

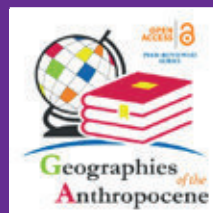
# Climate change related urban transformation and the role of cultural heritage

Matthias Ripp & Christer Gustafsson  
(Eds.)



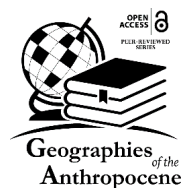
Foreword by Claire Cave

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*Climate change related urban transformation and the role of  
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# Geographies of the Anthropocene



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## 5. Cultural Heritage Through the Lens of Urban Acupuncture: A Possible Roadmap for Expanding Heritage Practice Path<sup>1</sup>

*Xinghan Lou<sup>2</sup>*

### Abstract

Urban acupuncture is an urban regeneration tactic proposed by the Spanish architect Manuel de Sola Morales. In recent years, this intervention, characterized by its low cost and high efficiency, has shown the possibility of being applied to new scenarios. As an element of the urban context, cultural heritage confronts the same sustainability challenges as urban development. By leveraging the power of cultural heritage to comprehensively address the relational conflicts in the space in which it is located, it has the potential to be an attempt to integrate cultural heritage into greater social issues. In this chapter, I will examine a possible pathway in which cultural heritage serves as an acupuncture spot to provide turning points in the trajectory of sustainable urban development. In the case of cultural heritage from an urban acupuncture perspective, the first concern to be explored is the justification that this new perspective engenders, which will include explaining how cultural heritage is morphing into a form of ‘futuresology’ by being integrated into a wider discourse. This is followed by a discussion of how the acupuncture approach can be applied from merely urban design to the domain of heritage. Through these explorations, this chapter presents a new roadmap of heritage practice via which a multidimensional perspective is arising to tackle urban development issues that cannot be addressed with established technical frameworks and mechanisms.

### Keywords

Cultural heritage, urban acupuncture, multidimensional, holistic

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## **1. Introduction: emerging trajectory for cultural heritage practice**

Theoretical and practical explorations in recent years have propelled cultural heritage beyond a single and consistent definition to a search for diverse narratives, presentations, meanings, and values. In terms of conceptual frameworks, Gustafsson (Gustafsson, 2019), building on the Culture 3.0 theory introduced by Pier Luigi Sacco and his colleagues (2018), proposed that the development of heritage conservation can also be studied in three stages. After Conservation 1.0 and 2.0, which emphasize the preservation and restoration of historic sites while these practices produce no or only limited economic value, Conservation 3.0 moves beyond the concept of preservation to seek the next level of application strategies. In this new phase, the conservation and development of cultural heritage shifts to a sustainable perspective, to transform itself into an investment in the future and pursue a multidimensional exploration.

In heritage practice, new interpretations have emerged and are being refined by linking heritage to the construction of social responsibility. Examples include, but are not limited to, employing cultural heritage practices as a tool to enhance social justice (Kiddey, 2018), instead of merely existing as an object passively awaiting protection; or improving the quality of life in local communities by adopting cultural heritage as a model for regional development (Gustafsson & Ripp, 2022). These new interpretations often use cultural heritage as a mediator, a tool, or a system that is sandwiched between temporal and spatial senses, geared towards embedding it in a specific scene to realize the concrete value of heritage in the present. In parallel, several recent heritage-centered research initiatives are exploring cross-regional, cross-sectoral, and cross-disciplinary pathways of practice under the new concept of heritage. Heritage Hub and EU Horizon 2020, for instance, both seek to introduce cultural heritage as a springboard for innovation, underscoring the notion that cultural heritage is rooted in and for the real world.

All these reflections and endeavors have in fact pooled into a common denominator: the studies of cultural heritage are gradually pushing beyond the confines of pre-existing conceptions, both in terms of theory and in terms of practice. They have started a journey of discovery that is loaded with reflections on the present value and even the future value of cultural heritage, rather than simply maintaining the physical structure or the historical significance of the heritage itself.

According to some scholars, heritage should be actively incorporated into modern social and cultural life in order to be considered a living heritage rather than a dead object on display in a museum (Jones, 2017; Holtorf, 2018; Henderson, 2020). Community involvement, retrofitting, technological enablement, etc. are typical strategies for keeping heritage alive (Hambrecht & Rockman, 2017; Rudl *et al.*, 2019). These practices capture real-life cultural demands and modernize the value of cultural heritage by integrating it into modern scenarios. Moreover, pathways for heritage to achieve social cohesion or to demonstrate contemporary values have also emerged in specific contextual cases, which have very skillfully facilitated the integration of cultural heritage with alternative domains. During the lockdown period caused by COVID-19, compared to its inherent qualities of beauty and history, etc., that were used for appreciation, it was the spiritual strength that heritage conveys more strongly to the public, which to a certain extent reveals the value of heritage concerning the mental health of the visitor (Sofaer *et al.*, 2021).

Heritage practices that go beyond traditional paths as outlined above allow for a rough summary of the development of heritage studies. Today and in the foreseeable future, the practice of cultural heritage is poised to progressively move towards an open paradigm that will place new demands on interdisciplinary, imaginative, and multidimensional exploratory approaches. However, a realistic concern arises: while cultural heritage has evinced the ambition to be integrated into a larger vision, it remains challenging to achieve these macro goals within a specific context where the most fundamental living systems are included. And in terms of pathways involving fragmented stakeholders, there are open areas that are worth exploring in depth. I therefore propose to situate heritage within a more specific context and to consider the magic that heritage can exert. The purpose of this chapter is to put forward a potential strategy for bridging cultural heritage, urban transformation, and the broader social issues exemplified by climate change. Specifically, the chapter explores a methodological question: can the concept of urban acupuncture be mediated by cultural heritage to foster innovative solutions to urban transformation problems?

To clearly demonstrate how cultural heritage is linked to interdisciplinary issues and approaches, in the first half of this chapter, I will first introduce the concept of “futurology” in the field of heritage. This concept helps to theorize how heritage values can be flexibly scaled across time and disciplines to contribute to the evolution of societal visions, as exemplified by climate

change and urban transformation. This will be followed by an analysis of acupuncture as a method of practice in the field of urban planning, which will be situated within the discourse of cultural heritage. The holistic and systemic thinking highlighted by this approach is instructive for modernizing the path of cultural heritage preservation.

In the second half of this chapter, possible routes for applying the acupuncture approach to cultural heritage scenarios will be discussed. Cultural heritage, as a category of public space in the urban environment, can itself be viewed as a point, a line of networks, or a scene for the implementation of acupuncture treatments. From mapping acupuncture spots to capturing the relationships between elements; from how individual points can be strung together to form a system, to how the publicness of an area can be shaped by the cultural potential of heritage – this is a multidimensional process, which encompasses many urban elements and considerations, will be explored in detail.

## **2. The futurology of cultural heritage**

The change in conceptual theory and the increasing inclusiveness of conservation practices have opened up the possibility of reflecting on heritage more imaginatively, and such imagination is urgently needed to locate the future of heritage. It can be perceived that the studies on the “heritage future” based on the futuristic stance have mapped out some forward-looking ideas (Spennemann, 2023). These studies have, on the one hand, moved us generally beyond how history has made heritage what it is today, as the focus has shifted to how heritage can steer us toward molding the world of tomorrow (DeSilvey, 2017). On the other hand, the recent heritages, such as abandoned nuclear power plants (De Haan, 2013; Holland *et al.*, 2023) suggest that heritage, placed in future contexts, is expected to be increasingly dynamic in its form and presence (Harrison *et al.*, 2020).

Heritage researchers today show considerable flexibility in understanding the temporal dimension of cultural heritage and the cultural continuity associated with time. In the temporal dimension, it has been argued that heritage may be more valuable than history (Sandford, 2019). Compared to other traces of history, cultural heritage offers a consolidated perspective, a more veridical point of contact, where multiple ties between indi-

viduals, communities, and contexts can be fully established, and where novel life experiences can be gained. Such connections and experiences are potentially trans-temporal; and such comprehension, brought about by the temporal dimension of heritage, has been demonstrated in studies related to urban development. For example, to predict the possible path of urban transformation in the future, one can start by reviewing the history of a city from the perspective of its heritage. Studying heritages that perform different or even contradictory public functions – which may be religious versus secular, or cultural versus utilitarian – to see how the urban life model involved in these heritages has dealt with complex issues (Rudokas & Grazuleviciute-Vileniske, 2021). The observations gained may form a repository of experience in dealing with future problems. At this point, reading the previous cultural space-time allows for the writing of the future cultural space-time. The value of heritage, in this process, “lies in its ability to anticipate and create the future by revealing the presence of cultural singularities in a continuum of development” (Rudokas & Grazuleviciute-Vileniske, 2021).

Whilst the above temporal dimension of cultural heritage has become accepted among scholars, the scope of futuristic research in the heritage field has yet to be fully explored (Holtorf & Bolin, 2022). Beyond the theoretical re-emphasis, the impact the futuristic research will have on heritage practice remains to be mined. A recent thread reflected in the existing studies is that cultural heritage will no longer exist as an independent individual, but will be understood as a dynamic social process (Jones, 2017). It has the potential to be a chain in a social development strategy or a factor of production. It can also, of course, be an inclusive system, and time is merely one of the myriad variables in the system that, together with other elements, constitute the future of heritage. As Rodney Harrison (2015) suggests, in exploring and constructing models of heritage practice, we can “acknowledge the different future-making capacities of different heritage ontologies”,

“This might be undertaken with a view not only to enriching our understanding of the range of different ways of caring for and making the future, but also exploring areas where they overlap, which might form the focus for creatively collaborating across these different modes of heritage making to work toward shared, common heritage futures.” (Harrison, 2015, p. 33-34)

Or, heritage can be fused with other variables and elements to give rise to new – and sometimes unexpected – visions of development, that is, a cross-disciplinary and interactive development.

The interaction between cultural heritage and climate is one of the manifestations of interdisciplinarity, and the link between the two has been verified to some extent by recent studies. In general, this nexus encompasses both the forced changes that climate change imposes on cultural heritage at both the material and immaterial levels, as well as the positive impact that the cultural power of cultural heritage has on climate mitigation. Heritage, for example, can be a transitional tool for achieving climate mitigation (Hambrecht & Rockman, 2017), a dynamic resource that provides resilience (Crowley *et al.*, 2022) delivers capacities, and exposes vulnerabilities, yet cultural heritage value and vulnerability are largely missing from conventional risk assessments. Risk assessments are a fundamental first step in identifying effective mechanisms for Climate Change Adaptation (CCA, or an engine for embracing change and reinventing the place meaning (Fresque-Baxter & Armitage, 2012; Henderson & Seekamp, 2018).

Recent works have justified the inclusion of climate change as a meta-challenge in the context of cultural heritage, and top-down action has taken the first steps. In certain cases, cultural heritage can inform decision-makers and policymakers in achieving climate change adaptation and mitigation (Fatorić & Egberts, 2020). Nevertheless, the potential of cultural heritage to address a vast array of social issues still needs to be supported by an emergent, multifaceted approach. This is because, in the case of cultural heritage issues related to climate change, top-down efforts led by cross-sectoral collaborations between governments, cultural institutions, and research institutes are more often seen than bottom-up initiatives. These efforts, which are temporarily challenging in terms of harnessing the collective energy of the various elements of the city, may still fall far short of the results expected from the climate vision.

Climate change is an example of how cultural heritage can be integrated into broader societal issues. Working at this interface, I will analyze how cultural heritage can practically morph into “a form of futurology” (Harrison, 2015) by engaging with transformation at a society-wide level through a methodology.

### 3. Acupuncture for mapping the extant world

In 1982, the Spanish architect Manuel de Solà-Morales first proposed urban acupuncture as a treatment option for Barcelona's urban renewal problems (De Solà-Morales, 2004). Borrowing from traditional Chinese medicine, he analogously viewed the existing urban fabric as a living body with flows and blockages, wounds and self-healing, pain and relief. In the traditional view of acupuncture, a healthy body depends on an energy cycle in which health and disease have certain patterns of transformation that need to be captured in a dynamic, holistic perspective. For example, acupuncture treatment of the forearm acupoints is claimed to have a beneficial effect on the relief of gastric disorders, while at the same time having a parallel healing effect on intercostal neuralgia. Similar to this therapeutic act, the acupuncture approach in urban design targets a specific pain point in the city, which will ultimately exert a positive impact on the entire organic system (Petrova *et al.*, 2016). With the prick of a needle, the acupuncture approach has been demonstrated in numerous urban practices as a way to achieve maximum effectiveness through minimum intervention.

In his work *A Matter of Things*, De Solà-Morales states his project acupuncture is “less concerned with the small, the minute or the delicate than with the strategic, the systemic and the interdependent” (De Solà-Morales, 2008, p. 24). This idea was concretely exemplified in the urban planning projects he conducted in Barcelona in the 1980s. He transformed and created, for example, hundreds of innovative urban public spaces in a short period, connecting these small-scale spaces into a network of accessible urban public spaces where a wide range of activities could then take place (Lerner & Margolis, 2014). The purpose of such efforts is to reshape the old city environment and thus revitalize the urban dynamic there.

Although concepts such as “systemic”, “holistic” and “organic” can be found in other approaches to urban studies, the acupuncture approach seems to be the one that best incorporates a wide range of considerations when it comes to the integration of environmental, economic, social, cultural, and other elements, whether macro or micro. Urban metabolism is one of the most well-known approaches that makes similar claims as acupuncture. This approach applies the organism metaphor to the formation and development of cities, and it advocates the mimicking of organisms and natural ecosystems in the exploration of ecologically constructed paradigms (Ariyaningsih *et al.*, 2023). The various zones or layouts in a city are analogous to different organs:

buildings are the bones of the body, and transport roads are the veins or arteries; wetlands and waters are comparable to the liver, kidneys, and lungs in the purifying roles they play; and the governmental system acts as the brain, issuing instructions on coordination, regulation and so on (Zhang, 2023). As with the acupuncture approach, the metabolism concept gives recognition to the linkages between the various ecological elements of the city and the dynamics that are interspersed within them. In urban metabolism practice, the ability of an urban area’s social and economic activities to maintain a sustainable flow of resources within the larger context of urbanization and industrialization, however, is given greater priority than the cultural dimension, thus the latter has received less exposure during the development of the urban organism.

The first step in analyzing an acupuncture approach is to learn about the target context based on similarities to the organism, yet such similarities go beyond superficial metaphors of individual bodily functions. Figure 1 summarizes the parallels between the acupuncture approach in urban contexts and the medical acupuncture treatment pathway it draws on. The process of acupuncture practice necessitates recognizing both the complexity of the organism and the complexity of the urban. That is, drawing on the systemic concept of the organism, but at the same time retaining respect for individual characteristics in real spaces. We cannot, for example, empirically predict what narratives will play out in the “scenes” formed by “small-scale spaces” and “spatial networks”. It is the living dynamics within the urban system, and the constantly renewed networking of its subsystems, that provide the impetus for the restructuring of the entire urban system.

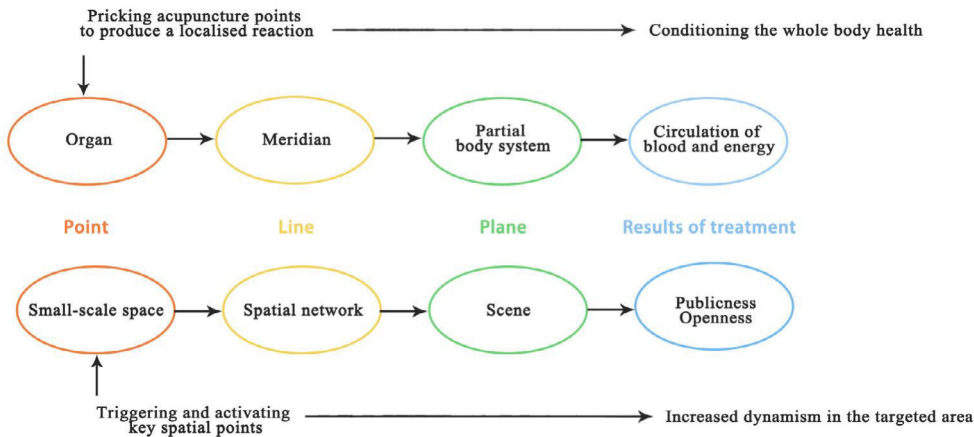


Figure 1. Structural hierarchy of medical acupuncture and urban acupuncture



A further key element in the concept of holistic nature conveyed by the acupuncture approach is publicness, which can also be interpreted as openness. The most common practice of acupuncture in the urban context, as seen in most cases, occurs often in public spaces such as underused plazas, deserted streets, and small-scale neighborhood parks. They are, however, according to Jane Jacobs (1961), the theatre of urban life and the most vibrant places. Here, the flow and exchange of experiences and stories is the key to rejuvenating the space. To achieve this, a multi-dimensional synergy of “points”, “lines” and “planes” is inevitably required. I will expand on this in detail in the sixth section of this chapter, concerning the topic of cultural heritage.

The acupuncture approach applied to a diverse and complex urban context has given rise to some cross-cutting projects with transdisciplinary potential. In parallel with typical urban renewal themes, emerging projects are aimed at addressing regional environmental challenges. In Melbourne, the research unit Victorian Eco-Innovation Lab has launched Eco Acupuncture, an ecological intervention project to achieve a low-carbon future for the region (Ryan, 2013) transformative, change requiring the restructure of the most fundamental systems for urban living. But rapid structural change is hard to negotiate within existing communities. In Melbourne Australia, a research unit known as the Victorian Eco-Innovation Lab (VEIL. The acupuncture spots or intervention sites in this project are chosen in abandoned buildings, parks, and redundant infrastructure spaces. Several subsequent initiatives have attracted citizen attention, including the creation of a “food corridor” to connect two communities and their gardens, as well as food markets and community cooking facilities; the diversion of stormwater from the roof of a factory adjacent to the park to divert it into the park and create a series of small wetlands (Ryan, 2013) transformative, change requiring the restructure of the most fundamental systems for urban living. But rapid structural change is hard to negotiate within existing communities. In Melbourne Australia, a research unit known as the Victorian Eco-Innovation Lab (VEIL. This project ultimately turns the city’s green vision into an intervening force that facilitates the rapid transformation of the current environment. Another recent example of urban ecological improvement is in Poland. To reduce urban heat zones and improve the comfort and quality of spaces, 27 green acupuncture sites were selected to apply interventions in areas where extensive greening was difficult. According to the researcher’s design and filtering, these interventions included improving local water storage, developing green roofs, and green vertical walls, among others. These actions followed a bottom-up action plan,

which involved urban facilities, street art, regional identity elements (e.g. visual messages), as well as potential beneficiaries and stakeholders in the community (Stangel, 2023).

The advancement of online interactive technologies and the widespread digital participation of the public in social life have expanded the operational space for the practice of acupuncture. Around 2015, the examination of digital elements, as well as the energy, interest, and knowledge they engender began to be incorporated into acupuncture projects (Houghton *et al.*, 2015). Digital acupuncture is an example of the evolution of the acupuncture approach in an ever-changing research topic. The emergence of networked interaction has empowered the circulation between the physical and digital world, and to some extent has shaped human physical perception (Iaconesi & Persico, 2014). When it is tailored to an urban context, a new digital access and sharing-based urban ecosystem is born. Grounded in this idea, Iaconesi and Persico (2017) consider that human perceptions of digital information and knowledge flows in cities as needle points. By activating the information, narratives, and emotions within, they seek to motivate residents (and their expectations, tensions, conflicts, and agreements) to initiate actions to reform the communal living environment. In some other scenarios, urban acupuncture is possible to be mediated by a certain social media, where the role of acupuncture is usually a non-confrontational approach to contain negative influences rather than a direct approach to provide specific solutions. Within interaction design, for instance, and especially concerning observing the relationship between online and offline behavior, social media and its underlying design framework provide a testing venue where it is evident how a good design logic can counteract a community's disruptive interaction and its negative influence (Messeter, 2015).

The above examples verify that the acupuncture method, with the changing stages of urban construction, the metabolism of social focus, and the emergence of new urban elements, possesses in itself a certain inclusiveness that makes it potential to be adapted to varying specific research topics. Before exploring how it can be translated into the realm of cultural heritage, I would like to highlight a few of its key features. First, the principle that encourages minor reforms is grounded in a macro background interspersed with the limited budgets of municipal schemes and the conservative nature of landscape changes in urban neighborhoods. Second, many cases show that the acupuncture approach not only actively embraces bottom-up participatory actions,

but also stimulates communicative interactions between diverse urban roles or elements. Similar to the uncertainty faced in the implementation of many qualitative methods, however, the interaction of elements arising in urban acupuncture programs is sometimes irregular, unexpected, and detached from the original design. Therefore, adopting a multidimensional mindset, rather than a linear one, to frame the entire design is crucial to the meaningful employment of the acupuncture approach. Finally, there are other uncertainties regarding the application of this approach, such as the lack of a standardized, systematic theory for identifying and resolving key pain points (Hemingway & De Castro Mazarro, 2022). And, considering the different realities of the implementation sites, the acupuncture approach also has filtering steps or localization modifications in the actual method design (Nassar, 2021).

#### **4. Cultural heritage through the lens of acupuncture**

Contemporary urban development research is facing a delicate problem: both the spatial and social sustainability of cities are encountering transformational challenges, while traditional technical frameworks and mechanisms are sluggish, if not inadequate, in perceiving new urban phenomena (Apostolou, 2015). A related observation is that, in recent years, some critical reflections on the urban transformer (which can be an architect, planner, or other role in a particular scenario) and on the principal position of architecture in the city have emerged in the discussion of urban planning and transformation. In the past, buildings played a central role in the urban organism, yet today, such a role has been lessened since “reality often forces architecture to a large modesty by adopting a different set of strategies” (Enia & Martella, 2019). As a result, the quest for alternative urban elements that might catalyze sustainable vision has commenced. Professional insights that are low-intervention and conducive to minor actions of the urban environment, along with urban transformers who have such insights, are gaining importance.

During this quest, urban acupuncture can be employed as a “metaphor” or a “heuristic” (Hemingway & De Castro Mazarro, 2022). Specifically in the context of cultural heritage, if we abstractly interpret the relationship between urban elements in the acupuncture approach as space and actor, then cultural heritage as an urban element may be either a space or an actor (Figure 2). In a certain urban organism that contains qualitative networks, cultural heritage as public space is an arena where the reconciliation, conflict, and compro-

mise – between community and individual, obsolete development inertia, and nascent urban vision – are performed. And when cultural heritage (especially intangible cultural heritage) as an “actor” externalizes its cultural connotation into an expressive and appealing power, seeking an optimum “space” as a stage to promote its own sense of value, or binding together with the “space” to promote multiple values in a composite form, “space” then becomes a quarry providing inspiration.

Cultural heritage as a space or as an actor, in conjunction with acupuncture practice in the contexts described above scenarios, will drive problem-solving thinking from a linear view to a systemic or multi-dimensional one. According to acupuncture theory, there are 361 interconnected meridian spots throughout a human’s body where acupuncture can be administered, and the effects of one prick are transmitted to all parts of the body in the form of dots and chains. In urban acupuncture with a cultural heritage theme, sometimes, a pinpoint implementation of acupuncture can lead to “broader cultural changes” (Lerner & Margolis, 2014).

Figure 2 depicts the process of generating energy circulation in the context of cultural heritage and acupuncture approach, and the resultant “broader cultural change”. Therein, the urban elements and the cultural heritages are simultaneously visualized as systemic entities that assume the role of spaces and actors. Through interventions, they form minor and major energy circulations respectively within and between each other.

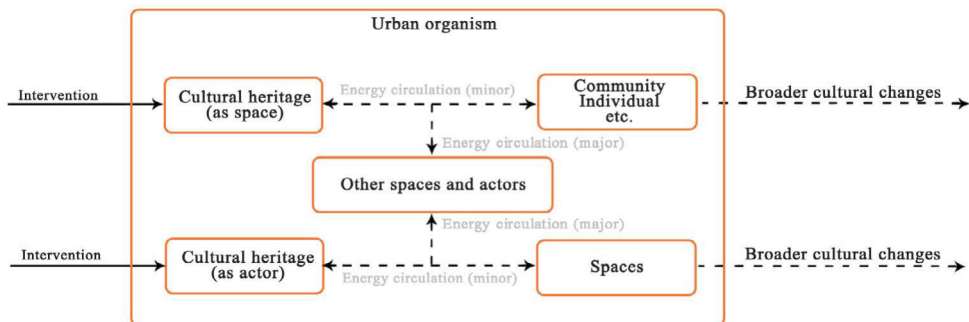


Figure 2. Energy circulations facilitated by the acupuncture approach in the context of cultural heritage

## 5. Therapeutic relations: reflecting the tangible and intangible

Although as in urban acupuncture, the location of the sensitive point is the start of the strategic treatment of the urban skin (De Solà-Morales, 2008), still, before focusing on points and needles, a pre-comprehension regarding the ills, the story, the terrain of the “patient” would be needed. Without this background, we are just treating symptoms.

Therapeutic relations are present throughout almost the entirety of the acupuncture action. Typical interventions in urban acupuncture usually proceed on two “visible” levels, physical and sensory: by observing conflicts in the circulation paths of objects in physical space, or by examining conflicts in the interaction between spatial users and space. Often, these conflicts imply therapeutic relations within the organism. Acupuncture spots, then, are decisions made after a comprehensive consideration of the macro- and micro-environmental elements of therapeutic relations; whilst specific interventions, either adding, removing, modifying, or enriching a space, are solutions designed to respond to conflicts in therapeutic relations. Significantly, the observation and resolution of conflicts are never parallel behaviors, as they are always situated within a holistic system of cultural heritage. In other words, both physical level and sensory level interventions are different options contained in a complete toolbox, which can be adopted individually or combined when necessary.

A number of cases reveal how therapeutic relations are seized and repaired at a visible level, and the experiences gained through which are applicable to acupuncture actions in the context of cultural heritage. Scenario creation, customization, and relocation is one example that combines physical level and sensory level interventions. Specifically, it is a practice of constructing or expanding scenarios in response to the relationship between a space and its users (Jaoude *et al.*, 2022), and resolving existing “illness” by invigorating new spatial usage and cognition. Such scenario planning also promotes a holistic mindset. This is because, from a temporal perspective, the process of scenario planning considers events and factors, past and present, and their interrelationships in order to understand their impact on future developments (Van der Heijden, 1996).

Conflicts observed from visible levels including physical and sensory ones, at the same time, precisely require a comprehensive understanding in

conjunction with a temporal dimension. What we have seen is that this understanding tends to happen in the context of adaptation and transformation of tangible cultural heritage, typified by the revitalization or conversion of dilapidated churches.

Therapeutic relations, though, may also be traced from a non-physical and non-sensory perspective. To achieve this, I would imagine expanding the scope of the previous definition of urban acupuncture from a material to an immaterial context so as to attempt to propose an entry-level definition for the involvement of intangible cultural heritage (ICH) as a space or an actor in acupuncture initiatives. As the complexity of urban elements changes, the channels of circulation of urban energy are no longer limited to information and knowledge generated by nature or the human-built physical environment. Iaconesi and Persico (2017) collectively refer to all the new possible elements generated in the urban context as “Third Infospace”,

“... the Third Infospace would refer to the information and knowledge generated and exchanged through microhistory, through the progressive, emergent, and polyphonic sedimentation onto the city of the expressions of the daily lives of city-practitioners, through their spontaneous, unconscious, or conceptual performance of the city.” (Iaconesi & Persico, 2017, p. 23)

Within this description, boundaries between “space” and “actor” are relatively blurred, as the cultural identities contained in these urban elements are allowed to adapt and negotiate within the Third Infospace context. In the meantime, Third Infospace paves the way for ICH, a mix of cultural perception, awareness, custom, and continuity, to serve as one side of the therapeutic relationship. Consequently, in the extant world, the location, mode, and channel of exchanging information may occur in an immaterial environment. This also indicates that a new form of urban acupuncture makes it possible to construct the progression of reality in such a manner on an occasion that is independent of physical space.

To further develop this practical pathway, a deeper therapeutic relationship and a more precisely fitted intervention toolkit need to be explored. This is because ICH in the context of acupuncture interventions – including intangible elements of cultural heritage, emerging digital cultural heritage, and digital representations of cultural heritage enabled by technologies – facilitates

the flow of unseen energy outside of physical space. To a certain extent, ICH provides a virtual “space” for the public, which can be digital, memorial, and spiritual. There, the locus for capturing blockages and conflicts shifts to reflections such as perceptions, attitudes, and emotions. The purpose of acupuncture extends from improving environmental conditions and the public space’s function to facilitating a cognitive shift of stakeholders. This level of effectiveness is precisely linked to maintaining the sustainable dynamic of ICH – only through constant interaction with people can ICH effectively survive in the context of a constantly changing society. This therapeutic relationship, which exists between stakeholders and ICH, contributes to the understanding of how cultural heritage can be preserved alive in the urban transformation setting, and at the same time highlights the potential of the acupuncture approach in realizing various types of visions in urban transformation.

## **6. Reconstructing publicness after acupuncture**

How can we ensure that the effects of the interventions reach the widest possible range of the region and, in tandem with the public cultural values embedded in the cultural heritage, produce a publicness that can extend invisibly to a deeper social sphere? This is a fundamental question facing the acupuncture initiative for cultural heritage. Most likely, the answer is inclusive and critical as well, as the construction of publicness is a multidimensional process that cannot realistically be expected to have a one-fits-all trajectory from vision to outcome.

What needs to be done first is to structure a theoretical framework that encompasses the data and information on the various urban elements related to cultural heritage. It is possible to erect a complex system of correlations that provides a multidimensional understanding of the efficacy of an intervention: how its effects are manifested and where they are delivered; whether there are other factors that enhance or weaken its delivery; what kind of correlations it creates among elements such as stakeholders, time, space, events, and behaviors; whether these correlations share the same theme; and what meaning it will continue to engender. These points of reflection are not connected by a cascading, linear relationship; they are almost always interrelated and entail efforts to depart from the defined cultural heritage trajectories in order to re-configure new ones.

Since it does not adhere to a linear mentality, the framework is probably not enclosed. Thereby it will allow for both entry and exit mechanisms. On the one hand, room is always reserved for the occurrence of new correlations. Whereas on the other hand, one must always be open to compromise on lapsed correlations. There are even moments when the emergence and demise of correlations conflict, as certain cultural heritage issues (such as future-oriented conservation) may remain thought of inconclusive, with room for democratic discussion.

The more malleable part is that the urban environment in which cultural heritage is situated is itself a non-enclosed scene in which an ecosystem of relationships is, from time to time, being constructed, evolved, and dissolved. Cities, as described by Kevin Lynch (2008) in his book *The Image of the City*, can be envisioned as complex time-based media. Using macroscopic imagery, he compares urban space to a symphony composed of millions of people simultaneously acting, moving, interpreting, perceiving, and transforming the surroundings around them: an enormous, fluid, instantaneously, jarring and randomly harmonic piece of time-based art with millions of authors who are constantly changing. This also gives a hint that a macro ecosystem of relationships appears less straightforward and obtainable, but that the old and new turnover surrounding it is easily discernible.

Nevertheless, extracting the relevance of fragmented events may still be an actionable way to complement this publicness-themed puzzle. Citizen feedback enables cities to function, resulting in a self-sustaining mechanism (Bracken, 2019, p. 11), Episodic aspects of human activity can therefore assist in capturing the sporadic clues that promote publicness, which can then be integrated to produce a shared theme. Examples include the knowledge and narratives generated by residents in their everyday interactions, as well as the private perceptions generated by visitors during their visit or participation. It's just that, sometimes, these subtle pieces of information must be seized in the public digital space, where they inconspicuously weave an ecosystem of relationships for cultural heritage in the invisible urban scene.



## 7. Conclusion

By investigating the new concept of heritage and its new social role, this chapter proposes a systematic perspective, or rather an implementable approach, to scrutinize the intrinsic dynamics of cultural heritage in the context of urban development. Specifically, it introduces the concept of acupuncture as a complement, or an imaginable research approach, to the premise that cultural heritage exists in a systematic form. This new perspective simultaneously considers the means to leverage as many beneficial outcomes with as few interventions as feasible. Moreover, it is more likely to be blended with the complexities of real life, facilitating future social or cultural policies to be better designed and rooted in real-world experiences.

Before discussing specific acupuncture strategies, I first clarified from a conceptual level by asking why cultural heritage can be used as an acupuncture spot. This entails investigating how heritage is morphing into a form of ‘futurology’ through its integration into a broader discourse, and how it is facilitating future-oriented collaborative solutions. Climate change is a plausible example, as one that is both being merged into the context of cultural heritage conservation considerations and is intimately linked to a sustainable development vision of urban transformation.

It is also explored that the role of cultural heritage in urban acupuncture can be positioned as either a “space” or an “actor”. This flexibility is granted by the tangible and intangible nature of cultural heritage. In addition, an acupuncture strategy based on the theme of cultural heritage, considering the power of cultural heritage in shaping identity and transmitting cultural values, will also construct a “publicness”. To capture, manage, and synthesize the threads of publicness – which are sometimes sporadic and sometimes ephemeral – a framework is suggested that encompasses the data and information on the various systematic elements related to cultural heritage.

The future path of this acupuncture exploration will be to generate a refined theoretical framework. Key indicators in the ecosystem of relationship towards cultural heritage will be extracted as details of the framework to be applied to the practice within a specific scenario. The ecosystem of relationship that cultural heritage weaves in the urban context can be observed through the entanglements, discrepancies, and tensions that emerge when

heritage flows in the physical and virtual scenarios. These scenarios may include decision-making, public involvement, digital practices, and innovative conservation, among others. It is also possible to arrive at a practical and concrete proposal for urban acupuncture based on the indicators in this framework.

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Starting with a systemic understanding of cultural heritage, climate-change related urban transformation processes are analyzed through a multi-disciplinary lens and methods that blend the arts, humanities, and sciences. Governance-specific topics range from relevant cultural markers and local policies to stimulate resilience, to a typology of heritage-related governance and the vulnerability of historic urban landscapes. A variety of contributions from the Americas, Asia, and Europe describe and analyze challenges and potential solutions for climate-change related urban transformation and the role of cultural heritage. Contributions focusing on innovation, adaptation, and reuse introduce the concept of urban acupuncture, adaptive reuse of industrial heritage, and how a historical spatial-functional network system can be related to a smart city approach. The potential role of cultural traditions for resilience is analyzed, as is the integration of sustainable energy production tools in a historic urban landscape. Examples of heritage-based urban resilience from around the world are introduced, as well as the path of medium-technology to address climate adaptation and prevention in historic buildings. The contributions emphasize the need for an updated narrative that cultural heritage can also contribute to climate adaptation and mitigation.

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