


Cultural, Creative, and Sustainable Cities: Assessing Progress and Measurement Perspectives

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1. Connecting Culture to Sustainable Development

The link between culture and sustainable development has become a major research topic in the past few years. The first decade of 2000 was particularly effective at promoting this subject in the academic debate: the number of papers on Google Scholar whose topic relates to ‘culture and sustainable development’ more than doubled, bouncing from 366,000 in 2001–2005 to 1,200,000 in 2006–2010 (source: Google Scholar, 14 March 2022. Results were obtained by using the query ‘culture and sustainable development’ and by excluding citations. We obtained comparable results, in terms of relative growth, when running similar queries, e.g., ‘culture and sustainability’).

Although the intellectual debate around how culture relates to sustainable development remains rich (e.g., [1,2]) and somewhat controversial [3], the most comprehensive conceptual framework on the matter by Soini & Dessein [4] posits three main mechanisms through which culture can contribute to ‘future-proof’ progress [5]. First, culture can act as the fourth pillar of sustainable development, alongside economic, social, and environmental pillars (*culture in sustainability*). In this sense, culture is mainly intended as tangible and intangible capital that can take different forms (arts, heritage, knowledge, cultural diversity, etc.), which should be maintained and preserved in the public interest. Second, culture can serve as a mediator contributing to economic, social, and environmental sustainability. In this sense, culture, as an ensemble of activities, values, and perceptions, acts as an essential resource for local and regional economic, social, and ecological development (*culture for sustainability*). Third, culture can exist as a game-changer that underpins and radically transforms our understanding of sustainable development (*culture as sustainability*). In other words, this third mechanism embeds sustainability within the cultural sphere and envisions an eco-cultural civilisation scenario.

2. Why A Focus on (Creative) Cities

Cities are at the forefront of such processes. Not only in terms of heritage preservation and conservation but also for their proven capacity to mobilise culture in its mediating role towards economic, social, and environmental sustainability. Cities have long been investing in culture as a lever and catalyst for socio-economic regeneration and development, fostering citizen participation in local cultural activities to enhance life opportunities and improve well-being or catalyse environmental-reclamation processes and inspire actions to improve environmental health. Cities are also the most qualified territorial entities to activate cultural transformations due to their high density of inhabitants and grassroots organisations: a crucial synergy to engage communities in processes of change.

The creative city paradigm has been instrumental in encouraging the adoption of the varied culture-led ‘policy scripts’ implemented in the past forty years. Leveraging the combined potential of culture and creativity [6] has indeed proven effective in empowering



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communities [7,8], attracting talents [9,10], fostering inclusion [11], supporting the development of highly localised cultural goods and industries [12,13], and igniting innovation in the overall economy [14].

In other words, culture is closely but at the same time diversely related to development paths that take the interests of future generations into account. Yet, and despite growing attention to the topic in academic, policy, and practitioners' circles, the political debate around sustainable development largely remains focused on the environment, economy, and society. The reasons are varied and range from misconceptions of the nature and social role of culture—as a static, conservative social force that tends to obstruct, instead of accompany development—to competing approaches, sectoral vs. transversal [15], that characterise the policy implementation of culture in local development processes. The lack of city-level data on culture and the multiple dimensions to which sustainable development is connected adds another layer of complexity to measuring progress and impacts. The UNESCO Culture 2030 Indicators try to fill this gap by providing conceptual and methodological guidance to measure public investment to preserve cultural heritage and culture's contributions to the three pillars of sustainable development, both at the national and city level.

3. The Special Issue: Rationale and Contents

This Special Issue specifically tackles the challenge of enriching the empirical evidence and reflection around measuring culture's contribution to sustainable development in cities. In particular, it addresses a deficit of attention to small- and medium-sized cities in European sustainable development. It achieves this by putting at the disposal of scholars the Cultural and Creative Cities Monitor, a unique open-source dataset featuring 29 culture- and creativity-related indicators for 190 European cities with a minimum of 50,000 inhabitants. The European Commission's Joint Research Centre published the very first edition of the Monitor in 2017 [16,17] and an updated version in 2019 [18]. Combining eight different data sources, including both official statistics from Eurostat and purposefully collected data from the web, the Monitor aggregates the selected 29 indicators into a synthetic indicator of performance (the C3 Index) and three underlying sub-indices—Cultural Vitality, Creative Economy, and Enabling Environment—thus providing a holistic measure of culture and creativity in cities. Cities were selected due to their commitment to integrating culture and creativity in their development strategies. Three types of culture-led initiatives were chosen to proxy such commitment. The final sample thus included 98 cities that were European Capitals of Culture (or shortlisted to become one) and 33 UNESCO Creative Cities and 59 cities that hosted at least two international cultural festivals.

The articles included in this Special Issue address the culture–sustainability topic from two main perspectives. On the one hand, they enrich the evidence base concerning culture's contribution to local and regional economic vitality, both at the European and national levels. On the other hand, they push forward the reflection on the Cultural and Creative Cities Monitor itself, providing policy insights on creative tourism and political activism as well as practical tests of how its conceptual framework could be applied to national or even sub-national contexts. In doing so, the authors help identify cultural elements that might complement the Monitor's metrics and offer a more dynamic and inclusive view of local cultural ecosystems.

3.1. Cultural Dynamism and Business Vitality in Medium-Sized Cities—Evidence and Proposals for Sustainable Development

The article by Escalona-Orcao et al. [19] applies and at the same time slightly adapts the Cultural and Creative Cities Monitor to Spanish cities that are out of the scope of the European database, that is, 81 Spanish cities between 50,000 and 100,000 inhabitants. Yet, this article—which has the great merit of testing and corroborating the appropriateness of the Monitor at a sub-European scale—is not 'merely' an adaptation of the Monitor. Rather, its central finding revolves around the impact of Spanish cities' cultural performance on business vitality. The C3 Index—whose score is generally higher for cities located in

metropolitan areas—appears to be positively related to indicators of business presence. More precisely, the concentration of the 13,204 cultural enterprises analysed is higher in groups of cities featuring higher values of the cultural indicators. Additionally, municipalities in the group with the highest cultural scores account for 74% of total assets. However, this trend is not confirmed for the profit and profitability variables. At the same time, the high concentration of assets into a small number of the sampled companies (53% of the companies only owned 10% of the assets) highlights the typical vulnerability of such companies, for which ad hoc post-pandemic recovery strategies are needed. This analysis can help policymakers design effective strategies in the new context to enable a sustainable post-pandemic recovery of local cultural and creative ecosystems.

3.2. Cultural and Creative Cities and Regional Economic Efficiency: Context Conditions as Catalysts of Cultural Vibrancy and Creative Economy

The regional effects of Cultural and Creative Cities (CCCs) are the focus of the article by Cerisola & Panzera [20]. The authors analyse the effect of cultural vitality and creative economy, as proxied by the Cultural and Creative Cities Monitor, on the GDP levels of the (NUTS2) regions where they are located. Interestingly, they find that the mere presence of cultural heritage and facilities is not enough to trigger a spillover mechanism that significantly affects the regional output. It is cultural participation instead that activates heritage, which in turn generates a positive effect on the regional economy. CCCs also positively affect the output of their regions through innovation. Additionally, the article provides evidence about contextual conditions enabling spillovers. In fact, while urban cultural venues and facilities do not show any statistically significant spillover effect on the output of their regions, human capital and good-quality governance seem to ‘activate’ them. An open and tolerant atmosphere also triggers such effects. Overall, their analysis supports the design of targeted policies fostering not only the cultural and creative vitality of cities but also their enabling contextual conditions. In their conclusion, the authors make important remarks about the possible negative consequences of culture-led development strategies that policymakers should try to anticipate and avoid, most notably gentrification, widening inequalities, and social fragmentation.

3.3. Exploring Creative Tourism Based on the Cultural and Creative Cities (C3) Index and Using Bootstrap Confidence Intervals

Mareque, Creo & Álvarez-Díaz [21] examine how the C3 Index and its components relate to cities’ levels of income, employment rate, population size, as well as regional development using bootstrap confidence intervals, a non-parametric method that uses random sampling with replacement to estimate the empirical distribution of almost any statistic, including the mean. They offer two main insights. From a policy perspective, they show that small cities have their own specific features that differ from those of big cities. In this respect, creative tourism strategies could count on their rich levels of infrastructure but at the same time face poorer transport connections. ‘Proximity tourism’ could be an option for cities of smaller size that lack major tourism attractions and may want to look for more sustainable forms of visits, following a trend that the COVID-19 pandemic seems to be reinforcing. From a methodological point of view, they show that income is a more important variable than population size when comparing cities as it captures higher mean differences between large and small cities. This finding implies that income significantly interacts with cities’ cultural performance, as already remarked above.

3.4. Bringing Back the Spatial Dimension in the Assessment of Cultural and Creative Industries: The Case of Milan

Bertoni, Dubini & Monti [22] propose an interesting application of the Cultural and Creative Cities Monitor to illustrate the cultural and creative vitality of Milan’s neighbourhoods. Their analysis of four emerging cultural clusters, each one characterised by a different mix of cultural landmarks and initiatives as well as gentrification risks, provides more than just an insight into a specific empirical case. It helps set the stage for future

suburban applications of the Monitor, offering a less comparative but complementary perspective to the European version. The authors' operationalisation of the 'Cultural Vibrancy' sub-index expands the most common taxonomy of cultural actors to include any organisation active in temporary events. As the authors suggest, this is an essential element to be introduced in the policy debate on culture at the city level, in line with the direction set by the 2030 Agenda that encourages organisations to establish both temporary and long-term partnerships with different stakeholders (SDG 17). In fact, they argue that the possible development of proximity-driven local policies calls for a non-stereotypical understanding of each neighbourhood's character, not limited to a basic site description (the cultural infrastructure) but covering the site-specific characters of the local socio-cultural dynamics (cultural initiatives) and the interplay between formal and informal organisations engaged in such initiatives (cultural governance). *"This approach offers a more diverse (and hopefully more inclusive) view of the role of cultural organisations other than cultural institutions at neighborhood level. This is particularly relevant in more recently established and peripheral areas that might be culturally vibrant and support diverse cultural expressions, even though they lack established institutions (such as museums)"* (p. 14). This article also proposes a crowdsourcing approach to data collection as a research method that could help improve analytical capacities to measure and study culture in its context.

3.5. Urban Nature: Does Green Infrastructure Relate to the Cultural and Creative Vitality of European Cities?

Kumar & Vuilliomnet [23] build a Green Infrastructure index (GII) using Open-StreetMap (OSM) data on different kinds of green items (wood, trees, gardens, parks, etc.) to assess whether European cultural and creative cities share some green features. Their analysis was motivated by the severe impact that the COVID-19 pandemic has had on the cultural and creative sectors and the subsequent emerging need for novel cultural spaces ensuring safe gatherings and the more effective use of open/public spaces, including green areas, for cultural initiatives. In addition, the cultural use of green spaces may increase people's connections to the natural environment, which is widely considered an important contributor to health and well-being. The authors find a moderately positive correlation with the Cultural Vibrancy sub-index (0.31), no correlation with the Creative Economy sub-index (0.04), and a weak positive correlation with the Enabling Environment sub-index (0.15), suggesting that the availability of green infrastructure is not necessarily concentrated in the best-performing cultural and creative cities. This article offers an initial attempt to measure the availability of green infrastructure in selected European cities while opening the door for future research to consider its actual use (e.g., through cultural initiatives) as a cultural and socialisation space or assess possible limitations to such use.

3.6. Geographies of Flowers and the Geographies of Flower Power

The last paper by Tubadji & Montalto [24] studies the relationship between ecological and arts activism on the one hand and happiness and political behaviour on the other using microdata from the World Value Survey that are available for seven European countries. This is important because, in a moment of rising inequalities and high political discontent, further amplified by the COVID-19 pandemic, it is of utmost importance to find effective ways to help people bounce back psychologically and channel popular dissatisfaction through constructive political debate. These researchers find that, on average, cultural membership is twice as important as green membership. Put differently, people seem to care twice as much for the cultural sector than for ecological issues. However, whereas art activities appear to be an important predictor of both happiness and political engagement, ecological concerns are more strongly predictive of political engagement compared to arts engagement, and are not at all predictive of happiness. In this case, the European Commission's Cultural and Creative Cities Monitor data allow the authors to crosscheck and confirm the validity of these associations at an aggregate (urban) level. The article provides a useful contribution to the current debate on post-pandemic policies. The findings

imply that policymakers should support the development of viable alternatives to physical, social activities due to the yet-unrecognised effect that decreasing participation rates might have on people's political activism and well-being.

4. Connecting the Dots

In addition to the specific contributions provided by the articles of this Special Issue, three main remarks can be made.

First, the Monitor works as an effective conceptual and empirical tool to analyse cultural ecosystems at different scales. Regarding the European one, Mareque, Creo & Álvarez-Díaz [21] prove that statistically significant differences exist in terms of cultural vitality and creative economy between groups of cities with different income levels and population sizes. At the national level, Escalona-Orcao et al. [19] successfully test the replicability of the Monitor on a sample of 81 small- and medium-sized Spanish cities, simultaneously showing the added value of additional geographical information to understand the mechanisms underlying the cities' performance. With respect to the sub-national scale, Bertoni, Dubini & Monti [22] illustrate the Monitor's value in guiding more fine-grained analyses, probing deeper into Milan's aggregate urban picture. At the same time, crowdsourcing methods allow the authors to expand the scope of the Monitor (adding data on cultural initiatives) to enable context-specific evaluations.

Second, and as a direct consequence of the first remark, the evidence provided clear advocates for *place-responsive* development strategies. Mareque, Creo & Álvarez-Díaz [21] point to the smallest cities' high levels of cultural infrastructure as a solid basis for developing context-specific city strategies that overcome a copy-and-paste logic. When it comes to growth, assets and enabling conditions are important to activate the local cultural capital [20]. Said differently, the impact of cultural capital on local economic performance is not place-neutral. Rather, it depends on the specific, intangible contextual conditions. Such conditions may, among other things, relate to the location and functional role of cities in (non)metropolitan areas. Escalona-Orcao et al. [19] find that the C3 Index is positively related to indicators of business presence, with the diverse behaviour of small- and medium-sized Spanish cities being related to whether or not they are part of a larger metropolitan area.

Third, this Special Issue explores, explicitly or implicitly, culture's contribution to two main dimensions of sustainable development, notably, economic growth (SDG 8) and industry (SDG 9) [19,20]. At the same time, it paves the way to a theoretical and empirical upgrading of existing metrics for a more comprehensive measurement of sustainable cities and communities (SDG 11) that covers spatial and green dimensions, as further elaborated below.

5. What Lies Ahead

Moving toward gathering more evidence on the sustainability impact of creative practices at the urban level represents an important research challenge, especially when the aim is to produce Europe-wide *comparable* evidence. Sustainability, culture, and creativity are multidimensional concepts overlapping in some respects; city-level data are generally scarce and hard to compare, and results are often difficult to generalise.

This Special Issue presents a few papers that take some first steps in this direction, documenting important economic effects and hinting at several key areas of future enquiry. These include the need to gather more fine-grained data for a better understanding of the micro-social mechanics of sustainability, with special emphasis on social quality goals such as *equal* growth and progress (across urban space, cultural communities, genders, etc.); enabling cultural *initiatives* together with the provision of cultural infrastructure; citizens' *proximity* to, and accessibility of, a varied cultural offer as a civic capacity-building tool. Many questions remain to be answered: how will the proximity/15 min city paradigm unfold, and how will it relate to cultural production and accessibility issues? Will such a paradigm be economically and socially sustainable, ensuring a socially and economically diverse citizenship, including cultural and creative professionals? Or will it create further

social ghettos? The relation with green areas and, more broadly, with ecological issues, represents another relevant area of research, especially in terms of avoiding a strategically competitive pitting of environmental concerns against cultural ones, favouring a complementary, mutually enriching policy approach instead. Another relevant topic is the sustainability of cultural and creative sectors as a pre-condition for cultural and creative cities to stay vibrant and attractive. Combining city- and business-level data may be instrumental to improving our understanding of the actual and potential weaknesses of cultural and creative production processes and could lead to better targeted (and potentially more effective) recovery policies.

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