The city of tomorrow is already with us

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Abstract
This paper title provokes us and brings us back to the New Athens Charter published in 2003 by the European Council of Town Planners[1]. The aim is to discuss the city's planning based on the urban features we have inherited from the past, with the understanding of history in its evolutionary form and the city as an open-ended process in continuous construction. It's not about preserving, but adapting, reusing and creating again, reinforcing urban resilience and the identity of each place. Today's needs and the crises we face - climate change, the housing crisis and migration - call for a transformation of the city and behaviour so that cities become sustainable, healthy habitats that guarantee quality of life for all.

Keywords: reuse, heritage, sustainability

Introduction
In 2015, the United Nations defined a set of goals for 2030 aimed at sustainable development, which included the 11th Goal: Inclusive and sustainable cities and communities (UNDP, 2015). This reveals, on the one hand, the awareness of the impact on citizens' health, quality of life and well-being of the space where they live and use, particularly in terms of work and other activities, and, on the other hand, that urban areas are crucial because the majority of the world's population lives in urban areas. Several studies (Marans and Stimson, 2011; Ballas, 2013, M. van den Berg et al, 2015, Kostas, 2021) have addressed the impact of space and environment on human life, from air quality, lighting and noise, to functionality, aesthetic quality and cultural value (Shekhar et al., 2019). Thus, it is recognised that cities can be a catalyst for transformation. This awareness has also led the EU to prioritise a New Urban Agenda focusing on a set of urban goals. The Leipzig Charter affirms the responsibility of cities to 'lead the transformation towards just, green and productive societies' and states further that 'cities are unique historical centres of exceptional cultural value that shape Europe's urban heritage and the identity of its citizens' and culture must be at the heart of any sustainable urban development, including the preservation and development of built and other cultural heritage' (EU, 2020, p. 2).

In this sense, urban transition to meet the new challenges must be achieved by planning and intervening in the existing city and valuing its social and cultural values. This awareness requires that urban planning acts in the city built over time, reading the various marks of time and the associated social values. This does not intend to prevent transformation but should inform and contextualise it. Urban planning must be place-based and sensitive to the physical, historical and social context. Throughout time, cities have been built in this way and we can

[1] In a conference held in Athens in 1998, the ECTP-CEU adopted the New Charter of Athens: A Vision for Cities in the 21th Century, and resolved it should be kept under a constant process of revision and updating. Symbolic this happened in Athens, where the original Charter was adopted during the International Congress of Modern Architecture in 1933. This was revised during the ECTP-CEU's 2003 General Assembly in Lisbon, the New Charter of Athens and promotes a vision for The Connected City.

learn from the past and previous processes of change, also from the social processes that support cities today.

This article aims to discuss the planning and transformation process of the existing city to meet the current challenges, in a sustainable way and through a circular approach, supported by sensitive thinking to each city's context, history and social values. It is organised into two parts: a brief analysis of the historical process of building cities, which marks the evolution of urbanism, with processes of continuity or radical change. Next comes a reflection on the intervention in the existing city, understanding that this intervention has sometimes been trapped in a conservationist policy of heritage protection but today, with the widening understanding of what heritage is, it can be seen as part of the urban change and development for more sustainable, resilient and inclusive cities. We conclude with some recommendations for achieving urban planning that can create more sustainable and resilient cities that favour quality of life for all.

Cities as a dynamic and open process

Most European cities result from years of transformation, adaptation and growth. Marked by processes of continuity and sometimes rupture, cities are both a reflection of and one of the main manifestations of a culture. However, as living spaces, they are also dynamic spaces that are constantly changing to meet the needs and expectations of each time. So continuous change is an intrinsic part of what characterises and defines cities. History reveals the processes of building and transforming the city, usually through continuity, punctual changes and extensions. However, history also shows a series of events, typically catastrophic and related to natural phenomena or the result of man's actions, which have led to processes of rupture and transformation of the existing city. Still, we can say that these are the minority. In the majority, urban development occurred through additive processes of extending the urban fabric, filling urban voids or small urban reforms.

The history of urbanism shows that these urban enlargement and transformation processes took place very slowly until the 2nd Modernity (Ascher, 2012) and gained expression after the Industrial Revolution and the urban growth of the 19th century all over Europe. Thus, in most European cities, the structure of the old town, or the so-called historic centres, is the result of several years of adaptation and it is this slow process that makes these the most characteristic areas, marked by a specific urban morphology, defined by the grid of streets, plots and buildings defining their identity and heritage. Beyond the possible monuments that may punctuate the city, the collective ensemble produced over time is now recognised as heritage, as a manifestation of local culture and as part of its identity.

Urban fabric reform also happens in the history of cities, whether due to catastrophic events (fires and battles, for example) or to reform the cities and demonstrate the power of the king, or other entity. Examples include the rebuilding of Rome after the Great Fire, the remodelling of London after the Great Fire or the Baixa Pombalina after the great earthquake. For beautification, the remodelling of Rome by Pope Pius V, or more recently the remodelling of Paris by Haussman (Lavedan, 1959). All these examples led to a more or less radical reform of large urban areas. But after they were also subject to the natural change that happens to every city.

As Corboz (2001) argued, the city is a palimpsest, which recognises that the city is a complex entity made up of overlapping layers which each time is relevant to the construction of the

contemporary city. Each time is a new layer, the mark of an epoch, a style and a way of life. But beyond this overlap, it is important to emphasise that it assumes an evolutionary process, preserving what has value, use and utility and replacing what has no or little value/function for something new that responds to new needs, be they taste, functional or cultural.

This notion of a palimpsest also emphasises the need for each era, each period to write its city, each time to leave its cultural mark on the city. And this doesn't mean erasing previous traces or starting from scratch, as we've seen rarely happens. The palimpsest to which Corboz refers is a continuous rewriting, a sensitive selection of what needs to be adapted to meet the needs of each time, and this is precisely what we are defending here. This change and evolution are evident in all our cities and are related to the idea introduced by Geddes of the city as a living organism in continuous change (1915), which also meets the idea of circularity that we now defend as essential for sustainable development.

It is important to emphasise that this evolution is a response to the needs that arise, but it depends on a value system and a hierarchy that values some elements and discards others. It's not a question of changing everything or conserving everything, but a sensitive selection process that must be understood to recognise how it was made and how it can be used nowadays. In other words, this selection is characterised by looking to the future rather than the past.

This idea of the future inspired the decision to rebuild Baixa de Lisboa in Portugal with a new plan after the 1755 earthquake. This catastrophic event that led to the destruction of the entire downtown area inspired a radical reform of the city of Lisbon and the development of Portugal's first urban plan. We know the layout of the old city well, recorded shortly before the fateful event by Manuel da Maia in 1716. And we know the hypotheses studied by the reconstruction engineering team. The final decision was hypothesis 6, which envisaged rebuilding the entire area with a new grid of wide, orthogonal streets in opposition to the previous layout. However, despite the novelty of the layout, it's interesting to note that the new plan didn't reject everything, but rather replicated the original organisation of the urban fabric from the previous plan, organised around two squares, one by the river and the other on the edge of the built-up area, and kept the vast majority of the churches, even though this included the construction of new façades. The image and shape of the new neighbourhood are completely new, but it replicated the previous urban structure with a new morphology. The choice to discard the previous morphology is justified for safety and health reasons, reinforced by functional and aesthetic reasons.

Figure 1 – Manuel da Maia, *Levantamento da Baixa de Lisboa em 1716*, drawing from 1756 [Gabinete de Estudos Arqueologicos de Engenharia Militar, Lisboa]

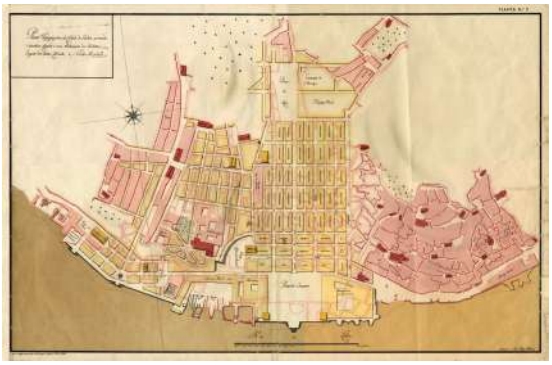

Figure 2 – Eugénio dos Santos e Carlos Mardel, *Estudo para o Plano de reconstrução da Baixa*, 1756 [Instituto Geográfico Português]

In addition to this example, there are countless examples of buildings and groups of buildings that have been transformed over time, such as the Machado de Castro Museum in Coimbra, located in the former Bishop's Palace, which was built on top of the old Cryptorchid created to support the Roman Forum. Today this remarkable building shows the practice of reuse very clearly. Its ground floor occupies the area of the old forum and the buildings reuse parts of other buildings, mostly former college buildings that were sold or converted to other functions during the 19th century. For example, it reused the Santa Ana's portal. This portal belonged to the College of Santa Ana, transformed into a barracks in the 19th century after the religious orders were disaffiliated and whose portal was moved to the Church of St. Salvador (Calmeiro, 2015). By reusing the portal of the College of Saint Thomas, which belonged to the college of the same name located in Sofia Street and which in the 19th century was converted into the residence of the Counts of Ameal, the portal was reused in the museum's courtyard and today forms an integral part of the Machado de Castro Museum.

Figure 3 - Portal of Santa Ana in its original location (early 20th century) [AMNMC, Photographs folder]. Figure 4 - Its reuse in the S. Salvador Church (c.1930) [AMNMC, Photographs folder]. Figure 5 – St. Salvador Church today



Figure 6. College of St. Thomas at the end of the 19th century [AMNMC, Photographs folder]; Figure - 7. Construction works visible the reuse of the St Thomas portal on the back façade of the Machado de Castro Museum (1935 and 2022). [AMNMC, Photographs folder]. Figure 8 - Today

Like this, there are countless traces of the change of buildings to respond to new uses and needs, such change represents one of the essential characteristics of the city, its ability to adapt and evolve. Although the image of buildings is easy to change, sometimes even reusing elements from other buildings, the urban fabric has a greater tendency to remain, with minor adaptations. It is this apparent permanence that justifies the importance of the urban heritage and intangible heritage that characterise the historic urban landscape because it is these elements that, often unconsciously, allow the community to recognise the spaces and their identity beyond the constant image changing.

Heritage from conservation to transformation and sustainable development

This idea of building the city as a palimpsest recognises the city's stratigraphy and the mark of each one of its periods, acknowledging the value of every change. This idea is linked to the broadening of the concept of heritage. The concept of heritage and the need to protect and safeguard it for future generations arose in reaction to the changes wrought by the French Revolution and the reforms of the 19th century, aimed at establishing a new social order and a new regime, destroying the marks of the past, in consequence, it adopted a very restrict concept, limited to monuments (Choay, 1965).

In reaction to this destruction and to prevent the loss of memories and traces of the past, monument and heritage protection was institutionalised through the first national monuments service in France. This approach and concept expanded and densified throughout the 20th century and across Europe. In the aftermath of the war, in 1945, UNESCO was created and the debate on the protection of urban heritage and the connection between heritage, development and sustainability began to be institutionalised (Labadi and Logan, 2016).

The beginning of the 20th century was also a fruitful period for the development of urban planning theories and for the definition of new models to meet the challenges of the industrial and modern city. The Modern Movement presented its alternative, radically breaking with past forms and endeavouring to establish a new, fairer and more egalitarian society through urbanism and architecture, where everyone had the best living conditions. The rejection of traditional models was justified by their unhealthiness and the alternative was urban renewal and renovation of old urban areas. This was set out in 1933 by the CIAM Charter of Athens, aimed at launching a new way of designing cities. However, apart from the theories, in practice cities experienced accelerated growth towards peripheral and rural areas and the progressive

abandonment of old urban areas or their sanitation with the opening up of wider streets and larger blocks.

In 1972, UNESCO adopted the Convention Concerning the Protection of the World Cultural and Natural Heritage (the World Heritage Convention), precisely in the same year that the book Limits to Growth (Meadows, 1972) commissioned by the Club of Rome was published, calling attention to the dangers of growth and the depletion of existing resources. This Convention signalled the concerns existing at the time about ongoing changes and unsustainable development and its impact on heritage.

There was a bridge between the desire to preserve the marks of the past and heritage for future generations, and at the same time preserve natural resources and nature. However, in practical terms, this vision does not coincide, and planning practices are not aligned with heritage conservation practices. In fact, throughout Europe, there have been distinct policies and institutions opposing heritage conservation and urban development (Jokilehto, 2007). This perpetuates a perception of incompatibility between modernity and the vestiges of the past.

Despite this, post-war reconstruction allowed for the development of more culturalist visions, valuing existing urban tissues and advocating the need for their reconstruction. A few conservation plans for Italian cities stand out, such as the Bologna conservation plan developed by Leonardo Benevolo, which managed to reconcile urban planning and safeguarding heritage in an exemplary way (Bandarin, 1979).

However, these two approaches seemed difficult to reconcile, due to the limited understanding of the concept of heritage, limited to historical, aesthetic and identity values that should be preserved and was mainly limited to the scale of the object or monumental structure. The extension to areas and sites with historical and heritage value embodies a paradigm shift based on recognising the citizen's perception. This perception of the urban by the citizen, explored in the theory of urbanism by Gordon Cullen and Kevin Lynch, was very important for broadening the theories of heritage conservation, focusing on people and questioning what to conserve and for whom. This emphasises not the value of the heritage itself, but the importance of the attribution of value by someone or a group. This later enabled heritage to be recognised as a social and political concept and allowed it to be extended to other typologies (Smith 2006; Veldpaus and Pereira Roders, 2017).

In the 21st century, this broadening took on a new dimension by recognising the value of intangible heritage in the Convention for the Safeguarding of the Intangible Cultural Heritage (UNESCO, 2003). Two years later the Faro Convention stressed the role of heritage in the development of communities (CE, 2005). These documents opened the way to the Historic Urban Landscape Recommendation (UNESCO, 2011), which endeavours to reconcile urban development with heritage management to achieve the sustainable development desired. Heritage is thus recognised as a continuous construction over time, close to Geddes' thinking, and understood as a process of continuous construction of overlapping layers that broadly includes the historical context, the geographical characteristics (article 8), also the parcel, the spatial, social and cultural organisation, the practices and values and the intangible dimension of heritage.

The recommendation aims to establish a new approach to managing change, advocating a set of tools such as the involvement and participation of the population, the production of new knowledge and planning tools, and the definition of new legal mechanisms and funding

strategies. On the other hand, this recommendation establishes a link between heritage conservation and economic and social development, emphasising the opportunities for economic development through tourism and the valorisation of traditional practices and knowledge as a way of promoting economic and social development. However, it also draws attention to several threats that can make the sustainable management of historic urban landscapes unviable and even put it at risk, such as accelerated urbanisation and densification, and tourism that can lead to gentrification and climate change. From these dangers emerges the perception that despite the broadening of concepts and the discourse used, the scope of this document and the conservation it defends is still restricted to the conservation of images and materialities (Fouseki and Nicolau, 2018), ignoring what we defend as one of the essential characteristics of the city, which corresponds to its need for change and adaptation.

Despite the enlargement of concepts and the inclusion of the role of communities in recognising what heritage is and the definition of innovative instruments, such as the urban development plan, the discourse remains very much marked by the idea of containment and management of change.

However, if we recognise values in the continuous process of urban transformation, we also have to accept that their preservation requires this same continuity. Change must be seen as an engine of development. This doesn't mean that we should think of change *per se*, but change is based on valuing and boosting what exists. The change and dynamics are behind the city we recognise as having an identity and heritage value.

The question that remains is how to continue transforming the city, respecting the essence of change that characterises the city and responding to the challenges of the 21st century.

The 21st century faces many challenges that have given rise to new city models that aim to help overcome and achieve more sustainable, resilient and inclusive cities (UNPD, 2015). New technologies and the "smart cities" model make it possible to simplify and optimise the city to better serve citizens' needs (Ekman, U. (2018). Beyond the utopian visions, technologies have gradually made cities more functional and efficient, and some of these technologies, related to infrastructure, are barely perceptible to citizens. We also advocate the need for greener cities that reinforce the relationship with nature through Natural Base Solutions and that make it possible to overcome some of the risks caused by climate change, such as floods and heatwaves, and also capture pollution (Seddon et al, 2020), as well as providing areas for socialising and quality of life, which have been highly valued since the COVID-19 crisis. In addition to these, there are proposals to change the way spaces and buildings are used, creating shared-use spaces and services such as cohousing and car sharing. Although disruptive, all these solutions can be made compatible with the existing city. But despite these attempts, there are still unresolved issues, particularly in terms of social cohesion and sustainability.

The issue of valuing the social has been promoted by governance policies and strategies involving the citizen and with measures centred on improving the quality of life of the most vulnerable groups. However, the idea of a liveable city includes not only physical health issues but also well-being, which has to do with some non-material factors, such as community involvement, a sense of belonging, culture and traditions. In this sense, it is important to create spaces that provide not only healthy living conditions but also mental health conditions. The idea of belonging to a place plays a fundamental role here, and cultural value is one of the main ways to reach it.

On the other hand, the need to reduce the negative impacts of urbanisation on the environment accentuated the need to focus on energy efficiency, spreading renewable energy production systems, and above all imposing an energy-saving strategy through a wave of renovation of Europe's building stock to improve energy efficiency and reduce consumption. To this end, states have created incentive and funding programmes for the refurbishment of existing buildings. Moreover, the need to promote circularity in the city led to a growing emphasis on the need to take advantage of existing vacant buildings, imposing regeneration policies for vacant areas, particularly former industrial and brownfield sites.

With these motivations, it is important to discuss intervention in the existing city, either to improve buildings thermally or to give them new uses and, in the case of urban areas, to create dynamic and attractive areas by reusing vacant areas within urban fabrics or in peripheral areas. The aim is to promote circularity and the reuse of installed resources, both in terms of infrastructure and building materials. The construction industry is one of the industries with the greatest impact in terms of resource consumption and a larger carbon footprint. Thus, intervention in the existing city and its buildings can combine the valorisation and reuse of resources, promote energy saving and contain the consumption of urbanised areas, which justifies the new emphasis that has been placed on a set of intervention strategies in vacant areas and unused buildings. A wide-ranging debate is emerging on a set of concepts such as the concept of reurbanisation, regeneration, revitalisation and reuse as ways of creating more sustainable urban areas. Although distinct, all these concepts relate to the principles of making cities more sustainable by valorising what is already there.

However, the existing city, besides the material resources that we value and reuse, is defined by a set of immaterial values, adding a social layer, and allowing important feelings of belonging, identity and memory.

It is therefore possible to create a bridge between intervention in the city to reuse its material resources and the enhancement of the immaterial resources that characterise each urban area and define its identity. The connection is established within the *genius loci*. This provides the opportunity not only to valorise and promote the tangible but also the intangible, so these interventions in the existing city are an excellent opportunity to improve living conditions and a sense of belonging. Focusing on dynamic practices and networks, including social capital, community involvement, participatory engagement, cultural traditions and inclusion and the mitigation of social inequalities (Dempsey et al., 2011). The social use of heritage in the mix of historic and renovated urban environments promotes identity, belonging, happiness and health for all citizens.

However, for this to happen, these interventions need to be planned in an integrated way with the city as a whole. And also, with the communities that live there or have some relationship and bond with those places. Therefore, it is not enough for these interventions to be supported by detailed historical research, based on the methods of type-morphology analysis that we have already experienced since the intervention in the Bologna Conservation Plan, but besides studying the history of the transformation of the site and the place, it needs to based on the values that the communities recognise and what characterises each area. There have been several studies that have debated the contribution of these reuses to the collective memory of the place and to how communities perceive and receive these interventions, and they can make some contributions to the way we act (Florentina-Cristina et al, 2014; Vardopoulos, 2023) and despite the studies that already exist, more initiatives need to be put into practice.

The ability to adapt reinforces urban resilience and has an enormous capacity for transformation. It is argued that the city is a collective construction that continues over time, in which the past and cultural heritage is an important asset for the development and planning of the city (Teran, 2009). Using the concept of "deep cities" (Fouseki et al., 2020), we recognise that past and historical change are a fundamental resource for current urban planning, as long as they are supported by interaction with the community. Places are socially constructed and therefore can only be conceived with communities.

Planning and heritage experts have to work with stakeholders to build a commitment to the future. This also opens up new possibilities to care for and conserve valuable sites. Empathy with the places guarantees their continuity, dynamics and vitality. Thus, the city of the future will be a collective construction, recognising the values of the past, and its resilience and ensuring its future success. As long as everyone is committed, the changes that guarantee resilience and continuity over time will also be guaranteed.

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