



Landscapes at Risk: Social Capital Assets in the COVID-Scape Climate

Maria Rosa Trovato *  and Salvatore Giuffrida 

Department of Civil Engineering and Architecture, University of Catania, 95124 Catania, CT, Italy; salvatore.giuffrida@unict.it

* Correspondence: mrtrovato@dica.unict.it; Tel.: +39-3774593036

1. Introduction

Up until the current pandemic, the terms “urban-scape” and “human-scape” have been meant, assumed, and practised as parallel dimensions of in territorial analysis, marginalising our knowledge about and evaluation of landscape risk [1–12]. This has always been associated, and often confused, with diverse forms of environmental risk, despite the fact that they both represent some of the most important components of risk, but not its essence [13,14].

The relationship between social capital and landscape deserves to be examined and represented in its entirety: as a matter of fact, while social capital has mainly been considered in terms of its material, functional, economic [15–20], and ethical dimensions, landscapes have been examined in terms of their perceptual, psychological, cultural, and aesthetic dimensions [21–28].

Significant attempts to define the strong relationship between capital and landscape have been conducted in the field of the “real estate-scape”—the asset of real estate capital, indeed, shows the relationship between a monetary measurement (price) and an articulated and complex qualitative essence, which represents all of the attributes the market price is associated with [29–34].

Sudden and widespread environmental fluctuations, such as the one created by the current pandemic, significantly influence the relationship between the two main existential dimensions of settled communities—social capital and landscape—and their possible representations by means of their economic–monetary dimension as well [35–38].

In view of a possible renewal of the relationship between people and the city-landscape system, highly differentiated scenarios of new territorial arrangements could unfold.

The ultimate aim of this territory renewal process, by virtue of the territory’s institutional dimension, is to resolve the traditional opposition between our social system and the environment, according to Luhmann’s macrosystemic approach [39].

From this perspective, this process should favour a renewed relationship between territorial attractors (dense areas and major cities) and environmental hindrances—the neglected parts of rural and state-owned territory, which are the main cause of environmental threats.

2. The Special Issue—Landscapes at Risk: Social Capital Assets in the COVID-Scape Climate

This volume presents studies on the nature of the conflict between some specific functions of the economic sub-system and landscape quality and the possibility of overcoming this conflict, with specific references to the main criticalities already present before the pandemic and to the possibility—prefigured by new restraints—of rebuilding the two sides’ connections in order to reduce landscape risk. However its aspects may be articulated (natural/artificial, geological, agricultural, urban, industrial, archaeological, etc.), the landscape has an essential matrix built upon it being the “shape of the territory” and, as such, a “recognisable essence in the sphere of intentional perception”. Therefore, landscape risk



Citation: Trovato, M.R.; Giuffrida, S. Landscapes at Risk: Social Capital Assets in the COVID-Scape Climate. *Land* **2024**, *13*, 456. <https://doi.org/10.3390/land13040456>

Received: 9 February 2024

Revised: 26 February 2024

Accepted: 28 March 2024

Published: 3 April 2024



Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

consists of the possible loosening or dissolution of this structural unity, due to the driving force of a non-integrated development of the territory.

The topic of landscape risk has been investigated at the territorial and urban scale. On a territorial scale, research has been conducted that pursues different aims: the identification of thematic maps and indices, as in the case of the Italian inland areas of Sicily, in Trovato and Nasca (List of Contribution, 1), and Sardinia, in Monsù Scolaro and Cappello (List of Contribution, 2); the identification of tools to support analyses and evaluations carried out for the planning of interventions to combat the progressive spread of buildings in rural areas, as in the case of Noto (Italy), with the identification of an index to assess Sicily's performance in terms of economic, social, and environmental sustainability, in Minioto et al. (List of Contribution, 3); the relative risk of COVID-19, considered using an integrated assessment method based on the Choquet Integral (CI) mathematical framework and on a Multi-Attribute Ideal-Real Comparative Analysis (MAIRCA), in Sica et al. (List of Contribution, 4); an analysis of the impacts of the COVID-19 pandemic and the Russian–Ukrainian conflict on the agricultural sector and land uses in the European Union, in Pereira Domingues Martinho (List of Contribution, 5); the construction of a participatory decision-making approach for the selection of shared valorisation strategies for the terraced cultural landscapes of the Costa Viola (Italy), in Della Spina et al. (List of Contribution, 6); the creation of an integrated tool, the Heuristic Planning Support System (HPSS), aimed at exploring green–blue strategies for the historical neighbourhood of the Borgata di Santa Lucia in Syracuse (Italy), in Trovato and Cappello (List of Contribution, 7); the identification of a methodological approach to support public administrators and private investors, based on an optimization algorithm intended to reduce the gap between the costs estimated by technical experts and actual costs, in Tajani et al. (List of Contribution, 8). On an urban scale, landscape risk has been used in research proposals to promote innovation in the planning processes established to mitigate the effects of the pandemic and to reduce peoples' exposure to future risks.

Interesting research by Han et al. (List of Contribution, 9) analysed the processes of “gentrification” and “degentrification” in the Itaewon area in South Korea by means of a semantic network analysis. A literature review on the importance of the human landscape, highlighting how human, social capital, and liveability issues can guide the debate on urban development prospects in the post COVID-19 era, is presented in Cilliers et al. (List of Contribution, 10).

Some scholars have proposed tactical urbanism interventions as a tool for urban regeneration, as in Rossitti et al. (List of Contribution, 11); others have established new key indicators of digitization to enable the measurement of digital transition sustainability in urban planning, as in the paper of Canesi and Marella (List of Contribution, 12).

Furthermore, on an urban scale, Gabrielli et al. have measured the effects of the pandemic and the Russian–Ukrainian conflict on the housing market in Northern Italy using a random forest feature importance analysis and a multivariate regression (List of Contribution, 13), while Castro Noblejas et al. have measured the economic impact of the perceived landscape on the prices of single-family houses in an urban Spanish Mediterranean area (Marbella) (List of Contribution, 14).

The topic of landscape risk was also analysed from the perspective of the financial measures implemented by governments to overcome the crises of the pandemic, the Russian–Ukrainian conflict, and climate change. From this perspective, Gotta et al. have proposed an approach that uses economic and energy assessments as a tool for evaluating policies from public and private perspectives in the context of the funding package “Superbonus 110%”, established by the Italian government for energy retrofitting (List of Contribution, 15). Barbaro and Napoli proposed a comparative analysis between Italy and Spain on their adoption of European standards within their energy communities and financial tools (List of Contribution, 16). Pereira Domingues Martinho analysed the effects of external shocks on financing to promote GDP (gross domestic product) convergence based on panel data approaches and convergence theory (List of Contribution, 17).

Conflicts of Interest: The authors declare no conflicts of interest.

List of Contributions:

1. Trovato, M.R.; Nasca, L. An Axiology of Weak Areas: The Estimation of an Index of Abandonment for the Definition of a Cognitive Tool to Support the Enhancement of Inland Areas in Sicily. *Land* **2022**, *11*, 2268. <https://doi.org/10.3390/land11122268>.
2. Monsù Scolaro, A.; Cappello, C. The Realms of Abandonment: Measures and Interpretations of Landscape Value/Risk in Northern Sardinia (Italy). *Land* **2023**, *12*, 1274. <https://doi.org/10.3390/land12071274>.
3. Minioto, C.; Martinico, F.; Trovato, M.R.; Giuffrida, S. Data and Values: Axiological Interpretations of Building Sprawl Landscape Risk in the Rural Territory of Noto (Italy). *Land* **2023**, *12*, 1258. <https://doi.org/10.3390/land12061258>.
4. Sica, F.; Tajani, F.; Guarini, M.R.; Ranieri, R. A Sensitivity Index to Perform the Territorial Sustainability in Uncertain Decision-Making Conditions. *Land* **2023**, *12*, 432. <https://doi.org/10.3390/land12020432>.
5. Pereira Domingues Martinho, V.J. Impacts of the COVID-19 Pandemic and the Russia–Ukraine Conflict on Land Use across the World. *Land* **2022**, *11*, 1614. <https://doi.org/10.3390/land11101614>.
6. Della Spina, L.; Carbonara, S.; Stefano, D.; Viglianisi, A. Sustainable Collaborative Strategies of Territorial Regeneration for the Cultural Enhancement of Unresolved Landscapes. *Land* **2023**, *12*, 497. <https://doi.org/10.3390/land12020497>.
7. Trovato, M.R.; Cappello, C. Climate Adaptation Heuristic Planning Support System (HPSS): Green-Blue Strategies to Support the Ecological Transition of Historic Centres. *Land* **2022**, *11*, 773. <https://doi.org/10.3390/land11060773>.
8. Tajani, F.; Di Liddo, F.; Ranieri, R. The Effective Use of National Recovery and Resilience Plan Funding: A Methodological Approach for the Optimal Assessment of the Initiative Costs. *Land* **2022**, *11*, 1812. <https://doi.org/10.3390/land11101812>.
9. Han, S.; Bohannon, C.L.; Kwon, Y. Degentrification? Different Aspects of Gentrification before and after the COVID-19 Pandemic. *Land* **2021**, *10*, 1234. <https://doi.org/10.3390/land10111234>.
10. Cilliers, E.J.; Sankaran, S.; Armstrong, G.; Mathur, S.; Mugapitiya, M. From Urban-Scape to Human-Scape: COVID-19 Trends That will Shape Future City Centres. *Land* **2021**, *10*, 1038. <https://doi.org/10.3390/land10101038>.
11. Rossitti, M.; Oppio, A.; Torrieri, F.; Dell’Ovo, M. Tactical Urbanism Interventions for the Urban Environment: Which Economic Impacts? *Land* **2023**, *12*, 1457. <https://doi.org/10.3390/land12071457>.
12. Canesi, R.; Marella, G. Towards European Transitions: Indicators for the Development of Marginal Urban Regions. *Land* **2023**, *12*, 27. <https://doi.org/10.3390/land12010027>.
13. Gabrielli, L.; Ruggeri, A.G.; Scarpa, M. “Location, Location, Location”: Fluctuations in Real Estate Market Values after COVID-19 and the War in Ukraine Based on Econometric and Spatial Analysis, Random Forest, and Multivariate Regression. *Land* **2023**, *12*, 1248. <https://doi.org/10.3390/land12061248>.
14. Castro Noblejas, H.; De Paola, P.; Martínez, J.V. Landscape Value in the Spanish Costa del Sol’s Real Estate Market: The Case of Marbella. *Land* **2023**, *12*, 987. <https://doi.org/10.3390/land12050987>.
15. Gotta, A.; Mecca, U.; Rebaudengo, M. Switching from Risks to Opportunities: The Application of a Superbonus Tax Incentive to Heritage Buildings from the 1960s in Fragile Mountain Contexts. *Land* **2023**, *12*, 1130. <https://doi.org/10.3390/land12061130>.
16. Barbaro, S.; Napoli, N. Energy Communities in Urban Areas: Comparison of Energy Strategy and Economic Feasibility in Italy and Spain. *Land* **2023**, *12*, 1282. <https://doi.org/10.3390/land12071282>.
17. Pereira Domingues Martinho, V.J. Evidence of Global Convergence: Perspectives for Economic and Territory Planning in Times of the COVID-19 Pandemic. *Land* **2023**, *12*, 1251. <https://doi.org/10.3390/land12061251>.

References

1. Briguglio, L.; Cordina, G.; Farrugia, N.; Vella, S. Economic Vulnerability and Resilience: Concepts and Measurements. *Oxf. Dev. Stud.* **2009**, *37*, 229–247. [[CrossRef](#)]
2. De Boer, J. *The Fragile City: The Epicentre of Extreme Vulnerability*; United Nation University Centre for Policy Research, United Nations University: Tokyo, Japan, 2017.

3. Olwig, K.R. The practice of landscape ‘Conventions’ and the just landscape: The case of the European landscape convention. *Landsc. Res.* **2007**, *32*, 579–594. [[CrossRef](#)]
4. Powell, M.; Boyne, G.; Ashworth, R. Towards a geography of people poverty and place poverty. *Policy Politics* **2001**, *29*, 243–258. [[CrossRef](#)]
5. Bernt, M. Shrinking Cities. In *The Wiley Blackwell Encyclopedia of Urban and Regional Studies*; Wiley Online Library: New York, NY, USA, 2019. [[CrossRef](#)]
6. Oswalt, P.; Haslam, D.; Kil, W.; Prigge, W.; Ronneberger, K.; Thomas Sugrue, T.; Douglas, S. *Shrinking Cities*; Hatje Cantz Verlag: Ostfildern, Germany, 2005; Volume 1.
7. Oswalt, P.; Alsop, W.; Baur, R. *Shrinking Cities 2*; Hatje Cantz Verlag: Ostfildern, Germany, 2006.
8. Liu, W.; Dunford, M.; Song, Z.; Chen, M. Urban–rural integration drives regional economic growth in Chongqing, Western China. *Area Dev. Policy* **2016**, *1*, 132–154. [[CrossRef](#)]
9. Salerno, R.A. *Landscapes of Abandonment*; SUNY Press: Albany, NY, USA, 2012.
10. Bolton, R. *An Economic Interpretation of a ‘Sense of Place’*; Papers 130, Department of Economics Working Papers from Department of Economics; Williams College: Williamstown, MA, USA, 1989.
11. Bertrand, N.; Cremer-Schulte, D.; Perrin, M. Strategic Spatial Planning and Territorial Asymmetries. Grenoble and Greater Geneva: Two Alpine City Regions Put to the Challenge of Coherence. *J. Alp. Res.* **2015**, *103*. [[CrossRef](#)]
12. Qviström, M.; Saltzman, K. Ambiguous edgelands: Landscape studies beyond rural–urban divides and disciplinary trench-lines. *Urban For. Urban Green.* **2008**, *7*, 143–144. [[CrossRef](#)]
13. Luhmann, N. *Introduction to Systems Theory*; Polity Press: Malden, MA, USA, 2013.
14. Luhmann, N. *Social Systems*; Stanford University Press: Stanford, CA, USA, 1995.
15. Putman, R.D. *Making Democracy Work*; Princeton University Press: Princeton, NJ, USA, 1993.
16. Coleman, J.S. Social Capital in the Creation of Human Capital. *Am. J. Sociol.* **1998**, *94*, 95–120. [[CrossRef](#)]
17. Coleman, J.S. *Foundations of Social Theory*; Harvard University Press: Cambridge, MA, USA, 1990.
18. OCSE. *The Well-Being of Nations: The Role of Human and Social Capital*; OCEs: Paris, France, 2001.
19. Bourdieu, P. The forms of capital. In *Handbook of Theory and Research for the Sociology of Education*; Richardson, J.G., Ed.; Greenwood Press: New York, NY, USA, 1986; pp. 241–258.
20. Harvey, D. *Limits to Capital*; Basil Blackwell: Oxford, UK, 1982.
21. Rokkan, S.; Urwin, D.W. *Economy, Territory, Identity. Economy, Territory, Identity. Politics of West European Peripheries*; Sage: London, UK, 1983.
22. Antrop, M. Why landscapes of the past are important for the future. *Landsc. Urban Plan.* **2005**, *70*, 21–34. [[CrossRef](#)]
23. Folke, C. Resilience. In *Oxford Research Encyclopedia of Environmental Science*; Oxford University Press: Oxford, UK, 2016; pp. 1–63. [[CrossRef](#)]
24. Plieninger, T.; Bieling, C. Connecting cultural landscapes to resilience. In *Resilience and the Cultural Landscape: Understanding and Managing Change in Human-Shaped Environments*; Plieninger, T., Bieling, C., Eds.; Cambridge University Press: Cambridge, UK, 2012; pp. 3–26. [[CrossRef](#)]
25. Butler, A.; Knez, I.; Åkerskog, A.; Herlin, I.S.; Sang, O.; Ångman, E. Foraging for identity: The relationships between landscape activities and landscape identity after catastrophic landscape change. *Landsc. Res.* **2019**, *44*, 303–319. [[CrossRef](#)]
26. Folke, C.; Carpenter, S.R.; Walker, B.; Scheffer, M.; Chapin, T.; Rockström, J. Resilience Thinking: Integrating Resilience, Adaptability and Transformability. *Ecol. Soc.* **2010**, *15*, 20. [[CrossRef](#)]
27. Oppio, A.; Dell’ovo, M. Cultural Heritage Preservation and Territorial Attractiveness: A Spatial Multidimensional Evaluation Approach. In *Cycling & Walking for Regional Development*; Springer: Cham, Switzerland, 2021; pp. 105–125. [[CrossRef](#)]
28. Antrop, M. Landscape change and the urbanization process in Europe. *Landsc. Urban Plan.* **2004**, *67*, 9–26. [[CrossRef](#)]
29. Barreca, A.; Curto, R.; Rolando, D. Assessing Social and Territorial Vulnerability on Real Estate Submarkets. *Buildings* **2017**, *7*, 94. [[CrossRef](#)]
30. Trovato, M.R.; Clienti, C.; Giuffrida, S. People and the city: Urban fragility and the real estate-scape in a neighborhood of Catania, Italy. *Sustainability* **2020**, *12*, 5409. [[CrossRef](#)]
31. Gabrielli, L.; Giuffrida, S.; Trovato, M.R. From Surface to Core: A Multi-Layer Approach for the Real Estate Market Analysis of a Central Area in Catania. In *Proceedings of the Computational Science and Its Applications—ICCSA 2015*, Banff, AB, Canada, 22–25 June 2015; Gervasi, O., Murgante, B., Misra, S., Gavrilova, M.L., Rocha, A.M.A.C., Torre, C., Taniar, D., Apduhan, B.O., Eds.; Springer International Publishing: Cham, Switzerland, 2015; pp. 284–300.
32. Gabrielli, L.; Giuffrida, S.; Trovato, M.R. Functions and Perspectives of Public Real Estate in the Urban Policies: The Sustainable Development Plan of Syracuse. In *Proceedings of the Computational Science and Its Applications—ICCSA 2016*, Santander, Spain, 20–23 June 2011; Gervasi, O., Murgante, B., Misra, S., Rocha, A.M.A.C., Torre, C.M., Taniar, D., Apduhan, B.O., Stankova, E., Wang, S., Eds.; Springer International Publishing: Cham, Switzerland, 2016; pp. 13–28.
33. Napoli, G.; Giuffrida, S.; Valenti, A. Forms and Functions of the Real Estate Market of Palermo (Italy). Science and Knowledge in the Cluster Analysis Approach. In *Appraisal: From Theory to Practice. Green Energy and Technology*; Stanghellini, S., Morano, P., Bottero, M., Oppio, A., Eds.; Springer: Cham, Switzerland, 2017. [[CrossRef](#)]
34. Gabrielli, L.; Giuffrida, S.; Trovato, M.R. Gaps and Overlaps of Urban Housing Sub-market: Hard Clustering and Fuzzy Clustering Approaches. In *Appraisal: From Theory to Practice*; Springer: Cham, Switzerland, 2017; pp. 203–219. [[CrossRef](#)]

35. Camagni, R. Per un Concetto di Capitale Territoriale. In *Crescita e Sviluppo Regionale: Strumenti Sistemi e Azioni*; Borri, D., Ferlaino, F., Eds.; Franco Angeli: Milano, Italy, 2009; pp. 66–90.
36. Camagni, R. Territorial capital and regional development. In *Handbook of Regional Growth and Development Theories*; Capello, R., Nijkamp, P., Eds.; Edward Elgar: Cheltenham, UK, 2009; pp. 118–132.
37. Harvey, D. *Social Justice and the City*; Johns Hopkins University Press: London, UK, 1973.
38. Camagni, R.; Capello, R. Macroeconomic and territorial policies for regional competitiveness: An EU perspective. *Reg. Sci. Policy Pract.* **2010**, *2*, 1–19. [[CrossRef](#)]
39. Lumhann, N. *Soziale Systeme Grundriss Einer Allgemeinen Theorie*; Suhrkamp Verlag: Berlin, Germany, 1984.

Disclaimer/Publisher’s Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.