

Dr. Antonio CASTRO-HIGUERAS

University of Málaga. Spain. acastro@uma.es

Dr. José-Patricio PÉREZ-RUFÍ

University of Málaga. Spain. patricioperez@uma.es

Culture, technology and urbanism: the bases for building a global city. The case of Malaga

Cultura, tecnología y urbanismo: las bases para construir una ciudad global. El caso Málaga

Dates | Received: 31/08/2020 - Reviewed: 26/11/2020 - In press: 01/12/2020 - Published: 01/01/2021

Resumen

Global cities have become important nodes for concentrations of political and economic power. The study assumes that creative and emerging cities are prior conditions for becoming a global city. Focus is also directed on the so-called adaptive agents that promote and favour collective behaviours. To address the phenomenon, a specific case was studied: the city of Malaga. The study seeks to determine whether Malaga has become an emerging city, from being configured as a cultural and creative city, and could be considered a global city in the near future. A further objective is to analyse the role of the Malaga Local Council as an adapter agent responsible, in part, for the dynamics of the city. For this, the case study method was employed in a systematic review of secondary sources in relation to the city's evolution over the last two decades. The results confirm Malaga as a cultural and creative city and place it among emerging cities. In conclusion, the directing and strategic role played by Malaga Local Council in the city's development is acknowledged.

Palabras clave

Cultural city; creative city; global city; emerging city; Málaga Local Council; Málaga.

Abstract

Las ciudades globales se han constituido como importantes nodos de concentración de poder político y económico. En este artículo partimos de la premisa de que las ciudades creativas y emergentes son el paso previo a la consideración de ciudad global. Además ponemos el foco en los denominados agentes adaptadores que promueven y favorecen conductas colectivas. Para abordar el fenómeno hemos estudiado un caso concreto: la ciudad de Málaga. El objetivo principal de la investigación es determinar si Málaga se ha convertido en una ciudad emergente, a partir de configurarse como ciudad cultural y creativa, y está en disposición de considerarse ciudad global en un futuro próximo. Un segundo objetivo es analizar el papel del Ayuntamiento de Málaga como agente adaptador responsable, en parte, de las dinámicas de la ciudad. Para ello empleamos el método del estudio de caso mediante la revisión sistemática de fuentes secundarias en relación a la evolución sufrida por la ciudad en las últimas dos décadas. Los resultados obtenidos confirman a Málaga como ciudad cultural y creativa y la sitúan dentro de las ciudades emergentes. Como conclusión podemos señalar el papel director y estratégico desempeñado por el Ayuntamiento de Málaga en el desarrollo experimentado por la ciudad.

Keywords

Ciudad global; ciudad emergente; ciudad cultural; ciudad creativa; Málaga; Ayuntamiento de Málaga.

1. Introduction

Global cities are relatively current phenomena that are inevitably linked to globalisation and the network society (Castells, 1997). The origin of the term dates back to the 90s, when the sociologist Saskia Sassen (1991) published her book *Global City*, contrasting this new concept with the mega-city. Sassen's global city concentrates its economic and political power due to the geographical dispersion of economic activities brought about by globalisation, which requires greater and more complex centralisation.

Richard Florida (2009) also highlights this paradox of globalisation, which gives greater importance to the local component. He refers to creativity and geographic distribution with the term *mountainous world* as opposed to Thomas Friedman's (2006) *flat land*. The latter author defended the spatial-temporal liberation brought about by the ICT revolution, globalisation, and market liberalisation. Florida (2009) qualified this idea by introducing the polarisation of economic activity from metropolitan mega-regions. The global and local converge, which some call *glocality* (European Commission, 2006). These global cities function as nodes of the globalised society or the network-society, which are defined by the sociologist and current Minister of Universities as "the newly dominant social structure in the Information Age" (Castells, 1997: 24).

This point must be highlighted in the concept of a global city. Among the different approaches that address similar concepts such as the world city (Hall, 1984) or the information city (Castells, 1997), we are interested in the proposal by the creator of the term, who defines it as "the scenario in which multiple globalising processes adopt concrete and local forms" (Sassen, 2009: 61). For Sassen, these local forms constitute the essence of globalisation. They are cities that transcend national borders to make up a global network, whose main features are shaped by its functions and influence (Dicken, 2009).

The mentioned authors and different global city indices clearly state what cities should be considered as global cities. Large cities such as London, New York, Hong Kong, Paris, Beijing, and Tokyo are the recurring global cities (The Mori Memorial Foundation, 2019; AT Kearney, 2019; GaWC, 2020), but what about the smaller, medium-sized ones that are also part of the global network?

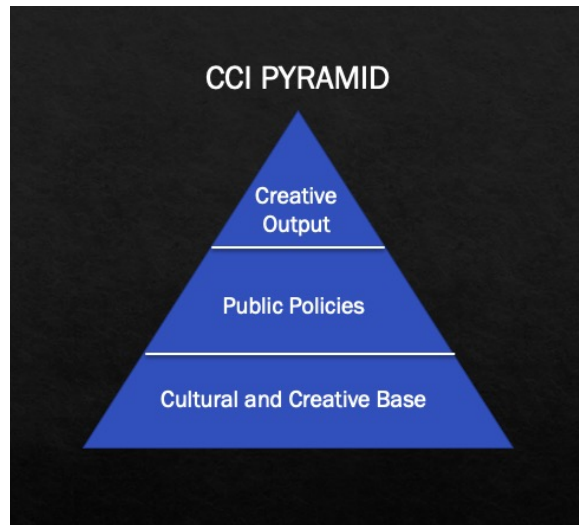
These cities also have some of the characteristic features of global cities and are second and third-tier cities connected in the new global flow infrastructure. They are referred to by some authors as emerging cities (AT Kearney, 2019), gamma cities, or cities with sufficient services (GaWC, 2020).

Along with the conceptualisation of the term, we must address the origins of the global city and the flows that take place within them, which are critical when determining these emerging cities' strategies. Authors such as John Hartley start from the hypothesis that, "to become a global city it is necessary to be a creative city first" (Hartley, Potts, MacDonald, Erkunt and Kufleitner, 2012: 47). This theory defines the creative city as, "an urban whole where different types of cultural activities are a component of the city's economy and social functioning" (UNCTAD, 2010: 19); this step is previous to becoming a global city. Authors such as Richard Florida point out the direct relationship between a city's economic performance and its creative class (Florida, 2020).

Based on these premises, we can observe the processes and flows that converge in creative cities. These emerging cities, which are complex systems that spontaneously self-organise (Jacobs, 1961), function as organisms (Howkins, 2011), generating innovative behaviours and processes that can adapt more quickly to changes than other hierarchical systems (Johnson and Ferre, 2003). These theories reinforce the importance of the bottom-up system in cities, which evolves thanks to indirect or unplanned collective behaviour. According to Howkins (2011), for this ecosystem to be considered creative, it must meet the conditions of diversity, change, learning, and adaptation. Peter Hall emphasises that creative cities must be chaotic, structurally unstable places subject to social and economic transformation (Hall, 1998). These contributions emphasise cities' dynamic nature and the complexity of their interactions and flow from ecological and self-organising approaches. In this organic context (Howkins, 2011, Jacobs, 1961), we believe it is necessary to focus on the so-called adaptive agents, proposed by Johnson and Ferre (2003) in the theory of their emerging system. These innovative elements and precursors of collective behaviour act as drivers and enablers of the dynamics that make a city creative or global. We also integrate into the research concepts such as the emerging city or regional node, which are precursors to the global city. Similarly, we take John Hartley's (Hartley et al., 2012) reference to the creative city's prerequisite to have a global city structure. In this way, we set out the theoretical framework for carrying out the case study.

In Malaga, one of the leading adaptive agents is the local administration's public policies. Castro-Higueras and De-Aguilera-Moyano (2018) distinguish three domains that coexist in their proposal for a creativity index. These are the cultural and creative bases, the public policies, and the cultural and creative industries' results, making public policies the catalyst between both spheres in the so-called pyramid of the cultural and creative industries (Castro-Higueras, 2018) (see graph 1).

Graph 1. Pyramid of the cultural and creative industries



Source: Antonio Castro Higuera (2018)

Creating a cultural offer, particularly museums, is a clear example of top-down flow policies, which has led to shaping the city's renowned cultural brand. As we can see in the research results, the local government has promoted Malaga as a cultural city and, to some extent, its ICT development. Public administrations are one of the primary agents of innovation, together with businesses, universities, and society, as the theory of the fourfold helix of innovation points out (Carayannis and Campbell, 2009). It is also worth highlighting the importance of the city's strategic plans and their role in the city's urban, economic, and cultural evolution.

To conclude this brief contextualisation of the object of study, the research aims to determine whether Malaga is an emerging city, which is the previous step to reaching global city status. A secondary objective is to analyse the local administration's role as an adaptive agent of the city's cultural and economic development. We start from the premise that these emerging cities constitute regional nodes that integrate and complement the global nodes' network. Emerging cities are creative because the creative sector is pertinent to the city's economy. Therefore, this research's central hypothesis presents Malaga as an emerging city and regional node thanks to its status as a cultural and creative city. A secondary hypothesis states that Malaga City Council has been an adaptive agent for the city's development in recent decades.

2. Methodology

The case study is the method used in this research. This social research technique includes, "an empirical question that researches a contemporary phenomenon within a real-life context, especially when the boundaries between phenomena and context are not evident" (Yin, 1989: 9). The present case study has been carried out through a systematic review of secondary information (scientific publications, technical reports, and statistics) from the last three decades. We analyse Malaga's evolution and the milestones that have made it a cultural, creative, and possibly a global city.

This analytical framework of the research is an interpretative paradigm, "which seeks to understand, describe and decipher the reality related to the object of study" (Badía, Costales and del Valle, 2017: 27). This research is exploratory. Its methodological purpose is to draw conclusions about the features of a global city that Malaga possesses and the role some adaptive agents have had in this process.

The analysis is structured into three categories: town planning (including transport infrastructure), culture and technology, elements that have determined the city's development, particularly their connection to the growth of the city's tourism sector. Firstly, the analysis of the city's evolution in these areas is presented, then in the discussion we interpret them according to the research questions. Finally, a set of conclusions and reflections about the study are presented.

3. Results

The city of Malaga has been the capital of the *Costa del Sol* since this brand name was coined in the 1950s, although there is evidence of the term decades earlier (Alcalá, 1997). It is paradoxical that the tourist, demographic and economic boom on the *Costa Del Sol*, especially in the west, did not occur in the capital. It was not until 2010 that the first 5-star hotel was opened in Malaga, and in 2017 the first Grand Luxury 5 star hotel was opened, with the reopening of the Hotel Miramar. The city did not stand out as a cultural centre in the 80s due to the lack of cultural spaces. There were few theatres in the city until the reopening of the Cervantes Theatre in 1987; nowadays, there are seven theatres open.

However, Malaga's transformation has been limited to tourism, culture, technological innovation, urban regeneration, or transport infrastructures. Therefore, we are going to review the milestones in the city's evolution based on three categories: urban development and transport and communication infrastructures, cultural offerings geared mainly to tourism, and finally, the boom in the technological and innovation sector.

3.1 Town Planning

The 90s is crucial for the development of the city's road communications. In 1992 critical infrastructures were built, such as the *Las Pedrizas* highway, the A-92, the city's western ring road, and the *Guadalhorce* highway that initially ended in the Andalusia Technology Park.

However, the remodeling and pedestrianisation of the historical centre in 2002 favoured urban regeneration by laying the groundwork for developing tourism, providing the ideal environment for future cultural spaces. Parallel to the city's urban transformation, historical heritage and museums were being transformed, which were other pillars of the city's cultural development. In 1995, the *Casa de la Cultura* was demolished. It was located on top of a Roman theatre, which was later rehabilitated along with the Alcazaba complex and Gibralfaro Castle. Outside the historical city, the port and west beach were expanded and opened (2007) so that the centre and the populous west of the city are no longer turning their backs on the sea.

These years are crucial for developing transport infrastructures; the high-speed railway line (AVE) was inaugurated in 2007, which reduced travel time from Malaga to the Spanish capital to 2 and a half hours. The remodelling of the port took place in that same year, which was finished in 2011. Its docks were adapted to docking cruise ships- where were 296 stops and 506 000 cruise ship passengers in 2018 (Port of Málaga, 2020), a marina, and a dock dedicated to entertainment and restaurants were also integrated.

The expansion of the airport and the construction of a second runway are currently taking place, which will increase the capacity of Malaga airport, the fourth largest Spanish airport in number of passengers (19,856,299) and operations (144,920) after Madrid, Barcelona, and Palma de Mallorca (AENA, 2020).

Finally, The Malaga underground (Malaga Metro) was inaugurated in the inner city in 2014, it is a critical transport infrastructure that connects the city, university, and some of the most populated neighborhoods.

Image 1. Calle Marqués de Larios



Source: Mstyslav Chernov (2011)

3.2 Culture

Recovering patrimony as part of the city's town planning in the historical centre has created the optimal conditions for museum spaces like the innovative Picasso Museum, which was inaugurated in 2003. The museum had already had a precursor project with the painter's Birthplace Museum (1998). This internationally prestigious museum, created by the Andalusian government and the painter's family, was the beginning of a strategy to form a cultural city based on museums, as the city went from 5 (Picasso Foundation Birthplace Museum, Cathedral Museum, Loringiano Museum, Alborania Museum and Museum of Arts and Customs) to 37 in two decades.

In 2003, the Centre of Contemporary Art (CAC) was inaugurated in the port area on the local administration's initiative. This area was depressed despite being located in a vital space in the city. The CAC is located in a rationalist building from the 30s in the old wholesale market, now called the Arts District or Soho.

The City Council's acquisition of the Old Tabacalera in the west of the city, which had closed down in 2002, favoured the creation of museum spaces. Among the eleven pavilions that make up the premises is the Automobile museum, inaugurated in 2010 or the Russian Museum that houses the Russian State Museum of St Petersburg's first headquarters in Europe outside Russia, which opened in 2015. But in Malaga City Council's vocation for museums, there have also been failed projects such as the Museum of Gems, the Museum of Natural Sciences, or the Bullfighting Museum.

In 2011 the city's second most significant museum was opened by Malaga City Council and the Carmen Thyssen Foundation. The Carmen Thyssen Museum opened another location as part of the Thyssen Bornemisla Museum in Madrid, located in the Villalón Palace. The Soho or the Arts district was inaugurated the same year, a creative district located in a degraded area near the port. It was created on an association's initiative and was promoted by Malaga City Council. One of its most representative elements is the Soho Theatre, which was inaugurated in 2019 by its promotor, the well-known actor, director, and producer Antonio Banderas.

The creative district or the so-called Malaga Arte Urbano Soho initiative is another proposal that was promoted by the Malaga City Council in 2013, whose aim was to integrate urban art on the facades of the creative district with murals and graffiti by renowned artists such as Obey, D'Face or Roa (MAUS, 2020). It is also worth mentioning the more controversial initiatives such as the urban artist Invader's mosaics on representative buildings in the city in 2017, which has led to a judicial process for an alleged crime against historical-artistic heritage.

Malaga's cultural network distribution, in particular, its museum network, goes beyond the city's historical centre. It now extends to other annexed neighbourhoods, such as the west zone, where *La Térmica* was inaugurated in 2013, an initiative from the Provincial Council of Malaga, and a cultural space that has been influenced by centres such as *La Casa Encendida* from Madrid. This model of museum combines exhibitions with educational activities, meetings, concerts, and other cultural events. Similarly, it houses a creative residence and collaborative spaces.

In 2015, the Pompidou Centre, another renowned franchise, opened in the city following an agreement between the City Council and the Parisian Museum. Space is located in the Cube, an architectural work that has been integrated into the city's new Quay 1 in the port.

The Malaga Museum (2016) was the last museum to be inaugurated in Malaga, promoted by the Andalusian Government. It is located in the *Aduana* Palace, which houses the Museum of Fine Arts, featuring works from the 19th century and modern art as well as the Archeological Museum.

The growth of the city's museums has been accompanied by demand, as shown in the data on the number of visitors to monuments and museums in 2004 (1,363,000) and from 2018 (3,457,000) (Ciedes Foundation, 2020), with a growth of more than 250% in the period mentioned above.

In addition to the city's museums, Malaga has associated itself with Spanish cinema since the first edition of the Malaga Spanish Film Festival was held and more recent events such as the 2020 Goya Awards ceremony in the city, which will also take place next year, as well as the Max Performing Arts Awards again in 2020. This relationship with cinema and audiovisual production has been reinforced by the growing number of national and international productions that have been shot in the city, such as the 56 feature-length films show, 39 documentaries, 15 series, 19 television programmes, 31 video clips, and 47 advertising spots shot in the city in recent years. The investment growth was 79% in 2019 compared to the previous year (Málaga Film Office, 2020).

Image 2. Pompidou Museum



Source: Pixabay (2020)

3.3 Technology

One of the elements that has contributed to shaping Malaga's brand image as a creative and innovative city has been the growing technology sector. Although the city was already home to companies in the industry, such as the Fujitsu technology company (1977), the Andalusian Technology Park (PTA) was created in 1992 on the Andalusian Government's initiative. This technology park, located in the so-called strategic triangle (Andalusian Technology Park, Airport, and University), has grown exponentially in almost three decades. Initially, 8 companies were located there (1992), increasing to 184 (2000) and the current 636 companies- 34% of which are ICT companies that have a €2 billion a year turnover and employ over 20 000 workers- a third of employees are from foreign companies (Technology Park of Andalusia, 2020).

Although the Technology Park mainly brings together technological activity and production, it also provides entrepreneurial services such as incubation, acceleration, mentoring services, etc. Many of these services are provided by technology companies, in particular, digital content enterprises. Regarding entrepreneurship and innovation, the *Polo de Contenidos Digitales* is also an innovative project launched by the city of Malaga and the Ministry of Industry in 2017. It is located in the former Tabacalera headquarters and occupies an area of 12,000sqm. It has become a reference centre in digital creation, particularly in the videogame industry, audiovisual and digital media in its short period of activity.

In parallel to the economic development in information and communication technologies, the city has also positioned itself as a sustainable city through the project Malaga Smart City, making it the fifth most advanced smart city after Madrid, Barcelona, Valencia Seville (IESE, 2019). The city also became the European Capital of Smart Tourism 2020 (European Comission, 2020).

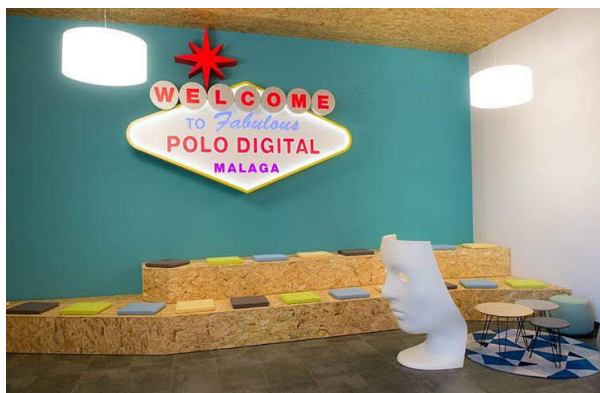
The central concepts set out in Malaga Smart, the Strategic Plan for Technological Innovation (Malaga City Council, 2018) are related to sustainability and the security of the urban habitat, intelligent mobility, innovative economy, ICT infrastructures, digital transformation, and citizen services.

Although the theoretical review emphasises the bottom-up flows as the backbone of creative cities, we must highlight the adaptive agents' role. In this case, the Malaga City Council- in the city's development, planning, and implementation of public policies. If we examine the milestones mentioned above, the public policies have been the architects of the city's most significant changes in recent decades. That is why we highlight the role of public policy adapters as a clear example of top-down flows, which complement the more difficult to identify bottom-up flows. In this case, the First Strategic Plan of Malaga (1992-1996) drawn up by the Ciedes Foundation (1992), an initiative by the Malaga City Council which brings together institutions and entities such as the Andalusian Regional Government, The Provincial Council, The University of Malaga, trade unions, The Confederation of Entrepreneurs, Chamber of Commerce, Andalusia Technology Park, etc., advocated culture as key for reaching its objectives. These objectives included becoming the European capital of tourism and leisure by creating a museum network or regenerating the historical centre.

In Malaga's Second Strategic Plan (1996-2014) (Ciedes Foundation, 1996), the cultural city concept is consolidated by making Picasso its emblem. The 2020 Malaga Strategy (Ciedes Foundation, 2017) is another essential urban planning document, proposing a city based on intelligent and sustainable growth, and the integration of it. Concerning this, it sets out four strategies; the first two reinforce the policies already initiated regarding culture- including objectives related to the international capital of culture, the global tourist capital, the creative and educational city- and knowledge and innovation, while the third is oriented towards sustainability- which is shown in the lines of action regarding the intelligent city- and the fourth is integration, an essential part of the city's development.

Implementing different strategic plans has led to many of the actions described above, such as the city's cultural strategy and the urban planning or technology strategy. On the other hand, the infrastructures comply with different strategies that go beyond the local sphere.

Image 3. Polo de Contenidos Digitales



Source: Polo de Contenidos Digitales (2020)

4. Discussion

The first aspect to highlight is the city's urban development, particularly the regeneration and revitalisation of the historic centre and its opening to the sea in the last two decades (Silva and Fernández, 2017). Similarly, Malaga has significantly increased its transport infrastructures in all its forms: air, sea, rail, urban transport, etc., despite having important unresolved urban issues such as the *Guadalmedina* riverbed that is the backbone of the city or the *Costa del Sol*'s rail corridor.

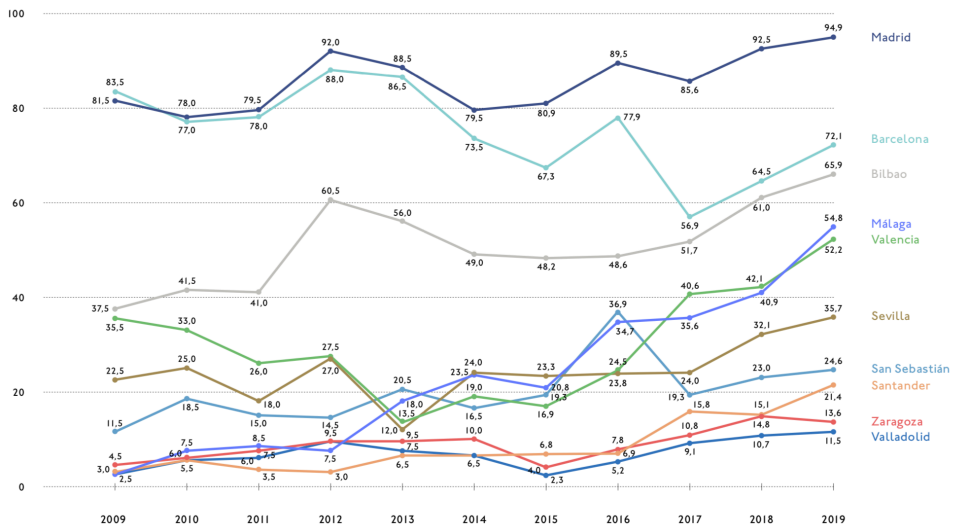
As the different global city indexes point out (The Mori Memorial Foundation, 2019; AT Kearney, 2019; GaWC, 2020), transport is essential for the interconnection with other nodes. Therefore, it can be said that Malaga is a well-connected city, whose town planning is adapted to its productive model.

However, this new city model has been criticised; authors such as Zapata (2018) highlight the historic centre's touristification and gentrification as collateral effects of its development in recent decades. There has been a boom in urban regeneration, and the revitalisation of heritage assets (Silva and Fernández, 2017), following the guidelines of the city's various strategic plans (Lopez-Bravo 2019).

Regarding the category of culture, the city's patrimonialisation- linked to the mentioned urban revitalisation- and the increase in the cultural offerings, particularly museum spaces, have shaped Malaga city's brand (De Los Reyes, Ruiz, and Zamarreño, 2017). The brand is linked to culture, as the local government's different marketing campaigns point out, "Malaga, where culture is capital" (2015), which was the catchphrase for the failed candidacy for European City of Culture 2016, "Malaga, city of museums. Where art lives" (2017) and, "Malaga, great city" (2008), is the official brand of Malaga Tourism at present.

The city council's and the rest of the public private actors' cultural promotion has been reflected in its rise in cultural tourism and its recognition as a cultural destination. In the first case, indicators such as motivation for visiting the city, such as climate and cultural offerings, are ranked first according to the Tourism Observatory of the City of Malaga (2019). Regarding the perception of the city as a cultural agent, Malaga is ranked fourth after climbing 15 positions since its first edition in 2009 (Fundación Contemporánea, 2009), which ranks the cities most valued for their quality and cultural innovation published by the Observatory of Culture of the Contemporary Foundation (2020) (see graph 2).

Graph 2. Ranking of cities by quality and innovation of their cultural offerings



Source: *Fundación Contemporánea (2020)*

Comparative studies such as Castro-Higueras's (2017), in his proposal for an index of the cultural and creative industries' potential, position Malaga in front of Andalusian capitals like Seville or Cordoba. Malaga stands out in two of the three domains: the index, the cultural and creative base, and the local public policies; Seville only outperforms it in the cultural and creative industries results.

On the other hand, technology has become the third-largest category of the city's development. The Andalusia Technology Park (PTA) is still the central technology hub in the region in terms of the number of workers and companies (Andalusia Technology Park, 2020), followed by the Cartuja Science and Technology Park (Guzmán, 2019). However, the latter has a higher turnover.

The technology hub in Malaga, which operates as a traction company, is complemented by the University of Malaga's research and entrepreneurial work and the Malaga City Council's innovation and entrepreneurial network, which is managed by the public company Promalaga.

Although the ICT companies (infrastructures, services, etc.) are the basis of this innovation network, we must highlight the local administration's commitment to digital content in the cultural and creative industries. This is shown in the boom in the videogame sector, whose epicentre is located in the *Polo de Contenidos Digitales*, a creative hub inaugurated in 2017 that has placed the city among the main centres of videogame development in Spain (*Polo de Contenidos Digitales*, 2020). Malaga City Council stands out as the city's adaptive agent, as seen in this analysis. The local administration has promoted or been a catalyst for the main actions carried out in the city. This intermediate-level agent (Silva and Fernández, 2017) has played a key role in constructing the city's cultural, creative, and intelligent brand. Based on the data from the strategic planning described in the results section, it can be stated that the city's evolution has not been an improvised phenomenon.

The city's commitment to culture-mainly oriented to cultural tourism-, urban regeneration, knowledge, and technological innovation has contributed to shaping a cultural, creative, and innovative city. However, in answer to one of the research's questions: Can Malaga be considered a global city?

The answer is no- as shown in the various global city indices that only include Madrid and Barcelona in their global city rankings-although other cities such as Valencia or Bilbao do appear in emerging categories. However, it could be considered an emerging city since it possesses some of the characteristics of global cities.

The Globalisation and World Cities Research Network (GaWC) of Loughborough University show this by positioning Malaga as a city with sufficient services, that is to say, a city that despite not being a global city, has enough services so as not to depend openly on the world's cities (GaWC, 2020). This ranking categorises global cities in Alpha, Beta, Gamma, and Sufficiency. The City of Malaga appears in first place in the

category "sufficiency" behind other Spanish cities such as Madrid (Alpha), Barcelona (Alpha), Valencia (Beta), and Bilbao (Gamma).

The Global Power Cities Index is another global index from the Mori Foundation (2019), which stands out for its prestigious team as Saskia Sassen or Peter Hall are members. We can see the functions and the dimensions taken into account for defining a global city: economy, R&D, cultural interaction, habitability, environment, and transport. Based on the analysis, we can conclude that Malaga would rank highly in many indicators. However, applying the index to the City of Malaga would form part of another investigation, not the present one. We have limited the present study to highlighting Malaga's development milestones regarding the three decisive categories- urban planning, culture and technology, and the city's adaptive agents' role, such as Malaga City Council's.

5. Conclusions

This systematic review shows Malaga City Council's critical role as an adaptive agent in developing the city. A strategically marked evolution has allowed Malaga to consolidate itself as a tourist reference, mainly based on cultural tourism, and as a creative hub with important business and research activity related to technology and innovation.

Concepts such as cultural, innovative, intelligent, creative, integrating, and educational city mark public policies' lines of action. Its consolidation as a cultural and creative city paves the way to making Malaga an emerging city with the prospect of becoming a global medium-sized city or a metropolitan mega-region by extending its reach to the *Costa del Sol* and other neighbouring regions.

They may seem like opposing phenomena, with competing flows. Still, the self-organisation and adaptation to these complex systems called emerging cities contrast with the direct and strategic role of public policies. It is clear that different forces converge in the urban ecosystem, and in the case of Malaga, the evolution that has taken place has been positive.

However, not all the consequences of the changes in the city have been positive. Some problems can be highlighted, especially those associated with tourism, like the gentrification and touristification of the historic centre of the city, and other issues related to the cultural offerings such as the elevated costs of maintaining an eminently expository and unidirectional model, which is not very participative. This situation requires a periodical evaluation adapted to the new contexts that involve reformulating the strategies to avoid these undesired effects.

Although these negative consequences must be taken into account, the city's main challenge at present, as in the case of other cities, regions, and countries, is to overcome and adapt the economic and productive system to the new situation brought about by the COVID-19 crisis. The global system's dysfunctions that came to light during the pandemic could lead to changes in the status quo of the international economy and geopolitics.

It is worth asking whether the interconnections and the network society's nodes will change in the immediate future. With the losses in tourism and other associated sectors, this situation could represent a challenge for the City of Malaga and the opportunity to consolidate itself as a regional and global node, and economic, social, and cultural reference point for southern Spain in Europe.

6. Acknowledgement

Translator: Sophie Phillips.

7. References

- [1] AENA (2020). *Memoria anual 2019*. <https://bit.ly/37c7JUe>
- [2] Alcalá, F. (1997). *Marbella, Los Años Del Turismo. El Principio De Una Larga Marcha*. Marbella: Graficsol.
- [3] AT Kearney (2019). *Global cities index and emerging cities outlook*. <https://tinyurl.com/y488hnko>
- [4] Ayuntamiento de Málaga (2018). *Málaga Smart. Plan Estratégico de Innovación Tecnológica 2018-2022*. <https://tinyurl.com/y2kwtqjg>

- [5] Badia, A.; Costales, Z. y del Valle, A. A. (2017). Comunicación audiovisual, nuevos paradigmas y tendencias. *Alcance*, 6(12), 26-55. <https://bit.ly/3fzC9nn>
- [6] Carayannis, E. G. & Campbell, D. F. (2009). 'Mode 3' and 'Quadruple Helix': toward a 21st century fractal innovation ecosystem. *International Journal of Technology Management*, 46(3-4), 201-234. <http://doi.org/fwghth>
- [7] Castells, M. (1997). *La sociedad red*. Madrid: Alianza Editorial.
- [8] Castro-Higueras, A. (2018). La cuarta hélice de las industrias creativas. El sector de los videojuegos en Málaga como caso de estudio. En V. Tur-Viñes, I. García-Medina y T. Hidalgo-Marí (Coords.), *Creative Industries Global Conference. Libro de actas* (pp. 127-134). Alicante: Colección Mundo Digital de Revista Mediterránea de Comunicación. <http://doi.org/d6za>
- [9] Castro-Higueras, A. (2017). *Las Industrias Culturales y Creativas y su Índice de Potencialidad*. Salamanca: Editorial Comunicación Social.
- [10] Castro-Higueras, A. & De-Aguilera-Moyano, M. (2018). Assessing creativity: An index proposal. *Creative Industries Journal*, 11(1), 102-118. <http://doi.org/d6zr>
- [11] Comisión Europea (2006). *Economy of culture in Europe*. Bruselas: Kea European Affairs. <https://tinyurl.com/yyp2dvv9>
- [12] Comisión Europea (2020). *Capital Europea del Turismo Inteligente*. <https://bit.ly/2Jja9YM>
- [13] De los Reyes, E. Ruiz, E. y Zamarreño, G. (2017). Marca territorio y marca ciudad, utilidad en el ámbito del turismo. El caso de Málaga. *International Journal of Scientific Management and Tourism*, 2(3), 155-174. <https://bit.ly/33Auu3t>
- [14] Dicken, P. (2009). El mundo no es plano. La profunda desigualdad geográfica de la globalización. En W. Broecker; J. Canals; P. Dicken... & R. Väyrynen (Eds.), *Las múltiples caras de la globalización* (pp. 32-47). Madrid: BBVA. <https://tinyurl.com/y46ygh4w>
- [15] Florida, R. (2009). *Ciudades creativas. por qué donde vives puede ser la decisión más importante de tu vida*. Barcelona: Paidós.
- [16] Florida, R. & Mellander, C. (2020). The Creative Class and National Economic Performance. In Z. Chen; W. M. Bowen & D. Whittington (Eds.), *Development Studies in Regional Science* (pp. 553-575). Singapore: Springer. <https://doi.org/fkcc>
- [17] Friedman, T. (2006). *La tierra es plana*. Madrid: MR Ediciones.
- [18] Fundación Ciedes (1992). *I Plan estratégico de Málaga*. <https://tinyurl.com/y29gqlu8>
- [19] Fundación Ciedes (2006). *Málaga, ciudad abierta. II Plan Estratégico de Málaga*. <https://tinyurl.com/y2hh5uva>
- [20] Fundación Ciedes (2017). *Estrategia Málaga 2020. Prioridades para un trabajo conjunto*. <https://tinyurl.com/y47br88f>
- [21] Fundación Ciedes (2020). *Málaga en cifras*. <https://tinyurl.com/y65dbg4h>
- [22] Fundación Contemporánea (2020). *Observatorio de la cultura. Lo mejor de la cultura 2019*. <https://bit.ly/2KJazIT>
- [23] Fundación Contemporánea (2009). *Observatorio de la cultura*. <https://tinyurl.com/y2w8fupw>
- [24] GaWC (2020). *The world according to GaWC 2018*. Loughborough University. <https://tinyurl.com/yxpq5wsh>
- [25] Guzmán, M. J. (18/10/2019). Cartuja alberga ya a más de 500 empresas y eleva su facturación a casi 2.500 millones al año. *Diario de Sevilla*. <https://tinyurl.com/y3cpwuy9>
- [26] Hall, P. (1984). *The world cities*. London: Weidenfeld and Nicolson.
- [27] Hall, P. (1998). *Cities in civilisation*. London: Weidenfeld and Nicholson.
- [28] Hartley, J.; Potts, J.; MacDonald, T.; Erkunt, C. & Kufleitner, C. (2012). *Creative city index - final report*. Queensland: ARC Centre of Excellence for Creative Industries and Innovation.

- [29] Howkins, J. (2011). *Creative ecologies: Where thinking is a proper job*. New Jersey: Transaction Publishers.
- [30] IESE (2019). *Índice IESE Cities in Motion*. Universidad de Navarra. <http://doi.org/d6zs>
- [31] Jacobs, J. (1961). *The death and life of great american cities*. New York: Random House LLC.
- [32] Johnson, S., y Ferré, M. (2003). *Sistemas emergentes: o qué tienen en común hormigas, neuronas, ciudades y software*. Madrid: Fondo de Cultura Económica.
- [33] López-Bravo, C. y Navas-Carrillo, D. (2019). Patrimonio y cultura: recursos para el desarrollo urbano; Málaga como laboratorio. *Revista PH*, 97, 155-157. <https://doi.org/fkcd>
- [34] Málaga Film Office (s.f.). Producido en Málaga (selección) [web]. <https://tinyurl.com/y6aaq6gxxg>
- [35] Parque Tecnológico de Andalucía [PTA]. (2020). *El PTA en cifras*. <https://tinyurl.com/y2row5nn>
- [36] Polo de Contenidos Digitales (2020). ¿Qué es el Polo? <https://bit.ly/2J8Kcvm>
- [37] Puerto de Málaga (2020). *Cruceros*. <https://tinyurl.com/y4pgtkwa>
- [38] Sassen, S. (1991). *The global city: London, New York, Tokyo*. New Jersey: Princeton University Press.
- [39] Sassen, S. (2009). La ciudad global: introducción a un concepto. En W. Broecker; J. Canals; P. Dicken... & R. Väyrynen (Eds.), *Las múltiples caras de la globalización* (pp. 50-62). Madrid: BBVA. <https://tinyurl.com/y46ygh4w>
- [40] Silva, R. y Fernández, V. (2017). El patrimonio en la reinención de Málaga. Agentes, instrumentos y estrategias. *Investigaciones Geográficas*, (67), 81-100. <http://doi.org/d6zt>
- [41] The Mori Memorial Foundation (2019). *Global power city index*. Tokio: Institute for Urban Strategies.
- [42] Yin, R. (1989). *Investigación sobre estudio de casos. Diseño y métodos*. Londres: Sage Publications
- [43] United Nation Conference on Trade and Development [UNCTAD]. (2010). *Economía creativa. Informe 2010*. <https://bit.ly/3l7FRFT>
- [44] Zapata, M. (2018). Málaga, hacia la supremacía del turismo cultural. *AusArt*, 6(2), 181-201. <http://doi.org/d6zv>

