attempts to provide evidence in the long-term debate on the primacy of structural vs. agentic factors in explaining economic renewal. The articles were selected based on a PRISMA flow and included only publications in WoS journals, published during the last decade (starting from 2014). The retrieval of qualitative information from each article has been assisted by SciSpace AI based tool and rechecked by the researcher subsequently. The research is currently in progress, but the preliminary results indicate the key importance of agency in the first phase of path development process, especially in peripheral regions. Also, the majority of studies are focused on developed countries (mainly from the Northern Europe), giving a limited perspective on the places which evolve under more fragile institutional systems at the national level. Finally, the study confirms the promising role that AI tools can play in time-effective qualitative information retrieval from documents, as long as the prompts are adequately formulated.

Territorial intensity of permanent emigration in post-communist Romania

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Research on the issue of permanent migration in Romania has gained momentum recently, particularly due to the need to understand the intrinsic mechanisms underlying the decision to leave one's country of origin, as well as from the perspective of the consequences that the migration phenomenon can have on the functionality of contemporary society.

Permanent emigration from Romania is a complex phenomenon, grounded in the interaction between socio-economic, demographic, and political factors. Understanding the migratory dynamics requires an in-depth geographical analysis that takes into account regional specificities and enables the identification of optimal management and intervention strategies aimed at reducing territorial disparities and, consequently, promoting balanced development throughout the country.

In the context of Romania, studying the issue of permanent emigration requires an approach that considers the spatial aspects of this phenomenon. The importance of

analyzing the spatial dimension of territorial migration intensity lies in its multiple implications for understanding and managing the process. The spatial dimension is fundamental in studying the issue of permanent emigration, as it provides relevant insights into migratory behavior, the chrono-spatial distribution of emigrants, the impact on the societies involved, and the development of policies and interventions necessary to minimize the negative effects produced.

Long-term land surface temperature trends in major cities of northeastern Romania using landsat satellite data

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This study offers a comprehensive analysis of Warm Season Land Surface Temperature (LST) trends using thermal imagery from the Landsat series (4, 5, 7, 8, and 9), covering the period from 1984 to 2022 across six urban areas in northeastern Romania: Iași, Bacău, Botoșani, Suceava, Piatra Neamț, and Vaslui. A spatiotemporal approach was adopted, utilizing the space-time cube framework to visualize and analyze the data across both spatial and temporal dimensions. The analysis integrates a range of methodologies, including time-series analysis, spatiotemporal pattern analysis, and advanced visualization techniques, with the space-time cube serving as the foundation for all investigations.

Among the primary analytical tools employed, the Emerging Hot Spot Analysis (EHSA) tool (ArcGIS Pro) plays a important role in identifying statistically significant trends in LST over time. EHSA distinguishes between eight specific hot and cold spot patterns: new, consecutive, intensifying, persistent, diminishing, sporadic, oscillating, and historical. To further improve the analysis, Local Climate Zones (LCZs) were incorporated. The integration of LST data with LCZ classification provides a detailed understanding of urban thermal patterns, which is essential for developing sustainable urban planning and climate adaptation strategies.

The EHSA results indicate that the most prevalent patterns were Oscillating Hot and Cold Spots, representing 64.5% and 77.4% of the total, respectively. Persistent Hot and Cold Spots followed with 20.8% and 12%, while Intensifying Hot and Cold Spots accounted for 7% and 1.1% of the patterns, respectively. The spatial distribution and concentration of these patterns reflect the dynamics of land cover and land use (LULC) changes over time in the analyzed urban areas. Notably, Persistent and

Intensifying Hot Spots were predominantly observed in LCZ 8, 10, and 5, zones characterized by their geometric, radiative, thermal, moisture, and aerodynamic properties, which contribute to consistently higher LST values. The emergence of new built-up areas within these zones intensifies hot spots by increasing impervious surfaces and reducing vegetated or permeable areas.

Conversely, Persistent and Intensifying Cold Spots were primarily found in LCZ A, G, and to a lesser extent in LCZ B-F, 6, and 9. These zones are consistently associated with lower LST values due to their distinct characteristics. The interplay between land cover, land use, and urban morphology significantly shapes the thermal patterns observed, underscoring the importance of LULC dynamics in driving these trends. The findings highlight the critical role of urban design and landscape management in mitigating the Surface Urban Heat Island (SUHI) effect and inform strategies for enhancing urban resilience to climate change.

Changes in temperature indices related to the heating and cooling energy demand in Southeastern Europe over the period 1951-2023

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Global warming and climate change are among the greatest challenges of today's world due to their impact on all socio-economic sectors. The energy sector is one of the most affected as it is among the most critical in terms of pollution and needs extensive restructuring. In this paper, four temperature indices that are directly related to the heating and cooling energy demand were analysed to detect their changes over the period 1951-2023 in Southeastern Europe. Daily data sets of mean and maximum temperature have been employed to calculate the Heating degree days (HDD_{heat18}), Number of Heating Days (TM_{lt10}) for heating the building needs, Summer days (SU) and Cooling degree days (CDD_{cold18}), and for cooling the building needs. The spatial resolution of the data is 0.1°. The trend analysis was performed using the Mann-Kendall test combined with Sen's slope for three time periods: 1951-2023, 1951-1990, and 1991-2023. The main results indicated that over the entire period, the indices related to energy demand for cooling significantly increased, whereas those related to energy demand for heating the buildings significantly decreased. The changes detected were considerably more accelerated during the recent period, 1991-2023, than 1951-1990.

Cercetări privind utilizarea inovativă a unor extracte din alge brune la obținerea de biotananți cu conținut proteic

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Scopul acestei lucrări este acela de a prezenta obținerea și utilizarea unor compoziții aldehido-proteice la prelucrarea pieilor, respectiv la bio-tăbăcire.

Este cunoscut faptul că industria de prelucrare a pieilor se confruntă în ultima vreme cu serioase probleme legate de protecția mediului datorită utilizării unor substanțe chimice recunoscute pentru impactul lor negativ asupra mediului și populației, consumului mare de apă și nu în ultimul rând datorită generării unor mari cantități de deșeuri (sub toate formele: solide, lichide, gazoase), buna gestionare și reutilizarea acestora conducând la ecoeficientizarea acestei industrii după principiul economiei circulare (păstrarea plusvalorii conținută în produse și de a reduce la zero deșeurile reziduale).

Partea proteică a compoziției propuse pentru înlocuirea agenților de tăbăcire cu conținut de metale grele s-a obținut prin hidrolize slab acide a propriilor deșeuri și subproduse greu de gestionat. Partea aldehydică s-a obținut tot din substanțe naturale, respectiv polialdehide extrase din alge brune care sunt cuprinse în clasa Phaeophyceae. Sunt cunoscute între 500 și 2000 de specii care aparțin grupului Heterokontophyta, un grup mare de organisme eucariote care se disting cel mai bine prin faptul că au cloroplaste înconjurate de 4 membrane și majoritatea conțin pigmentul fucoxantină care este responsabil pentru culoarea distinctivă maro-verzuie. Algele brune se găsesc în ape mai reci din emisfera nordică din regiunile temperate și polare și au un rol foarte important în purificarea apelor de coastă, susțin dezvoltarea vieții marine și reprezintă un bun indicator al calității apei. Specialiștii de la Institutul de Biologie al Academiei Române s-au implicat într-un proiect de repopulare a Mării Negre cu alga brună (*Cystoseira barbata*) datorită intereselor de ordin științific, ecologic și economic. Din punct de vedere economic extractele din alge brune au întrebuințări în industria alimentară, cosmetică, farmaceutică, textilă.

Revenind la compoziția noastră cu efect tanat obținută din combinarea unor hidrolizate de collagen cu extracte din alge brune (flavotanini, polizaharide/acid algic, polizaharide/aldehydă glutarică) și funcționalizată prin oxidare (cu periodat de potasiu) pentru creșterea reactivității și implicit a caracterului tanant.

Utilizând acest produs la bio-tăbăcirea pieilor nu se modifică esențial tehnologiile curente și se obțin semifabricate de piei fără conținut de crom (de tip wet white) cu caracteristici fizico-chimice la nivelul de performanță impus pe plan internațional.

Obținerea și utilizarea produsului aldehido-proteic este o premieră la nivel național și internațional.

The peculiarities of use and management of water resources within Răut hydrographic basin, Republic of Moldova

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The Răut river basin represents an important component of the hydrographic ecosystem of the Republic of Moldova, covering an area of over 7024.23 km², which constitutes around 20.8% of the national territory. This complex geographical region includes 448 localities, of which 11 are cities and 437 are villages, highlighting its demographic and socio-economic importance. The Răut river, with a significant supply of water, serves as an essential source for various economic activities, especially in agriculture, where the main quantity of water consumption is directed.

On average, the volume of water used in the Răut river basin is 14.1 million m³ per year. It should be mentioned that 11.9 million m³ ($\approx 84\%$) come from underground sources, highlighting the high dependence of local communities on underground water resources, and surface water sources contribute only 2.2 million m³. The use of water in agriculture is predominant, with an average annual consumption of 10 million m³, of which only 1.7 million m³ is intended for irrigation, 3 million m³ are consumed for household needs, and 1.2 million m³ are allocated for technological purposes. The share of industrial uses in the Răut river basin is, on average, 9%, including 4% in the perimeter of the Răut river bed (due to the urban settlements of Bălți, Orhei and Florești).

In the period 2010-2023, the total volume of water used registered a positive dynamic, the highest value being recorded in 2023 – 18.8 million m³, based on the doubling of the volume of water used for domestic purposes, as a result of the increase in the population's access to public water supply networks. Also, there is a considerable increase in the volume of water used for technological purposes, which is due to the increase in industrial production volumes and, at the same time, increased level of evidence and statistical reporting concerning water consumption. The analysis of the dynamics of the use of water resources in the Răut river basin allows highlighting the current challenges in sustainable water management. By evaluating the use of underground and surface water sources, solutions can be identified to optimize water sustainable use, considering the impact of socio-economic factors on the ecological situation in the study area.

Smart Tourist Destinations: Qualitative Analysis of Best Practices in Europe

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Tourism destination management faces complex challenges due to increasing competitiveness and demand for sustainability at various levels. Planning and optimizing resources are essential to ensuring high-quality experiences while preserving cultural and environmental values. Currently, digital technologies play a crucial role in this process, driving disruptive changes within the tourism sector. Smart tourism destinations leverage a variety of technologies to create, manage, and deliver services, characterized by intense information exchange and value co-creation. However, deploying these smart destinations is a complex and long-term endeavor that requires technological innovation and involvement of various destination's stakeholders. This study analyzes best practices from smart tourism destinations recognized by the European Commission over the past six years, highlighting areas of development, types of tourism promoted, and technological innovation. The analysis emphasizes key development areas and tourism modalities, exploring examples of leading cities in urban transformation. Cities such as Bordeaux, Gothenburg, and Seville stand out for their environmental policies, while cities like Málaga and Valencia integrate economic and social concerns into their sustainability practices. These practices are more relevant in coastal cities, which face greater ecological challenges due to the sensitivity of their ecosystems. Technological innovation also plays a central role in smart tourism destinations. Most cities employ digital platforms, social networks, and mobile applications to promote their destinations and enhance visitor experience. Cities like Helsinki, Florence, and Porto have adopted innovative technologies for resource management, ranging from sensors to Artificial Intelligence, strengthening their capacity to manage tourism sustainably. However, innovation extends beyond technology; cities such as Grosseto and San Sebastian have focused on process and service innovation, promoting practices like slow tourism, which aligns with environmental preservation. Another key pillar is accessibility and inclusion. Valencia and Dublin stand out for creating infrastructures that accommodate individuals with reduced mobility and special cognitive needs. Mobility is also a priority in some cities, with the adoption of sustainable transportation systems such as bicycle networks and electric vehicles. However, stakeholder involvement, both from the public and private sectors, remains limited in most cities. The ones that report active stakeholder participation, such as Valencia and Lyon, tend to engage local communities more effectively in their projects, thereby strengthening sustainable tourism and collaborative governance. The study provides a practical and theoretical framework for developing smarter, more sustainable, and competitive tourism destinations, that deliver high-quality experiences to visitors while benefiting local communities. However, it also emphasizes the need for greater clarity and consistency

in the available data for evaluation purposes, as well the need for a more global approach that can include destinations outside Europe. These improvements would enrich the analyzed practices and offer a more comprehensive insight.

Human capital, well-being and territory: Insights from a two-decade bibliometric study

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In nowadays' societies characterised by uneven economic, social, and environmental dynamics, the interplay between human capital, well-being, and quality of life has gained more importance in development studies and public policy. This study presents a bibliometric/literature review of these interlinked concepts ("human capital" AND "well-being" OR "quality of life" AND territory), focusing on their connection to territory, based on publications from Scopus and Web of Science between 2002 to 2024.

The study employs bibliometric techniques to analyze publication trends, keyword co-occurrence and geographical distribution. This methodology provides insights into how these concepts have evolved, revealing contributions from key authors and countries. The analysis aims to highlight trends in publication activity, underscoring the impact of territorial factors on human capital and well-being.

Additionally, the research identifies existing gaps in the literature, suggesting areas for future inquiry. By synthesizing the existing literature and pinpointing key trends, this work contributes to a deeper understanding of the connections between these concepts and their implications for effective policy-making. Ultimately, could serves as a resource for stakeholders seeking to foster sustainable development and improve quality of life through targeted interventions that consider the complex relationships among human capital, well-being, and territory.

Despre influența structurii confesionale asupra migrațiilor internaționale ale populației din Moldova

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În ultimii ani, migrațiile internaționale ale concetățenilor noștri au devenit o realitate banală. Chiar înainte de a trece pragul aderării la Uniunea Europeană, românii au

învăţat ce anume reprezintă, spre ce tinde şi mai ales cum funcţionează Europa actuală, Europa bogată, atât de jinduită, dar şi atât de pretenţioasă. Însă, acest act al învăţării nu a survenit pe o cale clasică, eventual didactico – teoretică, ci pe una empirică, în care locul sălilor de clasă ori cel al sofisticatelor conferinţe politicianiste a cedat întâietatea activităţilor economice concrete desfăşurate de români în Occident, după 1989. Până acum, adaptarea, aducerea la acelaşi numitor, a necesitat nu atât exerciţii intelectuale şi demersuri academice, cât, mai ales, efort fizic şi consum nervos.

Gratificaţi de mass-media actuală cu titulaturi oarecum peiorative - „căpşunari”, „italieni” sau „voiajori” - aceşti migranţi joacă un rol important pe scena societăţii româneşti şi anume acela de catalizator al integrării ţării noastre într-un sistem dovedit a fi funcţional, cel puţin din punct de vedere economic. Mai mult decât oricine şi orice, ei au constituit liantul care ne-a legat de Vest în aceşti ani; ei au format „sursa” şi „conducta” prin care bunăstarea s-a scurs, în atât de multe cazuri, dinspre ticsitul buzunar european spre încăpătorul chimir autohton. În România ultimilor ani unchiul bogat din America s-a multiplicat în milioane de exemplare.

În fapt, s-a trecut destul de brusc de la o circulaţie cvaziinternă, impusă de limitarea politică a deplasărilor în cadrul unui spaţiu confinat (cu o orientare predominantă sat-orăş), la o structură total diferită, în care principalul element de noutate îl reprezintă (re)activarea fluxurilor cu destinaţii internaţionale. Mai mult, profilarea acestui val de emigraţie s-a realizat cu o forţă incomparabil superioară oricărui precedent în plan naţional. Odată însuşit, acest tip de comportament migratoriu tinde să devină, mai ales după anul 2000, unul dintre cele mai definitorii fenomene social-economice manifestate în România actuală.

În tot acest context, dimensiunea şi orientarea fluxurilor migratorii s-a realizat după o logică proprie, în care particlularităţile confesionale ale populaţiei implicate joacă un rol surprinzător de important.

Flashiness of mountain streams using hydro-geomorphological parameters

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Climate change and anthropogenic activities can alter the streamflow regime by modifying critical elements of the flow regime. The aim of this work is to determine, by means of characteristic indices of rates of change and variability, the stage of alteration of the streamflow regime in a mountain catchment. On the basis of the daily mean streamflow, recorded over the period 1994-2020, a series of hydrological indices (Richards-Baker flashiness index, coefficient of variation, k index) were quantified, by

means of which the rates of change and variability of the flow can be assessed. The results obtained show that the temporal and spatial variation of the streamflow is mainly due to natural causes, such as climatic variability and some geomorphological characteristics of the drainage basins. Thus, a clear positive correlation was observed between the Richards-Baker flashiness index and the magnitude of flood events. In the longitudinal profile, an increase in the mean values of Richards-Baker flashiness index was observed, indicating a higher variability of streamflows downstream. The higher Richards-Baker flashiness index values in the lower reaches were reflected in changes in the river channel, particularly after 2004.

Mapping urban sprawl's footprint. A spatio-temporal balance between built environment and vegetation in Iași periurban area

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Urban expansion and its impact on vegetation cover represent a critical challenge in sustainable urban development worldwide. As cities grow, the advancement of built-up areas often reduces vegetative surfaces, reflected in declining Normalized Difference Vegetation Index (NDVI) values. This phenomenon alters local ecosystems and affects urban microclimates and the quality of life. This study investigates the relationship between vegetation cover reduction concomitant to built-up space expansion in urban and periurban areas of Iași Municipality, Romania. Using Landsat imagery and Global Human Settlement Layer (GHSL) data, we analyze the evolution of NDVI over 40 years and built-up area changes over 50 years, respectively. We visualize spatio-temporal patterns through the space-time cube method, followed by time-series clustering analysis to identify distinct evolutionary trends. The resulting classes represent different trajectories of vegetation and urban development. By comparing key inflection points in these trends, we confirm urban sprawl, lack of coherent and integrated regulations for new housing estates, and insufficient environmental protection areas as driving forces that decrease the vegetation cover extent. Periurban areas that remained green or unbuilt are legally protected areas, slopes used for vineyard cultivation, land plots belonging to heritage institutions, or plots that are more suitable for agriculture.

Minutes matter: A Bibliometric Exploration of x-minute cities and beyond

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The concept of the "x-Minute City" has gained significant traction as a model for urban planning aimed at enhancing accessibility and sustainability by ensuring essential services are reachable within a reasonable time walk or bike ride. This bibliometric analysis examines the scholarly literature surrounding the urban accessibility paradigm to expose publication trends, author contributions, and citation patterns. Our analysis encompasses around 4000 scholarly articles sourced from WoS databases, highlighting key themes such as urban mobility, spatial equity, environmental sustainability, and social cohesion. The results reveal a marked increase in publications over the past five years, reflective of a growing global interest in sustainable urban development amid rising concerns over climate change and urbanization. Furthermore, we explore the evolving theoretical frameworks and methodologies employed in the field, underscoring the intersections between practical implementations of 15-Minute City principles and policy implications. From these setting we delve further to analyse if there is any ideology associated with the way cities are planned towards sustainability, and what are possible effects.

Tourism, heritage and biodiversity in Sighisoara

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The purpose of this paper is to analyze the symbiotic relationship between the tourism phenomenon and the preservation of the concept of heritage today. Tourism has never worked better, faster and more effectively and aggressively as a social element of action on heritage than in this early 21st century. The tourism system (tourism actors, places and financial function) contributes to the production of a new heritage system (heritage sites, practices and actors) that functions according to its own needs in a world of free traffic and generalized mobility. Nothing seems to prevent the "tourism machine", the heritage one in particular, from producing more and more effects on the existing heritage, on various artefacts. Heritage is thus identified as one of the main factors in the evolution of tourism. Further studies also support the idea that tourism affects biodiversity and the human-nature relationship, mostly negatively. Any form of tourism has an impact on heritage elements and on the environment. Our mission is to diminish the negative effect and enhance the beneficial one. A direct reference was preferred to a Romanian heritage city-citadel, namely Sighisoara, for a better example.

Pourquoi un atlas de la francophonie universitaire en Europe Centrale et Orientale ?

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L'essoufflement de la Francophonie universitaire, et de la Francophonie en général, est un phénomène aux causes multiples et aux conséquences profondes. Notre communication s'appuie sur une recherche menée dans le cadre d'un projet cofinancé par l'AUF - Agence Universitaire de la Francophonie, à savoir l' „Atlas. 30 de francophonie universitaire en Europe Centrale et Orientale”, publié cette année par la maison d'Édition de l'Université “Alexandru Ioan Cuza” de Iași.

Dans le contexte de la crise actuelle de la francophonie en tant qu'univers linguistique, les réflexions générées par le travail sur cet atlas abordent des questions liées au patrimoine culturel des sociétés de la moitié orientale de l'Europe, à l'importance de la langue française dans la dynamique culturelle du monde et à la géostratégie institutionnelle des universités par rapport à cette ressource.

En tant qu'étude de cas, notre article synthétise la contribution essentielle du monde culturel français à la construction de la géographie postmoderne, qui est devenue le principal véhicule de l'américanisation de la géographie mondiale.

Using bioclimatic indicators to assess climate change impacts on the Transilvanian terroir

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This study provides a comprehensive assessment of the impacts of climate change on the Transilvanian terroir, employing a detailed analysis of bioclimatic indicators to capture shifts in climatic patterns over an extended time frame. Daily climate data, spanning the period from 1951 to 2023 (FORESEE v.4. database), was analyzed using Climapact software, allowing for the computation of a wide range of bioclimatic indices at a 0.1° x 0.1° spatial resolution for the entire Transilvanian region. The indicators selected for this study—Growing Degree Days (GDD), Growing Season Length (GSL), Consecutive Dry Days (CDD) and Frost Days (FD)—offer critical insights into

how evolving climatic conditions are affecting agriculture, with a particular focus on viticulture, one of the region's most climate-sensitive sectors.

In addition to calculating these bioclimatic indices, we performed a detailed trend analysis and applied significance testing to determine the magnitude and statistical relevance of observed changes in climate patterns. This approach enabled us to quantify both the long-term trends and their implications for the region's agricultural potential. The results of the analysis indicate significant warming trends throughout the region, most notably an increase in GDD and GSL, alongside a sharp decline in the number of Frost Days, which collectively signal profound changes in the length and quality of the growing season. These changes are particularly relevant for viticulture, where even slight variations in temperature and growing conditions can have a pronounced effect on grape quality and, consequently, wine production.

Furthermore, the study highlights an increasing tendency toward aridity, with prolonged dry periods, especially in specific subregions of Transylvania. These trends raise substantial concerns regarding water availability for agriculture, a key factor in maintaining the sustainability of crops and the long-term viability of the region's terroir. The marked changes in bioclimatic conditions observed in this study suggest a potential need for adaptation strategies in agricultural management, particularly concerning water conservation, crop diversification, and the possible introduction of more drought-tolerant crop varieties.

In conclusion, the findings underscore the value of using bioclimatic indicators in combination with trend analysis to assess the impacts of climate change on agricultural landscapes. This research offers essential insights for future adaptation strategies and policy planning, ensuring the sustainable management of Transylvania's agricultural potential in the face of accelerating climate change.

Air Quality Assessment in Cluj-Napoca: Six-Month Analysis of Pollution Patterns

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In the context of increasing concerns about air quality and its impact on public health, this study aims to assess air pollution levels and their potential correlation with various environmental and human activity patterns in Cluj-Napoca. Specifically, we monitored the air quality for six months in the Mănăştur neighborhood, a densely populated area, using 8 uRADMonitor A3 devices. monitoring Temperature, Relative Humidity, Volatile Organic Compounds (VOC), Formaldehyde, Ozone, Particulate Matter (PM1, PM2.5, PM10), and Carbon Dioxide (CO2).

Our primary objective was to identify peak moments of air pollution and explore potential variations between weekday versus weekend variations, and local traffic patterns and the spatial differences in air pollutant concentration but also any significant spatial differences between measurement locations.

The results indicate that there are no significant spatial differences in air quality between the seven monitoring stations, despite their geographical spread within the neighborhood. Similarly, the temporal variations in pollution levels across different times of day and days of the week showed no consistent or significant trends. While peak daily pollution moments were observed, particularly for particulate matter and VOCs, they did not align clearly with any specific climatic or human activity patterns.

These findings suggest that air pollution in Mănăştur is relatively homogeneous across the area and does not fluctuate dramatically. This raises important questions regarding the sources of pollution and potential mitigation strategies. Further research is needed to explore long-term trends and potential external influences on air pollution in Cluj-Napoca.

Fenomenele de iarnă în contextul schimbărilor climatice: O analiză bibliometrică a literaturii științifice

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Cercetarea bibliometrică oferă o analiză transparentă, sistematică și reproductibilă a literaturii științifice dintr-un anumit domeniu. Ea urmărește să contribuie la o mai bună înțelegere a mecanismului cercetării științifice și poate furniza informații despre structura intelectuală și cadrul conceptual al lucrărilor. Cu ajutorul acestor metode, sunt identificate trei tipuri de indicatori bibliometrici: indicatori de calitate, indicatori de cantitate și indicatori structurali. Lucrarea prezintă o analiză bibliometrică a studiilor privind fenomenele meteorologice extreme și poluarea atmosferică în contextul schimbărilor climatice, utilizând pachetul bibliometrix din software-ul statistic R. Prin această metodă, s-a putut cartă cu precizie distribuția geografică a studiilor din domeniu și s-au identificat cele mai importante centre de cercetare, jurnale științifice și cercetători la nivel internațional, precum și relațiile dintre aceștia. De asemenea, analiza a permis identificarea celor mai relevante subiecte științifice, abordări metodologice, studii și lucrări de referință din domeniu.

Exploring the link between circular economy behaviours and resilience in rural and urban communities

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The recent discourse on resilience has highlighted its significance at regional, but also, individual, and community levels, prompting discussions on the drivers of resilience capacity across various systems. This study employed a cross-sectional survey methodology to investigate the relationship between circular economy behaviours and resilience among individuals and communities in a national context. The survey targeted a representative sample of over 1200 respondents from Romania, ensuring a balanced representation of both rural and urban areas, as well as across age groups, gender, and regions. The findings of this study reveal a significant positive correlation between engagement in circular economy behaviours and individual resilience scores. Furthermore, the analysis highlighted notable differences between rural and urban respondents, which raised the question of the access to dedicated resources and infrastructure, as main drivers of circular behaviours. In contrast, rural respondents were more likely to engage in informal circular practices, such as reusing materials and reducing waste, driven by economic necessity and a closer connection to natural resources.

Microclimatic changes induced by newly developed residential areas. Case study: Iași city

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Currently, urban regions worldwide are increasingly facing the challenge of adapting to extremely dynamic metropolitan growth. This paper examines the impact of climate change on new residential areas within this context. The study addresses urban expansion and its effects on the urban microclimate, particularly through the

urban heat island phenomenon. Using the ENVI-met microclimatic modeling software, the research compares the microclimate of the area before urbanization, when it was predominantly covered with vegetation, with the current state, where the land is dominated by residential buildings.

The methodology involves simulating microclimatic conditions based on real climate data, analyzing the effects of construction materials, such as asphalt and concrete, on air temperature and thermal discomfort. The results demonstrate that vegetation plays a crucial role in reducing high temperatures, while low-albedo materials like asphalt exacerbate the urban heat island effect. The simulations show significant temperature variations between vegetated areas and densely built environments.

The study underscores the need for mitigation strategies, such as increasing green spaces and using reflective materials, to reduce thermal discomfort and improve the quality of the urban environment. The paper provides recommendations for sustainable urban development, highlighting the importance of planning to create healthier urban spaces.

Inclusive nature-based solutions. A European perspective

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Nature-based solutions (NbS) have multiple benefits, such as better environmental quality, economic growth, and social cohesion. However, they can create uneven landscapes when the interests of marginalized groups are not considered. This questions the issue of NbS's inclusivity, which is underrepresented within the NbS literature.

As part of a comprehensive project on inclusive climate actions for nature-based solutions, this study presents a thorough review of the literature on inclusive NbS in European cities. We meticulously searched for academic literature published in the Web of Science and Scopus databases, developing a search string that spans both environmental and social domains.

The revised literature is organized into criteria that support inclusive NbS (such as co-design), barriers, and enablers for inclusive NbS. European case studies of NbS are then examined to sketch lessons that can be learned for inclusive urban NbS practices.

We further discuss the key parameters that characterize inclusive NbS and their importance in supporting a larger focus on community involvement and institutional resilience.

Multi-criteria mapping of plastic pollution: anAHP approach

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Since the 1950s, the increased reliance on plastic materials has led to a notable surge in waste production, particularly from PET plastics. Romania's waste management systems have not yet aligned with European standards, resulting in significant illegal dumping of PET bottles that contaminate rivers and lakes. This study focuses on PET pollution within the Bistrița River basin in Romania's Eastern Carpathians. Using the Analytic Hierarchy Process (AHP), key areas of PET waste generation and accumulation were identified. Results indicate that villages close to rivers are the primary sources of PET waste. PET accumulation is predominantly observed in vegetated areas, near dammed reservoirs, and along rivers. The analysis further identified river valleys, terminal wetlands, and shrub-covered floodplains as zones highly vulnerable to PET buildup. Artificial lakes, due to damming, also show a high potential for waste accumulation. The AHP analysis revealed that 1.4% of the area has a very high susceptibility to PET pollution, while 5.3% shows high susceptibility. The remaining areas have a lower risk of PET accumulation, largely due to the population density along the main river and the widespread natural vegetation across the rest of the basin.

Visualizing a sustainable energy future in Romania

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The European Union's energy policy underlines the importance of green and clean energy in combating global warming and preventing climate change, encouraging mutual cooperation in the areas of renewable energy, in order to increase the security of energy systems and the stability of supply. Romania is ready to assume the role of energy hub and stability provider in South-Eastern Europe, having all the necessary resources, from solar and wind power to nuclear power and geothermal sources (Koltsaklis et al. 2020; Filis and Leal-Arcas, 2023; Spiru, 2023). This article aims to provide recent perspectives on the use of renewable energies in Romania and to evaluate the impact of European funds on Romania's performance in terms of increasing the share of renewable sources in energy production, using the data provided by Eurostat and by the Romanian institutions that monitor the energy sector and deal with the implementation of European policies. The article also investigates the perception of Romanian citizens, compared to European ones, towards the efforts made to achieve energy objectives by 2050. Public perception is assessed taking into

account the results of Eurobarometers 527 and 538 achieved in 2022 and 2023. The conclusions show that Romania's performance in terms of increasing the share of renewable energy sources places it among the leaders at regional level, as installed power and funds attracted in this field, but the level of involvement and concern of Romanian citizens towards the topic of climate change and energy transition is moderate, often below the European average.

The use of Sentinel-2 for forest analysis through vegetation and biophysical indices

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Forest ecosystems play a crucial role in maintaining biodiversity and supporting various ecological functions. Monitoring forest health and dynamics is essential for sustainable management and conservation efforts. This study investigates the application of Sentinel-2 satellite imagery to assess forest ecosystem dynamics through the use of vegetation and biophysical indices. The Sentinel-2 mission, operated by the European Space Agency (ESA), provides high-resolution optical imagery that has proven highly effective for forest analysis. This satellite system, equipped with a multispectral sensor capable of capturing 13 spectral bands, facilitates the detailed assessment of forests by enabling the calculation of various vegetation and biophysical indices. By using high-resolution multispectral data from Sentinel-2 satellite, such as Normalized Difference Vegetation Index (NDVI) and Leaf Area Index (LAI) were used to evaluate the vegetation, canopy density, and forest structure. NDVI is extensively applied for assessing vegetation density and health by measuring the difference between near-infrared (NIR) and red reflectance. LAI, an indicator of canopy cover, is essential for understanding forest productivity, carbon cycling, and transpiration processes. Biophysical parameters, including fractional vegetation cover and leaf chlorophyll content, were also calculated to provide more information into forest vitality and stress responses. The integration of these indices enabled the detection of spatial and temporal changes in Putna Vrancea Natural Park. Results demonstrate that vegetation and biophysical indices derived from Sentinel-2 data, offers a powerful tool for monitoring forest conditions, supporting conservation planning. This study highlights the importance of satellite-based approaches in understanding and protecting forest ecosystems in the face of environmental changes.

Hydrological regime of the internal rivers of the Southern Development Region of the Republic of Moldova

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The research study is dedicated to evaluation of hydrological regime of the internal rivers of the Southern Development Region (SDR) of the Republic of Moldova. Main used approach is statistical analysis of time series of long duration as well as comparison and synthesis of results. Monitoring of internal rivers of SDR began in 50s-60s of the last century on Botna, Cogalnic and Taraclia, and from the end of 70s on Salcia Mare and Lunga. Most of observation stations were closed 10-15 years ago, except the one on Botna. Thus, the average flow of the Botna River is 0.77 m³/s, Cogalnic - 0.26 m³/s, the Salcia Mare – 0,33 m³/s, the Lunga - 0.13 m³/s. Tendency of average flow is decreasing for all rivers except Botna. Main water resources are formed in the spring period followed by those from summer, winter and autumn seasons. Analysis of minimum flows shows that all monitored rivers dry out in summer periods, during extremely high temperatures. Such situation is characteristic for last decades of monitoring when climate change influence is growing. Maximal registered discharges of the Botna River is 104 m³/s, Cogalnic – 21,7 m³/s, the Salcia Mare – 27,7 m³/s, the Lunga – 33,2 m³/s. The floods are mainly of pluvial origin, those of generated by snowmelt were predominant in the '60-80 of the last century. Overall, at present, the internal rivers of the SDR are not monitored, being difficult to evaluate real actual situation of flow for the last decades.

The impact of the Covid pandemic on the tourist experience in the hotels of Iasi city

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The Covid pandemic has had a huge impact on tourism and it is still influencing the tourist services and experience. The post-pandemic recovery of this sector is facing spatial variations and brings up new challenges, such as sustainable tourism practices, labor shortages, air transport capacity and the increasing travel demand, the growing geopolitical and environmental risks or the impact of new digital technologies. In this context, the tourist demand and experience have been significantly changing, influenced and influencing the tourist offer. Tourists are increasingly looking for authentic and meaningful, personalized travel experiences. They pay a lot more attention to security and health risks, to flexible travel planning. As for the city of Iasi, the tourism sector seems to have already recovered in 2023, when the number of

visitors overcame with 23000 the values of 2019. This was due to several factors, one of them being the beginning of the war in Ukraine, followed by the proximity of the border with the Republic of Moldova or Iasi's designation as Romanian destination of the year in 2022.

This research is aimed to analyze the main changes in the tourist experiences of accommodation services in the city of Iasi after the Covid pandemic. We used data collected from two main sources: tourist reviews posted online on Booking.com and insights from mystery client visits in three selected hotels. Given their central location and service quality, hotels are the main accommodation choice for the tourists visiting the city of Iasi (about 80 %). Therefore, we chose as case-study 3 hotels that are representative for different quality and comfort levels, i.e.: Pleiada (the only 5 stars hotel in Iasi), Unirea (an iconic 4 stars hotel centrally positioned) and Astoria (a newer 3 stars hotel). We compared the tourist reviews before the pandemic with the reviews after the pandemic in order to find out the main changes in the visitors' perceptions.

The study results revealed valuable information regarding the hotels' management strategies to maintain and increase their customers during and after the pandemic. The mystery client visits showed that the safety procedures imposed by the pandemic regulations were respected and clearly communicated since the hotel entrance and reception. Daily room cleaning was provided in all three hotels on demand.

But more nuanced and in-depth information was collected from the customer reviews posted on Booking.com. It is known that online reviews (especially from key accommodation platforms) are extremely powerful in influencing the hotels' image, shaping the future clients' perceptions, choices and behaviour. They strongly influence the hotels marketing and management strategies. In the case of the 3 stars hotel, tourists experiences before the pandemic were mostly positive and focused on the hotel staff (appreciating their welcoming attitude, their knowledge and recommendations for the city visits), on the room (i.e. comfort aspects such as room size and cleaning, new furniture, modern design, minibar and safety box, coffee maker etc), hotel location (having easy access to the main tourist attractions) and breakfast quality. After the pandemics, the tourist reviews were mainly negative and more focused on the sanitary aspect and health risks, e.g.: noise, dirty, unsanitary, smell, bathroom etc. They indicate an obvious decline of the tourist experience quality provided by the hotel.

In the 4 stars hotel analyzed, the pre-pandemic reviews were also mostly positive and focused on the same room comfort, staff as well as the breakfast quality and variety. After the pandemic, the tourist reviews have significantly changed, with a strong focus on cleanliness of bathrooms, pillows, linens or hallways. Another aspect is linked to working conditions, as the case study hotel rented rooms for remote working during the pandemic.

At the 5 stars hotel, pre-pandemic customer reviews strongly highlighted the spa facilities and the 5 stars label, followed by the same items revealed for the other hotels, i.e. room, staff, breakfast and location. After the pandemics, the spa facilities remained the key focus and with positive reviews (even despite the pool crowding) and there is more attention to room cleanliness. But overall, the reviews remain mostly positive, indicating a good management.

In conclusion, after the pandemic, the hotel customers reviews highlight major changes in the tourists' accommodation experiences, in their needs and behaviour. There is a much stronger focus on healthy issues such as cleanliness of bathrooms and rooms. However, there is a difference between the category of hotels: the strongest changes are visible in the 3 stars hotels, where the tourist's appreciations generally decline, indicating a stronger need for hotel management improvement. On the other hand, in the 5 stars hotel the positive tourists' perceptions remained, showing that management have better kept up with the evolution of their customer' needs. Therefore, the focus remained directed on comfort facilities such as spa, parking etc.

These results are very useful for hotel and destination managers. They are a powerful and up to date indicator of a hotel's evolution in terms of service quality and perceived image, thus contributing to the improvement of internal management and customer service. It is clear that hotels need to change their products and image strategies in line with the continuously evolving tourist market and their customer needs.

Conducting the 2024 Population and Housing Census in the Republic of Moldova: methodology, innovation and geographic applicability

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In the current territory of the Republic of Moldova, population censuses took place starting from 1897 (within the Russian Empire), then 1930 (within Romania) and during the existence of the MSSR within the USSR (1959, 1970, 1979, 1989). Since independence, three censuses have been carried out: 2004, 2014 and 2024. The last census took place between April 8 and July 7, 2024. It presents major differences in terms of the methodology applied, the way of data collection, the extended period and by the involvement of knowledge in the field of geographical sciences. The purpose of the census is to provide information of public interest on population and housing for the development, monitoring and evaluation of policies, the argumentation of human development decisions, scientific research and the development of the business environment. The organization and realization of the census is a complex research process involving knowledge and expertise from various scientific fields, and its results represent one of the main sources of research into demographic, but also socio-

economic and other characteristics, useful both for the academic environment and local or national policies. In principle, the census data is a visiting card of each country or region, with applicability starting from geography school textbooks up to the creation of relevant atlases and cartographic materials on every aspect of the structure and distribution of the population. In perspective, with the passage of time, the census data do not lose their importance, but they serve for comparative analyzes in chrono-spatial terms of the evolution of the population and its components, both at the general level and in detail at the level of localities and regions.

The methodology applied to the 2024 Population and Housing Census in the Republic of Moldova presents many innovative aspects, which have substantially changed the way data is organized, collected, stored and processed.

For the first time for the censuses in the Republic of Moldova, GIS technologies were widely used to prepare the review base at the level of sectors, buildings and dwellings. The entire territory was georeferenced and sectorized, using modern technologies, satellite map data. The CSPro application was used for the census, the methodology recommended by the UN and EU organizations. The interview took place on electronic devices (tablets) with direct data storage on the census server through the CAPI (Computer-Assisted Personal Interviewing) method. For this purpose, but also to ensure maximum coverage, the data collection period was extended to 3 months. At the preparation stage, but also for data processing, administrative data were also used. The staff trained in reviewing was reduced to approx. 5000 compared to approx. 14,500 in the 2014 census. The environmental impact of using digital technologies is including the saving of tens of tons of paper that would have been used for surveys.

The particularities of data collection and monitoring ensure the increase of the quality of the collected data because the data can only be collected on site, at a maximum distance of 150 meters, and the monitoring is in real time. The use of GIS technologies allows the dissemination of data at any level of geographic detail, provided that statistical confidentiality rules are respected. For the 2024 Census, 7,857 Census Sectors were delineated and grouped into 3,885 tasks for reviewers.

The development of questionnaires for the census also presents an innovative approach, being adapted to the digital process of information collection. Classifiers were created and applied to ensure the best possible quality of data regarding the structure of the population by level of education, ethnicities, languages, religions, occupations, economic activities, citizenship, place of birth, etc. This whole process was widely consulted with international and national experts, academia, central and local public authorities, civil society. The involvement of knowledge in the geographical field was indispensable both through the application of GIS technologies and sectorization in the territory, as well as the geography of the population and settlements in terms of methodology, population categories, migration aspects, ethnic, linguistic, confessional structure, by sex and groups of age, territorial distribution, etc.

When processing data, the contribution of geography is equally significant, for the analysis of all particularities, the detection and correction of errors and the territorial dissemination of data.

From the demographic perspective, the census has an extremely importance regarding the planning and provision of development policies and programs useful to citizens' needs for sustainable development, also representing one of the main requirements in the context of pre-accession to the European Union.

Aspects regarding the transport infrastructure in the southern region of the Republic of Moldova

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The transport sector and its related infrastructure are of particular importance for the development of all branches of the economy, as well as the mobility of goods and the population in general. For the Republic of Moldova and the southern region in particular, we can distinguish the following types of transport: road, rail, air and fluvial. The southern region of the Republic of Moldova includes the Gagauzia Autonomous Territorial Unit and the districts of Cahul, Cantemir, Leova, Cimișlia, Basarabeasca, Taraclia, Căușeni and Ștefan Vodă, which are included in the Southern Development Region. The total area of the southern region is 9227 km², and the population with usual residence in 2024 is 439062 inhabitants. It is the smallest and least populated region, compared to the center and north of the Republic of Moldova. The territorial unity of this region from a historical, geographical, socio-economic and ethno-cultural point of view is affected by the fragmentation into several administrative units, especially regarding the UTA Gagauzia, but also due to the annexation of historical southern Moldova to Ukraine. The southern region borders Romania to the west and Ukraine to the south and east. Transport infrastructure is indispensable for regional development and ensuring the mobility of goods and people, playing an important role for each locality and region. Compared to the area and the number of population according to international standards, we can consider that the southern region of the Republic of Moldova is provided with a sufficient transport infrastructure. The problem, however, lies in the state of the infrastructure, which is generally poor, as well as faulty logistics. The road, rail and fluvial transport network is conditioned by the geographical conditions of relief and hydrography, the density of localities and population, as well as the existing economic activities. In the southern region, the length of the road network is 2,545 km, of which 2,380 km are hard surfaced. Of these, 1669 km are national roads and 877 km are local roads. To these are added the access roads inside the settlements.

Apart from the national level connections of the southern region, which is achieved through the Development Region Centre to the north direction, this region has a wide cross-border opening to Ukraine to the south and east, as well as to Romania to the west.

The main type of transport, which prevails for both freight and passenger transport, is the road transportation. Within the region there are 230,251 motor vehicles, of which 135,237 are passenger cars. Rail transport is represented by several sections on the Căușeni-Basarabeasca-Giurgiulești direction with the Basarabeasca-Cantemir-Cahul-Giurgiulești branch. The railway infrastructure is poorly developed and maintained, having been in deep crisis in recent years, and serves the region only for freight transport at present. River waterways exist on the lower course of the Dniester and the Prut, but they are exploited extremely little. Within the region, there is also the only port of the Republic of Moldova on the Danube, in Giurgiulesti, which could be used more productively, but is currently affected by the war situation in Ukraine for navigation to the Black Sea. Air transport is currently lacking in the region, although there were a few airports in the past, and those at Cahul and Ceadâr-Lunga still retain runways and infrastructure that could be reanimated. Due to the lack of a regional development policy and the necessary investments, the prospects for the development of air transport are not visible at the moment.

Transport, as a branch of the national economy, plays an important role in regional development. Although the road network is sufficient and accounts for most of the traffic of people and goods, the poor condition of the roads and the motor vehicles represents an impediment to the proper functioning of this sector. Short distances within the southern region require double travel time for these reasons. Rail transport is more oriented towards goods and is in decline, and fluvial transport is almost non-existent as a share in the transport system of the region..

Exploring the impact of Blockchain Technology adoption in the tourism organisations: a systematic literature review

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New technologies are playing a significant role in tourism industry organisations, especially in product innovation and destination competitiveness. Tourism is a labour-intensive sector highly dependent on the human factor and is gradually going through the digitalisation process. Several disruptive technologies have emerged, and Blockchain Technology is one of them, along with Artificial Intelligence, IoT, Machine Learning, etc, integrating Industry 4.0. Implementing Blockchain

Technology is seen as a solution for disintermediation, traceability, and transparency, and has been changing industries worldwide, promoting new business opportunities, innovation and entrepreneurship. Organisations in the tourism sector, due to a lack of knowledge and its costs, tend not to invest in this type of technology. For this study, a systematic literature review was used to analyse 43 publications selected based on search criteria in the Scopus database, which examines the state of the art, identifying important aspects of this technology for businesses in the tourism industry. The study identifies practical and theoretical paths in terms of disintermediation; implementation of technology, types, advantages, and disadvantages of use in tourism industry organisations and destinations, lack of awareness among companies and destinations, as well as lack of Blockchain experts and legislation to increase confidence in the adoption of this technology, as well as specific strategies. It also suggests, for future investigation, an agenda for the tourism industry to adopt this technology, highlighting the need for specialised staff training and awareness-raising among companies.

Implementation of the SMART Village concept in Romania regarding sustainable development and improvement of living quality

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The development and planning of rural areas present a complex problem, which is most often provided by interdisciplinary research. Rural areas face the challenges of demographic change, climate change and the integration of new technologies into the agricultural sector and everyday life. From this point of view, overcoming these challenges requires utilising new approaches to rural planning adapted to individual communities' specificities and needs. In response to these changes, the Smart Village concept has emerged. The concept involves the participation of local people in improving economic, social, and environmental conditions, collaborating with other communities, promoting social innovation, and developing smart village strategies.

The analysis of Smart Villages shows that most of these communities are located close to major Romanian growth and attraction poles such as Bucharest, Iasi and Cluj-Napoca, as well as smaller cities.

Another important factor in the 'smart' development of villages in Romania is to increase the number of jobs to reduce the rural exodus. In this context, the implementation of 'smart' projects to develop the secondary (industrial) and tertiary (services) sectors is important to diversify employment opportunities in the labour market. Thus, increasing the number of jobs in various areas of economic activity will reduce the rural exodus, raise the standard of living close to urban standards and increase the proportion of young people in the rural population.

Exploring the Online Tourist Image on Instagram: A Systematic Literature Review and Descriptive Statistical Analysis

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Instagram has emerged as one of the most influential platforms for shaping and disseminating tourism-related content. Through its highly visual nature, Instagram allows destinations to be portrayed in ways that can significantly impact travelers' perceptions and decision-making processes. This study aims to explore the representation of online tourism images on Instagram by conducting a comprehensive literature review and performing statistical analysis on relevant academic articles. The research provides a foundation for future, more extensive investigations into the relationship between Instagram and the tourism industry.

The research methodology is grounded in a systematic literature search conducted on Web of Science, using the search term "Instagram tourism." The initial pool of articles was subjected to a rigorous selection process based on specific inclusion criteria, including relevance to the research topic, geographic scope, and methodological soundness. The filtering process resulted in a carefully curated dataset of articles that are directly related to Instagram's role in constructing and promoting tourism images.

The selected articles were analyzed using descriptive statistics to provide a detailed understanding of trends and patterns within the existing body of research. Specifically, statistical analysis was employed to examine: Year of Publication: A trend analysis was conducted to identify temporal patterns in the publication of relevant research, revealing a marked increase in studies over the past five years. This growth indicates the rising academic interest in Instagram as a tool for tourism marketing; Authorship and Collaboration Patterns: The authorship of the articles was analyzed to determine collaboration trends, including co-authorship networks, institutional affiliations, and geographic diversity of the researchers involved in this field; Research Methodologies: A statistical breakdown of the research methodologies used in the selected studies was conducted, revealing the predominance of qualitative approaches such as content analysis and case studies. However, a smaller subset of articles utilized quantitative approaches, such as surveys and experimental designs, to measure the impact of Instagram images on tourism behavior. This observation suggests a need for further diversification of methodologies in future research.

Geographic Distribution of Case Studies: A key focus of the analysis was the geographic distribution of the tourism destinations studied in the selected articles. Using mapping software, we created a visual representation of the regions most frequently analyzed in the context of Instagram tourism, with a clear concentration of studies in Europe, North America, and Asia. Destinations in Africa and Latin America were comparatively underrepresented, highlighting a potential area for future research.

The statistical findings are presented in graphical form, offering visual insights into the dataset. For instance, bar charts and line graphs depict trends in publication dates, while network graphs illustrate the co-authorship connections between researchers across different countries. Additionally, a heat map displays the global distribution of the case study locations, clearly showing which regions have received the most academic attention.

The thematic analysis of the literature reveals several recurrent topics, such as the role of influencers, user-generated content (UGC), destination branding, and the impact of visual storytelling on tourists' decision-making processes. Many studies highlight how Instagram users actively co-create destination images by sharing personal experiences, often shaping potential travelers' perceptions. Moreover, the reviewed literature emphasizes the importance of authenticity in UGC, with Instagram acting as a medium through which alternative or lesser-known destinations gain visibility. These findings suggest that Instagram is not only a marketing tool but also a platform where tourists play an active role in constructing and disseminating tourism images.

The study employs various statistical methods to examine the dataset of articles. Descriptive statistics are used to quantify publication trends, author distribution, and methodological diversity. For instance, the frequency of publication years is analyzed using a time series approach to observe the rise in academic interest in Instagram and tourism. In addition to raw counts, percentage distributions provide insights into the proportion of qualitative versus quantitative studies in the literature.

Authorship analysis is supported by network analysis techniques, identifying clusters of researchers and examining patterns of co-authorship between individuals from different geographic regions. This network analysis is visualized through node-link diagrams that reveal connections between institutions and cross-border collaborations.

Regarding research methodologies, the article classification is presented using pie charts and histograms to compare the proportion of qualitative (e.g., content analysis, case studies) versus quantitative (e.g., surveys, experiments) methods employed in these studies. This analysis provides a clear picture of methodological trends and underscores the need for more balanced approaches in future research.

The geographic distribution of case studies is analyzed through spatial statistics, identifying regions that are over- or under-represented in the literature. The spatial analysis is visualized through a heat map, which displays the concentration of research on destinations in Europe and Asia, while underlining the need for more studies focused on emerging markets such as Africa and Latin America.

Incorporating graphical results adds a visual layer to the analysis, making it easier to understand the scope and gaps within the existing research. These visuals serve not only to support the findings but also to provide a foundation for future studies to build upon, particularly in areas where geographic or thematic gaps exist.

The results of this literature review and statistical analysis reveal several gaps in the existing body of research. Most notably, the underrepresentation of certain geographic regions suggests a need for further exploration into how Instagram shapes tourism perceptions in less-studied areas. Additionally, the predominance of qualitative research methods points to an opportunity for future studies to incorporate more robust quantitative approaches, including big data analytics, machine learning, and sentiment analysis of Instagram posts to better understand how tourism images are perceived and shared on a large scale.

As a foundational study, this research sets the stage for broader investigations into Instagram's role in tourism marketing, traveler decision-making, and destination branding. Future studies could build on this work by exploring new themes, such as the role of emerging technologies like augmented reality in shaping Instagram-based tourism content, or by conducting cross-cultural comparisons of how tourism images are constructed and interpreted in different regions. Furthermore, longitudinal studies could examine how the representation of tourism destinations on Instagram evolves over time, particularly in the context of global events such as the COVID-19 pandemic.

This systematic literature review and descriptive statistical analysis provide a detailed exploration of the current state of research on the role of Instagram in shaping online tourism images. By identifying key trends, gaps, and areas for future exploration, this study offers a comprehensive foundation for future research in this rapidly evolving field. Instagram continues to play a transformative role in the tourism industry, influencing not only how destinations are marketed but also how they are perceived and experienced by travelers. As such, the findings of this study hold valuable implications for academics, practitioners, and policymakers alike, highlighting the need for continued interdisciplinary research that spans media studies, tourism management, and geography.

Landslide dams in the Eastern Carpathians: Contribution to the upcoming European database

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Landslide dams are natural blockages of river channels caused by slope failures. In Romania, the region's most susceptible to landslide dam formation are located in the Eastern Carpathians, particularly within the Flysch Belt (Outer Eastern Carpathians). This area is characterized by a combination of specific lithological features, rainfall conditions, and rugged topography, which contribute to frequent slope failures,

including landslides, rockslides, and debris flows. In some cases, stable landslide dams give rise to impoundments (landslide-dammed lakes) that may persist for decades (e.g., Cujdel Lake) or even centuries (e.g., Red Lake). This study investigates the spatial distribution of 25 landslide dams in the Eastern Carpathians and describes the triggering factors of slope failure, as well as the morphological and hydrological relationships between the dams and their associated impoundments. It also examines the failure mechanisms of those landslide dams that have breached. The findings aim to address data gaps in the Eastern Carpathians, enhancing our understanding of landslide dam formation and its impacts across the mountainous regions of the country. Furthermore, the results will contribute to the forthcoming European landslide dam database, which will be featured in the planned Springer volume "Landslide dams around the World." The chapter on "Landslide dams in Europe" will compile data from both previously published inventories and unpublished sources, enriching the overall understanding of landslide dams across the continent. Moreover, while extensive landslide dam databases exist for countries such as Austria, Italy, Norway, and Switzerland, this research, along with new data from other landslide-prone areas of the Carpathians in Poland, the Czech Republic, Slovakia, Hungary, and Ukraine, will provide valuable insights. This effort aims to balance the knowledge of this topic in the Central-Eastern region of Europe compared to other regions, such as Scandinavia and the Alps.

Les réseaux urbains de tramway en Roumanie: de l'histoire à l'avenir

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Le tramway est un moyen de transport écologique présent dans le paysage urbain de Roumanie depuis plus d'un siècle. Au début du XXème siècle, le tram à traction électrique est introduit dans les principales villes du pays. Après avoir subi de plein fouet les effets de la Seconde Guerre mondiale, le tramway roumain a redémarré en raison de la mobilité croissante de la population urbaine, imposée par le processus d'industrialisation nationale. Actuellement, le tramway tend à redevenir un moyen de transport privilégié dans le contexte européen de réduction de la pollution liées au trafic urbain. Un système de transport public efficace et compétitif est un élément clé dans le programme de développement durable d'une ville. Cette étude vise à présenter et analyser, à partir d'une approche diachronique et quantitative, l'évolution et les caractéristiques des réseaux de tramway dans les centres urbains du pays, afin de comparer le degré d'expansion de ces réseaux entre les villes roumaines et par rapport à l'autobus comme mode de transport concurrentiel. Différents indicateurs synthétiques ont été calculés en relation avec l'évolution de la démographie urbaine, les résultats étant amplement représentées de manière graphique. De plus, l'étude

essaie de saisir la manière où le tramway s'intègre dans le rythme de la vie sociale et économique à travers les projets de modernisation du transport urbain en Roumanie.

The impact of drought on wetlands in Iasi county and its implications on some groups of birds

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This study investigates the effects of drought on local avifauna, with a focus on the distribution and behavior of aquatic bird species in the "Eleșteele Jijiei și Miletinului" protected area. The research spans 2018-2023 and integrates both laboratory analysis and field observations. Using GIS software, species distribution maps were developed to highlight changes over time. The study area, characterized by diverse landforms, fertile soils, and a complex hydrographic network, has been significantly impacted by drought, leading to a marked reduction in aquatic habitats during the months of May through August. This habitat shrinkage has directly affected the avifauna, altering the distribution of aquatic bird species and intensifying interspecific competition for dwindling food resources. The concentration of water in smaller areas resulted in the congregation of species. The findings underscore that drought conditions significantly influence bird distribution patterns, with species forced into concentrated areas with scarce resources.

Dinamica și proveniența fluxurilor turistice din Bazinul Cursului Inferior al Fluviului Nistru

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The tourist flow represents the total number of tourists traveling between the generating areas and the receiving areas. In the Lower Dniester Basin, the emission areas are the large agglomerations (Chisinau, Odessa, Tiraspol and Bender), and the receiving areas, in most cases, are the rural areas. In the present paper, tourist flows were evaluated based on data obtained from the National Bureau of Statistics, spa resorts and tourist operators included in the sociological survey, as well as through indirect calculation methods based on the capacity of tourist reception structures and the degree of use of them.

Performanța școlară – expresie a inegalităților social-economice. O analiză statistico-teritorială

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Geografia educațională este o ramură a geografiei umane care studiază variația spațială a cererii și ofertei educaționale, impactul mediului economico-social asupra dezvoltării serviciilor de profil și performanței școlare, influența politicilor publice și a modificării structurilor demografice, mobilitatea categoriilor de populație vizate de sistemul de educație (profesori, elevi) ș.a. Prin viziunea spațială asigurată de utilizarea suportului cartografic, în lungul a trei coordonate esențiale (scara de studiu, spațiul și localizarea), geografia educației contribuie la înțelegerea completă a dinamicii sistemului de educație, proceselor și comportamentelor aferente acestuia, distribuției spațiale și disparităților create prin impactul unor clivaje social-economice sau culturale. Studiul de față propune o analiză a tipologiei centrelor liceale din România, bazată pe rezultatele examenului de bacalaureat din anii 2015-2023. Dubla analiză, descriptivă (tipologică) și multivariată (factorială) indică existența unor profunde diferențe teritoriale care pot fi interpretate prin prisma unor particularități locale (tradiție, propensiune spre educație, nivel de dezvoltare, diversitatea ofertei educaționale etc.).

EGMS Insights – A data management tool for processing and managing EGMS products

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European Ground Motion Service (EGMS) offers ground motion velocity and displacement measurements across the Copernicus Participating States. The millimeter-accuracy products comprise processed Sentinel-1 SAR images subjected to Multi-temporal Differential SAR Interferometry algorithms and are available for visualization and download. EGMS was developed in response to numerous requests from users for access to free InSAR data over Europe. The service is managed and implemented by the EEA, and it forms part of the CLMS portfolio. The EGMS provides an annual update of ground motion over the entire European territory, with a time series beginning in February 2015 and comprising full-resolution spatial data of ascending and descending orbits of the Sentinel-1 SAR mission. Access to the EGMS data facilitates a range of capabilities across various fields of interest, including monitoring critical infrastructure and buildings or complementing other methods for

investigating and assessing slow-moving landslides, land subsidence, sinkholes, groundwater exploitation, and volcano activity. However, the biggest issue with these products is their management and downloading as easy-to-use spatial data, given they are provided as CSV files.

To overcome this problem, we introduce in this work the R-based EGMS Insights tool, which has been developed with the Shiny package and is available as a desktop application for the downloading, transformation, and exporting of EGMS products into customized geospatial ESRI shapefiles. The workflow consists of two main modules: (i) downloading the archives from the EGMS Explorer platform, data extraction and conversion to shapefiles, and (ii) data processing and computation of horizontal and vertical displacement components, the latter being still in development. The value of this service lies in its ability to enhance the user experience for the management of Multi-temporal Differential SAR Interferometry data across Europe. In particular, the EGMS Insights application allows users to also crop the EGMS products based on a region of interest (RoI). The application's user-friendly interface encourages the use and growth of potential users interested in the applications of EGMS data and interferometric products. Moreover, the second module's important capability is to extract the horizontal and vertical displacement components based on the ascending and descending InSAR data.

Planation surfaces in the light of the tectonic plate theory

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Tectonic plate theory brings the explanation of mountain building through Earth crust movement as buoyant over the fluid asthenosphere. In the last decades, also it appears that mountains are created and shaped, beside the movements of the tectonic plates, also by the interplay of climate and erosion. In this context of the tectonic plate theory, we discuss the place of the planation surfaces and their interpretation, in special regarding the Carpathians.

Platform for helping small and medium farmers to incorporate digital technology for equal Opportunities (PHITO) – a HORIZON project implemented in Iași and Botoșani Counties

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PHITO (Platform for Helping small and medium farmers to Incorporate digital Technology for equal Opportunities) introduces a ground-breaking digital tool specifically for small and medium farmers (SMFs) that are currently unable to benefit from the digital innovation increasingly adopted by larger producers. The platform connects data and people through a low-barrier app with two main purposes: (i) offering free data-driven farm advice on soil, water and crops tailored to SMFs (global element), and (ii) improving synergic collaboration between farmers, consumers, and service providers while strengthening the local Agriculture Knowledge and Innovation Systems PHITO distinguishes itself from previous initiatives as a key example of frugal innovation, by downscaling the complexity of digital farming and making smart use of existing open geo-databases (through public domain data harvesting), and embedding this in the various local food systems and networks. Through co-creation together with SMFs and numerous local farmer representatives, PHITO will help to bridge the digital divide by providing better access to information and local networking, helping SMFs to improve their decision-making processes and consequently their economic and environmental performances.

Despite the trend towards farm centralisation and upscaling, many small (family) husbandries remain active on the Moldovian plateau, where SMFs have cattle grazing on small portions of pastures belonging to them or the local administration. These small husbandries are facing climatic/environmental pressure (drought, soil degradation), as well as socio-economic pressure (competition in EU context, ageing population). Innovation and technology is almost neglected due to a lack of awareness and professional networks. This makes the area fit for testing the PHITO approach.

Prut – one river, two sides: hydrological hazard and risk differences between Romania and Republic of Moldova

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In hazard-to-risk assessment, often given the same natural hazard situations, risk is generalized in terms of scenarios and vulnerability. In reality, even in the same natural hazard situations, vulnerability can be different, considering different natural, social, political and economic aspects. This is also the case of the Prut floodplain, which has long been a hard political border and where two different socio-economic regimes have shaped human-environment interactions over the last 55-75 years.

Despite the joint construction of the Stâncă-Costești reservoir, predominantly downstream the Romanian side built dikes, after the Second World War, resulting in a lower theoretical vulnerability. On the Moldovan side, the dyke network is not very extensive and especially in the floods after 2000, the vulnerability was greater.

We mapped the dike network on both banks of the Prut River on LiDAR data and synthesized the post-2000 flood impact to establish a vulnerability estimation framework.

Mapping the heat stress for apple and plum orchards in the Moldavian Region (Romania)

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This study evaluates the occurrence of heat stress on apple and plum orchards in the Moldova region of Romania, fact that can have a negative impact on orchard productivity and fruit quality. The research is based on the number of hours during which temperatures exceeded 30°C and 35°C, critical thresholds for plant physiology. In the literature, it is known temperatures above 35°C are known to halt the process of photosynthesis, leading to significant consequences for crop growth and yield. Data collected over multiple growing seasons revealed a marked increase in the occurrence of extreme heat events, with extended periods where temperatures surpassed these critical thresholds. The interruption of photosynthesis, particularly during peak growing periods, has resulted in reduced fruit quality, lower yields, and increased stress on both apple and plum trees. These findings highlight the vulnerability of

orchard systems to climate extremes and underscore the importance of adapting orchard management practices to mitigate the negative impacts of heat stress on fruit production in the region.

Towards Territorial Cohesion in Rural Areas: A Chrono-Spatial Insight into the Second Pillar of CAP

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Reducing disparities between regions is a major objective on the EU agenda, the largest part of the budget being directed to enhancing territorial cohesion. In order to reduce these disparities, funds have been granted to disadvantaged areas. This paper aims to carry out a chronospatial analysis of the funds allocated to rural areas in all European regions (NUTS2 level) between 1994 and 2022. This is in order to assess the extent to which the financial support granted succeeds in meeting the territorial cohesion objective promoted in the EU. The question we aim to answer is whether the support offered to rural areas through EU funds has led to an increase in cohesion, by bringing regions closer together, or rather to an accumulation of wealth in the same economically performing regions. In order to answer this question, a chronospatial and multiscalar analysis of the EU funds absorbed was carried out (objective I) together with linking the performance in funds absorption with the GDP evolution in a multiscalar context (objective II). The results highlight an increase in the percentage of disadvantaged regions incapable of absorbing funds between 1994 and 2022. This indicates weak points that impact negatively territorial cohesion and calls into question the effectiveness of the funds granted and, by extension, of the EU policies promoted. The findings are consistent with earlier research, highlighting the need to reform EU funding allocation policies. The absence of differentiation between affluent and underdeveloped regions leads to unequal internal competition and increases disparities (Medve-Bálint, 2016). These changes refer to introducing more "place sensitive" policies to achieve better territorial convergence (Iammarino et al. 2018).

Implementing Green-Blue Infrastructure in the Râmnicu-Vâlcea Metropolitan Area: Strategies for Sustainable Urban Growth

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In the context of increasing global concerns regarding environmental conservation and the promotion of sustainable urban development, green-blue infrastructure (GBI) is becoming an essential aspect of the healthy development of both urban and rural environments. This research examines the implementation of green-blue infrastructure (GBI) in Romania, with a focus on the Râmnicu-Vâlcea metropolitan area, from the perspective of sustainable urban development strategies.

Studies and analyses conducted in the Râmnicu Vâlcea Metropolitan Area (MA-VL) highlight the need for a coherent and unified framework for the development and implementation of an effective GBI strategy. This framework should include a detailed assessment of the existing infrastructure, stakeholder consultation, the formulation of a common vision, and the establishment of clear strategic objectives. The study analyzed both international strategies and strategies developed by the localities within MA-VL. It was observed that the strategies analyzed in MA-VL reflect a constant concern for environmental issues, such as reducing pollution, sustainable management of natural resources, and biodiversity protection. Although the concept of GBI is not explicitly mentioned in all local strategies, there is an increased focus on creating new green spaces, protecting existing green areas, and rehabilitating riverbanks, all of which are key elements of an effective strategy for implementing, developing, and maintaining GBI.

Simultaneously, it is noted that internationally, various examples of good practices, such as the Maidstone Borough Council Strategy and the Natural England Guide, highlight the importance of integrating GBI into urban planning policies and the essential role of the community in this process. These guides offer valuable methodologies and perspectives for sustainable and resilient urban development, demonstrating that GBI can provide viable solutions to current challenges, such as biodiversity loss and the impact of climate change. Additionally, in the context of Romania, these international examples can serve as models for creating healthier and more sustainable environments in urban and rural communities.

In conclusion, the research underscores the need for the development of a coherent and integrated strategic framework for the implementation of green-blue infrastructure in Romania, with a case study on the Râmnicu-Vâlcea metropolitan area, inspired by international best practices and adapted to local needs, to promote sustainable urban development that is resilient and oriented towards environmental conservation and improving the quality of life.

Destination Management Organizations (DMOs) in Romania.

Case study: DMO Maramureș

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The fact that tourism represents an extremely effervescent phenomenon may already seem like a cliché these days. However, its continuous development, mainly in the current, post-pandemic period, once again confirms its capacity for reinvention. In this context, a new way of considering the concept of tourist destinations has generated the emergence of some organizations responsible for the management of territories with attractive potential which aim to promote different tourist products. The purpose of this paper is to analyze these Destination Management Organizations (DMOs) in order to capture their structural and functional peculiarities. Following the collection and processing of data, mainly through quantitative methods, it was observed that their coverage degree at the national level is quite low. This is mainly due to the fact that their operation was approved relatively recently and their influence is generally modest (18 out of the 21 approved DMOs represent a local type). Instead, the situation of some counties is worth mentioning for holding more than three active organizations each (Suceava, Constanța and Brașov). Also, Suceava prides itself on owning the only regional organisation of its kind in the country (DMO Bucovina). Other counties, such as Constanța and Maramureș benefit from the advantages of the unique county-type destination management organizations at national level. Finally, special attention is given to the case of Maramureș for its pioneering spirit and for the example of good practice demonstrated in the development and promotion of various tourist attractions, forms of tourism and tourist services, taking into account, at the same time, the principles of sustainable tourism.

Landscape peculiarities in driving the soil pedogenesis

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The objective of the corroborated studies of Geomorphology and Pedology of the paper aims the investigation of the evolution of two adjacent pedolandsapes, the relationship between the relief and soil: how the small differences in the relief determined significant differences in the pedogenesis of both soils formed in each studied pedolandscape. The investigated area was located in the Subcarpathan Depression of Oltenia (Scoarța – Câmpu Mare sector), in Gorj County, where two sites

were settled in the same area due to their peculiarities, the two soils have completely different morphology and characteristics: P1 is Planosol Albic Magnezic (according to SRTS-2012; and Luvic Planosol Albic – according to WRB-SR-2014) with bleached Ea horizon that abrupt overlaps a clayey layer; while P2 is Preluvosol Rodic (according to SRTS-2012; and Rodic Luvisol – according to WRB-SR-2014) with red matrix. The detailed investigation, from landscape to the micromorphological level, clearly showed the differences between the two profiles: 1) Location on different relief steps: the lower level of the P1 landscape relief controlled the pedo-phreatic water circulation and favored both stagnation and leaching processes, thus a Planosol developed; the higher level of the P2 site and the climatic conditions favored the alteration of the mafic rock fragments, very rich in Fe, and its continuous released from the crystalline structures, maintaining over time the red color of the soil matrix; 2) Evolution under different conditions: temporarily water saturation which induced stagnic properties and reducing conditions generating redoximorphic pedofeatures in P1; while in P2 the good drainage induced aerobic environment and generated red matrix and clay+Fe textural pedofeatures; 3) Different composition of the skeleton grains and currently different level of alteration and release of the weathering products. In both studied landscapes, the relationship between relief and soil was very tight, the relief driven the pedogenesis direction, so that the neighbouring soils and respectively pedolandscape are very different.

Exploring the Technical Capabilities of Toy-Grade Remote Operated Vehicles for Underwater Data Collection: A Case Study of Reefs in the Northern Part of the Red Sea

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The Red Sea is renowned for its rich biodiversity and unique reef ecosystem, making it a focal point for marine research. Remote Operated Vehicles (ROVs) have become essential tools for studying these remote and challenging environments. This study explores the integration of ROVs with other technologies to enhance data collection efficiency in Red Sea reefs.

ROVs offer a cost-effective and safe alternative to traditional diving methods, allowing researchers to access deep and hazardous areas with greater precision. By integrating ROVs with sensors and imaging systems, such as sonars and cameras, a multi-technology approach is utilized to capture comprehensive data on reef structures, marine life, and environmental parameters.

The utilization of ROVs equipped with high-resolution cameras enables detailed visual surveys of coral reefs, capturing intricate details of species distribution and habitat

complexity. Additionally, integrating acoustic sensors allows for mapping of reef topography and monitoring of fish populations, providing valuable insights into ecosystem dynamics and health.

Furthermore, the deployment of ROVs equipped with environmental sensors facilitates real-time data collection on water quality parameters, such as temperature, salinity, and pH levels. This data aids in assessing the impact of climate change and human activities on reef ecosystems, guiding conservation efforts and management strategies.

The integration of ROVs with autonomous navigation systems enhances operational efficiency by enabling pre-programmed survey routes and automated data collection. This reduces human intervention and ensures consistent data acquisition across different study sites, improving research reliability and comparability.

Through a series of field trials in Red Sea reefs, the effectiveness of integrating ROVs with multi-technology approaches for data collection is demonstrated. The results highlight the synergistic benefits of combining ROVs with sensors and imaging systems, leading to a more comprehensive understanding of reef ecosystems and facilitating evidence-based decision-making in marine conservation and management.

In conclusion, the integration of ROVs for data collection in Red Sea reefs through multi-technology approaches offers significant advancements in marine research efficiency. By leveraging the capabilities of ROVs along with sensors and imaging systems, researchers can obtain detailed insights into reef ecosystems, contributing to the sustainable management and conservation of these valuable marine habitats.

Cultural Routes as Catalysts for Local Development: Via Transilvanica's Role in Enhancing Community Wellbeing

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The intersection of touristic routes, community wellbeing, and sustainable tourism transitions has emerged as a critical area of study in recent years. Cultural heritage routes, in particular, have garnered attention for their potential to foster sustainable local development while preserving cultural assets. This research explores the transformative impact of the Via Transilvanica route in Romania, examining its role in enhancing community wellbeing and promoting sustainable tourism practices within a framework of tourism transitions.

Via Transilvanica, a 1,400-kilometer walking trail across Romania, has catalyzed significant changes in the communities along its path. Initially vulnerable due to economic challenges and outmigration, many of these rural areas have shown

remarkable resilience since the route's inception. The trail has not only attracted tourists but has also stimulated local entrepreneurship, revitalized traditional crafts, and fostered a renewed sense of cultural identity among residents. This transformation aligns with the concept of "regenerative tourism", where tourism activities contribute to the overall health and vitality of local ecosystems and communities.

To assess the impact of Via Transilvanica on community wellbeing, we conducted a longitudinal study using mixed methods. Semi-structured interviews with local community leaders were carried out at three time points: before the route's implementation, during its opening, and three years post-implementation. These interviews were complemented by quantitative surveys measuring various indicators of community wellbeing, including economic vitality, social cohesion, and environmental stewardship.

Our findings suggest that the Via Transilvanica route, as a bottom-up initiative, has significantly contributed to enhancing community wellbeing along its path. The results indicate increased community pride, a stronger sense of place, and the adoption of more sustainable practices among local residents and businesses. This aligns with recent research by Bock (2022) on the role of community-led tourism initiatives in fostering social innovation and resilience. Moreover, the route has facilitated knowledge exchange between visitors and locals, promoting what Cheer et al. (2021) term "transformative tourism experiences" that benefit both tourists and host communities. . Local leaders highlighted the increase in visitor numbers and corresponding growth in local businesses, especially in hospitality and artisanal crafts, as key indicators of positive transformation. Comparative analysis of responses from 2020 and 2022 shows a shift in attitudes, from skepticism to optimism, regarding the long-term impacts of tourism on their communities.

The results of this study indicate that the Via Transilvanica Route, employing grassroots, community-centered development approach, has successfully fostered a strong sense of community identity and pride. It has also catalyzed the adoption of sustainable practices, such as the use of local materials. These outcomes align with findings from other cultural route projects, which show that community involvement and localized decision-making are crucial in achieving sustainable and resilient rural tourism development. Consequently, the Via Transilvanica model offers a valuable framework for leveraging cultural routes as mechanisms for local development and community well-being.

Measuring the green accessibility of the Romanian airports – a methodological framework

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The green mobility initiatives at local scale encompass different strategies and different approaches, driven mainly by the capacity of the local structures of urban governance to cope with the inherent costs and the public demands. In Romania, these initiatives focus on the general schemas of the metropolitan transportation systems, aiming generally to counter the effects of the chaotic commuting and daily to work mobility. In the same time, other components of the urban flows are neglected or placed on secondary positions in the urban projects of green transportation, like the airports. This research investigates the metropolitan accessibility of the Romanian air gateways, accessibility derived from distances measured in the multi-modal network of public and green transportation. The data is collected using Bing Maps Api and it is used to evaluate which parts of the Romanian cities lack a fair level of green accessibility to the local airport, taking into account the constraints that such mobility involves. The technical difficulties in measuring the multimodal distances to the destinations are moderate and mainly involve the data management work-flows. More severe problems are given by the fact that the data collection methods will not allow sound control of the data quality, especially when time distances are demanded to the API. The cartographic output and the analysis prove that, at local decisional scale, the green initiatives regarding the urban transportation systems might need a restart. In some cases, the Romanian metropolitan areas are severely affected by a generalized lack of green accessibility to the air transportation nodes, Constanța and Iași being clear examples.

Mapping the visitors experiences – a case study on selected Airbnb datasets

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The data sources describing the visitors' experiences are relatively limited for free access usage and research. The Inside Airbnb Platform is one of the few data providers covering the reviews of the accommodations, together with basic spatial information and descriptive attributes. In this investigation, we hypothesize that the rankings of the Airbnb apartments are not always a sound indicator for the users' experiences and, in some particular cases, this ranking might be misleading. To test this hypothesis, we built an alternative set of indicators that measures the visitors' experiences by

sentiment analysis tools. The sentiment analysis was applied on a massive database of Airbnb reviews for a selected package of case studies (touristic areas in Southern Europe). As expected, the negative or positive reviewing is not always associated with the accommodations ranking. The method used to test this statistical linkage is based on the interpretation of the output of geographical weighted regressions implemented for each case study. The dissonance between the levels of positive/negative reviewing and the Airbnb ranking system opens the way for potentially new researches, targeting the way in which the lack of matching between the two might affect the consumers choices.

Geographic Patterns and Socio-Economic Determinants of Educational Attainment in Wales

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This study investigates the role of socio-economic status in shaping educational attainment within Wales, with a particular focus on how these relationships vary across different geographic areas. By integrating a range of Wales-specific administrative datasets—pupil records, household demographics, and deprivation measures—the research aims to quantify the influence of socio-economic indicators on pupils' educational outcomes.

Guided by two primary research questions, the analysis explores: (1) the correlation between educational attainment and socio-economic factors, and (2) the extent to which these relationships differ across geographic areas within Wales. Using Geographically Weighted Regression (GWR), the study aims to capture the spatial heterogeneity of socio-economic influences on attainment.

The findings highlight geographic variations in the associations between socio-economic factors and pupils' attainment, revealing the nuanced ways in which local contexts impact educational outcomes. This approach underscores the importance of considering geographic disparities when assessing educational inequalities and could provide a foundation for developing targeted interventions aimed at reducing these disparities. The research offers a comprehensive, data-driven perspective on the complex interplay between socio-economic status and educational outcomes in Wales.

Understanding the determinants of financial access in Central, Eastern, and South-Eastern Europe: does geography matter?

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This study aims to explore the factors influencing financial access in Central and Eastern European (CEE) countries, with a focus on socioeconomic and geographic factors. By analysing OeNB Euro Survey data from 2012 to 2020 using logistic regression, the research will identify predictors of financial access, defined through the ownership of current accounts, savings, and loans. The study will address three key questions: (1) how individual socioeconomic characteristics correlate with financial access; (2) how geographic factors affect financial access; and (3) how financial access varies across regions.

The results will help improve the understanding of the financial landscape in these transitioning economies, considering the region's diverse economic, social, and political contexts. The findings will also offer insights that could inform policy reforms, potentially contributing to more inclusive financial systems and fostering equitable economic development across the CEE.

Impact of Climate Change on Maize and Wheat Annual Yields in Southern Romania

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The impact of future thermo-pluviometric conditions on the maize and wheat yields in southern Romania, the most important agricultural region of the country, is assessed in the current study through innovative method represented by Bayesian regularized artificial neural networks (BRANN). To do this, the BRANN model was trained and tested using annual yields as depended variable and thermo-pluviometric gridded data from ERA-5 Land. The models with the best statistical performance obtained for 1991-2020 have been extrapolated through climate scenarios data with annual yields projection for 2025-2100 as results. K-means clustering and correlation analysis are used as support methods in this attempt. The results underline a higher resilience of wheat yields in southern Romania to the expected climate change, while the maize yields are expected to experience a collapse for the most part of the studied region, especially for extreme climate scenario. As well, the results highlight also major

spatial diversity influenced by local climate conditions, emphasizing the importance of the agrotechnical systems in use and the type of arable land management. The results underline the sensitivity to these two crops in Romania to climate change and offer a sound support for the adaptation strategies of agriculture sector in the next decade.

Aspecte geopedologice privind Monumentul Arheologic „Valurile Lui Traian” din Republica Moldova

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Monumentul arheologic „Valurile lui Traian” reprezintă o categorie de fortificații din perioada antică târzie, localizate în spațiul pruto-nistrean. Valurile sunt situate în partea de sud a Republicii Moldova și, parțial, pe teritoriul actual al Ucrainei, și au două ramificații principale:

A) „Valul lui Traian de Jos” (în continuare VTJ) sau de Sud, cu lungimea de circa 126 km, care se întinde de la satul Vadul lui Isac (raionul Cahul) pe malul râului Prut la vest până la orașul Tatarbuniar pe malul lacului-liman Sasâc (Kunduk) la est, pe teritoriul Ucrainei, regiunea Odesa;

B) „Valul lui Traian de Sus” (în continuare VTS) sau de Nord, cu lungimea de circa 120 km, de la orașul Leova pe malul râului Prut la vest până la satul Chițcani, în proximitatea fluviului Nistru la est. Înălțimea „Valurilor” în prezent nu depășește 1,5-3 m. Unii cercetători consideră că „Valurile lui Traian” sunt rămășițele construcțiilor defensive din epoca împăratului Traian sau linia de demarcare dintre romani și așa-numita „Barbaricum” (lumea „barbară”, neromană).

Pe parcursul cercetărilor arheologice și interdisciplinare, realizate în anii 2022-2023, la VTS, pe segmentul satelor Ecaterinovca – Valea Perjei din raionul Cimișlia, și VTJ, pe segmentul satului Iujnoe (raionul Cahul), au fost colectate probe de sol din 3 locații (partea centrală a șanțului valului, digul/ridicătura valului și, pentru comparație, un profil natural integru din proximitate). Ulterior probele de sol au fost supuse analizelor în laboratoarele facultății de Biologie și Geștiințe a USM pentru determinarea parametrilor fizici și chimici ai solului, prin următoarele metode: humusul și carbonul organic – metoda I.V. Tiurin, cu modificarea de V.N. Simakov; carbonații – metoda gazovolumetrică, pH apos – cu pH-metru, componența granulometrică – metoda pipetei după N.A. Kacinskii; densitatea fazei solide – metoda Petinov.

Investigațiile profilurilor de sol au stabilit că subtipul de sol din segmentul cercetat al VTJ este cernoziom carbonatic, iar din segmentul VTS – cernoziom tipic slab humifer. Solul din șanțul VTS de la Cimișlia similar celui din șanțul VTJ de la Iujnoe are originea celui din proximitate. După textură, solurile din toate cele 3 profiluri ale ambelor valuri (VTS și VTJ) sunt luto-argiloase, ceea ce demonstrează că au origine comună. Textura solului depinde de componența mineralogică a rocii parentale și nu poate fi schimbată sau modificată în timp. Conținutul de humus și densitatea fazei solide a solului din șanț și a celui din ridicătură, demonstrează un amestec al solului. În cazul șanțului, stratificarea este necaracteristică unui profil natural, atât morfologic, cât și după parametri fizici și chimici și putem argumenta impactul antropic prin adâncirea șanțului efectuată în trecut până la 400-420 cm (VTJ). Pe când, în cazul ridicăturii valului inversarea solului se limitează la adâncimea de 100-120 cm. Totodată, după parametrii densității aparente și corelația cu conținutul de humus a solului din șanț, umplutura șanțului a fost completată în timp cu solul din val, dovadă fiind conținutul de argilă și praf. În comparație cu profilul natural, profilurile din val, dar mai cu seamă cele din șanț, au o stratificare ce din punct de vedere al pedogenezei și legității morfologice a orizonturilor genetice în ambele cazuri, n-au nimic comun cu cernoziomul carbonatic și cu cernoziomul tipic slab humifer. Studiul demonstrează, că omul poate influența asupra modificării „feții” solului, adică a profilului de sol, dar nu poate modifica originea solului și stopa procesele pedogenetice. Solul din șanț, cel din ridicătura valului și cel din proximitatea Valului lui Traian are aceeași origine după tipul de sol, parametri fizico-chimici, iar profilurile solului din șanț și din val reflectă implicația antropică într-o perioadă îndepărtată de timp și demonstrează că la construcția valului a fost folosit materialul pământos local.

Profit-driven urban sprawl and its detrimental impact on community well-being: A case study of the Iasi Metropolitan Area

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The Iasi Metropolitan Area is confronted with the accelerated expansion of its urban core, in a process that is determined mainly by profit-oriented development strategies. This reflects global urbanization trends, where financial incentives dominate local urban development decisions. However, this model of urban sprawl presents challenges in balancing the conflicting interests of stakeholders. Developers focus on maximizing profits, while local communities suffer from overcrowding and reduced quality of life. In theory, local governments should balance these opposing interests; nevertheless, short-term economic advantages frequently appear to have priority over the community's long-term welfare.

This paper reports on a survey of 1,003 residents across 20 communities in the Iasi Metropolitan Area regarding the above dynamics. The survey consisted of 22 structured items to determine the perception of residents on neighbourhood satisfaction and safety, as well as the degree of conflict between themselves and local authorities. The data were statistically analysed, and GIS techniques were used to map the spatial variation of stakeholder conflicts.

The results showed that profit-oriented urban sprawl is the main factor influencing the geography of the area. The communities that are rapidly developing showed lower satisfaction with urban services, together with higher feelings of conflict with local authorities. These findings highlight the potential long-term costs of prioritizing short-term financial incentives over sustainable urban growth.

Earth environment monitoring: vegetation and water quality assessment

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Earth Observation (EO) technology utilizes imagery from satellites and remote sensing to offer a thorough and dynamic view of global environmental changes. The present study examines the utilization of Earth Observation in addressing two significant challenges: monitoring vegetation and water resources. This review examines the application of Sentinel-2 in monitoring two essential elements of the Earth's environment: vegetation and water quality. Both are essential indices of ecosystem health and are vital for preserving biodiversity and sustaining human life. The research was carried out in various areas in northeastern Romania. The timeframe encompasses 2017 to 2022, employing photographs from the spring, summer, and autumn seasons. Sentinel-2, a component of the ESA's Copernicus Programme, delivers high-resolution, multispectral images that is essential in this field. Sentinel-2 provides detailed and timely data useful for many analyses, featuring 13 spectral bands and a frequent revisit interval of 5 days. Monitoring vegetation is essential for ecosystem management, agricultural practices, and comprehending environmental changes. Vegetation, an essential indicator of ecosystem vitality, is vulnerable to numerous stresses such as climate change, deforestation, and land degradation. EO enables the observation of vegetative health, biomass, and phenological alterations, facilitating prompt responses and sustainable management strategies. Water resources are under considerable stress due to over-extraction, pollution, and climate variability. Assessing

water quality in inland lakes serves as essential for preserving the health and stability of aquatic ecosystems. EO technologies facilitate the evaluation of water quality, availability, and distribution through the observation of surface water bodies and precipitation patterns. By integrating data from Earth Observation platforms, stakeholders can formulate more efficacious strategies for managing natural resources and reducing the effects of environmental stresses. This study emphasizes the important role of EO in enhancing our knowledge of plant and water resources, highlighting its relevance for sustainable development and protecting the environment.

Monitoring water quality with satellite images: analyzing key parameters and distribution patterns

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Monitoring water quality is essential for sustainable management of aquatic ecosystems and ensuring access to clean water resources. Remote sensing technology, particularly through satellite imagery, offers an efficient method for large-scale water quality assessment. Sentinel-2, part of the European Copernicus program, provides a valuable resource due to its high-resolution multispectral images. This study uses S2 satellite images for monitoring key water quality parameters such as chlorophyll-a concentration, turbidity, and total suspended matter (TSM) in Tansa lake, Bahlui catchment. Sentinel-2's multispectral images offer important insights through specific spectral bands, particularly those sensitive to the optical properties of water. Key parameters like chlorophyll-a, an indicator of algal presence and water fertility, and turbidity, which reflects water transparency and suspended particulate matter, can be evaluated through image processing algorithms. The relationships between bands and regression models, allows the estimation of the concentrations and distribution of these parameters across extensive water surfaces. The study highlights the spatial and temporal distribution of water quality parameters, analyzing their dynamics over time in relation to environmental factors. Images from different times of the 2023 year can show variations in chlorophyll-a distribution caused by eutrophication or increases in turbidity following heavy rainfall events. Through such analysis, water quality state can be identified, enabling swift and informed intervention by authorities. Compared

to traditional in-situ sampling and laboratory analysis, which is time-consuming and expensive, remote sensing offers significant advantages by covering large areas and providing data over time. The findings of this study highlight the high potential of satellite data in environmental monitoring programs and the development of sustainable water management policies at the global level. The ability to continuously monitor the distribution and concentration of key water quality parameters from space allows the identification of water quality trends.

A8 motorway, coherent regional development policies and regionalization – the keys to territorial cohesion and regional competitiveness of Moldavia

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Some European states have made considerable efforts in terms of reducing the gaps between the territorial substructures that make up the national level. Examples of good practices are the efforts of Hungary, Poland, the Czech Republic, Slovakia and Bulgaria to modernize their transport infrastructure (especially the road one) so as to improve the accessibility of all regions to the hard core of the EU (where most of the investments in the economy come from) or Poland's action (still singular!) of administrative regionalization.

Unfortunately, Romania is far from being in line with the countries in the region that are making efforts at the national level to reduce regional and county gaps. Not only have the disparities between Bucharest-Ilfov and the western counties, on the one hand, and those in the east and south, on the other hand, not diminished, they have actually grown at a worrying rate. According to published data, the ratio between GDP/inhabitant for Cluj and Iasi counties has evolved from 1.1 at the end of the 9th decade, to 1.61 in 2008 and to 1.72 today. If we compare two poorer counties, such as Sălaj and Vaslui, we will find that in this case too the ratio had a similar growth trend: 1.11 at the end of the 9th decade, 1.51 in 2008 and 1.81 in 2023.

This major imbalance, which has as its main victim the region of Moldova, has at least three main sources:

1. the lack of major infrastructure in the region and a fast transport link with the Center of Europe,
2. lack of coherent government policies to support the development of the region
3. and poor territorial cohesion at the regional level.

Here are some stakes of the proposed approach.

How much money do Romanian employees have in their pockets?

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GDP can be seen as the sum of consumption expenditure by private households and private non-profit organisations, gross investment expenditure, government expenditure, investment for storage purposes as well as export earnings minus expenditure on imports. Simplifying, we get the formula:

$$\text{GDP} = \text{private consumption} + \text{government consumption} + \text{investment} + (\text{exports} - \text{imports})$$

Private consumption represents an important concern of welfare economics. This category is normally one of the largest components of GDP, representing household spending in the economy, spending that can be classified into: durable goods, perishable goods and services. From this perspective, salaries are the main source of private consumption for the majority of the population of some territorial structures (state, region, county). But, it is not the only one. In addition to employees, the structure of the employed population also includes other categories of people who obtain their incomes other than through wages. For example, employers who carry out their activity in their own economic unit and for whom the source of income is made up of dividends and profit of the unit, the income of family workers, members of county and local councils, day laborers, etc. (cf. TEMPO-INSSE). Very important, especially for the Moldavian counties, to which are added several other counties from the rest of Romania (Bistrița-Năsăud, Satu Mare, Maramureș, Brăila or Tulcea), is the contribution of remittances and incomes earned in a seasonal manner abroad. These counties concentrate a good part of seasonal, temporary or permanent emigration from Romania.

Starting from the consideration that wages are the most important source of fueling private consumption, the mass media, but even some scientific texts make correlations (not necessarily mathematical) between the average wage and GDP/capita. The correlation is rather mediocre. Why is the correlation so low? Because we report the data to different populations: the GDP to the entire population of Romania, and the salary income, only to the salaried population.

However, in the case of the correlation between the total net salary income/inhabitant and the GDP/inhabitant at the county level, the situation changes. The R^2 parameter characterizes a high correlation between the two variables. The total net salary gain was calculated by multiplying the average annual salary by the average number of

employees, the latter category (which actually imposed the average salary!) being less numerous than the number of employees at the end of the year.

Simulation of the biometeorological comfort conditions in urban pedestrian areas using ENVI-met Software

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This study analyzes strategies for improving biometeorological comfort in urban pedestrian areas, with a special focus on Ștefan cel Mare and Sfânt Boulevard in Iași. Using the microclimatic modeling software ENVI-met, the research simulated various urban planning scenarios, such as tree planting, the installation of artificial shading, and the implementation of green facades. These scenarios were evaluated based on their effectiveness in reducing thermal discomfort experienced by pedestrians.

The results show that tree planting led to a decrease in perceived temperature by up to 18-20°C in shaded areas, compared to surfaces directly exposed to sunlight. Additionally, the use of "Sun Sail" shading structures significantly reduced perceived temperatures, while green facades helped mitigate the heating effect of adjacent buildings. The study thus highlights the importance of green infrastructure and shading elements in optimizing thermal comfort and creating more pleasant and bearable urban environments for pedestrians. These findings provide valuable insights for urban planners and policymakers in designing healthier and more comfortable urban spaces.

Pasture degradation in the Moldavian Plateau. Insights of a methodological approach

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Moldavian Plateau pastures have been characterized by some particular features over the years, determined by landforms, soil, hydrological regime, and land-use dynamics. Several questions have been raised once the climate changes and the repercussions of the anthropogenic processes have begun to reshape the natural state of the grassland ecosystems. Even if the degraded areas have not reached worrying limits, such a

process needs constant monitoring and suitable assessing methods to prevent irreversible repercussions.

Aiming to investigate this issue correctly, a suitable method was applied. Based on the literature foundation, the Normalized Difference Vegetation Index was ranked as the accurate indicator of vegetation vitality using the plants' spectral response. The NDVI data was achieved at different spatial and temporal resolutions, covering over 40 years and the entire Moldavian Plateau perimeter. Validated on several land use types, the main focus was on pastureland. The applied method uses a statistical approach based on the R greenbrown package from the R Core Collection, which is dedicated to NDVI trend detection.

The findings have indicated a correlation between the NDVI and climate trends, positively impacting pastures. Apart from the climatic variable, the hydrological factor represents a particular trigger regarding vegetation vitality. The geological driver was also associated with the degradation and geomorphological processes. The anthropogenic interventions were classified as the primary trigger of pasture degradation. Counting on field and cartographic validation, human footprints on pasture quality have been well established.

The study concludes that the applied remote sensing method has successfully identified the primary pasture degradation triggers. Even if the correlation between the automatically detected NDVI trend and the field reality implies a complementary validation, the method constitutes a state-of-the-art vegetation health detection based on satellite technology.

Perspective on the current situation of agricultural microtoponymy Case study: Valea Dâmboviței, between Cândești and Produlești

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The attempts to standardize Romanian agriculture in the last century, and especially the socio-economic aspects of the last decades, determine the sharp disappearance of agricultural microtoponymy from numerous cultural-geographic areas, especially agricultural ones. Based on this situation, the present study aims to expose the current framework of agricultural microtoponymy, from a sector of the Dâmbovița valley, as a general example valid in the present subject. The objectives of the research consisted in: rendering the socio-historical perspective of the area's microtoponymy; analysis of the microtoponymy in the study area, proposing some recommendations for saving the microtoponymic heritage. To fulfill the mentioned objectives, the bibliographic method was used; survey method (semi-structured interview); the geographical

information systems method (QGIS); the method of comparative analysis of interviews. In the results of the study, it was demonstrated that numerous microtoponyms from the researched area still exist in the collective memory, but will mostly disappear, due to the weakening of the connection of the new generations with the land and the cultural-local identity. However, there are special solutions for preserving the microtoponymic treasure characteristic of any cultural-agrarian space. In conclusion, various political or socio-economic actions have led to people moving away from agriculture, and thereby to the considerable, even critical, reduction of the microtoponymy of agricultural areas. The solutions to preserve the onomasticity of these spaces, even if they are not organic, they are of fundamental importance, in terms of preserving and transmitting the agricultural microtoponymy from a cultural-geographical framework.

Evoluția litoralului românesc în imagini

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Zona litorală românească a trecut prin numeroase transformări de-a lungul secolului XX și începutul secolului XXI, atât în ceea ce privește aspectul natural, cât și cel construit. Aceste transformări au fost influențate de factori politici, economici și sociali, dar și de procesele naturale, precum eroziunea costieră. Scopul acestei lucrări este de a examina aceste transformări printr-o metodologie bazată pe compararea imaginilor istorice, redescoperite datorită arhivelor foto digitale oferite de către Institutul Național al Patrimoniului, Biblioteca județeană Constanța, Revista Arhitectura, cu imaginile cele mai recente. Așadar, lucrarea va explora modul în care intervențiile antropice au modelat peisajul, prin analiza evoluției litoralului românesc de-a lungul istoriei, cum ar fi perioada interbelică, perioada comunistă și perioada post-comunistă.

În perioada interbelică, litoralul românesc avea o întindere mult mai mare decât în prezent deoarece până la 1940 a avut în componența sa și Cadrilaterul, ce cuprindea orașe precum Balciul, ce devine reședința de vară a Reginei Maria. Zona litorală începe să devină o destinație populară datorită dezvoltării infrastructurii, cum ar fi construcția podului de la Cernavodă și apariția căii ferate Constanța – Mangalia. Tot în această perioadă, se începe amenajarea stațiunilor estivale, cum ar fi Mamaia și Eforie Sud. Mamaia se dezvoltă odată cu apariția stației feroviare și a construirii reședinței regale, dar și inaugurarea cazinoului. Astfel, un aspect interesant al acestei perioade este faptul că, deși existau construcții, interacțiunea cu mediul natural era încă destul de limitată. Amenajările erau realizate cu o anumită sensibilitate față de peisajul natural, iar accentul principal era pus pe recreere, odihnă și refacere. De exemplu, apariția hotelului Rex în Mamaia, una dintre primele construcții importante, era un

semn al creșterii interesului pentru turism, dar și al rafinamentului specific acelei perioade. Prin urmare, în această perioadă începe expansiunea turismului, punându-se bazele dezvoltărilor ulterioare, care aveau să transforme radical zona în deceniile următoare.

Perioada comunistă aduce o schimbare radicală în abordarea litoralului românesc. Începând cu 1948, litoralul devine o destinație a turismului de masă, menită să servească întregii populații, deschizându-se către toți muncitorii din întreaga țară. Acest lucru s-a datorat viziunii autorităților de a face litoralul accesibil întregii populații, în conformitate cu ideologia egalitară a regimului. Turismul a devenit o industrie centralizată, cu planuri de dezvoltare masivă a infrastructurii și crearea de stațiuni mari, capabile să găzduiască un număr mare de turiști. Astfel, Cezar Lăzărescu a fost arhitectul sub tutela căruia a început sistematizarea litoralului, mai precis construcția a 10.000 locuri de cazare în 1960 în Mamaia.

În perioada comunistă, peisajul litoral însemna existența hotelurilor lamelă, care dominau peisajul, construite în așa fel încât toate camerele să aibă vedere atât la mare cât și la lac, dar într-un mod cât mai independent și aerat, având printre ele integrate compoziții urbanistice cu spații mari plantate și incinte destinate dotărilor publice. În această perioadă, s-a impus diferențierea stațiunilor, prin crearea polului de odihnă Mamaia și a polului balnear Eforie, în jurul lacului Techirghiol. Tot în această perioadă, litoralul românesc se deschide și pentru turiștii străini. Pe lângă dezvoltarea infrastructurii turistice, se realizează în paralel extinderea porturilor Midia și Constanța cât și construcția de diguri și faleze. Totuși, toată această expansiune antropică a litoralului are ca efect intensificarea procesului de eroziune, problemă cu care se va confrunta zona costieră până în prezent. Așadar, începând cu anii 1980 lupta împotriva eroziunii va consuma fonduri considerabile și va reorienta investițiile din zona de cazare.

Printr-o comparație dintre perioada interbelică și comunistă, se observă cum intervenția antropică transformă litoralul într-un spațiu standardizat, cu o infrastructură rigidă care servește unei industrii centralizate.

După căderea regimului comunist, litoralul românesc a intrat într-o nouă etapă de dezvoltare, caracterizată de privatizări, investiții străine și reabilitări ale infrastructurii turistice. În această perioadă, unele dintre vechile stațiuni au fost modernizate, însă s-a remarcat și o degradare semnificativă a anumitor zone din cauza lipsei de investiții coerente, a speculațiilor imobiliare și a nerespectării unor planuri urbanistice. Privatizarea masivă a litoralului a dus la construcții noi, dar adesea fără un plan urbanistic adecvat. Imaginile recente reflectă un peisaj mixt, unde construcții moderne de lux coexistă cu hoteluri lăsate în paragină. În perioada postcomunistă, evoluția litoralului are o încheiere bruscă întrucât nu au fost luate măsurile necesare pentru gestionarea și îngrijirea sa, odată cu privatizarea fostelor unități de cazare comuniste. Se constată o exploatare improprie a plajei, construcțiile scapă de sub control, spațiile

verzi sunt neglijate și se produce o degradare a lacului Siutghiol prin apariția de imobile pe malul acestuia, cât și a patrimoniului interbelic, precum reședința regală și cazinoul de la Mamaia.

Din punct de vedere al protecției mediului, litoralul se confruntă cu provocări majore legate de eroziunea plajelor. În această perioadă, se realizează extinderea artificială a plajelor, și construcția de noi diguri, având ca rezultat o modificare a peisajului.

Prin compararea imaginilor de arhivă și a celor moderne se ilustrează o schimbare în aspectul stațiunilor și în facilitățile turistice. În timp ce în perioada comunistă se pune accentul pe cantitate și capacitate, perioada post-comunistă aduce o diversificare a ofertei turistice, cu hoteluri de lux, cluburi și facilități moderne, destinate unui public mai variat. Totuși, acest val de modernizare a fost inegal, lăsând multe stațiuni abandonate sau slab întreținute, cu o infrastructură învechită și care nu mai face față valului de noi construcții, fiind frecvente problemele cu canalizarea și lipsa parcărilor. În prezent, accentul începe să se pună pe construcția de imobile rezidențiale, închiriate mai ales pe timpul sezonului estival iar care în restul anului rămân goale.

Litoralul românesc a suferit transformări profunde de-a lungul ultimului secol, schimbări care pot fi urmărite cu claritate prin intermediul imaginilor. De la o destinație elitistă interbelică, la un litoral destinat turismului de masă în perioada comunistă, și până la privatizările și modernizările post-comuniste, litoralul românesc reflectă atât tendințele sociale și economice, cât și intervențiile umane asupra mediului natural.

Astfel, una dintre marile provocări ale litoralului românesc rămâne gestionarea echilibrului dintre dezvoltarea umană și protejarea mediului.

Așadar, această lucrare subliniază importanța unei planificări urbane și turistice coerente și sustenabile, care să protejeze peisajul natural și să asigure dezvoltarea pe termen lung a litoralului românesc.