Sustainable urban regeneration: the role of cultural heritage in Cultural Ecosystem Services (CES)

Regeneração urbana sustentável: o papel da herança cultural nos Serviços Culturais dos Ecossistemas (SEC)

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Abstract

It is widely acknowledged that in the last few decades, culture has been playing an increasing role in urban regeneration. However, particularly in the realm of urban policy, the understanding of what culture is seems to be too narrow, often excluding vernacular culture. Why should vernacular culture be incorporated into urban policy and can it effectively contribute to the promotion of urban regeneration? Our case study is on Marvila and Beato (in Lisbon, Portugal), two parishes that share an industrial past and that were neglected in recent decades, but that are currently undergoing a regeneration process. Using the methodology proposed by Cultural Ecosystem Services (CES), we combine both qualitative and quantitative methodologies: a historical and observational approach and a questionnaire survey. Results show that not only tangible but also intangible heritage are key to designing an urban regeneration policy and this requires higher participation by the community and local actors.

Resumo

É amplamente reconhecido que nas últimas décadas, a cultura tem um papel preponderante nas estratégias de regeneração urbana. No entanto, em particular no âmbito das políticas públicas urbanas, o entendimento de cultura parece ser estrito demais, excluindo a cultura tradicional. Porque é que a cultura tradicional deve ser incorporada nas políticas públicas e pode efetivamente contribuir para o processo de regeneração urbana? Tomamos como estudo de caso, Marvila e Beato (em Lisboa, Portugal) duas freguesias que partilham um passado industrial, que se tornaram negligenciadas ao longo das últimas décadas e que estão a ser alvo de um processo de regeneração urbana. Usando a metodologia dos Serviços Culturais dos Ecossistemas (SEC) combinamos aspetos qualitativos e quantitativos: uma abordagem histórica e observacional, e um inquérito. Os resultados mostram que não só a herança tangível como a intangível é essencial para desenhar uma estratégia de regeneração urbana e isto requer uma maior participação da comunidade e dos atores locais.

Introduction

Over the last few decades, culture has been celebrated as one of the most powerful drivers of urban regeneration worldwide [1]. However, there is substantial critique in the realm of urban studies, claiming that restrictive ideas of culture are deployed in urban policy, excluding many forms of vernacular creativity whose role in urban life remains unacknowledged [2]. Our main research question is twofold: why should vernacular culture be incorporated into urban policy and can it effectively contribute to promoting urban regeneration?

While theoretical and empirical studies have shed light on the potential culture has as an urban regeneration driver, little attention has been paid to the pitfalls that can emerge from the involvement of different actors with different (and often contradictory) interests [2].

We claim that the lack of a broader concept of culture and the dismissal of conflict among actors can hinder the cohesive course of action aimed at by urban policies. In order to inform this claim, the concept of Cultural Ecosystem Services (CES) can be of great help in order to validate the relevance of tangible and intangible heritage to urban regeneration. Scholarly debate on CES has been closely connected to the broader concept of Ecosystem Services (ES), which relies on an analysis of the relationship between humankind and the environment. CES focuses on the role tangible and intangible culture play in promoting a sustainable ecosystem. However, this has been historically difficult to quantitatively evaluate because of their subjectivity and intangibility [3]. Whereas ES theories predominantly refer to mainly economic-based quantitative criteria, CES principles advocate that the need for qualitative criteria also has be taken into account [4-5].

The introduction of qualitative criteria into the theoretical debate on CES has had a significant impact on the development of adequate methodologies in this field [6]. The quantitative and qualitative methodological framework of CES allows the role of culture as a driver in its tangible and intangible features to be validated. The promotion of a more comprehensive understanding and approach to culture-led regeneration is useful insofar as it is likely to encompass the complex interaction of actors and interests in a wide range of initiatives. Policy-related literature further corroborates the need for scholars to be provided with theoretical references and methodological tools capable of accounting for the quantitative and qualitative components of urban regeneration schemes [7].

Against this backdrop, this article builds on key findings from the European Union (EU)-funded research project "ROCK – Regeneration and Optimisation of Cultural heritage in creative and Knowledge cities" (2017-2020) [8]. The project is based on cultural heritage-driven urban regeneration in urban areas that have critical socioeconomic and socio-territorial features. The urban area identified in Lisbon, one of the three replicator cities, along with Bologna and Skopje, comprises the civil parishes of Marvila and Beato. The authors of this article are members of the research team at the Institute of Social Sciences (University of Lisbon), one of the academic partners of the project. Our investigation has focused on Lisbon and the cultural heritage-led regeneration in the urban area identified.

By adopting a CES theoretical and methodological framework, we aim to discuss evidence retrieved from the application of a multi-method approach to the action research, which combined methods for the collection of quantitative and qualitative data: document analysis, participant observation, exploratory interviews, focus groups, and surveys. Acknowledging the impossibility of summing up all the findings from the entire project, which would fall rather short of the scope of this article, we will focus on qualitative and quantitative data from participant observation and surveys.

Cultural Ecosystem Services and cultural heritage-led urban regeneration

Theories on Cultural Ecosystem Services (CES) derive insights from the scholarly production on the Ecosystem Services (ES). ES mainly refers to the analysis of land use and ecosystems that offer a wide range of public services: 1) provisioning services, such as food, fibre, fuel, genetic resources, and fresh water; 2) regulation services, such as air filtration, micro-climate regulation, noise reduction, rainwater drainage, erosion control, and sewage treatment; 3) support services, necessary for the production of all other ecosystem services, such as soil formation, nutrient cycling and water; and 4) cultural services, which include recreational, cultural and educational values [9]. Despite originating in ecological sciences, ES is a concept whose meaning is based on the ability to provide humans with benefits – referred to as 'services' [10].

Whereas CES theories and approaches consider the quantitative aspects of culture, linkages with ES theories have long been side-lined, which prevents communities and societies from better understanding planning processes [11-14]. Contrary to the emphasis on the quantitative features of public services, CES theories highlight the qualitative side of the relationship between humankind and the environment. Accordingly, non-material and socioecological benefits are taken into account, along with the lived experience of the environment, such as spiritual enrichment, cognitive development, reflection, recreation and aesthetic experiences. Research approaches based on CES theories focus on the analysis of individual values constructed through the social and community sense of belonging, complemented by skills and methods drawn from social sciences and humanities [15-18].

With regard to CES theories, scholars further point to the relative scarcity of original contributions on cultural heritage. As Hølleland et al. [12] found in a systematic review of 130 scientific articles published between 2004 and 2017, only 2 % addressed cultural heritage as a key topic in CES theories. The authors argue that "CES is able to touch the intangible interface between landscape and heritage" [12, p. 218], which is expected to connect both tangible and intangible cultural heritage. The argument is particularly relevant if we consider the ways in which cultural heritage is understood as a component of the ecosystems.

The United Nations approach

The first approach on CES, which greatly contributed to popularising the term, is based on the United Nations Millennium Assessment, which began in June 1998, was launched in 2001 and published in 2005 [14]. Its significance is that it defines cultural heritage as derived from the ecosystem/landscape and this represented a historical shift in the way cultural heritage was centred on tourism promotion until 2004 [19]. In the last decade, strategies for the promotion of cultural heritage have been combined with the public endorsement of citizen participation in urban conservation and planning processes, although pioneering initiative can be traced back to the 1970s [20-23].

The promotion of sustainability that encompasses the economic, ecological and social realms has equally implied the promotion of community involvement at different levels [24], supporting previous experiences of Agenda 21 [25] and the report *We the Peoples: The Role of the United Nations in the 21st Century* issued by United Nations Secretary-General Kofi Annan in 2000. In Europe, cultural heritage at local level was especially inspired by the *SUIT* guidelines (SUIT, sustainable development of urban historical areas through an active integration within towns) [26]. Accordingly, cultural heritage is understood in three main domains: 1) built heritage of exceptional cultural value; 2) non-exceptional heritage elements present in a consistent and relatively abundant way; 3) new urban elements to be considered as cultural heritage (e.g. built environment; green, water and grey architecture in open space; urban infrastructures, material networks and facilities).

More recently, the UNESCO Intergovernmental Committee [27] issued "Decision 10.COM 15.a", which advocates that communities, groups and individuals should have access to, safeguard, and determine threats to intangible cultural heritage.

In 2016, UNESCO [28] contended that cultural heritage management was participatory and connected to urban planning and development practices. However, critiques of participatory approaches point out that the promotion of local identities through practices such as these is likely to lead to the homogenisation of cultures [29]. The United Nations 2030 Agenda [30] set out 17 Sustainable Development Goals (SDGs) to be equally attained both by the Global South and North, and reinforced the role of local communities in SDG 11 "Sustainable Cities and Communities".

The more recent approach

More recently, scientific literature on cultural heritage has underlined the interaction between its tangible and intangible aspects [31]. Acknowledging that the definition of cultural heritage has changed over time, the role of intangible cultural heritage has grown since early approximations in the beginning of the 1980s ("non-physical heritage") to the formulation of the proper concept in the early 2000s ("intangible heritage") [32]. This encompasses how past and present traditions interact and approaches can be categorised according to four main frameworks: how foreign practices and beliefs are integrated; how traditions, skills and customs represent a community and are passed on; how intangible cultural heritage is recognised as such by communities [33-34].

In many countries, heritage governance is not yet regarded as a cooperative process between the state and the public [35]. Towards this aim, a site, a building or a set of buildings needs to be acknowledged as cultural heritage by governments, non-governmental organizations (NGO) and the communities. If it is not, there are no boundaries and large private sector development projects will more easily occupy the area, paving the way for gentrification.

Landscape is made up of tangible and intangible heritage. It is a combination of what one sees and the way space is experienced by those who permanently inhabit it every day. The more intertwined the material elements in the landscape are with daily practices, the more character the place has, the stronger the sense of belonging of its residents and the stronger the sense of community. Local residents of a given territory are the best actors to publicise and promote a given district. If they do not feel a sense of belonging towards the territory, they may not value it [36]. In order to promote an integrative approach to landscape (both land and riverfront), residents need to acknowledge themselves as a community. For this to happen, a sense of belonging is crucial. Therefore, to promote the participation of communities in CES, it is crucial to encourage a sense of community.

Objectives and outcomes

In this article we combine the first and third approaches defined by the European Union's *SUIT* [26]: 1) built heritage of exceptional cultural value (tangible heritage); and 2) new urban elements to be considered as cultural heritage (intangible heritage).

The goal is to demonstrate that vernacular culture should be incorporated into urban policy so it can effectively contribute to the promotion of urban regeneration. Within the framework of CES, using quantitative and qualitative methods, we present a historical overview of our case study area and the results of a survey that validate the relevance of both tangible and intangible heritage in the promotion of a sustainable area.

ROCK is a large-scale project that focuses on historic city centres aiming to demonstrate that these are powerful tools for the promotion of urban regeneration, sustainable development and economic growth benefiting the whole city. The project features seven role model cities: Athens (Greece), Cluj-Napoca (Romania), Eindhoven (The Netherlands), Liverpool (England, United Kingdom), Lyon (France), Turin (Italy) and Vilnius (Lithuania). Several pilot campaigns

previously implemented in model cities are replicated by three selected replicator cities: Bologna (Italy), Lisbon (Portugal) and Skopje (Macedonia) in the form of local campaigns.

Transversal to the project is the idea that a sustainable city is only possible if different actors are involved, striving for a balance between environmental, social and economic processes in the process of urban regeneration. This balance is being put to the test in many European cities, recently under heavy economic pressure and, in an increasingly accelerated globalised world that is attempting to reconcile the past with the future.

The two partners that represent the *ROCK* project in Lisbon are the Institute of Social Sciences, University of Lisbon and Lisbon Municipal Council. Lisbon's *ROCK* area focuses on the traditional industrial historical centre, made up of Marvila and Beato parishes. As we describe below, since the mid-1800s, the area has been repeatedly identified as a privileged area to embrace new industries, host new technologies and support innovation. However, although the area thrived briefly in the past, the fact is that the industrial sector was never a strong feature of Portugal's economy. Whatever plans were established over time to develop the area, they were always abandoned in order to establish new and more effective strategies. This has deeply fragmented the parishes, impacting the dynamic between the territory and its residents. After several decades of neglect, the area was recently declared as Lisbon's innovation centre, and this is at the heart of its urban regeneration strategy.

According to the aforementioned CES methodology, which combines qualitative and quantitative elements, we will present a historical/observational assessment of the *ROCK* area, our survey and survey results. This methodology also uses the *ROCK* approach, action research, aiming to encourage close contact with the research area in order to produce academically informed knowledge that may eventually translate into local campaigns.

The choice of approaching our research area using both a qualitative (historical/observational method) and quantitative methodology aims to respond to the scientific need identified by Sowińska-Świerkosz [37] when performing a review of cultural heritage indicators related to landscape: most studies are qualitative and rely mostly on state indicators, neglecting the quality of political campaigns and perception dimensions. We combine the historical/observational method with a survey questionnaire that privileges the input of the local residents and where quantitative and qualitative aspects are balanced, addressing social and spatial aspects and assessing landscape by making a link between both tangible and intangible heritage.

This will support our claim that vernacular culture should be incorporated into urban policy and that it effectively contributes to the promotion of urban regeneration.

ROCK area historical background

The *ROCK* area comprises the parishes Marvila and Beato and it has around 2.19 km² keeping its main focus on the riverfront. Figure 1 represents around 2 % of the city's area and close to 23 % of Marvila and Beato. Overall, Marvila has a population of 37,793 and an area of 7.12 km² area (6.37 km² in 2011); Beato has a population of 12,737 and an area of 2.46 km² (1.62 km² in 2011). In total, Lisbon has a population of around half a million and an area of 100.04 km², both parishes hold around 9.1 % of the population and 9.6 % of the city area [38]. The delimitation of the *ROCK* territory uses cultural, social and technological innovation organisations as its main reference, i.e. Braço de Prata Factory in the north, the first cultural innovation organisation established in 2007, ahead of its time and in accordance with the new strategic approach; Marvila Library (2016); and in the south, Ar.Co art school (2017); and the National Tile Museum, established in 1965, spatially welcoming visitors coming to Marvila and Beato from the riverfront (Figure 2).

There are three defining moments that allow the *ROCK* area to be characterised: the first took place in the mid-1800s; the second in the 1960s and the third in the 1980s. We hypothesise a fourth stage based on researchers' observations throughout the project.

Figure 1. Case study area: *a)* Portugal (grey) and Lisbon (red); *b) ROCK* area (red): Marvila and Beato parishes. Map tiles by CartoDB, under CC BY 3.0. Data by OpenstreetMap, under ODbL (https://cartodb.com/basemaps/). Edited by L. Pomesano with information from Lisbon Municipal Council (http://geodados.cm-lisboa.pt/).

Mid-1800s to the 1960s

We begin by providing a brief economic background of the country during the first period, ranging from the mid-1800s to the 1960s. In the early decades of the nineteenth century, before the independence of Brazil in 1822, free trade and non- interventionist doctrines prevailed. In the ensuing period, elevated protectionism was implemented in order to fight an economic downturn between the 1820s and 1850s. This implied government subsidies and regulations, designed by politicians to promote foreign investment and state interventionism. In the face of Portugal's first era of significant economic growth, protectionism was reduced between the 1850s and 1880s.

When faced again with slow growth, the approach went back to protectionism [39]. But it was precisely during the 1850s and 1880s that the state decided to invest heavily in building a modern transport network (roads, railways, ports, etc.) in order to promote a true national economy where Portugal could become a player on the international scene. The railway crossing Marvila and Beato was built in 1856 [40] and aimed at assuring the flow of raw materials and finished products. In this period, private business grew freer and freer, some supported by foreign companies. The government remained, very deliberately, impartial. An exception to the free-market rule was the formation of a public enterprise, *Caminhos-de-ferro do Estado* (State Railways), which ran most Portuguese railroads (building several new lines) between the 1870s and 1920s. The matter was considered to be too important to be left to the principles of market mechanisms. This demanded new taxes and loans, which caused severe riots [39]. As we have previously stated, both the railway and the port are two key features of the *ROCK* area built during those years.

Figure 2. *ROCK* area - Marvila and Beato parishes (detail) – social and cultural actors: 1. Marvila Library (2016); Casa Pia de Lisboa/ D. Maria Pia Professional School (1867); 3. Ar.Co – Centre for Art and Visual Communication (2017) in the Old Xabregas Market (1956); 4. Braço de Prata Factory (arts & culture) (2007) in the old Braço de Prata Military Factory; 5. Beato Creative Hub – Centre for Company Innovation (2016) in the old Military Maintenance area of the Portuguese Armed Forces (1867); 6. National Tile Museum (1965) in the Convent of Madredeus (1509; 1755; 1957-1958); 7. Lisbon Social Hub (2020) in the Mitra or Archbishop's Palace (1732); 8. Ibérico Theatre – Cultural Art Research Centre; 9. Meridional Theatre (2005) in the old City Hall Warehouse (late 19th century); 10. Alfinetes Palace (18th century rural farm); 11. Chinese Neighbourhood (informal housing, 20th century) in Marquês de Abrantes Palace (17th-century rural farm); 12. Lisbon WorkHub (2015) in Abel Pereira da Fonseca Society (1917). Map tiles by CartoDB, under CC BY 3.0. Data by OpenStreetMap, under ODbL (https://cartodb.com/basemaps/), edited by Laura Pomesano with information from Lisbon City Council (http://geodados.cm-lisboa.pt/).

As for the industry sector, which has left a firm imprint on the area to this day, countrywide, between 1910 and 1950, it was known to be a sector that did not significantly drive the Portuguese economy. Productivity gains were achieved by keeping resources in the agrarian sector (where labour and productivity gains were taken for granted). The agricultural sector contributed 23.9 % of total labour productivity growth, whereas industry contributed 35.5 % and services 40.6 %. Labour productivity changes in the industrial sector fundamentally took place in construction and energy (i.e. electricity), whereas the actual manufacturing sector lagged behind. Productivity changes occurred mainly in the traditional sectors, namely, textiles and the food and wood industries. Building also increased its output; however, the capital-intensive sectors had negative labour productivity growth rates. The gains obtained were therefore associated with traditional sectors and, overall, there were no significant changes [41].

Territorially, in the mid-nineteenth century, the industrial expansion in Lisbon first took place along the riverside to the west (Alcântra-Belém) and east (Beato-Marvila) of the city centre, making use of the Tagus shipping ports. Major national monuments existed to the west and the eastern area had more readily available space, featuring old convents and some of the summer residences for Lisbon's aristocracy. Therefore, Beato and Marvila became privileged areas for hosting new industries, equipped with railway access and a large port.

Industrialisation brought great densification to the city centre. Consequently, there was an increase in informal housing – some of which was built on land owned by the aristocracy (pátios). Due to public health concerns and because land near the factories was cheap, at some point, specific housing for factory workers started being built (vilas) [42-45]. The eastern areas of Beato and Marvila were major sites of such growth. According to the 1960 census [46], between 1864 and 1960 Lisbon's population quadrupled but in Beato, it increased almost ninefold.

1960s to 1980s

The second period of the *ROCK* area ranges from the 1960s to the 1980s. As it was under a military and national dictatorship between 1926 and 1974, Portugal's process of modernisation of economic thought took place in the 1960s. The determining factor was Portugal's role as founding member of the European Free Trade Association (EFTA) in 1960, along with the United Kingdom, Denmark, Norway, Switzerland, Austria and Sweden. EFTA specifically aimed at promoting industrial growth through partnerships, sharing new technologies and exploring new markets. This simultaneously positioned Portugal's economy in a European Union context for the first time, while also propelling its industry. The country's golden age in economic growth (1950-1973) did not have political reflections, as the country's increased international exposure brought added pressure from the other European countries for the decolonisation of Portugal's African colonies and democratisation [39, p.11, 41, p.23].

This renewed investment in the industry sector in the 1960s was perceived as a necessary evil. The country's dictatorship had initially stabilised a difficult financial situation through strict control of public finances but, over time, its economy became isolated and stale and most of the population lived in poverty. Portugal needed to catch up with industrialisation, although this would mean exposing its weaknesses to other countries. The urgent demand for growth was reflected in the massive immigration and internal migration that took place in the 1960s [47-48]. Internally, many abandoned the countryside (particularly the northern area) and fled to coastal cities. Migrants mainly settled in Lisbon and, due to pre-established densification and meagre resources, generated a significant increase in informal settlements particularly in areas where it was easier to find work — like in Marvila and Beato.

1980s to 2007

The last period of development in the *ROCK* area begins in the 1980s. Having begun in 1926, national dictatorship in Portugal ended in 1974; this was followed by a period of unrest and disorientation. In order to avoid bankruptcy, the country submitted to bailout programmes by the International Monetary Fund (IMF) in 1977–78 and 1983–85 [49]. In 1986, it became an official member of the European Union (European Community, pre-1993). This boosted a new national economic strategy where industry did not take the lead role. Factories were closed down and abandoned and the massive warehouses were no longer necessary to supply the country's (now independent) African colonies. Those who were able to leave the informal settlement areas (now surrounding abandoned factories) did so. Conversely, due to a welcoming immigration policy implemented by then Prime Minister António Guterres (1995-2002), particularly favouring people from former Portuguese colonies, the abandoned industrial area became a favoured settling area. Roma families were also attracted to live in the area. Development began on several social housing projects in the area in order to avoid and control informal settlement. The Marvila and Beato are in Eastern Lisbon, once the cradle of the new industrialisation, was the main area in the city to suffer the consequences of deindustrialisation.

In the 1990s, some attempts were made to promote rehabilitation work in the area [50]. The most serious one was in 1992, with the creation of the Patio and Villa Rehabilitation Division, Lisbon Municipal Council (*DRUPV – Divisão de Reabilitação de Pátios e Vilas, Câmara Municipal de Lisboa*), which proposed the refurbishing of infrastructures based on an in-depth study of the population and its needs, relying on the revitalisation of old artisanal skills and services to bring

the area's manufacturing tradition back to life, highlighting the particular architectural features. However, the project was cancelled almost as soon as it had begun.

In 2005, a new municipal entity was created, *SRU Oriental*, whose main goal was to revitalise Marvila and Beato. The strategy followed implied partnerships between Lisbon Municipal Council and private investors in order to promote large-scale rehabilitation projects, with licensing processes being facilitated. By 2007, nothing had happened and a new political cycle under the opposition party was inaugurated.

From 2007 onwards

Recently, it is perhaps possible to identify a fourth stage in the development of the area that may enable the area to finally find a direction. Two main factors can be said to contribute to this. One of them is the aftermath of the 2008 world financial crisis where a dual solution was found to generate fast liquidity in order to lessen its impact: to attract foreign investment by selling state-owned real estate and to promote tourism [51-52]. The second factor, which complements the first, envisioned finding a way to inject the revenue from foreign investment and tourism back into the city.

In 2011, the Mayor of Lisbon, António Costa (2007-2015), created the position of Municipal Director for the Economy and Innovation, which was entrusted to Paulo Soeiro de Carvalho (2011-2018). The goal was to develop a strategy that would promote economic development, innovation and entrepreneurship and to identify strategic sectors within the city. Marvila and Beato were strategically branded as social, cultural and technological innovation centres. After this, several new organisations began springing up in the area (some of them identified in Figure 2, such as Braço de Prata Factory (2007), Ar.Co art school (2017), Marvila Library (2016), Beato Creative Hub (2016), Social Lisbon Hub (2020)). In several warehouses and abandoned factories in the area, art galleries began multiplying, co-working spaces and (vintage/brunch/organic) festivals flourished, and Marvila became the new craft beer district in Lisbon.

Real estate speculation has been a consequence of these measures all over the country and there was a housing crisis that affected Lisbon in particular. Speculation is also reflected in the newly elected innovation centre, Marvila and Beato. Six luxury apartment buildings are currently under construction, in various stages of development. The most impressive is on the Marvila riverfront, Prata Riverside Village, designed by Italian Pritzker Prize architect Renzo Piano, with around 600 new units and prices starting at €700,000 [53]. In order to contextualise this amount as a large sum, we use as reference Portugal's minimum monthly wage in 2020 (€635). In 2018, minimum wage (€580) was known to be the salary of 22.1 % of the population [54].

Having briefly reviewed the historical background of the *ROCK* area, we now highlight a significant distinction claimed by Rautenberg [26, p.11]. He proposes two types of cultural heritage, identifying a tension between both: 1) heritage by designation, where all cultural objects are listed, institutionalised and labelled by experts; and 2) heritage by appropriation, characterised by the social or ethnologic heritage, which includes landscapes, townscapes, living places and non-exceptional buildings. In our case study, the two parishes encompassed by the *ROCK* area (Marvila and Beato) were elected by decree as Lisbon's new innovation centre in 2011, in a strategy that follows Rautenberg's concept of 'heritage by designation' (a renewed and updated strategy for the area's industrial past). In a way this has been happening since the mid-1800s. It corresponds to an artificial urban planning strategy and not to an organic planning strategy. The intention seems to be that the area will gradually grow organically into a true innovation centre and the decree is merely the necessary initial spark. Currently, results remain unforeseen and, in addition to previous vulnerabilities of the territory and current population, new threats have surfaced (e.g. gentrification). This may change in the future, but at this point, the *ROCK* area, although it has been declared to be Lisbon's innovation centre, is

not one of the city's centres, rather remaining an isolated area within the city that many Lisbon people do not fully know or care to visit.

We consider that in order to promote urban regeneration in the *ROCK* area, not only on land but also at sea, maritime and coastal cultural landscape should be incorporated into coastal management plans, perceiving it as being a cultural resource within cultural ecosystems [19]. This implies a serious reassessment of the role of both train lines that traverse the territory and the port, which at this point is an obstacle blocking access to the riverside.

Due to its troubled past, the area is very fragmented, lacking a sense of unity, and encompassing many urban voids. The territory tells the narrative of an area that was unable to fulfil its industrial purpose for more than 150 years. Some areas are predominantly rural; fragments of old aristocracy's summer houses are still visible; closer to the riverfront, there are historical buildings, factories and old warehouses; some areas are more densely urbanised, where people from different origins and backgrounds do not always get along — living in social housing blocks that were conceived as islands, spread across a large territory, mainly built from the 1980s onwards. It is a highly heterogeneous area, both in its landscape and in its residents. It is also a high-poverty area located in the moderately sized city of Lisbon.

Working within the boundaries of the chosen research territory and striving to establish a network among significant social actors encourages awareness of the area's tangible and intangible cultural heritage, not only by the general population but also by the current residents of the area. This is particularly significant in a territory where the disconnection between the landscape and its residents is so dramatic. Can this explain the many failed attempts to regenerate the area in the last 30 years? How is this reflected in the population's sense of belonging? Can an urban regeneration approach through cultural heritage be effective in such a territory?

In order to answer these questions, we need to establish if there is a link between tangible and intangible heritage in the *ROCK* area. Privileging its residents, we conducted a survey questionnaire in order to analyse the current population's understanding of tangible and intangible heritage. Also, in order to establish its authenticity, how they experience and relate to both in their daily lives.

Survey

Methods, Statistical base data, Sample creation and data collection
The questionnaire survey was conducted in the *ROCK* area between May and August 2019. A Stratified Proportional Quota sample [55] of 368 participants was created, reflecting proportionally the general population categories with a calculated acceptable margin of error of 4.5 %. In some cases, our reference was not the formal administrative area (parishes), but rather residential districts, municipal districts (Marquês de Abrantes, Alfinetes, Quinta do Chalé and PRODAC-SUL) and the morphology of the territory (e.g. above or below the train line). This was key in order to get crisper results, mainly due to the fragmented nature of the territory.

The three main questions and results presented here are part of a broader survey to be published on the *ROCK* project webpage [56]. Figure 3 - Figure 6 were specifically designed for this article and therefore do not match the ones featured in the original report.

Sample: The sample was created using the most recent national Census, conducted in 2011 as its main reference. In 2012, Lisbon instated administrative reform and thus some predictive corrections were calculated. However, so far, no major changes are expected to have occurred, as most of the residents of the *ROCK* area live in social housing (which excludes the possibility of eviction) and new building enterprises are still not significant in number.

Area: The *ROCK* research area encompasses 19.1 % of Marvila (1.36 km²) and 33.7 % (0.83 km²) of Beato [38]. It also comprises 27.9 % of the existing buildings, and around 15 % of the houses,

families and residents of Marvila and 30 % of the existing buildings, and 20 % of houses, families and residents of Beato [57].

Ethnography: When it comes to its residents, the *ROCK* area is diverse and spatially fragmented. The *ROCK* area privileges the riverside area and, as a consequence, it dealt more closely with internal migrants that came to live in the area in the 1960s and less with minorities from different backgrounds that live in the upper areas of Marvila.

Results

Demographic Data

According to our questionnaire, and when compared to Lisbon's Metropolitan area (Table 1) the demographic profile of the *ROCK* area is of an elderly population, with a low level of schooling and a higher-than-expected unemployment rate. Half the respondents are over 55 years old and almost 28 % are retired.

Table 1. Sample demographics.

Categorisation		N	Percentage (%)
Sex	Male	172	46.7
	Female	196	53.3
Age Group	18-35	86	86
	36-55	98	98
	56-65	93	93
	66 +	91	91
Education level: years of schooling	None or aged under 4	33	9.0
	1st Basic Level (aged 5-6)	140	38.0
	2nd Basic Level (aged 7-9)	131	35.6
	Secondary (aged 10-12)	47	12.8
Occupation	Paid work	201	54.6
	Retired	102	27.7
	Inactive (unemployed/ looking for a job)	46	12.5
	Other situation (e.g. domestic work; w/ disability)	12	3.3
	Student	7	1.9

Table 2. Categorisation of the open-ended question.

Categorisation		N	Percentage (%)
1st Step	Tangible	280	76.1
	Intangible	46	12.5
	Has no definition	42	11.4
2nd Step	Historical / cultural objects and monuments	116	31.5
	Physical things / objects / properties	60	16.3
	Own property	50	13.6
	State Heritage / Property	48	13.0
	Valuable / Worth preservation / Our common heritage (tangible and intangible)	35	9.5
	Common culture / values / way of life / traditions	26	7.1
	Outdoor physical spaces	21	5.7
	What is degraded, abandoned, old	12	3.3
	Has no definition	50	13.6

Perception of Heritage

The first question asked to was: "What comes to mind when you think of the word 'heritage'?" Participants' answers were first classified in three broad categories (tangible, intangible, has no definition). Due to the open-ended nature of the question, nine clusters were created (Table 2).

Results show that 76.1 % of participants referred to tangible categories, mostly prioritising historical/cultural objects and monuments (31.8 %), Physical things/objects/properties (16.3 %) and respondents' own property (12.6 %).

It is relevant to note that when it comes to the 12.5 % that identified "heritage" as being rooted in the intangible, both the age group and educational level are relevant. Participants aged between 31 and 45 are the group that most frequently mentioned examples of intangible heritage (31 %), and the same is the case for those with first and second Level Basic Education (up to nine years of schooling). Low qualifications [none or under four years of schooling] are associated with not having a definition of the concept (73.8 %).

Outputs on Tangible Cultural Heritage

Having presented respondents with a list of physical elements, they were asked to choose three of the "most significant elements that [they] consider to be tangible cultural heritage". Afterwards, they were asked to quantify, the facility of access and actual frequency of use of their chosen three. The top three examples of tangible heritage selected by respondents were "churches and convents" (63.6 %), "farms and palaces" (62 %) and "associations and cultural spaces" (35.9 %).

Although respondents referred more frequently to "churches and convents" and "farms and palaces" as examples of tangible heritage, Associations and cultural spaces are perceived as the more accessible examples of material heritage. "Farms and palaces" are perceived as quite inaccessible to residents (Figure 3). This is explained by the fact that most of them are in ruins, not encouraging visits or any kind of temporary dwelling.
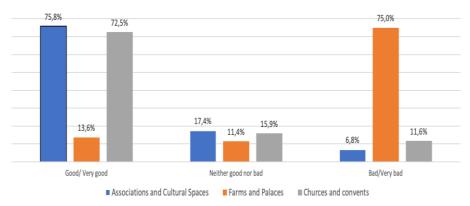

Figure 3. Tangible cultural heritage – access.

When asked about the frequency of use of these top three types of tangible cultural heritage, respondents reported higher frequency of use of "associations and cultural spaces" in comparison to "farms and palaces" or even "churches and convents". These differences are statistically significant. Around 18 % stated that they frequent "associations and cultural spaces" 'a couple of days a week or more' (Figure 4).
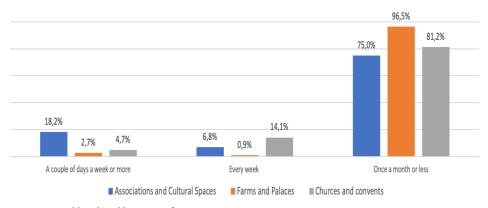

Figure 4. Tangible cultural heritage – frequency.

To sum up, when it comes to tangible heritage, "churches and convents" are the item most mentioned, but when it comes to ease of access and frequency of use, "associations and cultural spaces" are the elements that play a larger role in the daily lives of the residents.

Outputs on Intangible Cultural Heritage

For intangible cultural heritage, respondents were again asked to choose three items that they considered most representative of intangible heritage from a list of eight. Results show that "stories and collective/personal memories" (51.9 %), "religious traditions" (34.8 %) and "agriculture traditions" (21.5 %) were the categories most frequently chosen.

In terms of access to intangible cultural heritage, we observed that access to "religious traditions" is the easiest element to access to with 76.4 %, followed by "stories and collective/personal memories" (44.7 %) and "agriculture traditions" (34.6 %) (Figure 5).
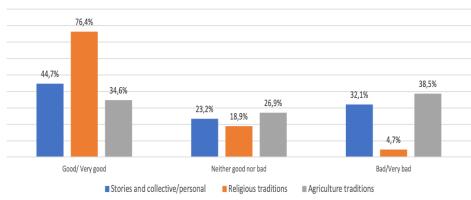

Figure 5. Intangible cultural heritage – access.

Practices related to "religious traditions" and "stories and collective/personal memories" have a very similar frequency of use (around 30 %). Though lower than this, "agriculture traditions" represent 19.2 %, which is higher than expected in an inner-city area but not surprising since crops and livestock can be easily observed in the area's landscape (Figure 6).
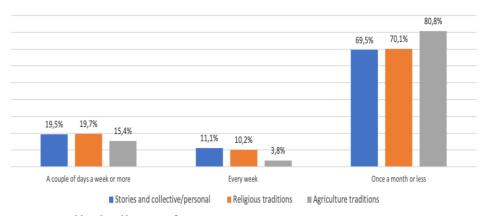

Figure 6. Tangible cultural heritage – frequency.

To sum up, when it comes to intangible heritage, "stories and collective/personal memories" are mentioned the most, ranking also the highest in frequency of use. When it comes to ease of access, "religious traditions" rate the highest, but the reported frequency of use is dramatically lower.

Discussion

The strong presence of an elderly population as well as a low level of education in the *ROCK* area can be explained by the several urbanisation stages previously discussed. A significant number

of the residents arrived in the 1960s, mostly coming from the North of Portugal. The region has a strong agricultural tradition and access to education was difficult. A second wave arrived in the late 1980s and 1990s during the social housing construction process. Nevertheless, the first wave settled near the river and because this corresponds predominantly to the *ROCK* area, delimitation results confirmed expectations.

Tangible cultural heritage results show that "associations and cultural spaces" are the elements that have a greater weight on the daily lives of its residents, although "churches and convents" are the most frequent answer. "Religious traditions" are considered to be the most significant factor defining intangible cultural heritage. However, high access stands in stark contrast with low use. This could be expected since concerning tangible heritage, "churches and convents" rank high access but a very low frequency. This means that residents recognise the importance of churches in the area as part of the landscape, but not as part of their daily lives. "Associations and cultural spaces" are the most significant tangible heritage element in the inhabitants' everyday lives with 'good/ very good' access (75.8 %) and at least a 25 % frequency of use once a week or more.

Being such a strong feature of the landscape, it is also interesting to notice that tangible heritage items related to industrial and port activities showed very low results.

Overall, respondents attributed very low mean values of frequency of use to any of the items presented, meaning that their relationship with tangible cultural heritage is very low, and perhaps not determinant in their lives. In contrast, frequency of use of intangible heritage is higher than that of tangible heritage, being more present in their day-to-day activities. Around 47 % state a frequency of use of tangible heritage 'every week or more', in contrast with 79.7 % of intangible heritage use. In tangible heritage the predominant element is "associations and cultural spaces". In intangible heritage, "stories and collective/personal memories" and "religious traditions", both present a 30 % frequency of use, at least once a week. Traditions related to agriculture and livestock, are said to be frequented at least 'once a week or more', around 19 %.

It is crucial to emphasise that "stories and collective/personal memories" are highly valued, with the population having endured several economic crises, migration, harsh working conditions and living in informal housing. "Agriculture traditions" are an unexpected element that is still relevant to the current population, embodying a significant component of the meaning of intangible heritage. It is perceived as having a significant degree of access and frequency of use. This attests to the population's original background, strongly influenced by the primary sector, with the *ROCK* area having several rural zones and urban voids allowing for some form of small-scale agriculture. As if the area had stopped in time. What kind of urban regeneration strategy can be put in place using this knowledge of the residents' perception of intangible and tangible heritage? The *ROCK* project attempted to answer this question by engaging both inhabitants and stakeholders in close dialogue and advising on an urban regeneration strategy that encompasses tangible heritage and intangible heritage. Urban regeneration strategies often sustain gentrification processes being mostly shaped by the vision of private actors, leaving aside the social aspect [58]. Cultural heritage can contribute to avoiding gentrification by connecting the territory to its inhabitants. Without this connection, the territory lacks authenticity.

In an effort to bring tangible and intangible heritage together, and adopting predominantly action-based research, the two partners representing the *ROCK* project in Lisbon are working together in a key enterprise, the Marvila Interpretative Centre (2020). Housed in the Marvila Library, the Centre will feature an interactive historical timeline of the area and video interviews with the residents who were invited to share their stories and recollections. This is a powerful statement for generations to come that both records the area's history and can also be used to inform urban regeneration strategies. The Centre embodies the intangible element that inhabitants' value the most according to the questionnaire,"stories and collective/personal memories". Furthermore, the Marvila Library is an important place within the project's scope

because it has hosted the project's Urban Living Lab, serving as a space of co-creation, exploration, experimentation and evaluation [59].

The *ROCK* research area greatly benefits from simultaneously considering tangible and intangible elements of heritage, which is known not to be the prevailing methodological approach in cultural heritage studies. The fragmented nature of the territory caused by its history was deepened by several public policies that failed to consider tangible and intangible heritage as a powerful element able to harmonise landscape and daily practices. As our questionnaire shows, inhabitants acknowledge the existence of tangible and intangible heritage elements within the territory, but in both cases, access is perceived as high but, the frequency is low. This reflects a disconnection between the inhabitants and the elements of the landscape. Also, concerning intangible heritage a week sense of identity since these elements, though highly accessible, have a significantly lower use. Theoretically, in relation to the state of the art of cultural heritage studies, this case study is framed within the concept of CES, which privileges elements like spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences. This can slowly contribute to creating a sense of identity and belonging in the inhabitants, strengthening the link between landscape and the inhabitants' lived experience.

Conclusion

The twofold question in our main research was: Why should vernacular culture be incorporated into urban policy and can it effectively contribute to the promotion of urban regeneration? Below, we systematically present an answer to each one of these.

Why should vernacular culture be incorporated into urban policy?

1) It is possible to observe that, over time, the role of intangible heritage grows in international charters. This means that the understanding of what cultural heritage is gradually goes beyond physical elements and begins to include immaterial elements that are provided by those who inhabit and dwell in a given territory. Consequently, this leads to a greater valuation of the role of communities not only in preserving tangible heritage but also in bringing character and identity to an area.

2) Attesting to this, according to Tweed and Sutherland [60], the listing of individual monuments and buildings and the designation of conservation areas are unable to deal with less tangible features of townscapes, such as street patterns. Among their conclusions is the claim that approaches to urban regeneration should contemplate a greater understanding of how people interact with the urban environment and its heritage.

3) Heritage by appropriation implies a slower process than heritage by designation and globalisation is known to accelerate all processes. However without a sense of appropriation of the territory by those who inhabit it (whether permanently or temporarily), there is no authenticity. In 2011, when Marvila and Beato were declared to be innovation centres, what took place was a process of heritage by designation. What remains to be seen is how this will translate into a process of heritage by appropriation. Only if this happens will the area become authentic, truly embodying its identity and cultural heritage. Authenticity is granted both by tangible and intangible heritage, in close dialogue. However, it may be the case that the area will remain in limbo once again (as happened throughout the nineteenth and twentieth centuries), never fully becoming what it was designated to be by higher hierarchies. More importantly, we have demonstrated that cultural studies, and in particular cultural heritage studies, may have the ability to avoid, or slow down, a potential gentrification process in the area. In that sense, we consider that heritage governance should be regarded as a cooperative process with original local actors, strongly influencing urban regeneration design and implementation strategies.

4) According to our survey results, the main elements that are acknowledged as having the most potential for building a sense of community and solid urban regeneration are "stories and collective/personal memories" (intangible heritage), shared and experienced in closed public spaces like "associations and cultural spaces" (tangible heritage). These data allow us to claim that these elements should be valued, being key to empowering this spatially fragmented and socially vulnerable area. Any process of urban regeneration to be conducted in the area should consider a wider understanding of culture that encompasses a vernacular understanding of culture, where both tangible and intangible culture are considered simultaneously. Only then will any urban policy be able to succeed and produce sustainable economic, ecological and social territories. In this, the CES framework is scientifically useful and validated by this case study.

Can the incorporation of vernacular culture into urban policy effectively contribute to the promotion of urban regeneration?

1) At a practical level, heritage is framed by policies adopted at a national level, but its administration is likely to be managed at a local level [61]. Many times, the understanding of heritage is not the same at national and local level and, even when it is, it faces difficulties in harmonising the many complexities and actors involved. So that the obstacles can be more readily overcome, civil society should be encouraged to promote the engagement of the local residents and other local actors in order to protect a sense of community and identity [62]. This will allow for greater resilience both to internal hurdles and exterior threats.

2) CES is a favourable theoretical framework for studying the relationship between tangible and intangible heritage in order to promote urban regeneration. Particularly in the *ROCK* area, a fragmented territory where there is a disconnection between space heritage (tangible heritage) and time heritage (intangible heritage), regeneration can only be possible if there is a renewed dialogue between both, where material and immaterial elements slowly become more closely connected. Supported by several academics [63-68], we claim that the "values, beliefs and meanings that citizens attach to places within the community should be learnt, understood, appreciated and preserved in order to obtain their support and involvement" [69]. There are few studies connecting place attachment and place meaning in the planning process [65, 70] and this article contributes to bridging this gap.

3) In order to bridge this gap, place attachment and place meaning (for those who inhabit it or visit it) need to be acknowledged, known and explored. This will generate two consequences at different levels. On the one hand, it will inform the planning process and, on the other hand, it will elevate the status of its residents to a community. As other actors recognise that community, it has the potential to be converted into social capital. Intangible heritage will therefore become an active force in shaping and influencing urban planning decisions. Designed and conceived within the *ROCK* project, the most significant outcome is the Marvila Interpretative Centre (2020), in the Marvila Library. It has the potential to become a tool that can very pragmatically contribute to strengthening the community, bringing heightened visibility and giving a voice to residents.

4) Vulnerable territories like the ones in our case study should be designed and authenticated by other social actors (rather than public administration) so that the community becomes social capital; this in turn is linked to other types of capital (artistic, intellectual, historical, cultural and economic) [19]. At this point, the community will become an actor with an active role in decision-making,

influencing policy design instead of passively performing a role that they are given to play by other actors and networks.

Our case study, although limited in scope, aimed to go beyond a positivist approach. We followed a strategy recently proposed by Ross and Saxena [71], which complements Herzfeld's view (aimed at promoting the re-appropriation of inner city areas by those who are often marginalised and excluded) [72]; he described it as archaeological heritage, appealing to participatory co-creation: the flexibility to adapt and to use the input of those who live there or visit. These new perspectives are in stark contrast with an understanding that reduces cultural heritage to monuments only, or that consider tangible and intangible heritage separately. The way forward, as complex and challenging as it may be, calls for an integrated approach using both, privileging the input of residents (and visitors) favouring CES, i.e. the non-material and/or socioecological benefits people obtain from contact with ecosystems through spiritual enrichment, cognitive development, reflection, recreation and aesthetic experiences. This is a solid foundation for designing a long-term sustainable urban regeneration strategy.

Ultimately, and supporting Domaradzka [73], a tangible and intangible cultural heritage approach fits in with the "right to the city" movement that has been rapidly spreading since the 2008 financial crisis, creating a consensus among urban theorists that claim that "it is necessary to strive for the ideal of a 'city for people, not for profit' by regaining individual sectors of life from the dominance of the market by, for example, increasing the role of the state and civil society in areas related to health protection, education or culture.".

Can a more encompassing understanding by urban policies of what culture is, encompassing vernacular culture, contribute to a process of urban regeneration that is able to avoid gentrification and encourage authentic places that include and celebrate an original sense of place as well as its communities?

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