TEH: Building a Cultural Regeneration Project for Europe

(RE)BUILDING TO LAST

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FOREWORD: (RE)BUILDING TO LAST WITHIN "NEW CLIMATES"

"To build is to destroy," states architecture scholar Charlotte Malterre-Barthes (Malterre-Barthes, 2024) in her recent advocacy for a *Global Moratorium on New Construction*. According to her analysis, architectural practices need to move away radically from well-established extractive and exploitative practices (and economies) that have intensely shaped the profession for decades and are today undergoing a profound crisis. For Malterre-Barthes, architecture needs to be profoundly reinvented through a new culture and economy of "care"; a culture entailing practices of continuous maintenance, repair and self-repair of the built environment and of the social/ecological populations that inhabit them (Malterre-Barthes, 2023). A politics of "repair" and "self-repair" extending to architectural and urban disciplines with the ambition of transforming a sector in deep crisis from the bottom up. From Stephen Cairns and Jane M. Jacobs' provocation that *Buildings must die* (Cairns et al, 2014) to Rotor's co-founder Lionel Devlieger arguing for a need to rediscover the *Art of Deconstruction* (Devlieger, 2019), we could also argue that "to deconstruct" (rather than destroy) is "to (re)build" or, rather should be. In other words, one should not be allowed to demolish existing built infrastructures (a spatial capital, a valuable stock) without a clear vision of what this entails in terms of grey energy and reuse potential, without a comprehensive strategy for both the future of the building and the outcomes of eventual demolition.

Within the realms of such an extensive debate, a concern clearly emerges: we need to re-explore and update an ancient and often lost culture of continuous care and repair for the places we inhabit, to systematically reuse architectural, urban and territorial infrastructures when they eventually reach the end of a lifecycle.

Within a related logic, as the COVID crisis hit Europe in March 2020, Bruno Latour highlighted that "if everything is stopped, everything can be questioned, bent, selected, sorted, interrupted for good" (Latour, 2020). Such an important interruption of both our daily lives and the usual globalised flows has been a key moment to investigate alternative futures and question – on a wider scale – one of the most polluting industries in the world. Even if the costly pause offered by the pandemic to question our societal models did not bear the fruits advocated by Latour – nonetheless – critical questions about the profession are becoming increasingly insistent and widely documented.

The decisive decade

All the while, the environmental crisis appears at the front and centre of most public and non-profit agendas around the world in various shapes and forms. In 2019, the European Union launched the "Green Deal" (European Commission, 2019) amidst its "Europe Roadmap 2050" (European Union, 2050), aiming to bring the continent to carbon neutrality within the next 30 years. In the United States in 2021, the White House launched its "Long Term Strategy" (US Department of State, US EOP 2021), envisioning a future for the country that focuses on carbon emissions, environmental protection and both the energy and climate crisis. In the midst of the current environmental, social and economic crisis, several observers consider the next decade as decisive for the future of our planet[1], emphasising that "10 years are all that remain to avert catastrophe".

At intermediate and local scales, such plans and environmental concerns find direct or indirect echoes in the current investigations many major European metropolises are carrying out into their visions for the future with the likes of "Le Grand Pari(s) de l'Agglomération Parisienne" (Région d'Ile-de-France, 2016) , "Bruxelles 2040" (Dejemeppe et al., 2012), "Visions Prospectives pour le Grand Genève" (Frochaux, 2021) or "Luxembourg in transition" (Gouvernement du Grand-Duché de Luxembourg, 2023). This opens up possible comparisons among different cases – metropolitan areas share similar problems – but also highlights the extreme variety of metropolitan spaces requiring tailor-made strategies, fully rooted in geographic, climatic, cultural and economic contexts. Among the common issues of great concern, in relation to the ecological social and economic transition in Europe, is the abundance of post-industrial sites and the absence of wide-scale territorial strategies to address their transformation (Sediri et al, 2021). Resulting from intense and transformative industrial ages, such "vestiges" without a project cover large swathes of land across Europe today (Magnette, 2023). Often extending over large-scale polluted and densely inhabited territories, these spaces present important challenges that have only recently started to be at the centre of strategic planning concerns. In tandem with the extractive rationality that has created them in the first place, these spaces are often left abandoned until their land value has grown enough to offset the cost of their dismantlement, depollution and reconstruction as well as to produce sufficient profit for investors.

Given the current discussions and concerns expressed both by public actors and scholars about such practices (and the urgency to operate major changes in the next decade) concrete examples are needed of what alternatives to the usual resource-abusive architectural and urban developments could look like (their potentials and limits).

Through a collaborative effort[2], the "Rebuilding to Last" project attempts to do this by documenting the capacity of independent cultural centres to address the regenerative future of their buildings and communities within the context of a specific, long-lasting European network of grassroots organisations. Through multiple collaborative investigations into the activity of the Trans Europe Halles (TEH) network and its members, this publication aims to highlight the capacity and limits of inspiring, imagining sustainable transformation practices for what they can teach us about future operations among cultural teams, audiences and communities, cities and beyond. The ways and strategies through which the TEH cultural centres have invested, repurposed and cared for neglected industrial buildings/infrastructures all over Europe since the 1980s constitute an important deposit of local experimentations from which we could learn alternative, non-extractive and community-focused ways to adapt, inhabit and transform our built environment.

1 United Nations High-Level Meeting on Climate and Sustainable Development (2019).

2 The Rebuilding to Last (RTL) project is a Trans Europe Halles initiative, led by TEH in collaboration with a wide range of international partners. The project has been funded by the European Commission.

Haceria Arteak (Bilbao, Spain)
11 former industrial repurposed buildings by HaceriaArteak cultural centre. Image source : European Network of Cultural Centres

1

URBAN & TERRITORIAL REGENERATION THROUGH CULTURAL TRANSFORMATION PROCESSES

1.1 What is – and isn't – cultural regeneration?

Over the last few decades, during the quest to find new ways of developing western cities in a more sustainable manner, the cultural economy has been identified by many as a key element. 'Cultural' or 'creative' cities have indeed been at the centre of a rising number of urban research reports, publications and policies (Scott, 2010). Richard Florida (Florida, 2002) has famously observed the rise of a 'creative class' in North American cities overtaking previously working-class neighbourhoods. Meanwhile Ruth Glass (Glass, 1964) had already coined the term 'gentrification' to describe the way artists, architects and cultural workers had eventually, albeit not necessarily intentionally, participated in transforming specific neighbourhoods in London, to the detriment of their former working-class residents.

The economic, social and spatial potential of this type of culture-based urban transformations has been actively mobilised by politicians, public administrations and urbanists alike throughout Europe and Northern America. An extensively studied dynamic in the context of major urban centres, especially to understand the specificities of large gentrification processes as in the cases of Paris (Clerval, 2010; 2011; 2022), London (Atkinson, 2000; Reades et al, 2023) or New York (Lees, 2003; Newman, 2006; Hipolito, 2019), to name a few. However, since the early 2000s, culture-based transformation processes seem to have found a particularly fertile environment in the context of struggling post-industrial territories[1]. These are centres that have gone through a significant increase in poverty, unemployment and the departure of their upper and middle-class residents, eventually leading, in the direst cases, to public finance bankruptcies, "shrinking cities" (Pallagst et al. 2009; Wolff et al, 2017) or urban shutdowns[2].

Culture-based transformation has been increasingly mobilised in such contexts as an attempt to redevelop aesthetic charms and strengthen local economies, with varying degrees of success. An often-cited major example is the 1997 redevelopment of Bilbao around Frank Gehry's iconic Guggenheim Museum. When journalist Robert Hugues coined the term "Bilbao effect" in 2001 (Spaid, 2023), he was pointing at the way the struggling post-industrial context of the secondary Spanish harbour-town had considerably benefited from the construction of the museum, from its acclaimed architecture as well as from the important culture and tourism-centric urban development of the surrounding neighbourhoods. Since its post-industrial decline, Bilbao has become an important and attractive economic and cultural centre in Spain and Europe, which can be attributed – at least in part – to such culture-centred transformation[3]. Given the much-publicised appeal of the "Bilbao effect", other post-industrial cities through the western world have tried to follow the same path, structuring their transformations through iconic architecture, cultural infrastructures, and/or major cultural events. Some examples include Santiago Calatrava's Quadracci Pavilion (2001, Milwaukee, USA), Jean Blaise's "Voyage à Nantes" (2011, Nantes, France) (Brahy, 2019), Kengo Kuma's Dundee "V&A Museum" (2018, UK) or Frank Gehry's "Luma Tower" (2021, Arles, France).

While this rising trend in urban transformation processes has been increasingly studied, the process we intend to address through this research concerns a radically different dynamic: a secondary, less visible, community-based type of cultural urban renewal at work in western cities. Such dynamics take place equally in secondary, post-industrial cities, but tend to emerge less within private or institutional initiatives and more within civil society leaderships (i.e. through citizen or resident pressure groups, collectives, non-profits etc.). They also (interestingly) share the particularity of focusing their actions on the re-use and repurposing of existing, often industrial, and abandoned sites/infrastructures. Such initiatives generally benefit from limited economic means but strong visions, extensively supported by local communities, knowledge and volunteer contributions among the ranks of the collectives. While these projects vary in size, purpose and type of sites, they all rely on culture, creation and art as a means to transform and occupy abandoned spaces in a distinctive fashion from the more conventional dynamic described above. Therefore, despite their differences, we consider such initiatives as all contributing to a general, distinctive dynamic that we will call "Cultural Regeneration". This is a process brought to the fore by French architectural collective "Encore Heureux" within the 16th Venice Architecture Biennale (Encore Heureux, 2018). As they present it, formerly abandoned spaces are appropriated by local communities within "an acceptance of the unexpected in order to

1 The context of the economic globalisation and related de-industrialisation of the West has indeed led a vast number of secondary European and North American cities to an important economic crisis and difficulties in reinventing themselves since the early 1980s.

2 See, for example, the case of Empire, Nevada, a US gypsum company town where inhabitants were relocated and the ZIP code was discontinued in 2011, following the closure of the local mine

3 It is to be noted that, since the advent of the so-called "Bilbao effect", various scholars have observed that the renewal of the city cannot solely be attributed to the Guggenheim Museum or even to the sole urban development, but needs to be observed through the lens of a more general development of the area at the time. This also explains the difficulties encountered to replicate the full extent of this "Bilbao effect" in other cities across Europe (Rybczynski, 2008; Lorente, 2023). Well before this re-development, Gomez (1998) already noted how Bilbao's urban policymakers were at the time taking inspiration from the development of Glasgow. In both cases, the cities failed to improve employment numbers.

construct the possibilities of the future" and participate to "embody and expand the very idea of culture". Through continuous efforts and incremental innovations, such communities reinvest in spaces while reinventing themselves as well[4].

The previously mentioned culture-based transformations mainly use cultural and artistic practices as a means to improve local aesthetics at the global, national or international scale. However, "cultural regeneration" initiatives tend to actively produce and use arts and culture to maintain and strengthen local communities with minor concern for economic attractiveness. While this does not exclude capitalistic rentability and cost-and-outcome focused practices and concerns, these initiatives tend to focus on producing free or affordable spaces and services and offer opportunities for communities, artists and cultural practices to thrive, with some degree of detachment to more conventional contexts focused on profitability.
Urban and architectural strategies also differ substantially. While conventional cultural transformation processes use vast demolition and construction operations/resources to implement large-scale cultural events (i.e. festivals, concerts, etc.), "cultural regeneration" initiatives focus more on progressive adaptation, programming and repurposing of existing buildings/sites. This is usually driven by (if only and simply because of the lack of means and the necessary frugality of the approach) a strong attention to embedded local, historical and socio-cultural values.

Another distinctive feature of "cultural regeneration" initiatives can be addressed through the usually more horizontal and bottom-up organisation of their actions. While conventional culture-based urban projects have commonly been structured by one or a few private and/or public organisations as commissioning experts which, in turn, hire contractors, "cultural regeneration" initiatives emerge from more local and independent initiatives and groups of individuals who invest their own time, energy, skills and sometimes money towards the progressive transformation of their environment. Given the profiles of such individuals (artists, cultural workers, local residents, activists etc.), those types of transformation are perceived and led as cultural projects in themselves, embedding community-building and artistic activities through the entire process. In turn, this community-based approach allows for innovation and intense creativity, in terms of spatial and social practices and concepts. This allows the consideration of planning aspects that conventional practices tend to ignore or downplay such as urban spontaneity and hacktivism, continuous prototyping and testing of space configurations, inclusive, 'parasitic' and temporary architectures etc. (Haack, Marteinsson, 2015).

In a more general manner, the practices we identify as contributing to a "cultural regeneration" of the built environment tend to invert the conventional development logics that post-industrial sites have been subjected to. Conventionally, those spaces, when re-developed, have benefited from significant economical means, coming from partnerships between private and public actors of various scales (e.g. local and national government, European funds, multinational companies etc.) (Ozden, 2012; UNIDO, 2018; Václavíková, 2019). These public-private partnerships, in turn, tend to set strict timeframes, limiting the possibility for long-term reflections, on-site tests, the integration of unforeseen contingencies, and wider cultural or conceptual investments concerning the development project's content/aims as their adequacy with local resources, needs and imagery. They have also been subject to criticisms, given the fragility of such partnerships between public and private entities (Eurodad, 2022). In the context of "cultural regeneration" processes, the initiatives we study invert the logic: while benefitting from limited and often time bound economic means, the involved actors compensate for this by a further investment in conceptual/creative work and a long-term investment of an abundant, motivated and mostly volunteer-based workforce on site. Such circumstances create a context of urban transformation that is different from what policymakers and urban planners are accustomed to and which we intend to better under- stand through this publication (and the following publications). In that sense, these initiatives can be compared to what David Harvey identified as "spaces of hope" (Harvey, 2001) in the pursuit of an alternative to the conventional and capitalistic production of the urban environment.

Given such particularities, and the relative lack of large-scale and systematic studies on the subject, "cultural regeneration" initiatives require a more in-depth and extensive understanding. However, one should not mistake this need and interest for unconditional praise of these initiatives. This publication aims to describe a current, specific phenomenon that has distinctive potential and outcomes, but also limits and risks.
Several scholars and researchers have described how post-industrial sites and territories improved by culture-based transformations, even when partly developed by civil society members, could equally become vectors of gentrification (Gonzalez & Guadiana, 2013; Pratt, 2018). Through this lens, for example, Luca Pattaroni (EPFL) argues that such initiatives contribute to an "aesthetical aternativisation of urban space" (Pattaroni, 2020). That is to say that – in certain conditions – such milieux slowly become commodified spaces expected to be "present, accessible, and consumable" in any major urban centre and thus losing part of their "subversive power". Following Tonkiss' analysis (Tonkiss, 2013), we could also point out that such initiatives, which rely less on public spending and more on a voluntary workforce from civil society members, contribute to the construction of a general "austerity urban planning" logic, whereby public investments become increasingly scarce. This leads to public services (their cost and responsibilities) becoming more and more taken over by non-profit organisations or private actors. This phenomenon is significant in the furthering of Western societies' neo-liberalisation and, as such, cannot be unequivocally praised without taking

4 See, for example, experiences such as Marseille's "Belle de Mai", or "Grands Voisins" or Arennes' "Hotel Pasteur" in Paris.

into consideration the more general logic of the unravelling of the welfare state that they emerge from. Our interest in "cultural regeneration" processes and initiatives comes from a place of conviction that these speak of our time and can bring to the fore innovative strategies and practices for the contemporary transformation of the post-industrial built environment. However, if we intend to learn and further develop such practices for the project of "transition", both their potentials and limits – in our context of urgency and crisis – must be addressed.

1.2 The New European Bauhaus (NEB) challenge

Our research focus is further strengthened by the renewed interest of European politics for adaptative and innovative practices of the built environment. In 2021, the European Commission adopted a communication setting out the concept of the "New European Bauhaus"[5] (NEB), which included the aim of propelling initiatives that adapted and transformed the existing built environment (CIRECCE, 2021). This initiative was adopted following the 2019 "Green Deal" declaration, a European Union policy setting Europe on course to become the first carbon-neutral continent. The Green Deal aims to reach a "a fair and prosperous society benefiting from a modern economy, an efficient and competitive use of its resource[s] and a net absence of carbon emission[s] by 2050 in which economic growth will be dissociated from the exploitation of resources"[6] (COM 640 final, 2019). The European Green Deal is a road map establishing a series of policy initiatives to achieve the carbon neutrality goal and respond to the daunting environmental challenges we are facing. The explicit goal to decouple growth from exploitative practices needs to be understood as hugely ambitious for the EU. This indeed signifies a considerable "paradigm shift" in which the economy cannot, under any circumstances, supersede the well-being of natural systems and local communities.

5 The NEB was announced by Von der Leyen in the 2020 State of the Union address. The initiative was subsequently adopted by the European Commission as a communication on 15 September 2021 (CIRECCE, 2021).

6 The current goal has been set to a reduction of at least 55% of all carbon emissions by 2030, compared to 1990 levels, through the adoption of climate, energy, transport and taxation policies. (European Commission, 2023).

Given its considerable ambitions, the European Green Deal was given the New European Bauhaus as a tailored initiative aiming to implement this cultural shift within the EU's territory, within our daily life and spaces by developing its cultural and creative dimensions. As Von der Leyen stated: "The New European Bauhaus combines the big vision of the European Green Deal with tangible change on the ground. Change that improves our daily life and that people can touch and feel – in buildings, in public spaces, but also in fashion or furniture". The New European Bauhaus aims to create a new lifestyle that matches sustainability with good design, that requires less carbon and that is inclusive and affordable for all. In other words, through the furthering of policies and instruments revised or developed within the Green Deal[7], the NEB attempts to translate them into tangible forms. It aims to contribute to the development of new ways of building and living for the decades to come in Europe, in line with its reinterpretation of the infamous Bauhaus movement. As German physicist and climatologist Hans Joachim Schellnhuber stated about this initiative: "we have to develop a new world order. And in the focus of this order will be the built environment because this is where the energy goes, where the material flows go, where the emissions come from, where we are consuming our land. Thus, if we can transform the built environment then we can transform our society into something that will live and flourish for the next millions of years."[8]

While its content and structure remain "in progress", a variety of interconnected tools and programmes are already part of the NEB. Some take the form of networking and experimental initiatives (NEB Lab[9], NEB supporters' network etc.), others include direct rewards and funding (NEB prizes, NEB Rising Stars, open calls etc.), guide-

7 This includes revisions of climate-related policy instruments such as the Emissions Trading System or the Energy Taxation Directive, with a close focus on tax exemptions (aviation, shipping), the "Farm to Fork" strategy aiming to support sustainable efforts in the European agricultural sector, the European Climate Pact, a collaborative platform of European stakeholders which, by adhering to it, set themselves to contribute to concrete and measurable sustainable changes in their organisations, as well as the EU forest strategy supporting forest preservation, restoration and afforestation in Europe.

8 As announced during the 18th Architectural Biennale of Venice collateral event, New European Bauhaus: radical yet possible future space solutions. 25-26 May 2023, Venice.

9 The NEB Lab is described as "a 'think and do tank' [set] to co-create, prototype and test new tools, solutions and policy recommendations. https://ec.europa.eu/commission/presscorner/detail/en/ip_21_4626

Ifö Center (Bromölla, Sweden)
Reuse of a former ceramics factory.
Image source : Ifö Center

BAUHAUS SERIE BAUHAUSBÜCHER by Walter Gropius & Laszlo Moholy-Nagy Eds (1925-1929) Collage of different covers. Image source : design of the authors

lines and toolboxes. Among those, the NEB Compass[10] constitutes the main 'guiding framework' for stakeholders and makers of all kinds. While constituting a basis for an NEB (self) assessment of projects, it establishes values and principles and defines the goals pursued within the cultural and physical transformation of the built environment[11]. Three ambition levels, from what constitutes an "acceptably" NEB project to what is an "ideal" project are being developed. While the first two ambition levels remain somewhat conventional, if still relevant for an actual ecological transition, the third level marks an important change by centring itself on transformative practices and thus fully embodying the Green Deal goal to enforce a deep paradigm shift from exploitative to regenerative practices. This level – which is particularly relevant to this research project – calls for (1) long-term structural dynamics, (2) the integration of the natural ecosystems' logic and (3) the implementation of societal transformation through behaviour and lifestyle changes.1 While such transformative practices are to be seen at both spatial and social levels, the urban, landscape and architectural project is considered capable of contributing to long-term and structural socio-spatial changes[12].
In contrast to the other levels, the architectural project (interestingly) does not call for an improvement or added layer of efficiency to the existing building stock but rather for a structural change. Under these circumstances, the radical, long-lasting and far-reaching experience of "cultural regeneration" practices developed by the Trans Europe Halles network appears particularly relevant – a valuable capital to be exploited. The more than 100 members of the network have been experimenting on a daily basis for the last 40 years with alternatives to the mainstream, replacing the exploitative practices that have – until now – dominated the field of architecture and urban planning.

Local interconnected initiatives have already been identified as key for the development of the NEB. In its 2022 workshop, the "European Committee of the Regions" has established the EU local and regional authorities (municipalities, regional governing bodies etc.) as key stakeholders for sustainable urban, regional and cultural NEB policies due to their direct impact on a vast number of public buildings and spaces as well as their important regulatory and funding role in the renovation of the built capital and the regeneration of spaces. In this context, local and regional elected representatives have been cited as "pivotal when it comes to making the New European Bauhaus more accessible and engaging members of the public in the transformation process in order to advance its implementation" (European Comittee of the Regions, 2022). NEB is also clearly presented as a wide-reaching and geographically diverse project: "As a truly European project, the new Bauhaus must be conceived as an interconnected network of regional or local hubs rather than just a single geographical outpost. It is through these local and regional hubs that further connections to industry, academia, civil society, urban entrepreneurship, and the arts could be built"[13]. The regional relevance of NEB is not necessarily limited to institutional initiatives. Many grassroots initiatives have been called upon to further define what the NEB represents[14].

Within this framework, Trans Europe Halles – as an important network of long-running and pre-existing "cultural regeneration" initiatives – can both be seen as a precursor of the NEB and an ensemble of applied experimentations from which NEB initiatives could learn and grow.

Old and new Bauhaus

A little over a century ago, the Bauhaus movement came to life amidst a society facing deep crisis and uncertainty following the shocks of the First World War and of the two first industrial revolutions. European societies were facing a need for new, innovative perspectives for the future, having opened up the realms of new technical possibilities. New materials, techniques, production processes and resources resulting from the industrial eras, the war and colonial trades laid the foundations for what was going to be a major cultural change across the world.

In this context, the Bauhaus art school (literally meaning "the house of construction") was founded by Walter Gropius in 1919 with the ambition of fully reorganising how arts could be conceived and taught. This reorganisation was first built upon a Manifesto calling for the dismantling of the barriers between arts and crafts, creativity and production[15]. Beyond this philosophical stance, Gropius and the Bauhaus school laid the groundwork for an integration of artistic and craft practices within the emerging systems of industrial mass

10 The Compass establishes three core values and three working principles; all NEB projects shall be "beautiful", "sustainable" and bring people "together", on one side and, on the other, develop a "transdisciplinary approach", a "multi-level engagement" and a "participatory process".

11 The NEB (self)-assessment tool's explicit aim is to "add granularity to this framework and introduce specific lists of measurable criteria for specific types of projects" (NEB 2022, p. 4) and to help stakeholders, through a series of comprehensive, open questions to further projects in the direction of the aesthetic, inclusive and sustainable goals of NEB.

12 This level of assessment is expressed through a variety of evocative questions such as "Can participants question and reimagine their way of life through the project?"; "Is there an understanding of the inner working of a (natural) ecosystem that could restore the landscape or biodiversity?"; or "Is there a vision on societal change by behavioural change or a mention of a paradigm shift?".

13 It is through this scope that one can understand the recent appearance of various local and regional initiatives found under the overarching term of a "New regional Bauhaus". Starting in the summer of 2021, the so-called "NEB of the mountains" has gathered several local and regional actors around the regeneration of the South Tyrol EU region and the city of Bolzano. In the same vein, the Dutch city of Heerlen and the German city of Aachen have developed a similar dynamic in their EU regional collaboration, bringing together local universities and practitioners in defining what a local NEB might entail in terms of opportunities and territorial planning. In a more national context, another example can be cited as the way Lille European Metropolis and the Hauts-de-France region have seized and developed the

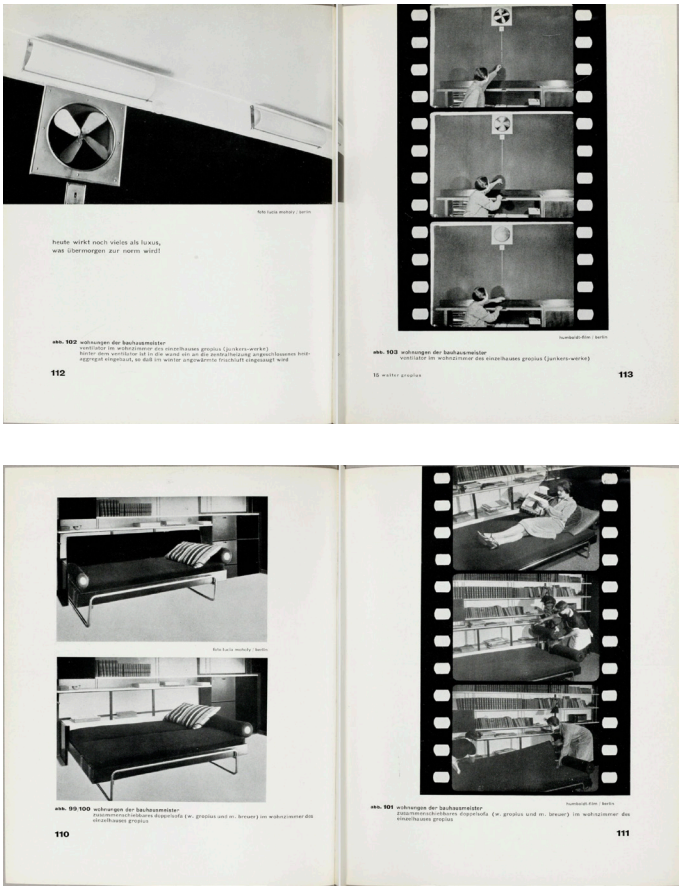
14 See https://frontend.cor.smv.cloud/en/sessions/reference/euregionsweek-2023-stimulating-local-and-regional-new-european-bau-

15 Gropius aimed to bring back together the hand and the mind, the artist and the workshop with no disciplinary distinction; all workers involved in architecture, sculpture and painting were invited to join in service of a 20th century lifestyle.

production hand in hand with a collectivist and social philosophy[16]. While this shift had to integrate the notion of standardisation and norms required by the mass production system, Gropius insisted that arts and crafts needed to evolve beyond those sole concepts to really become modern. While the Bauhaus school only lasted for 14 years, its philosophy, teachings and protagonists quickly became central to one of the most important cultural and spatial transformations of the last centuries. It is fair to say that the modernist movement – as a whole – has been considerably inspired and shaped by such teachings and practices and that the majority of our current living standards have been shaped – in one way or another – by the Bauhaus movement. From the ready-to-wear clothing sector to prefabricated housing units as well as Ikea-style mass-produced furniture, both the positive and negative consequences of this cultural shift are still visible to this day[17].

Today, within a new crisis and turning point, the call for a new Bauhaus must be taken as a call for the capacity to implement a radical societal shift in a small amount of time and with limited means. Within this framework, the long-term, site-specific experiments of the Trans Europe Halles network – as an "alliance of the arts" per se and through the creative, adaptative reuse of the "ruins" of our past – seem a promising germ to conceive the next paradigm shift beyond extractive and functionalist principles and towards "care based" and "alter-functionalist" principles instead.18 In contrast to the Bauhaus functionalism, the alter function- alist approach where "every element fills several functions, every function is filled by several elements" address the ecological transition through constant, continuous, evolving actions drawing on the ordinary rather than the exceptional and intensive implementations. In this context, transition "cannot be exhaustively planned but must preserve spaces of freedom where certain practises and transitory uses can be implemented through time and according to inhabitants' needs" (Mongé, Apaar, 2021) and must focus on principles of reversibility, multifunctionality and co-construction already found in natural ecosystems.

As the New European Bauhaus ultimately calls for a paradigm shift, the existing TEH experimentations could bring us important knowledge about how to deploy new prototypes at the European scale, taking our inspiration from the Bauhaus for its capacity for large-scale cultural change implementation while moving away from some of the movement's more exploitative foundations.



Internationale Architektur. Bauhausbücher 1, München, by Walter Gropius (1925). Collage of different pages. Image source : design of the authors

16 Gropius shared Le Corbusier's observation of a 19th century "machinist revolution", which was followed by a deep intellectual shift.

17 Indeed, while the Bauhaus teachings were rooted in a call for industrial rationalisation and a social conception of mass access to living standards and goods, it also widely participated in a progressive standardisation of lifestyles and living environments, leading to the weakening of local cultures, crafts, habits and the gradual depletion and exhaustion of the environment.

1.3 Beyond obsolescence: Towards a cultural regeneration project

The rapid territorial development of the last century has dangerously eroded and fragmented Europe's landscape, while simultaneously building vast settlements, roads, railways and infrastructures that have extended the continent's inhabitability. In the light of official scenarios and measures on climate change[18], energy consumption[19], quantitative and qualitative protection of the land[20], a complementary, more comprehensive and forward-look- ing understanding of the evolution of urban space might open up innovative and more resilient pathways to deal with urban growth and/or contraction[21] and to face future challenges. In recent years, international research initiatives have proposed innovative reflections and strategies concerning our urban future. Projects such as "Les Nouveaux Cahiers de Doléance" (Latour, 2019), launched by renowned French sociologist and anthropologist Bruno Latour and Medialab or Charlotte Malterre-Barthes' "Moratorium on New Construction" (Malterre-Barthes, 2024), remind us of the importance that unconventional research and design efforts have radically called into question classical representations and reconstructed collective imaginaries in times of deep (socio-ecological) change. Within "carbon-neutral" or "zero artificialisation" fundamental goals, the systematic reuse and "recycling" of our existing built capital appears to be one of the rare concrete and accessible strategies to help achieve such ambitious goals today.

The European "City-Territory" as a renewable resource: A research hypothesis on future "urban Europe"

In this context and within the "Rebuilding to Last" research project concerning the capacity of cultural centres to address the future of their built/non-built/social environments through innovative and inspiring transformation processes, we propose to work on the hypothesis of the **"European City-Territory as a Renewable Resource"[22]** where reuse/recycling/reinvestment reverses the idea that urbanisation is just a process of waste and considers it, instead, as an accumulation, a "stock" and a reservoir of embodied energy[23]: a precious and strategic spatial and natural capital. Within this hypothesis, future challenges (demographics, energy, environment etc.) are taken into account in the context of the European City-Territory as a long-term distributed and decentralised infrastructural, territorial construction. This entails a project that is able to recover and leverage the various forms of inhabitability and their relationship with the infrastructural support, reflecting on new life cycles and innovation, capitalising on the urban and territorial embodied energy, and rethinking Europe's extensive and diffused fixed capital (its "built" stock). The belief is that – within the dense sedimentation of rationalisation that is either at work or abandoned – the "City-Territory" already contains the potential to "regenerate" itself[24].

This hypothesis can be applied to different bodies of scientific research, integrating urban, technological and environmental thinking. Urban metabolism and circular economy (Braungart and McDonough, 2002; Gemeente Rotterdam et al, 2014), life-cycle assessment (Manzini et al, 2008), embodied energy evaluation (Stein et al, 1978), eco-system services and co-evolution theories merge with spatial and social analysis to reconfigure an approach to urban-natural dynamics. While the idea of the "city as a resource" has a long tradition (Jacobs, 1961), it has only been explicitly used since the 1920s when, in the North American context, the idea of "nature preservation" was expanded to include the "urban resource". It was precisely starting from the idea of the "life cycle" that, between the 1920s and 1940s, planners and real estate experts (in the US) expanded the idea of "resource" to the urban space. The idea of preserving the "urban resource", in the same way that forests and rivers are preserved, naturalises the urban phenomenon but represents – at the same time – an essential passage into technological research and urban policies.

In response to the current crises of the urban environment, the European "City-Territory as Renewable Resource" hypothesis considers space as a "capital", a valuable asset, a stock (Lévy and Lussault, 2003; Calafati, 2000). Through the concept of "embodied energy", attention focuses on the urban and the territorial support, where concluding or concluded urban and territorial cycles (typical of urban crises/turning points) are looked upon as open for agents to reconfigure new cycles. What remains on the ground, the leftovers (e.g. materials, artefacts and infrastructures that have supported the formation of past cycles) are not a minor or marginal constituent of the possibility to open up new, virtuous cycles. This hypothesis operates through the territory's embodied energy, aiming to rework the

18 See, for example, the Intergovernmental Panel on Climate Change 2014 Report (IPCC, 2014) or the EU Climate Adaptation Strategy (European Commission, 2021b).

19 See, for example, the Swiss 2000-Watt Society Scenario (Morosini, 2018) or the négaWatt's CLEVER (Collaborative Low-Energy Vision for the European Region) scenario (négaWatt Association, 2023) or the EU Reference Scenario 2020 (European Commission, 2021c).

20 See, for example, the No Net Land Take by 2050 proposals (Build Europe, 2022) or the EU Soil Strategy for 2030 (European Commission, 2021d).

21 According to the EUROPOP2023 report by EuroStat (2023), the EU's population is still set to grow for the next few years, peaking at 453 million people in 2026, before decreasing to 420 million by 2100 due to the combined effects of declining fertility levels and climate change impacts, with Poland and Italy projected to lose the greatest number of people.

22 This hypothesis has been developed by the author in collaboration with Paola Vigano also within the research project "Towards a new vision for Switzerland 2050" at EPFL/ LABU (2017).

23 With the aim of revising the paradigm according to which urbanisation merely represents a process of waste, the "City-Territory as renewable resource" hypothesis investigates the capacity of a set of design strategies to recycle and upgrade the already available wealth of resources of the "City-Territory's" palimpsest.

24 Regeneration here is intended as a set of ambitious design strategies to improve the performances of what already exists.

existing urban and infrastructural "stock" (artificial and ecological) and to envision new lifecycles for abandoned and underused spaces. Today the evaluation of the embodied energy in the building stock has become part of any attempt to minimise energy consumption; this proposition moves beyond, addressing the question as multifold and trans-scalar. In this mind-set, expanding the purposes of the 2000-Watt Society Scenario[25], the territory itself, and not only the "built stock", could be acknowledged as a huge opportunity to accumulate/save energy.

Besides efficiency, the strength and reversibility of infrastructures (ecological/artificial) will need to be considered via extensive retrofitting/upgrading processes[26]. Through this hypothesis, the project recovers and leverages the various forms of inhabitability and their relationship with the infrastructural support, proposing to valorise and enhance, through a process of adaptation (spatial, social and technological), the transformation of architectural, urban and territorial space. An "increased habitability" of the territory also implies the search for new symbiotic relationships (virtuous co-habitation) between urban and ecosystem functions, and thus a specific interest in possible and multiple correlations/superimpositions between land-use and use of the land, in its physical qualities and in the ecosystem services it provides. This is a process that needs to be enhanced through the development of new positive "images" and "imaginaries" (cultural and social representations) of land (Sippel and Visser, 2021), soils (Blanc, 2021) and places (Kunysz, 2024).

Within and through this working hypothesis, the "Rebuilding to Last" research project, (1) addresses the necessity of conceiving the European cities (and territories) as a "renewable resource" and (2) proposes to do so by valorising and capitalising on the Trans Europe Halles network of cultural centres' long term and layered knowledge (developed over more than 40 years) on the transformation of former industrial built and non-built space.

Towards a "deep cultural regeneration" project

In contrast to other research hypotheses on urban re-cycling (Greenstein and Sungu-Eryilmaz, 2004), the "City-Territory as Renewable Resource" hypothesis extends the concepts of re-cycling and "regeneration" beyond brownfield recovery to all types of space: brown, grey and green-fields. These are all spaces that embody labour and that need to be adapted and improved. Regeneration – defined (in biology) as the faculty of "a living entity (genome, cell, organ, organism, ecosystem) to reconstitute itself after destruction or to reproduce parts of organs/tissues, following loss or renewal" – implies an organism's ability to renew itself autonomously, using its own internal resources (from what is "already there"). In this perspective and within the European city-territory, the regeneration and valorisation of the built and non-built environment as a global strategy offers the conditions for a project that is approached in a different way from the past. It is a vision of territorial habitability and socio-economic development based on existing territorial qualities, which enhances an exceptionally rich territory with a heritage to be recognised and endowed with great flexibility. The aim is to regenerate and establish built and open spaces and landscapes as part of the ecological transition. Regeneration requires us to start from what is already there in order to build our vision for the future, and to make the most of and capitalise on the resources that already exist.

The diffuse, multi-scalar and multi-disciplinary nature of regeneration (which must deal with everything that already exists) also requires a shift in terms of governance. The architectural, urban and territorial projects of the future will have to be increasingly – and structurally – coordinated across the different skills, fields of action and stakeholders. We will need to take into account the complexity involved in setting up a widespread regeneration project, arming ourselves with the necessary skills and cross-disciplinary expertise, some of which are yet to be invented. The adjective 'deep' (after the philosopher Arnae Ness (Naess, 1973), who distinguishes 'classical' ecology – with its anthropocentric roots – from 'deep' ecology, which implies a renewal of the relationship between man and nature) reminds us that the type of process we have in mind when we talk about architectural, urban and territorial 'regeneration' implies a structural (and not superficial) renewal of our way of conceiving, building and inhabiting the territory. Drawing on the strength of the cultural dimension among TEH members' transformation strategies, we will consider its approach as one of "deep cultural regeneration".

25 The 2000-Watt Society is a vision for a liveable future. People in such a society care and stand up for a high quality of life that meets the goals of sustainability. They appreciate the resources the earth provides, use them sensibly and share them equally around the globe. People in a 2000-Watt Society recognise that quality of life is not inextricably tied to a constantly higher material standard of living. See https://www.2000watt.swiss/english.html

26 In this perspective, the City-Territory should work with and not against the reinforcement of ecological systems.

"Incontri del terzo luogo" project: from abandoned parking to garden Manifatture Knos (Lecce, Italy). Inage source : Manifatture Knos

2

TEH: A FIRST OVERALL DESCRIPTION

2.1 Describing TEH

"In the European urban landscape of the end of the 20th century, many sites symbolic of an industrial, merchant and military age lost their 'raison d'être' and fell into disuse, their memory set aside. 'Industrial wastelands, eyesores, silent spaces' are words of absence that designate the brutal passage from one epoch to another, leaving neighbourhoods disfigured and people out of work (...) and yet they open unexpected perspective for use. Among these deserted places, some are being re-used and little by little, are finding new life. The issues at stake with regard to conversion join with those of the artists and cultural activists who wish to influence their culture and their time."
Fazette Bordage (Bordage et al, 2001)

Through these words, former Trans Europe Halles (TEH) coordinator Fazette Bordage describes the philosophy through which the network was born in 1985, inspired by Belgian theatre director Philippe Grombeer. This philosophy is still at the heart of the organisation which, to this day, describes itself as a network "uniting over 160 grassroots arts and culture centres with strong DIY, independent, community driven and alternative values, across more than 40 countries"; "support[ing] grassroots communities in their endeavours to reclaim abandoned spaces and transform them into vibrant hubs for arts and culture"; "regenerate[ing] communities, neighbourhoods and cities" and "promote[ing] social, environmental and spatial justice" (Trans Europe Halles, 2024).
With over 160 members and associates spread across Europe and the world, TEH has grown considerably since its foundation, reaching the status of a well-established European cultural network. Given this size, various members of the network can have extremely different political, economic, geographical and institutional contexts of actions as well as different goals and strategies. These differences will be analysed in a preliminary way in the following pages. However, due to TEH membership policy, all members share common features which have overall remained the same since the foundation of the network. To become a TEH member, organisations must at least[1]:

- Be an independent centre formed through a non-profit legal status originating from a grassroots initiative
- Display a high quality, pluri-disciplinary and autonomous social and cultural programme
- Support and defend a democratic and pluralist society
- Show a strong engagement towards equity, sustainability, diversity, and social justice
- Encourage interaction between local and international art practices
- Operate in a repurposed building

Such features allow for a variety of initiatives to join the network while still maintaining a coherence throughout the socially engaged and community-based cultural actions required by TEH. Given the network's growth in size and recognition, this membership policy does seem to have allowed the network both a consistent longevity and the flexibility needed to face changing circumstances.

TEH's relevance has been recognised on several occasions by the European Union both through the results of the lobbying work of the network and through the (various) projects and development funds it was granted over the years. Moreover, several research proj- ects have been organised about and through the TEH network and the activities of its members. Some projects directly emerged from the members and team of the network, either as self-reflections on the development of the organisation (Bordage, 2002), products of collaborations within their wider sector of activity (Fitzgerald, 2010) or as reports of projects funded by the European Commission, including "Changing Room – Mobility of Non-Artistic Cultural Professionals in Europe" (Laakso et al, 2010), "Engine Room", "Creative Lenses" (Rex, Kaszynska, Kimbell 2019; Kimbell and Rhodes, 2019) or "Factory of Imagination". Those also include a variety of handbooks and reflections on applied practices through the network such as "Managing Independent cultural centre. A reference manual" (Fitzgerald, 2008), "Design handbook for cultural centres" (Lényi, 2014) or "Volunteering in the European grassroots cultural scene" (Voorintholt, Wolfsberger and Sayin, 2020).
Given their longevity, geographical spread and activities, TEH and its members are also more and more frequently featured in academic and market studies, such as Clément's "Manifesto of the Third Landscape" (Clément, 2003), Lucchini's "La mise en culture des friches industrielles" (Lucchini, 2016) or KEA and Deloitte new "Market analysis of the cultural and creative sectors in Europe" (2021). This shows, once again, the relevance and importance of TEH in the field of urban renewal and regeneration, both in the literature and in the

1 Other criteria also involve being founded at least two years prior to membership application, to be based among one of 46 eligible countries andtodisplay a strong motivation to actively engage with the network. Applicants who do not answer to one or several of these criterion may be eligible as associates.

field. While such publications have all brought their fair share of both applied and theoretical knowledge, the "Rebuilding to Last" project, through its research dimension, aims to further this literature by focusing more precisely on a common, and relatively neglected feature: the mandatory **occupation of (mainly industrial) repurposed buildings** and its consequences. Far from a simply infrastructural issue, this required feature for all TEH members is arguably one of the most distinctive elements of the network. This also indicates the experience TEH members have accumulated since the 1980s on the more than ever pressing issue of circular architectural and urban practices.

In this context and through its almost 40 years of existence, the TEH network has developed precious expertise on the culture-based transformation of communities, neighbourhoods, and buildings. Far before the declaration of the New European Bauhaus, TEH was encouraging its members to reclaim abandoned buildings and (re)use them to "regenerate" local socio-cultural ecosystems through creative practices fostered by ecological and social concerns. As such, and as mentioned earlier, TEH can be considered a precursor of the NEB. This precursor status provides even greater motivation for a thorough description of the network and the deployed strategies to see "what can be learned from" four decades of active experimentations throughout Europe and how those might profit from the implementation and support of new initiatives.

To launch our first (tentative) description of the TEH network, we will first explore the network in three introductory parts: first "**Times of TEH**" will be developed through an exploration of the history of the network, its birth and evolution in practices, philosophies, and structure. Second, "**Geographies of TEH**" will be touched upon by documenting the extent of the network's diversity throughout Europe under different aspects. Through those, we will explore the relationships of the centres to European urbanisation, landscape areas, climate zones and natural risks as well as their development in relation to shifting economic and political contexts. Such "geographies" will also allow us to draft an "alternative portrait of Europe" featuring a new constellation of knowledge existing be- yond the political borders of its member states. By illustrating a set of "geographies" through concrete examples, we will also introduce the reader to a sample of the variety of centres making up the network. Finally, TEH will be further characterised through a first quantitative and comparative analysis of selected parameters featured within a survey developed for this research. We will analyse critical elements to understand the variety and extent of "cultural regeneration strategies" developed by TEH members, including their distribution through European countries, the characteristics of their built assets (e.g. period of construction of the buildings they occupy, their typology, their main building materials), the form and ratio of their spaces (e.g. size and distribution of indoor/outdoor occupied areas) as well as first elements addressing the adaptation of their built assets to the energy challenges (renewable energy strategies used, state of the buildings insulation etc.). Through these three parts, we aim to build a first understanding of the TEH network, which will allow a better grasp of the circumstances that pervade the variety of cultural regeneration practices within TEH as they will be presented more precisely in the following publication.

2.2 TEH times and visions

The history of TEH can be explored from at least three points of view: (1) through the **history of the many local initiatives** making up the network, each with its unique story and set of circumstances, which collaborate to strengthen each other and share expertise; (2) through the **evolution of the network** itself as an organisation with a set of principles and leaders which progressively changed through time and integrated more and more members; (3) through the way **those two levels have integrated** and answered to important and rapidly changing political and economic circumstances in Europe. This is especially important in terms of European conflicts, relationships and collaborations, the energy crisis (and the many forms it took since the 1970s) or the ever-growing ecological consciousness in Europe taking form into national and international policies for sustainability. These intertwined stories will help us to understand how and why TEH has grown so much, both in number and relevance, over the last 40 years.

A blossoming vision

While TEH was founded in 1983, it drew from pre-existing initiatives throughout Europe that were already the product of their time. Melkweg, the oldest member of the network was founded in Amsterdam during the petroleum crisis and barely a year after the release of the Club of Rome's "Limits to Growth" (Meadows et al, 1972), one of the first important international reports advocating for sustainable ecological and economical practices to avoid reaching planetary limits and depleting its resources. The other TEH precursors seized their opportunities soon afterwards. As mentioned in the previous section, at the time, many important (institutional) cultural centres were opening throughout Europe with brand new, iconic architectures conceived by leading designers and featuring mainstream cultural programmes[2]. Within this context, the choice of TEH precursors to invest existing, abandoned infrastructures for fostering arts and cultural practices can be seen as both a choice and a statement of their alternative, independent stance on culture.

However, this choice needs to be seen in the economic and industrial context of the 1980s. Indeed, the decade also saw the consequences of the European de-industrialisation and the emergence of neo-liberal politics. In many European countries, this marked the beginning of a decline in public investment in the cultural and artistic sectors. In this context, developing arts and culture in repurposed buildings also represents a pragmatic answer to fewer economical means and a surplus of abandoned industrial infrastructures.

One of these initiatives was, in 1983, in the hands of Belgian cultural actor Philippe Grombeer as he was participating to the creation of an art centre in Brussels' abandoned covered market, the Halles de Schaerbeek. Among his key participations in this endeavour was reaching out to a set of similar existing initiatives in Europe. This set the spark for a fruitful collaboration with five pioneers of "cultural regeneration" practices: Huset (Copenhagen, Denmark); Kultur Fabrik (Koblenz, Germany); Melkweg (Amsterdam, The Netherlands); Ny Scen (Göteborg, Sweden); Pali Kao (Paris, France); Rote Fabrik (Zürich, Switzerland) and Le Confort Moderne (Poitiers, France)[3]. These centres, all connected to the cultural sector, had one main thing in common: to "transform the city based on a past to which they did not turn their back but on which they lean on to ask new questions"[4] . Since their emergence, architectural practices in these spaces took advantage of the history, past and identity of the places transformed in a way that the current NEB initiative has only started to address. The architectural project was not an answer to pre-established programmes seeking profitability of the built spaces but rather repeated attempts – over time – to adapt space to cultural practices, and cultural practices to spaces (within a recurrent movement).

Based on such commonalities, these precursors met in Brussels in 1983, to found the "Trans Europe Halles" network and to establish its philosophy and membership criteria. Fazette Bordage was one of the early members as the founder and representative of "Confort Moderne" (Poitiers) before she became coordinator of the network in 1993.

During an interview realised for this research Bordage recounted her first meeting with TEH: "We were very few and, you know, when I arrived in a Rote Fabrik in summer 86 and met Philippe (Grombeer) from Halles de Schaerbeek, people from Melkweg, Koblenz, UFA... [...] I realized that 'Wow! What I'm doing is not crazy!' Because you know, at that time, we were so isolated"[5]. Indeed, TEH first was born as a place of mutual support for many isolated alternative initiatives throughout Europe. The network soon became recognised by its members as a family of sorts, where one could learn from the experience of others and find resources to develop their own centres and overcome eventual struggles they were faced with. In Bordage's words, "at the beginning, the role of TEH was to give force to each other to keep going with our vision of culture and empowering people with their own creativity but at the same time helping in practical issues concerning eventual relocations, the state of the teams, the

2 Piano and Rogers' Pompidou Center (Paris) opened merely 10 years prior, Stirling and Wilford's Neue Staatsgalerie (Stuttgart) was designed in 1985 while Raue, Rollenhagen, Grossmann and Lindemann's Gasteig (Munich) opened the same year, for example while Gehry's Guggenheim (Bilbao) opened in 1997. Herzog & De Meuron's Tate Modern (London), possibly one of the most iconic and important institutional cultural reuse of an industrial building, only opened its doors in the Bankside Power Station in 2000, on a commission originally dated from 1994.

3 Pali Kao, Huset, Ny Scen have since closed their doors.

4 Original translation from "d'aborder la transformation de la ville à partir d'un passé auquel on ne tourne pas le dos mais sur lequel on s'adosse pour poser de nouvelles questions" by Gilles Clément. Interview conducted to Gilles Clément by the authors in Paris (2024)

5 Interview with Fazette Bordage, 24 January 2024

handling of security, etc.[...]"[6]

This supportive environment was particularly important given the limited-to-non-existent public support and recognition brought to such alternative cultural initiatives at the time. As Fazette Bordage states (Encore Heureux, 2018): "In 1983, when we were claiming that we had invested places of 'industrial, port or commercial heritage', everybody was laughing at us among the territorial communities and the ministries. Technical, utilitarian building devoid of renowned architects could not belong to what was considered 'heritage'. The notion of industrial heritage grew with us."[7]

The cultural activities of the TEH centres were often misunderstood by local authorities: "We were supporting each other because we had no other support. For example, in my city, Poitiers, my evenings were very often ending at the police station because they couldn't understand what was going on. Many young people gathering, things they would see nowhere else, etc.[8]"

This lack of understanding and support was equally found at higher political levels, despite the extent of the network. The nascent European Union was indeed first and foremost developing through economic agreements and industrial policies, leaving no room for recognition of cultural initiatives like the TEH network. As such, TEH remained, for a time, in the role of a dissenting network of grassroots organisations struggling, together, to find public legit- imacy and fundings.

Waves of expansion and contrasting perspectives

Three important circumstances contributed to change these circumstances: the extension of the European Union to the East; the development of European cultural programmes; and the rise of ecological consciousness throughout the continent.

First, after the Cold War came to an end and the strict separation between Eastern and Western Europe disappeared in 1991, an important number of centres located in Eastern Europe were funded and/or joined the network. This contributed to a first increase in size and spread of the TEH as well as leading to encompassing new contexts within the network, i.e. the post-Soviet economic, socio-cultural and architectural circumstances.

This highlighted the strongly European mindset through which TEH was funded. As Fazette Bordage says: "We had a dream about Europe. It is something I shared a lot with Philippe [Grombeer] because we thought 'Europe is a young institution, so it will correct all that is wrong in our old local institutions.' We had the dream that within the European level, we'd invent ideal policies to bring people together, which could then trickle down to each local situation. And – to be honest – at that time, it was so difficult with our local policies and national policies, [...] we really felt that it would save us. We had the dream that this could be a new space to really live together."[9]

This European hope was ingrained in many aspects of the network, including in the decision to regularly move the organisation's office, originally located in Brussels, to various countries. In a way, the development of TEH to the East also foreshadowed the improvement of EU relationships to the Eastern European countries, a decade before they joined the EU.

In parallel, TEH also benefitted from the development of European cultural programmes as the network promptly applied to public calls as the European Commission initiated them. Through the "Kaleido- scope" programme, the network secured a first grant in 1993, allowing the creation of the network's office and the hiring of their first coordinator, Fazette Bordage. Through the 1993-1999 Kaleidoscope programme, Bordage eventually launched the "Phoenix project" in Copenhagen from 1994 to 1996. This major gathering brought together the TEH network with a variety of scholars, politicians, artists, cultural and social workers with the explicit goal to "position art and culture at the heart of exchange and dialogue between different components of European society"[10] through the organisation of workshops, conferences, and artistic events. The inclusion of a variety of international actors, including representatives from South America, Asia and Africa increased TEH's growth, both in terms of international recognition and numbers, as more members joined the network. As Fazette Bordage remembers: "That's how I was invited to Taiwan, Sao Paulo, Montreal ... At the beginning I was very shy, because to me, it was not about setting a model. But it was fantastic [...] everybody understood what we were doing. [...] I could feel it was really the beginning of something that would develop and grow".[11]

Following this momentum, TEH was soon asked by the European Commission to participate in its pioneer European Voluntary Service (EVS) project. The EVS project started a new strategy of international exchanges between the centres of the network of both youth and employees that has since then been at the heart of TEH actions.

The growing consciousness of the ecological crisis in Europe has also slowly contributed towards influencing and modifying the public in regard to "re-use"[12]. While favouring the repurposing of existing, aging buildings has been seen as a marginal, somehow amusing approach for most of the 20th century, it is now more and more identified as an unavoidable and urgent strategy. The Brundtland Report (WCED 1987) first stated the urgency of building sustainable soci-

6 Ibid, 14'00".

7 Original translation from "En 1983, dire qu'on avait investi des lieux du 'patrimoine industriel, portuaire ou marchand' faisait rire tout le monde dans les collectivités territoriales et les ministères. Des bâtiments techniques utilitaires, sans architecte renommé, ne pouvaient appartenir au 'patrimoine'. La notion de patrimoine industriel a grandi avec nous."

8 Interview with Fazette Bordage, 24 January 2024

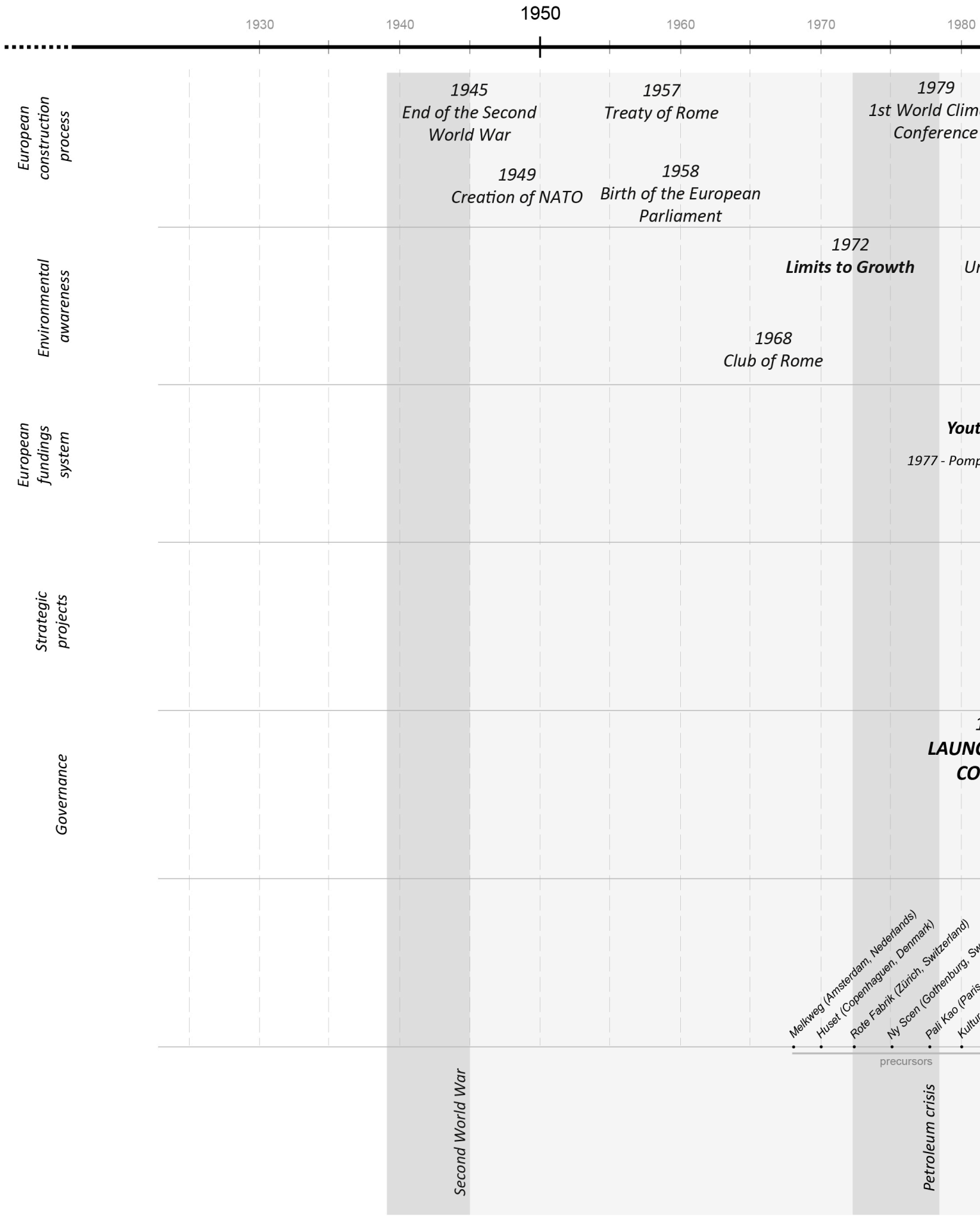
9 Ibid.

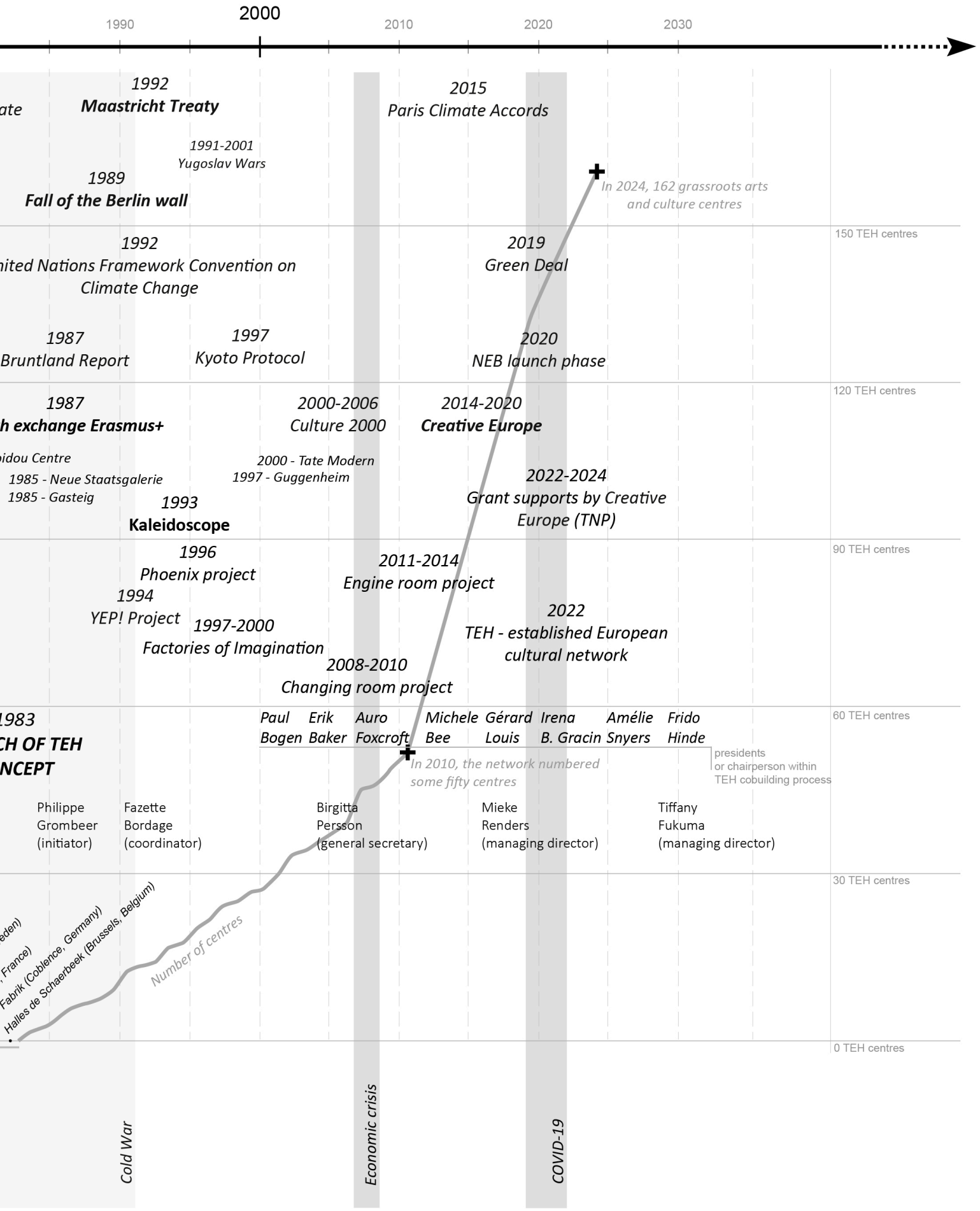
10 https://www.teh.net/inititatives/phoenix-project/

11 Interview with Fazette Bordage, 24 January 2024 .

12 This term, while common in contemporary discussions on sustainable practices, is a fairly new take on the subject. The original TEH members contacted highlight that terms such as "recycling" or "biodegradability" were more commonly used at the start of the network.

TEH / TIMES AND VISIONS




1990
2000
2010
2020
2030
1992
Maastricht Treaty
2015
Paris Climate Accords
1991-2001
Yugoslav Wars
1989
Fall of the Berlin wall
In 2024, 162 grassroots arts and culture centres
150 TEH centres
1992
nited Nations Framework Convention on Climate Change
2019
Green Deal
1987
Bruntland Report
1997
Kyoto Protocol
2020
NEB launch phase
120 TEH centres
1987
h exchange Erasmus+
2000-2006
Culture 2000
2014-2020
Creative Europe
idou Centre
1985 - Neue Staatsgalerie
1985 - Gasteig
2000 - Tate Modern
1997 - Guggenheim
2022-2024
Grant supports by Creative Europe (TNP)
1993
Kaleidoscope
90 TEH centres
1996
Phoenix project
2011-2014
Engine room project
1994
YEP! Project
1997-2000
Factories of Imagination
2022
TEH - established European cultural network
2008-2010
Changing room project
1983
CH OF TEH
NCEPT
Paul Bogen
Erik Baker
Auro Foxcroft
Michele Bee
Gérard Louis
Irena B. Gracin
Amélie Snyers
Frido Hinde
60 TEH centres
In 2010, the network numbered some fifty centres
presidents or chairperson within TEH cobuilding process
Philippe Grombeer (initiator)
Fazette Bordage (coordinator)
Birgitta Persson (general secretary)
Mieke Renders (managing director)
Tiffany Fukuma (managing director)
30 TEH centres
eden)
, France)
Fabrik (Coblence, Germany)
Halles de Schaerbeek (Brussels, Belgium)
Number of centres
0 TEH centres
Cold War
Economic crisis
COVID-19

eties on a global level in 1987. Five years later, the 1992 United Nations Framework Convention on Climate Change (UN, 1992) then 1997 Kyoto Protocol (UNFCCC, 1997) set clear objectives for the reduction of CO2 emissions. TEH members' attitudes towards and expertise in the built environment and of socially and ecologically conscious practices are becoming more and more obviously relevant today. TEH's focus on the re-use of infrastructures and care for the land/soil was indeed at the centre of the network since its beginning. Most centres developed their own relationship to their local natural context long before this increase in consciousness: "In Rote Fabrik, there was the lake, in Confort Moderne, we had a garden (...) – you know – everything was already there. But in our mind we were not thinking about sustainability, because the word didn't exist in a way."

The 2015 Paris Agreement (UNFCCC, 2015) and the 2019 Green Deal only strengthened this relevance as Europe insisted more and more forcefully on the importance of circularity and re-use but also on the integration of sustainability in social and cultural practices in general. In parallel, the developing interests for the potential of the cultural economy on local and international levels and the ever-rising real estate values in and around European city centres may equally have contributed towards giving TEH members, both owners of often vast urban piece of lands and promoters of cultural and artistic practices, a legitimacy and relevance in the public eye that was previously denied.

At the turn of the 21st century, however, the development of the network was perceived with contrasting perspectives within TEH. Under the auspices of Fazette Bordage, the network was expanding its influence inside and outside Europe.[13] Other members, including original founder Philippe Grombeer, were concerned by the departure of some centres that opposed this global-scale strategy. They in turn advocated to keep TEH as a familial and supportive network with a limited number of members. Amidst this conflict of visions, the departure of Fazette Bordage led the way for a downsizing of the network's ambitions. Most European projects within TEH were either halted or reduced, drastically limiting the funding of the organisation. The TEH office, then located in Paris and composed of a small team, was closed in 2000, with a sole remaining employee carrying out the administrative tasks from Finland, leading to further loss of funding from the French authorities. This shrinkage eventually forced TEH back to its original volunteer-based form, despite having grown considerably in size and importance in the previous two decades.

This situation was hardly sustainable. Birgitta Persson joined the TEH board at the time of Bordage's departure, in 2000, and recalls: "So, there was this crisis. [...] And we were wondering 'What should we do now?' I particularly remember a board meeting with the founder, Philippe Grombeer and some of the board members – and they were saying that maybe we needed to close the network. Now, they had been there for a much longer time than I did, and I was barely 25 or 30 years old. And I was like 'no, but there [is] so much potential here, we need to give it a chance!"[14] A vision group was formed, solely composed of eight younger members of the network, tasked with reestablishing a strategy for the future of TEH within a year. This vision group went on to invest the remaining funds towards the organisation of recurrent, relevant and affordable meetings for the member organisations with the hope of rekindling a strong collaborative dynamic.

The early 2000s were thus deeply marked by limited economic means and a variety of strategies developed to counter this situation. First, the TEH office was reopened within one of the member centres, Kaapelitehdas (Finland) to benefit from their resources. This eventually allowed for the hiring of a new coordinator. The job was subsequently offered to Persson in 2004, a function she would come to occupy for the next 12 years. The office would then move on to Lund (Sweden) to benefit from regional and local operational grants. Secondly, Persson, building on Bordage's development of the EU voluntary service project, led new grant applications within the youth sector. As the former coordinator recounts, cultural pro- grammes were ill-adapted to the TEH members' activities; the network was often considered too alternative to be seen as eligible for the more conventionally-oriented cultural grants. TEH eventually obtained its first operational grant in 2006 through the Youth Exchange Project (YEP), allowing for further stabilisation of the network. Thirdly, Persson initiated new relationships with the private sector. A first sponsorship contract was brokered with the Finnish corporation Nokia, which provided the network with new funding as well as communication equipment for all member organisations.
Such strategies resulted in a considerable expansion of the network; between 2005 and 2008, the number of TEH organisation members doubled, (Sibelius Academy, 2010). The network soon required significant restructuring to coordinate more than 50 centres.

Development, professionalisation and restructuring

As the creative industry was slowly being recognised as a major strategic sector for Western economies, TEH resources and expertise has become more and more obvious to many organisations. While the grassroots nature of the network carried lots of debates about the risks and relevance to contribute to this dynamic, Persson and many others saw it as a considerable opportunity for the network to go forward. Building on this new-found interest for cultural and artistic activities, a then stabilised organization and an important expansion of its members, TEH secured consecutive European cooperation grants that contributed to the development of the network through

13 In the early 2000s, through a collaboration with Art Factories, TEH was organising international events in key cities on every continent and welcoming new members at an exponential rate, reaching a general assembly of over 50 centres.

14 Interview with Birgitta Persson, 11'00", 25/01/2024 - 77'56".

two important projects: Changing Room (2008-2010)[15] and Engine Room (2011-2014).[16] As Persson recalls: "this was the first time we had both a network grant for carrying out the day-to-day work, the meetings, running your office, having money to support the coordinator, ... and on top of that, we developed Changing Room."[17]

This meant new possibilities to build capacity, develop exchanges and collaborations among the member organisations. It also brought TEH to carry greater weight in EU cultural policies as they were increasingly acknowledged as a reliable and geographically diverse partner for elected representatives and administrations alike. From the small, familial network of support for a few centres in the 1980s, TEH had grown in the 2000s into an important cultural player on the European scene with the capacity and drive to lead policy advocacy at various levels.
With this in mind, soon before Persson's departure, TEH developed more and more professional tools. A three-year strategic plan for the network was established in 2012 as more employees and more centres had joined TEH, taking into account such important changes. Among other elements, this plan advocated for an organic rather than strategic growth, with little recruitment strategy and a focus on maintaining and strengthening members' relationships and exchanges.

This strategy was applied and developed within the next eight years under the leadership of Persson then, after her departure in 2017, by newly hired managing director Mieke Renders. Due to their efforts, the network was growing exponentially, expanding from a little over 50 members in 2010 to more than 100 members just 10 years later. The most significant jump in numbers in the history of TEH occurred between 2016 and 2020. This situation soon began to put to the test the structure of the network itself. Tiffany Fukuma, current managing director, replaced Renders in 2021 and remembers: "That network used to be family-sized for a very long time, [...] five years before I arrived, it started growing exponentially. But the problem is that the administrative structure, the structure of the network itself had not changed at all. [...] [The statutes] were so old – they had been written in another language, then translated, they were not relevant at all anymore. [...] And in terms of HR and finance management, it was really DIY the way it was run. There was no prospective budgeting, no forecast budget. [...] no centralisation, etc. [...] People in the team were also burning out. They didn't know if their work contracts were going to be renewed since there was no budgetary visibility."

In this context, the global COVID-19 crisis triggered an important period of difficulties at the heart of the network, with a team of five employees struggling to push the organisation further. Starting from this observation, Fukuma set a goal of further consolidation and professionalisation with an explicit aim to restructure the organisational and administrative dimensions of TEH as a way to be able to carry the important and growing number of projects and members. New statutes, progressive membership fees depending on members' size, a bigger[18] and more specialised team of employees, a better knowledge and mastery of the archives of the, as well as new strategies to bring together members, all contributed to an intense period of professionalisation.

While this undertaking was born out of necessity and a period of crisis, it also carried a more ideological shift within the network. Fukuma explains that this move was also done alongside a reframing of the network as a common platform of services at the disposal of both members and network outsiders (policymakers, researchers etc.). As she puts it: "I think it's really time to embrace this political mindset that we have lost, in a way. I think we lost as many cultural institutions due to this kind of neoliberal fashion geared toward creative and smart cities, creative economies, etc. That kind of dragged us a little bit away from the big fights of this time. The collapse of democracy, the rise of fascism and discrimination, the refugee crisis, the climate crisis, of course, and all these things that our members are confronted [with every day]. So it is about preparing our members to be more resilient in the face of all these crises economically, but also to understand better what's coming for them in terms of policies that are going to be not so good for them, and about understanding how to leverage investment for their buildings. In a way, it's about operating on the scale of the network but for the benefit of our members."[19]

In a context of multiple crises and difficulties finding funding for artistic and cultural sectors, one of TEH's main goals is now to become more resilient in order to better support their members through this hardship. This also passes through the development of services directed outside of the network itself: "We can [also] be a platform for policymakers. We can be a platform for, you know, people who are just interested in our sector but come from other sectors, etc."[20] Indeed, such services allow for more funding, as well as developing TEH recognition and capacity to influence the policymaking process. This also includes the private sector and the potentially more independent income such collaboration can bring, as Persson had already initiated during her time and as Fukuma intends to develop

15 Changing Room (2008-2010) was a cultural mobility project led by TEH and co-organised with Melkweg (Amsterdam), Sibelius Academy. (Helsinki) in collaboration with 25 TEH partner members. Its aim was "to test, study and evaluate a staff exchange programmer within TEH. As well as the staff exchange, Changing Room included a professional development programme, [a] study by the Sibelius Academy and an on-line mobility toolkit. [...] its results were intended to produce information that could assist in informing the formulation of future mobility policies, projects and schemes." (Sibelius Academy, 2010, p.10) The project was specifically targetting the non-artistic cultural professionals (NAPCs), i.e. "cultural leaders, managers, producers, programmers, curators, technicians, administrators, and those working in marketing, finance and catering" (Ibid).

16 Engine Room (2011-2014) was a TEH project dedicated to independent cultural workers and their creative processes. The project was initiated by TEH and coordinated by Melkweg (Amsterdam, The Netherlands) in association with 10 co-organising TEH members and proposed various programmes and a resource file compiling the outputs of the project, educational points and know-how from the programmes.

17 Interview with Birgitta Persson, 25 January 2024.

18 Between 2021 and 2024, the TEH team grew from five employees to 15.

19 Interview with Tiffany Fukuma, 22 January 2024.

20 Ibid.

with the opening of a TEH business branch in 2024.

This professionalisation also comes with new, more extensive and precise strategic plans. Among other things, three main priorities have been established for the future of TEH.
Firstly, more than ever before, the network has set a goal to develop the "green" transition of the built environment. This brings to the fore the important work of reuse and adaptation of buildings TEH members have been leading since the 1980s, the work that is yet to be done in those particular contexts and the specific funding needed. As Fukuma puts it:
"We work in buildings and we are able to transform these buildings. This is our job. But like if you want these buildings to be more green, efficient, sustainable and lasting, and if you want to protect the local populations who work and interact with these spaces, if you want to maintain these activities and its local economy, you need to take care more and more at the infrastructure and increasingly invest in that."[21]Through this priority, Fukuma points out the specificity of TEH among the rise of newer and younger networks: "I think we are the only network that is not purely a heritage network that is really considering the question of infrastructure. Through this priority, TEH sets an agenda to both support their members in the transition of their built assets as well as taking on a role of advocate on the European and local levels to obtain more public funding invested towards infrastructure adaptations in the cultural sector, actively bridging sustainability and cultural issues.

A second priority lays in the diversification of the network and the expansion of TEH beyond a limited network of peers, with its benefits but its many caveats: "(...) this notion of family, of a network of peers is great because there [are] a lot of connections and we should definitely keep this spirit. But the problem of a network of peers is that it doesn't integrate novelty. It doesn't integrate diversity".[22] Concerned by the homogeneity of the network in terms of age, gender and colour, and under the impetus of its new coordination and a handful of members, TEH has undertaken a so-called "cultural transformation movement that is aiming at looking at all the hurdles to diversity and to try to change ourselves from inside and open up".[23]

Finally, a third priority for TEH has been established to answer the current collapse of democracies through Europe which affects more and more centres and their activities: "the fact that we have several members in Ukraine, and that we have a Mediterranean hub, that a lot of our centres – even outside of the zones of conflicts – have had to adapt to a typology of work that is very different from cultural work; The humanitarian work, the social work, ... is central. In the beginning, it was something that they did to address a temporary situation. But this has become the new normal. This is the reality of the life of cultural workers right now, they have to be social and humanitarian workers. And those crises are not ending, they keep growing."[24]
Following those critical changes within the network, this priority paved the way for what Fukuma identifies as a repoliticisation of TEH that had been previously downplayed by focusing on more mainstream strategies of contributions to the rise of the creative economy. As Fukuma states: "It's more about taking political responsibility as a network of cultural workers to put culture at the heart at of what could be an answer to the different crises. We're opening spaces of dialogue and organising in different ways, becoming media platforms, connecting communities, etc. Something that in a way had been a little bit lost in the past."[25]

A resilient and caring network

Such developments and restructuring, along with the continuous, tenacious efforts of its members, have led TEH to find more legitimacy and funding on local and international scales. The network is now the beneficiary of several important grants including the European Union Horizon, Creative Europe and Erasmus+ Programmes.[26] Those contribute to support the members of the network through a team of 15 employees, four geographical hubs (Eastern, Mediterranean, Balkan, Nordic Baltic) and three thematic hubs (Arts Education, Cultural Transformation Movement, Sustainable Building).

Given the long and varied history of TEH, one can understand the complexity of the journey to reach this point and develop enough resilience and persistence to continue this project over 40 years. This history also shows how much of a natural partner TEH is to further define what the New European Bauhaus movement means in terms of cultural, artistic, planning and architectural practices. As Fazette Bordage stated (Encore Heureux, 2018): "Those wastelands, this vacancy, this disrepair which nobody wanted to see, this debacle of which nobody knew what to do, leads to dream. [...] those spaces fell into escheat, those obsolete objects as well as those neglected know-how and distraught territories gain under our impulse a new life. [...] the reconversion of industrial fallows supported by an artistical and political approach transform the notion of value itself."[27]

This redefinition of value is clearly at work within TEH's actions. One could argue that it actively develops at its heart practices of care as they have been more and more defined and highlighted in recent fem

21 Ibid.
22 Ibid.
23 Ibid.
24 Ibid.
25 Ibid.
26 Other, more local funds, include the Swedish Arts Council, the City of Lund (Sweden) and the Region of Skåne.
27 Original translation from "Ces terrains vagues, cette vacance, ce délabrement que l'on ne voulait pas voir, cette débâcle dont on ne savait pas quoi faire, font penser à rêver." [...] "espaces tombés en déshérence, objets obsolètes, mais aussi savoir-faire délaissés et territoires désemparés gagnent sous notre impulsion une nouvelle vie." "La reconversion des friches industrielles soutenues par une démarche artistique et politique transforme la notion même de valeur".

inist literature (Puig de la Bellacasa, 2017; Brugère, 2019 ; Laugier, 2020). In that sense, TEH is a network of care from many angles. Caring is first at the centre and the origin of the network in the way it ensures mutual support for its members. The reuse, maintenance and progressive adaptation of previously abandoned industrial ruins and their natural assets, at the heart of TEH, can equally be framed as practices of care for our built environment, in close alignment with Charlotte Malterre-Barthes' arguments (Malterre-Barthes, 2023). Finally, in the light of the feminist literature regarding care, one should not overlook the key leading roles women have played within the network since its beginning. While TEH positions of power and representation have more often than not been occupied by men since 1983, a vast majority of women have been at work to develop, strengthen and adapt the network on a daily basis with a clear agenda of care for the members, for the or- ganisation itself and for the environments we live in. As Fazette Bordage puts it:

"We destroyed the trees, we polluted our waters, we polluted our own beauty and our own power [...] it's so full of inspiration what the role of culture and especially the role these centres already have to enlarge imaginations, enforce changes and give force to our sensibility. [...] If you cut your intelligence from your sensitivity, from what counts for you, the result is what we see today: an economy without imagination. [...] So stop speaking of this kind of rationality which doesn't work. We know now that it doesn't work. No problems but now we have to change. We have to change and we have ideas. We have experience with these centres. Of course it's small, it's small pieces of [our] planet, but if it works on those pieces, that means it can work [for] the whole planet."[28]

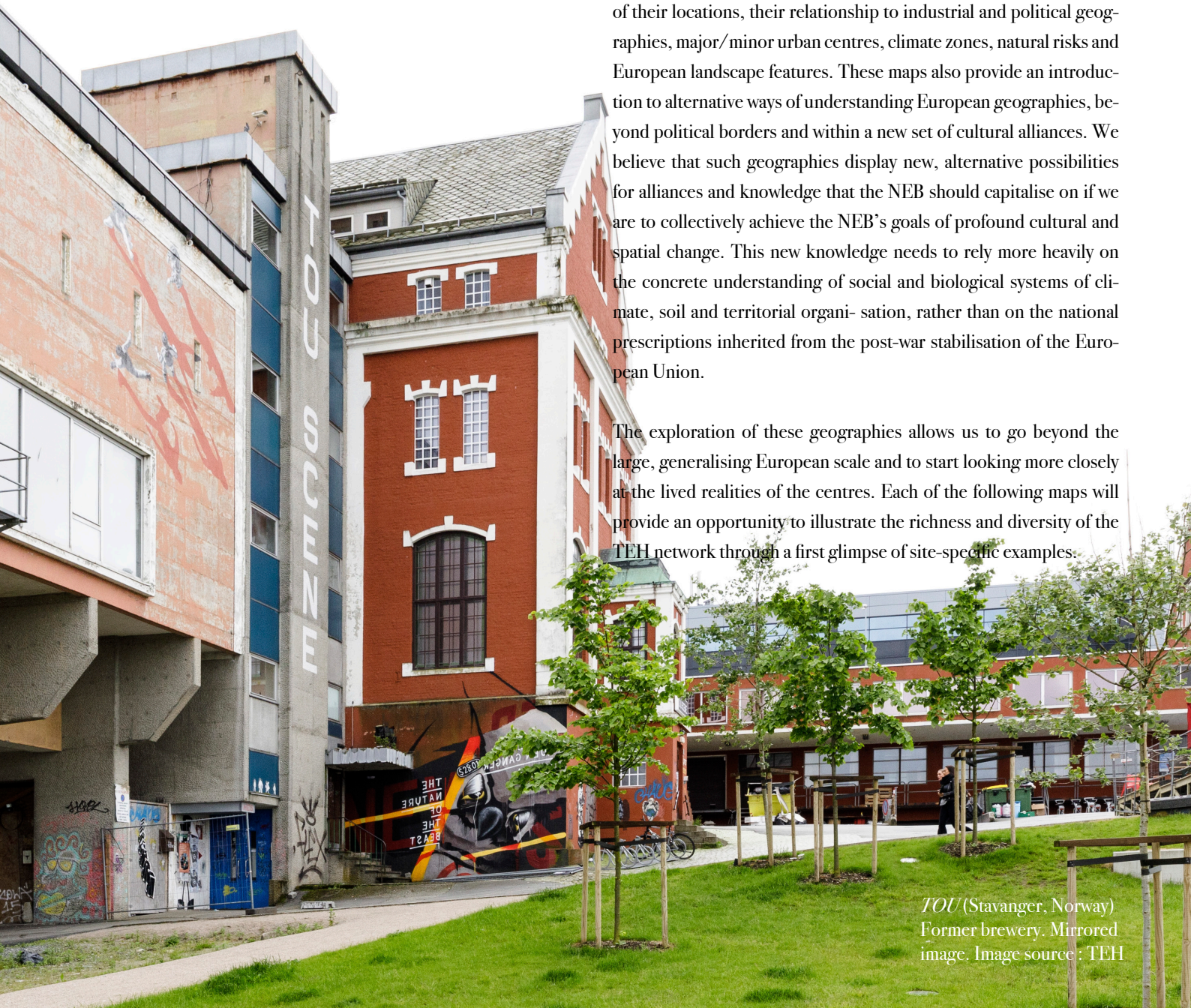
28 Interview with Fazette Bordage, 24 January 2024.

2.3 TEH geographies and characters

Through its four decades of existence, TEH has developed a constellation of "spaces of experimentation" through and beyond Europe. These spaces belong to contexts of intense territorial transformation. As seen in the previous pages of this publication, most of the centres have invested post-industrial spaces and infrastructures as industries, factories, warehouses, railyards etc. that were gradually abandoned, following Europe's de-industrialisation. Each of them has made important efforts to capitalise on/valorise the traces of its "built" past to foster and shape local cultural practices within uncertain (economic, political, ecological) conditions.
The diversity of these conditions needs to be addressed to provide a good understanding of the network and to further explain how TEH can be considered both: a strongly "European" project and a precursor of the New European Bauhaus (NEB) project.

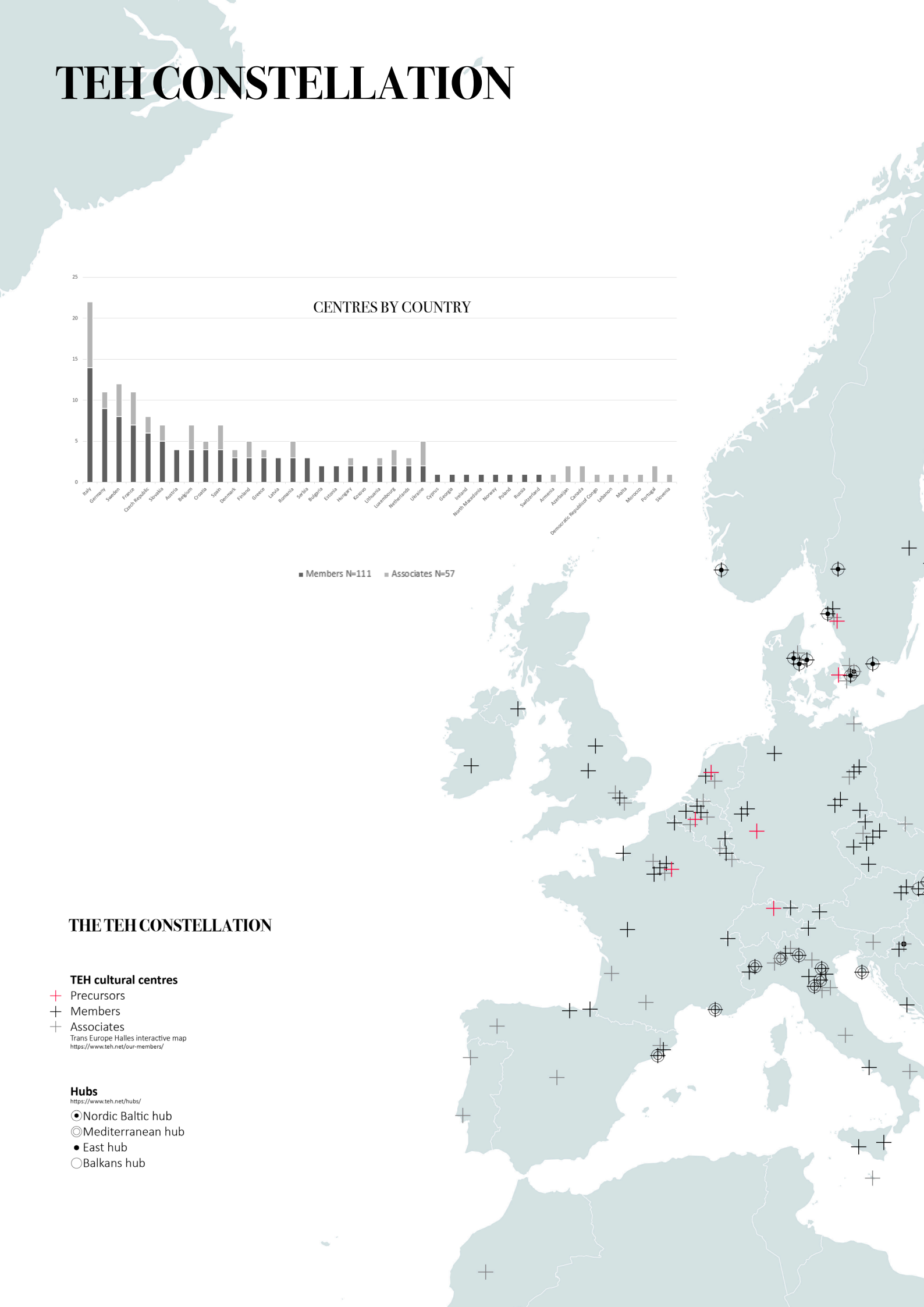
Through the following maps, we will provide a first overview of the network and related cultural centres, through a closer understanding of their locations, their relationship to industrial and political geographies, major/minor urban centres, climate zones, natural risks and European landscape features. These maps also provide an introduction to alternative ways of understanding European geographies, beyond political borders and within a new set of cultural alliances. We believe that such geographies display new, alternative possibilities for alliances and knowledge that the NEB should capitalise on if we are to collectively achieve the NEB's goals of profound cultural and spatial change. This new knowledge needs to rely more heavily on the concrete understanding of social and biological systems of climate, soil and territorial organi- sation, rather than on the national prescriptions inherited from the post-war stabilisation of the European Union.

The exploration of these geographies allows us to go beyond the large, generalising European scale and to start looking more closely at the lived realities of the centres. Each of the following maps will provide an opportunity to illustrate the richness and diversity of the TEH network through a first glimpse of site-specific examples.



TOU (Stavanger, Norway) Former brewery. Mirrored image. Image source : TEH

TEH CONSTELLATION



The TEH network was first structured by its seven founding members, establishing two important clusters: one centred in Belgium and reaching Switzerland, and another centred in Southern Sweden. From these clusters, TEH numbers grew and spread through Europe, first in central and Mediterranean Europe then – following the 1992 Maastricht Treaty – towards Eastern Europe. This growth ultimately led to a progressive restructuring of the centres, which resulted in the creation of four hubs organised in relation to their region of reference.

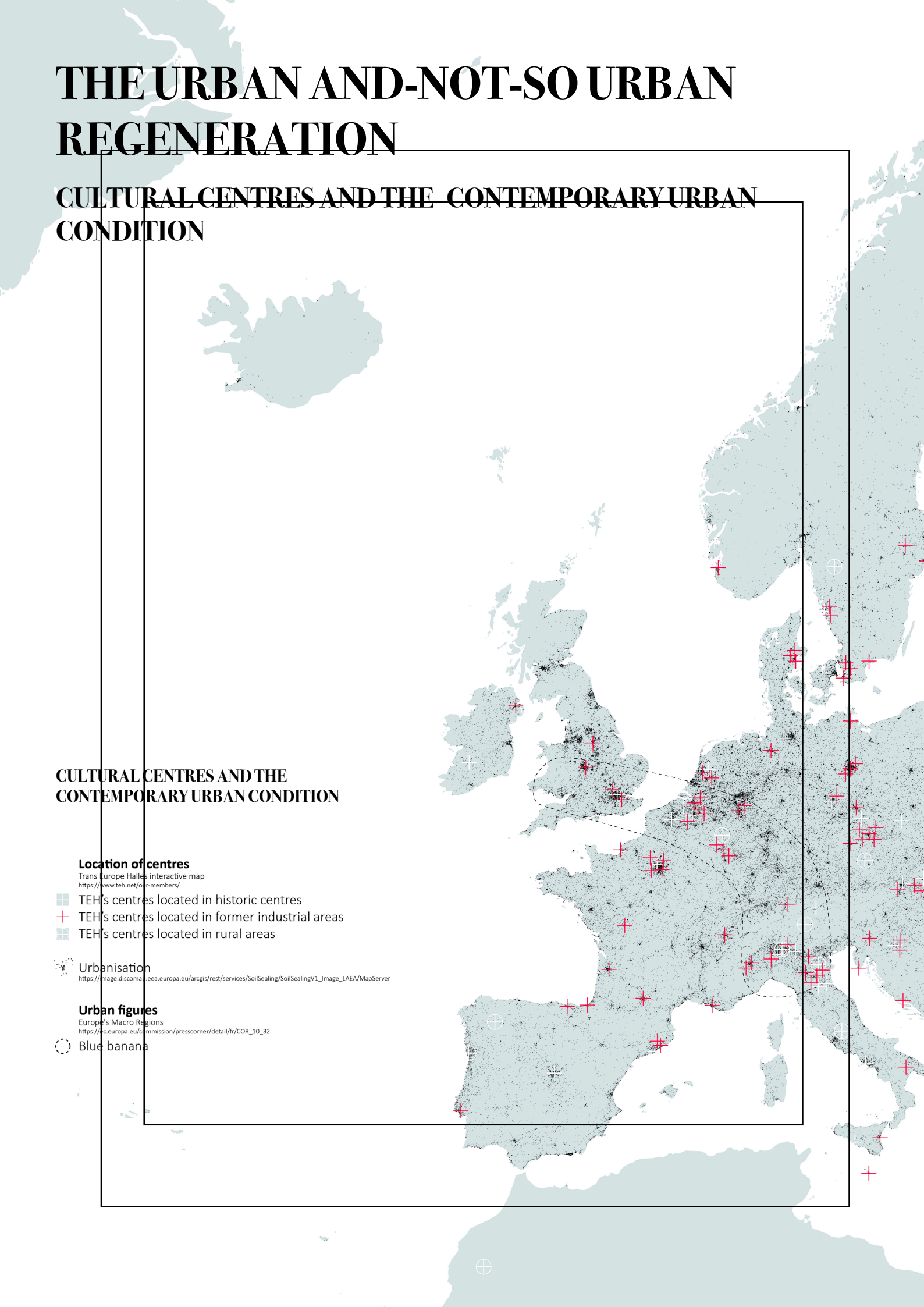
While denser in central and western regions, the TEH network does show relatively wide coverage throughout Europe, showcasing considerable variations between its members. A key aspect of this differentiation lies in the status of TEH members and associates. While the members must be located within one of the EU member states, associates can be located anywhere in the world as well as straying away from one or several of the member's required features. This explains a certain number of associate centres in non-EU countries (Kosovo, Russia, Israel...) including countries even further afield (Morocco, Democratic Republic of Congo, Canada etc.).

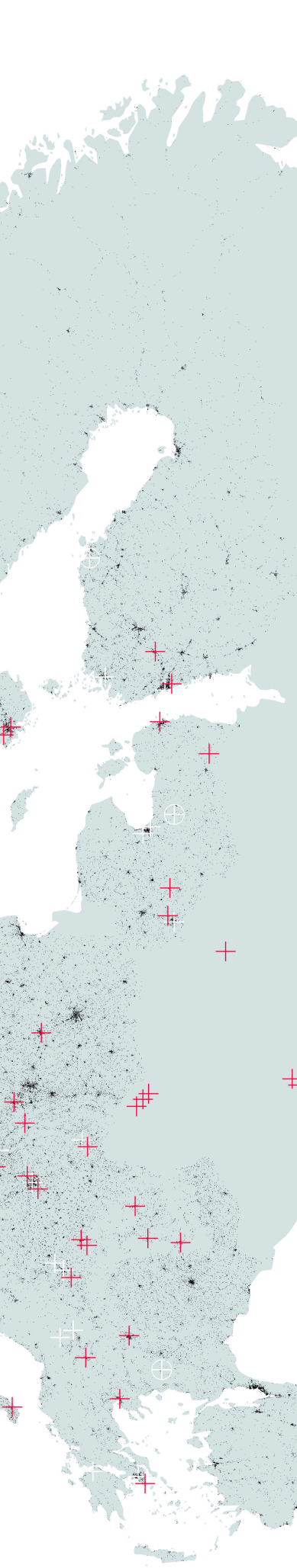
Melkweg (Amsterdam, The Netherlands)
the first centre - funded in 1970
Image source : Penta Springs Limited

Imbarchino (Turin, Italy)
the newest centre - funded in 2019
Image source : Imbarchino

THE URBAN AND-NOT-SO URBAN REGENERATION

CULTURAL CENTRES AND THE CONTEMPORARY URBAN CONDITION





When superimposed over the different forms of European urbanisation systems, another layer of diversity can be understood within the TEH network. First, the clusters previously mentioned can be directly linked to the four (interconnected) clusters of cities cited by Clark, Moonen and Nunley (Clark et al, 2018). These are clusters of urban centres sharing particular flows of people, labour, capital and ideas. In particular, the authors identified four types of cities characterising such clusters: the Western European large and capital cities, benefitting from a status of centrality (Amsterdam, Brussels, Frankfurt, Paris, London), the Nordic cities with their own specific set of organisations and collaborations (Oslo, Gothenburg, Stockholm, Malmö, Copenhagen), the Mediterranean cities, characterised by investments in tourism and related infrastructures and services (Barcelona, Lisbon, Lyon, Madrid, Marseille, Milan) and the Eastern and Central European cities, marked by the collapse of the Soviet Union and the subsequent adaptation to capitalist globalised markets (Berlin, Bratislava, Budapest, Prague, Vienna, Warsaw).The authors also identified a specific set of de-industrialising cities, which have gone through a process of reinvention following economic crisis (for example, Charleroi, Sheffield, Lille, Bilbao). The centres located in these different clusters directly echo such economic contexts (and their respective challenges) by their specific and situated choices in terms of cultural and architectural transformation practices.

Secondly, European economic regions of interest also explain some major differences between TEH members. Hence, centres located in the so-called "blue banana", the EU region benefitting from the densest and wealthiest population (Brunet, RECLUS, 1989), are characterised by a stronger economic local context than some of their counterparts, such as, for example, those in rural France or Eastern Europe,[29] and the related local markets/ private interests. A similar observation can be made for centres located along the so-called "golden banana" (European Commission, 1991) as the densest region of the southern EU region, strongly related to an economy of tourism. As economic/density dimensions of their local territory vary, the circumstances under which the centres operate necessarily fluctuate, structurally affecting the specificity of their action(s) due to differences in, for example, the type and size of public within reach, their expectations or the local attractiveness and level of activity, and thus capacities to easily invite and welcome major cultural actors...

Finally, on a more detailed scale, variations can also be observed between centres located in city centres (especially in major cities), centres located at the urban periphery and centres located in more remote, often rural or semi-rural areas. Indeed, most of the centres are located within peri-urban areas of important urban centres. In most cases, this condition translates the post-industrial character of TEH buildings. Indeed, through the 20th century, a great number of industrial areas in Europe have been developed at a (relative) distance from historical city centres, a space rapidly filled after the 1960s by rampant urbanisation. The de-industrialisation of Europe has left numerous infrastructures in disarray at the heart of such urbanised territories. Some of these infrastructures have been now taken over by TEH members.

However, a considerable number of the surveyed centres are well rooted within historical centres. Some of those situations relate to the investment of an older, and thus more central, industrial infrastructure. They may also be linked to the difficulties many European cities encountered following the 1960s urban exodus (Merlin, 2009); as many middle- and upper- class populations left for the peri-urban and rural regions, urban spaces experienced less economic pressure for redevelopment, leaving many abandoned infrastructures (i.e. hospitals, military barracks, prisons... but also smaller buildings such as older commercial or residential constructions) with no prospects for decades. In turn, those tend to present a more varied typology of former land-use than the post-industrial typology present in the peri-urban areas.

This is also, more often than not, the case of the few TEH centres located in rural areas. Those are made up of farms, for example, or proto-industrial buildings such as windmills.

29 However, this does not necessarily mean that these centres benefit from the aforementioned economic context. The intense economic circumstances of Paris, Brussels or London, for example, may also signify a more competitive access to public funding or higher real estate values, often to the detriment of those centres.

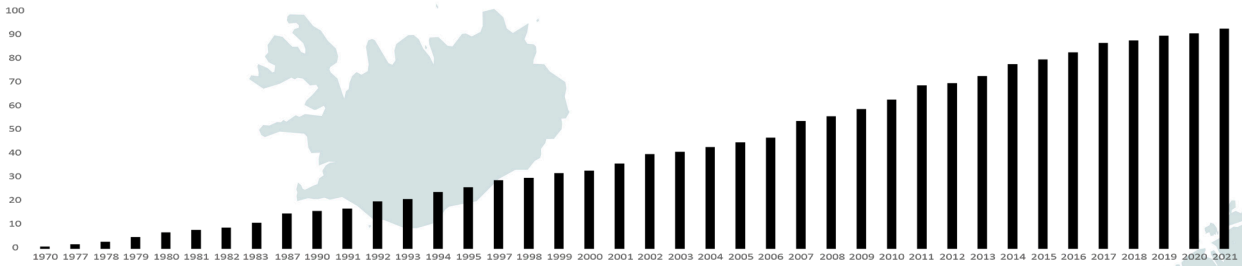
54 Holywell, London City
Village Underground (London, United Kingdom).
Image source : ©Thibault Marghem

Ostrobothnia Region
Malakta (Malax, Finland)
Image source : Malakata

KEY (POST) INDUSTRIAL CONTEXTS

CULTURAL CENTRES AND INDUSTRIAL TRANSFORMATION

Growth of TEH's network
Accumulation of the built stock



TEH constellation

Centres
Trans Europe Halles' interactive map
https://www.teh.net/our-members/

Capitals

Industrial landscapes

Coal basin (underground deposits)
https://bassinminier-patrimoinemondial.org/wp-content/uploads/2014/12/27.jpg

Navigable rivers
European catchments and Rivers network system (Ecrins)
https://www.eea.europa.eu/en/datahub/datahubitem-view/a9844d0c-6dfb-4c0c-a693-7d991cc82e6e

Canals
http://worldcanals.org/vev/uk/canaux.htm

Ports
Europe's 35 largest ports by freight transport
https://www.isl.org/en/homepage

Dams
Dams with reservoirs on rivers in Europe
https://www.eea.europa.eu/data-and-maps/figures/dams-with-reservoirs-on-rivers

Main railway system
Trans-European transport network corridors (2021)
https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/site/maps_upload/SchematicA0_EUcorridor_map.pdf

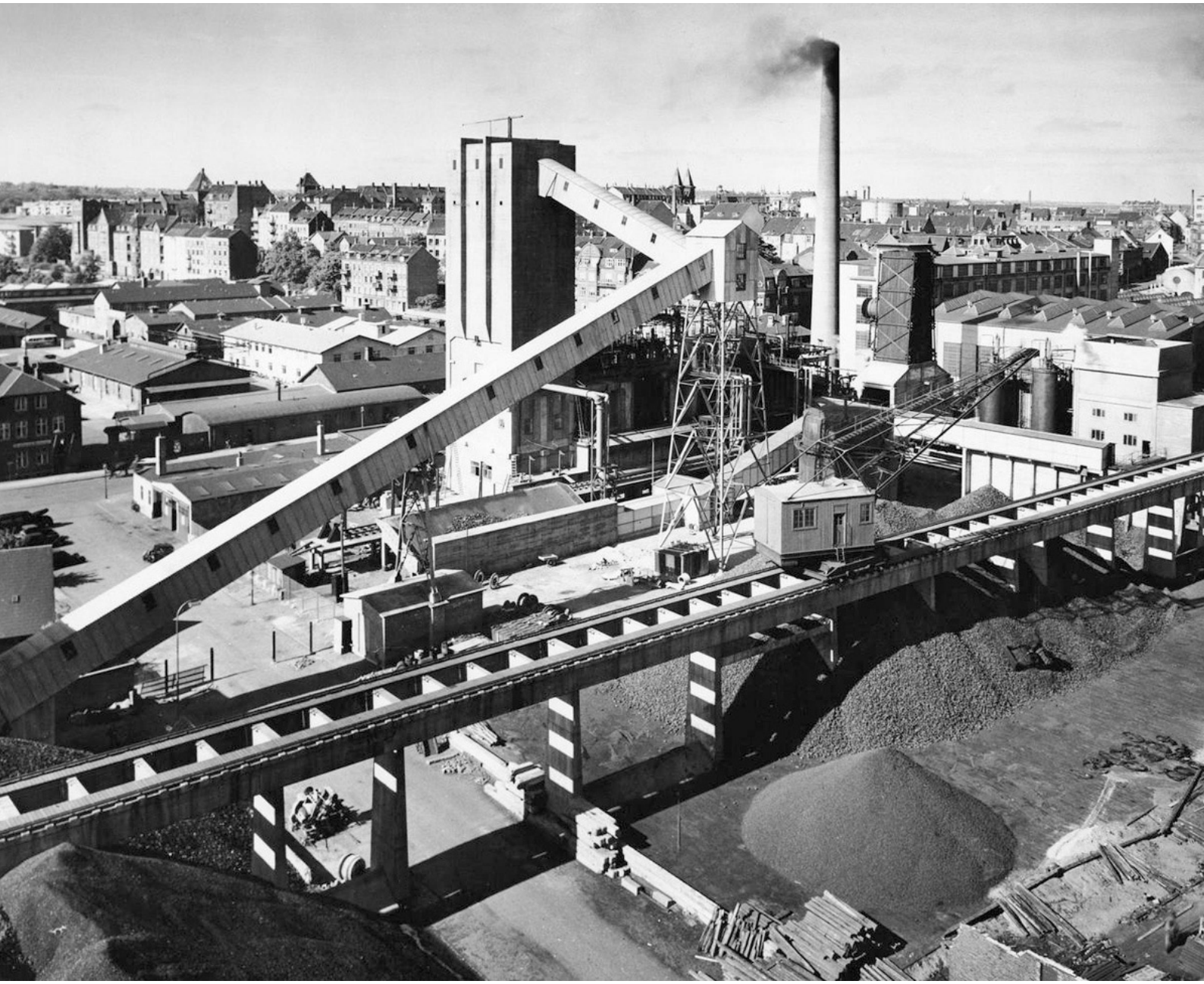
Given the focus of TEH members on the re-use of "abandoned" buildings, and the general context of the European de-industrialisation, the relationship of the centres to the variety of industrial sectors is key to help understand their diversity and potential. Through the TEH network, one can distinguish at least three, sometimes overlapping, industrial contexts which – in turn – influence the local architectural and cultural practices of "regeneration".

First, in relation to the 19th and 20th, century intense coal and steel exploitation throughout a part of Europe, a group of centres take place in infrastructures inherited from that period, displaying typologies and contexts that are particular to extractive activities (mining sites) and/or the transformation of the extracted materials into consumable goods (blast furnaces, rolling mills, factories, storage buildings etc.). While this context can be found along and within the European "industrial crescent" (Magnette, 2023), due to the physical presence of what was for a long time the necessary "industrial fuel" (shown in red on the map), this is particularly true also within the so-called "industrial triangle", AKA Schuman's "vital triangle" (Schuman, 1950). Indeed, at the turn of the 19th century, the intense industrial development had spread from Great Britain to include a particular zone extending to Northern France and Western Germany. This also explains the large number of centres within this triangle, which often presents strong ties to the region's industrial history through their former uses as, for example, infrastructures, production or storage units servicing these industrial activities.

Secondly, these industries were, at the time, heavily reliant on a dense network of railways and rail infrastructures (industrial and civil stations, marshalling yards, ...). A significant number of TEH centres have invested in these types of sites, following their gradual decommissioning. These are very specific typologies which, in turn, shape particular practices and landscapes of activities. Naval transport and industries have also been an important sector of the European economy, which has partly fallen into disarray. Several TEH members have repurposed these contexts where the proximity of water, streams, riversides, seashores and harbour infrastructures (quays, wharfs, locks etc.) create particular circum- stances. In such cases (more than others) centres have often grown and occupied more and more space as such infrastructures (especially railyards or harbours) have progressively decommissioned and ceased their activities. This also results in the neighbouring of the centres' cultural activities with industrial or mobility related activities (freight train transit, un/loading of shipments ...).

Finally, other centres display little connection to the heavy industries of coal, steel and their transportation, but have direct relationships to smaller, sometimes older industries. Textile, paper or dairy factories, breweries, mills, agricultural activities all make for specific contexts and infrastructures influencing the centres' circumstances. The industrial past and typology of such buildings certainly affect the ways TEH members can and do "regenerate" their centres to open new lifecycles and suit sustainability goals. These centres are often very large and characterised by triple, quadruple (and more) height spaces, built with extremely functional structures/materials and with efficiency of production in mind. These kinds of centres face specific challenges, especially in terms of heat and energy conservation/consumption.

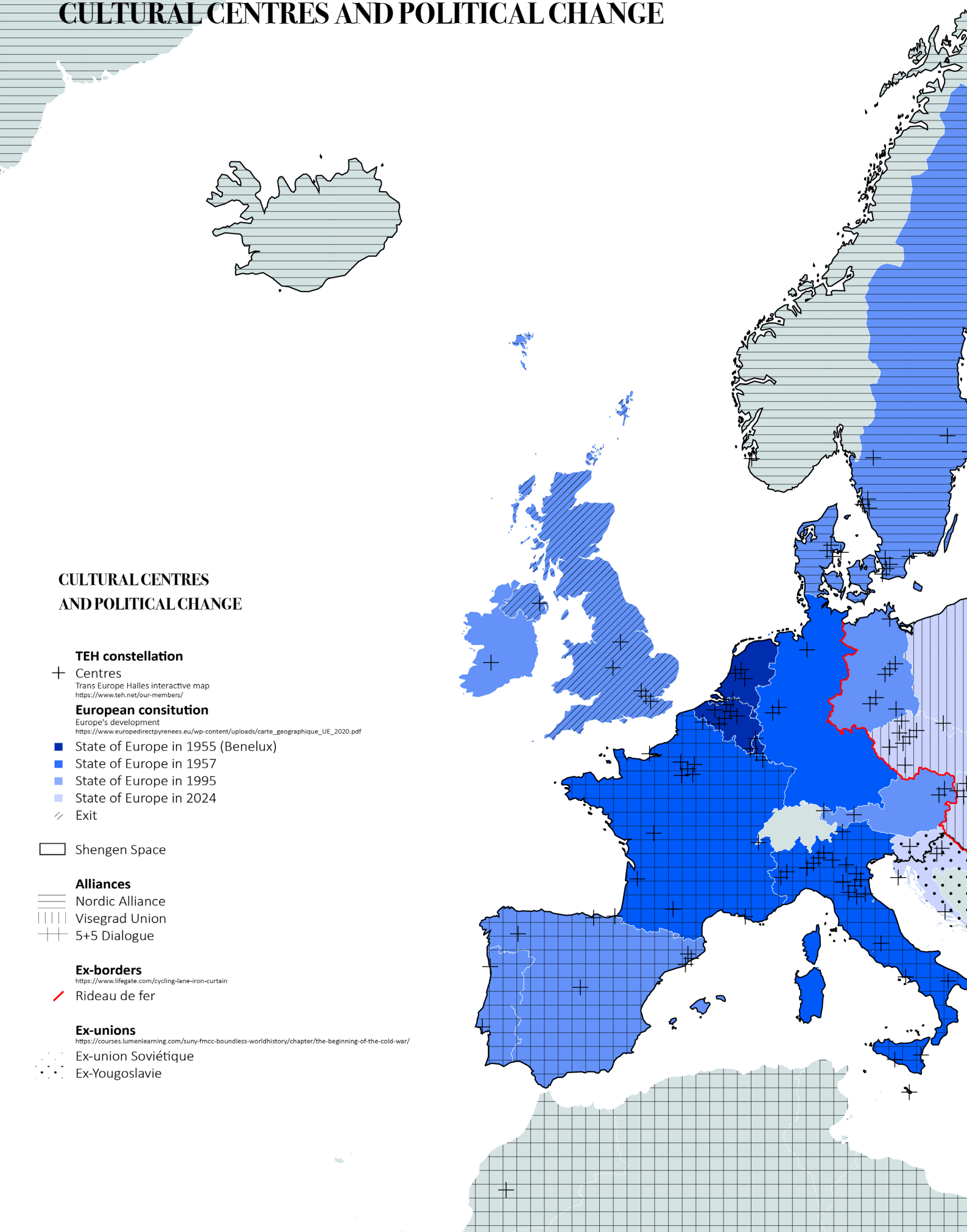
Röda Sten Konsthall (Gothenburg, Sweden)
Reuse of a former boiler house, Port of Gothenburg
Image source : rodastenkonsthall.se

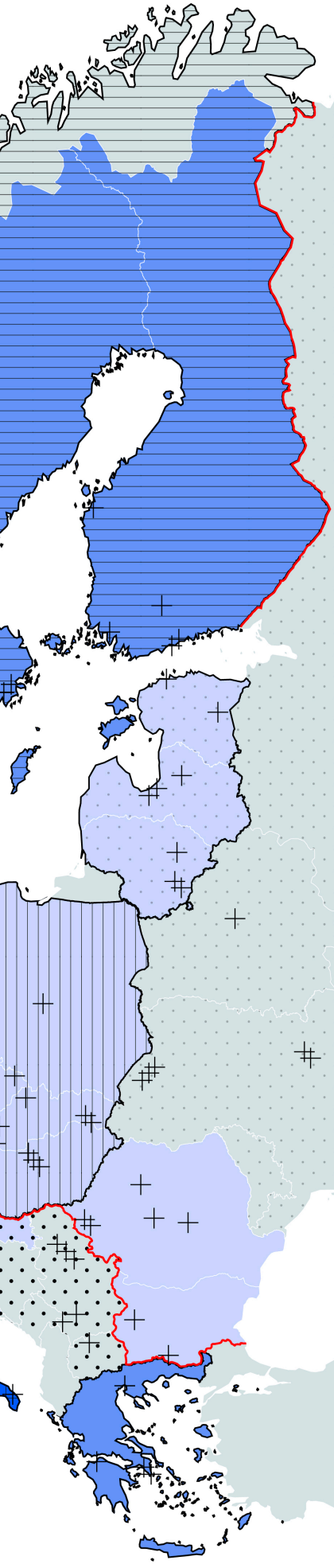


Kulbroen (Aarhus, Denmark)
Reuse of a coal bridge, Port of Aarhus
Image source : kulbroen.com

DEFINING POLITICAL DIMENSIONS

CULTURAL CENTRES AND POLITICAL CHANGE





Geopolitical circumstances also play a defining role among TEH members' transformation strategies and choices. TEH members are influenced by their regional circumstances and the existing international networks and partnerships (or major political events) within their national context.

A first divide can be seen in the relationships those centres have towards two important international spaces: the Schengen Area and the European Union. While most centres are situated within these two overlapping zones, others belong to one, the other, or none of them. This presents a distinctive set of circumstances in terms of partnership possibilities, access to funding and legal settings for their actions. As they are outside of the EU zone, Swiss and Norwegian members experience different conditions, while still maintaining the benefits of free movement granted by the Schengen Area. In the same vein, the recent withdrawal of the United Kingdom from the EU places its various cultural centres under new, different political contexts/restraints. The evolution of the European Union's borders, in that sense, have considerably influenced the development of the TEH network and the contexts its members work in (and thus also the way their transformation strategies/priorities have evolved). As the iron curtain fell and new Eastern European countries joined the EU, a considerable number of centres were created and/or joined the network, bringing with them the socio-political and economical specificity (and knowledge) of the post-Soviet context. Other members within this context are, however, still outside both the Schengen Area and the EU. This includes the cases of the Romanian and Bulgarian members[30] as well as the many members located in countries resulting from the breakup of Yugoslavia (Serbia, North Macedonia, Montenegro, Croatia, Slovenia, Bosnia and Herzegovina).

On a deeper level of analysis, one can also consider differences between centres depending on specific international partnerships that concern their national context. Hence, Western centres may have privileged relationships and shared references (and knowledge) within the Benelux countries (Belgium, Luxembourg and the Netherlands) while Southern members might have a stronger Mediterranean and North African influence when in the context of the Euromed 9 Group and the Euromed 9, 5+5 dialogue. Similar observations can be gathered concerning centres located within the Visegràd Group (Czech Republic, Hungary, Poland and Slovakia) or the Nordic Council (made up of Nordic countries including Denmark, Finland, Iceland, Norway and Sweden).

These variations are important from at least two points of view. On the one hand, they show the capacity of the TEH network to maintain and develop a common culture across a great number of different political and cultural contexts. The members all share similar principles and ways of acting concerning socio-spatial and ecological transformation of the existing built environment despite those differences. On the other hand, those variations do entail certain local particularities due to specific cultural and political circumstances. As such, every centre has developed its own specific knowledge and "cultural regeneration" strategy (adapted to their specific conditions), which brings with it a wealth of learning.

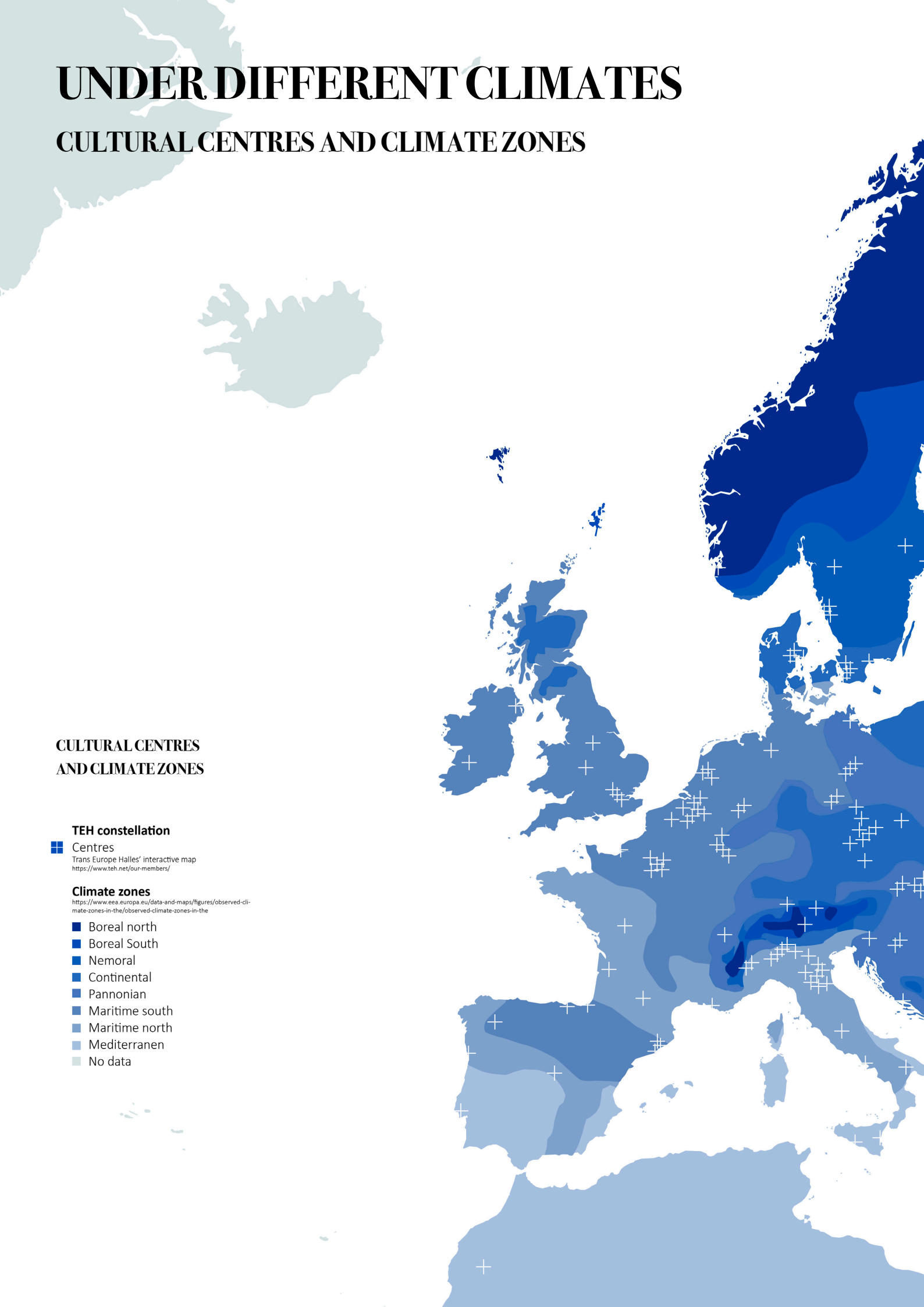
30 The integration of Romania and Bulgaria into the Schengen Area is planned for March 2024.

We initiated a healing process and threw the old ghosts of the Nazi propaganda out." (*Peter Lényi*, 2014) *Ufafabrik* (Berlin, Germany). Image source : Ufafabrik

Izoylatsia (Kiev, Ukraine)
Centre under Russian siege since February 2022 Image source : mashter.space

UNDER DIFFERENT CLIMATES

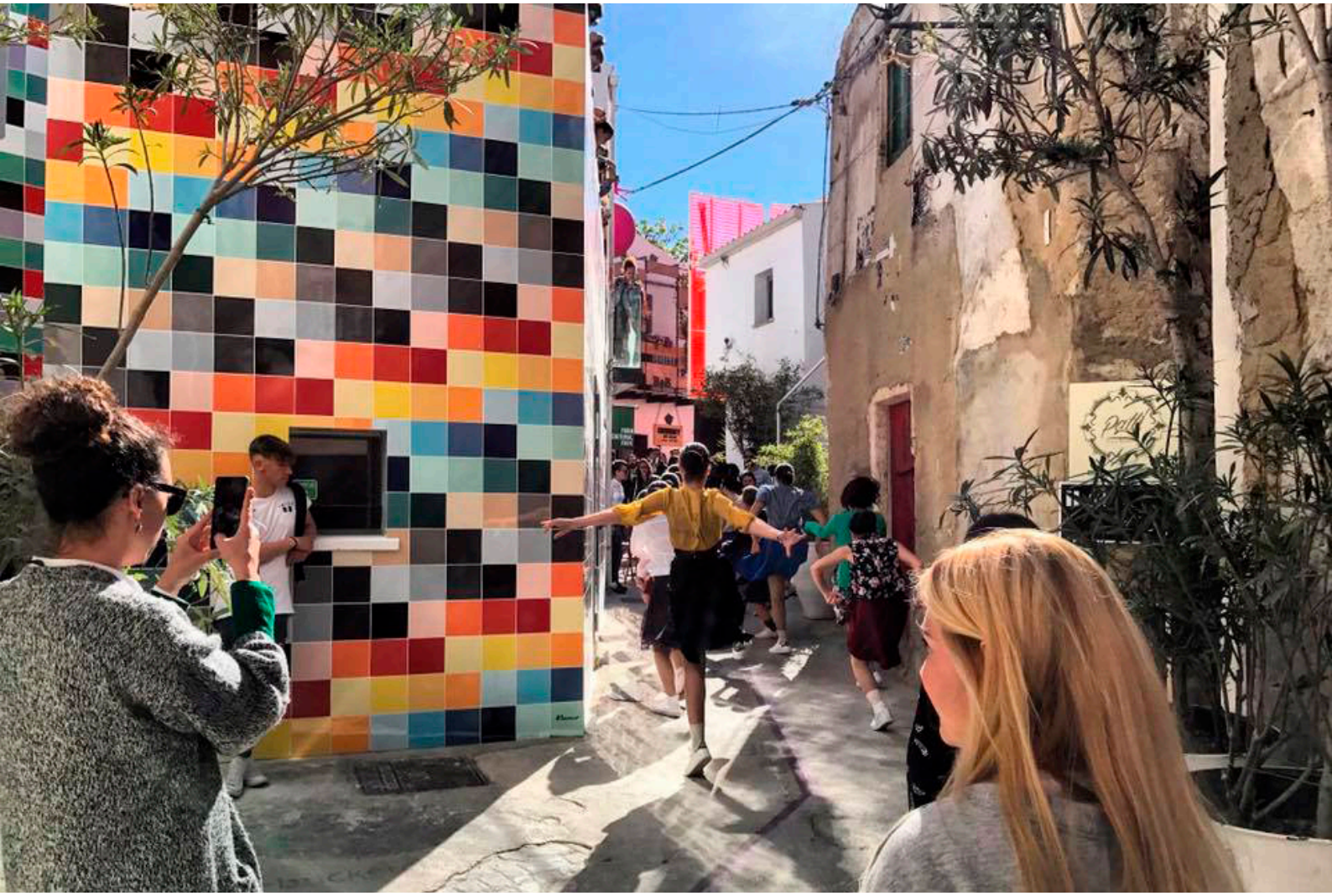
CULTURAL CENTRES AND CLIMATE ZONES



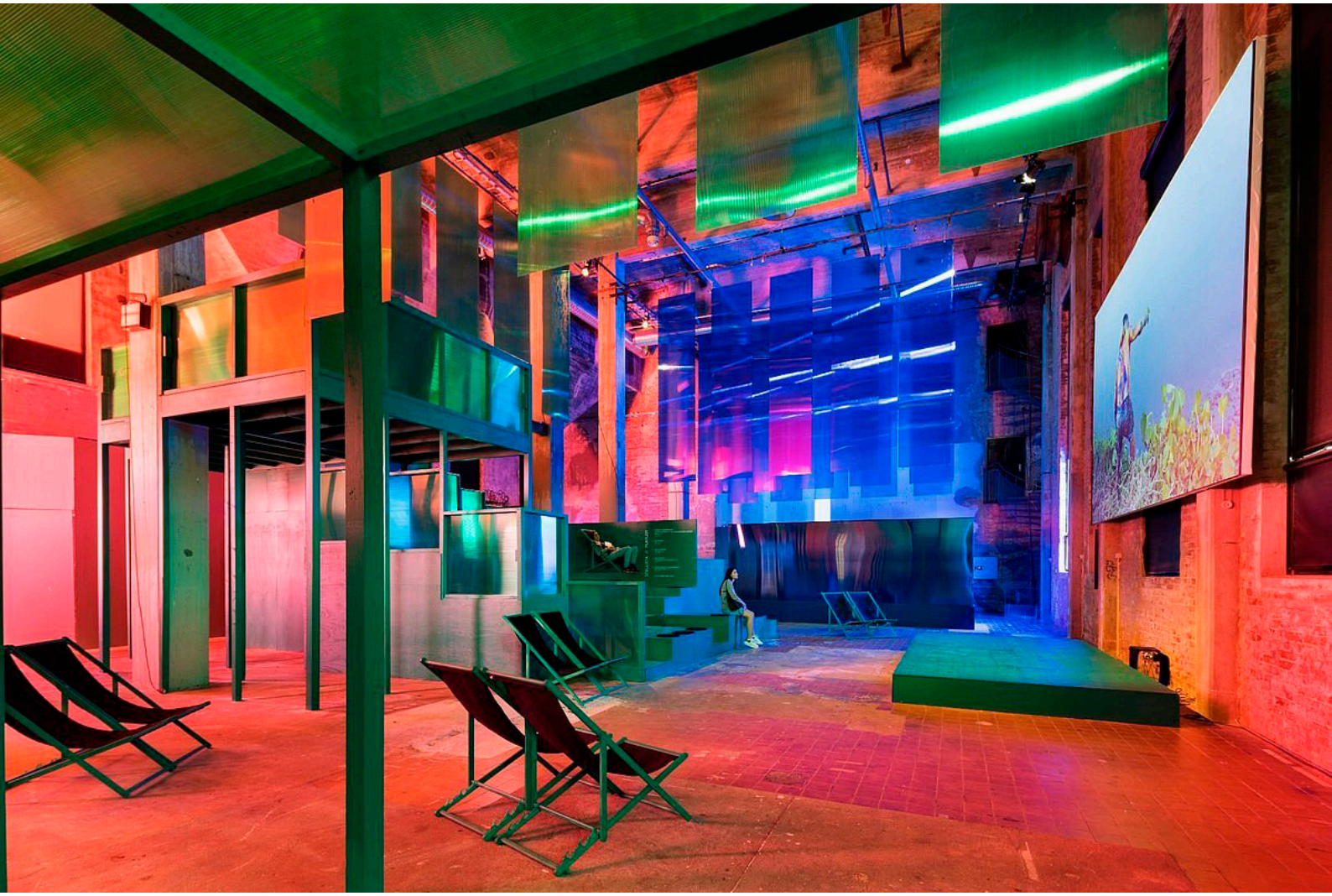
Looking at Europe's (extremely various) climate zones is another way one can distinguish the conditions of TEH centres and the way they have allowed the construction of a vast array of (climate specific) expertise and knowledge within the transformation of the built environment. Some centres are situ- ated in extremely contrasting weather environments, ranging from a Mediterranean climate all the way to Nemoral conditions and, exceptionally, Boreal North conditions. Most of the centres are, however, situated between those two European extremes; their climates range from maritime north to Pannonian and continental. The consideration of such (strong) variations allows a better understanding of the specificity of certain strategies and opportunities offered (or not) to different TEH members and the way they have shaped their actions and – in turn – built their specific culture and knowledge on "regeneration" practices.

It may be easier (and for sure extremely different) to adapt a building for all-year use under a gentle Mediterranean or Maritime south climate with rare occurrences of freeze than under the harsh wintery Nemoral and Boreal conditions, for example. This is a particular concern if we consider the efforts of TEH members to adapt buildings and sites for long-term occupations. Members located in harsh weather conditions encounter more needs for insulation and, in general, weather protection, than others. These measures often prove to be both essential and costly. Southern members might have to devise well thought strategies to avoid over-heating, offer shade or protect themselves from harsh coastal winds. Such variations bring a diversity of applied experimentations of adaptation of the post-industrial built environment of Europe, often designed and developed by centres over time with very little funding and following continuous adaptation through trial-and-error dynamics.

Climate zones may also contribute to specific cultural practices and social behaviours, marking different design trajectories and attitudes. While, for example, southern regions may contribute to a culture and practices of occupying public/open space all year long and develop extensive public activities (within an "outside as inside" approach), Northern regions may be marked by a stronger investment in indoor spaces (and related creative solutions) with different cultural and social behaviours (towards an "inside as outside" attitude). Such differences are in some cases further strengthened in regions where contrasts between winter and summer are more marked, making for stronger differences in the way centres may play social and cultural roles in their locality throughout the year. Such differences also need to be accounted for if we consider cur- rent trends in climate change and the risks these changes present for a wide array of regions.



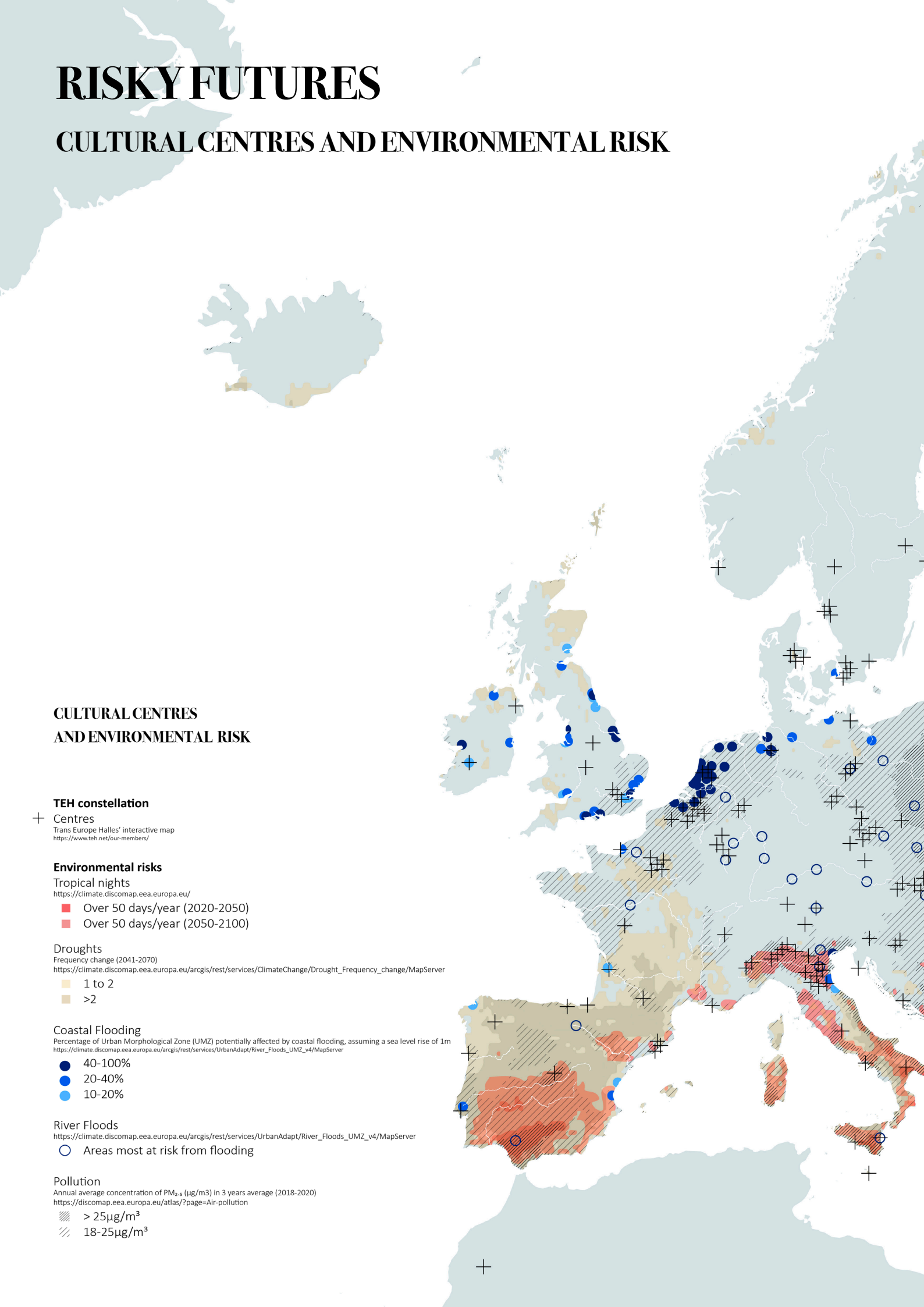
Outside lived as inside space
Farm Cultural Park (Favara, Italy)
Image source : Farm Cultural Park

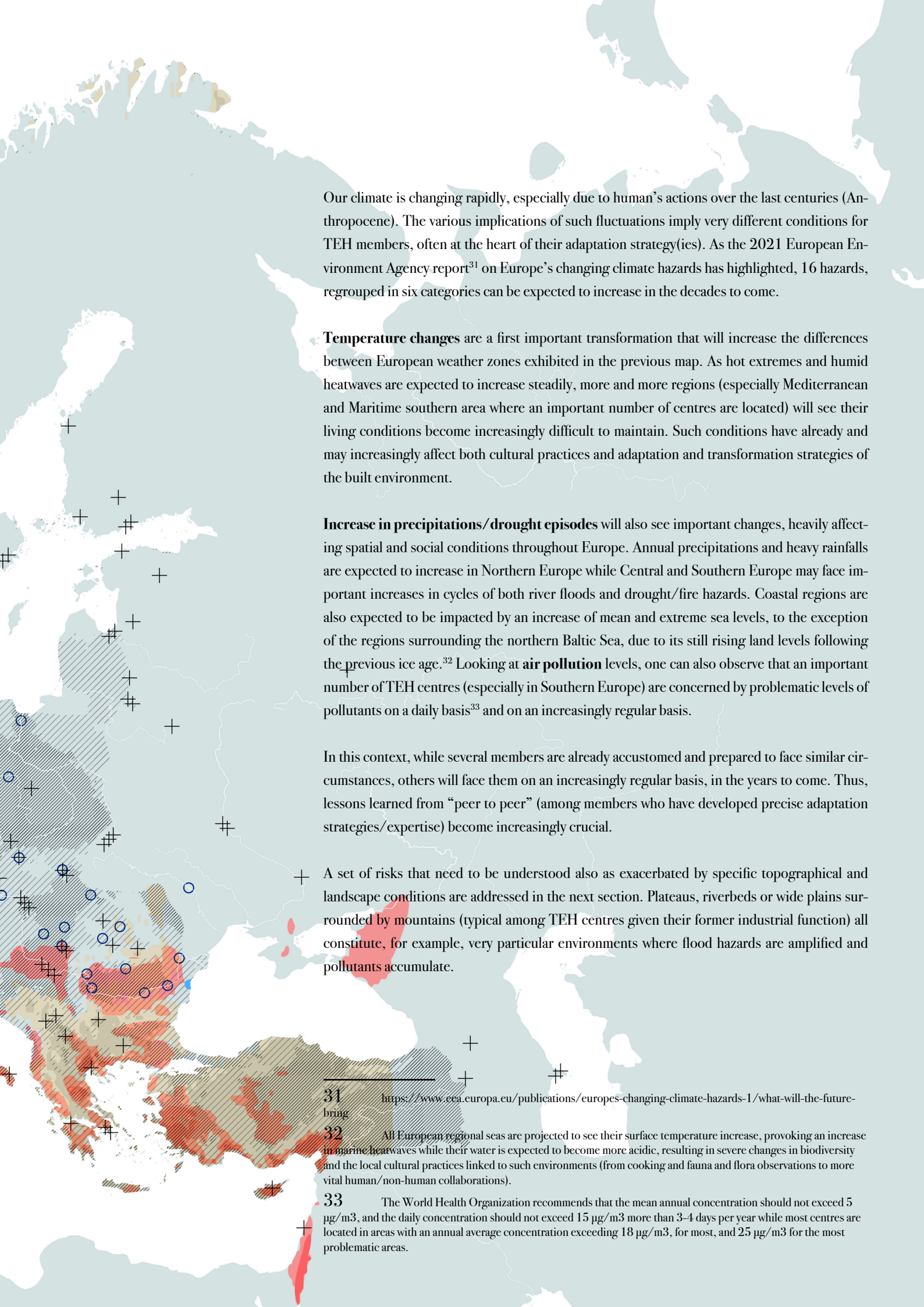


Inside lived as outside space
Röda Sten Konsthall (Gothenburg, Sweden)
Image source : ©Hendrik Zeitler

RISKY FUTURES

CULTURAL CENTRES AND ENVIRONMENTAL RISK





Our climate is changing rapidly, especially due to human's actions over the last centuries (Anthropocene). The various implications of such fluctuations imply very different conditions for TEH members, often at the heart of their adaptation strategy(ies). As the 2021 European Environment Agency report[31] on Europe's changing climate hazards has highlighted, 16 hazards, regrouped in six categories can be expected to increase in the decades to come.

Temperature changes are a first important transformation that will increase the differences between European weather zones exhibited in the previous map. As hot extremes and humid heatwaves are expected to increase steadily, more and more regions (especially Mediterranean and Maritime southern area where an important number of centres are located) will see their living conditions become increasingly difficult to maintain. Such conditions have already and may increasingly affect both cultural practices and adaptation and transformation strategies of the built environment.

Increase in precipitations/drought episodes will also see important changes, heavily affecting spatial and social conditions throughout Europe. Annual precipitations and heavy rainfalls are expected to increase in Northern Europe while Central and Southern Europe may face important increases in cycles of both river floods and drought/fire hazards. Coastal regions are also expected to be impacted by an increase of mean and extreme sea levels, to the exception of the regions surrounding the northern Baltic Sea, due to its still rising land levels following the previous ice age.[32] Looking at **air pollution** levels, one can also observe that an important number of TEH centres (especially in Southern Europe) are concerned by problematic levels of pollutants on a daily basis[33] and on an increasingly regular basis.

In this context, while several members are already accustomed and prepared to face similar circumstances, others will face them on an increasingly regular basis, in the years to come. Thus, lessons learned from "peer to peer" (among members who have developed precise adaptation strategies/expertise) become increasingly crucial.

A set of risks that need to be understood also as exacerbated by specific topographical and landscape conditions are addressed in the next section. Plateaus, riverbeds or wide plains surrounded by mountains (typical among TEH centres given their former industrial function) all constitute, for example, very particular environments where flood hazards are amplified and pollutants accumulate.

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31 https://www.eea.europa.eu/publications/europes-changing-climate-hazards-1/what-will-the-future-bring

32 All European regional seas are projected to see their surface temperature increase, provoking an increase in marine heatwaves while their water is expected to become more acidic, resulting in severe changes in biodiversity and the local cultural practices linked to such environments (from cooking and fauna and flora observations to more vital human/non-human collaborations).

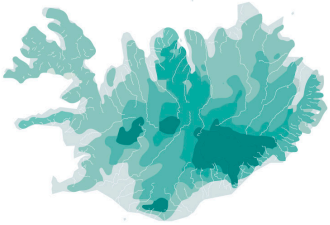
33 The World Health Organization recommends that the mean annual concentration should not exceed 5 µg/m3, and the daily concentration should not exceed 15 µg/m3 more than 3-4 days per year while most centres are located in areas with an annual average concentration exceeding 18 µg/m3, for most, and 25 µg/m3 for the most problematic areas.

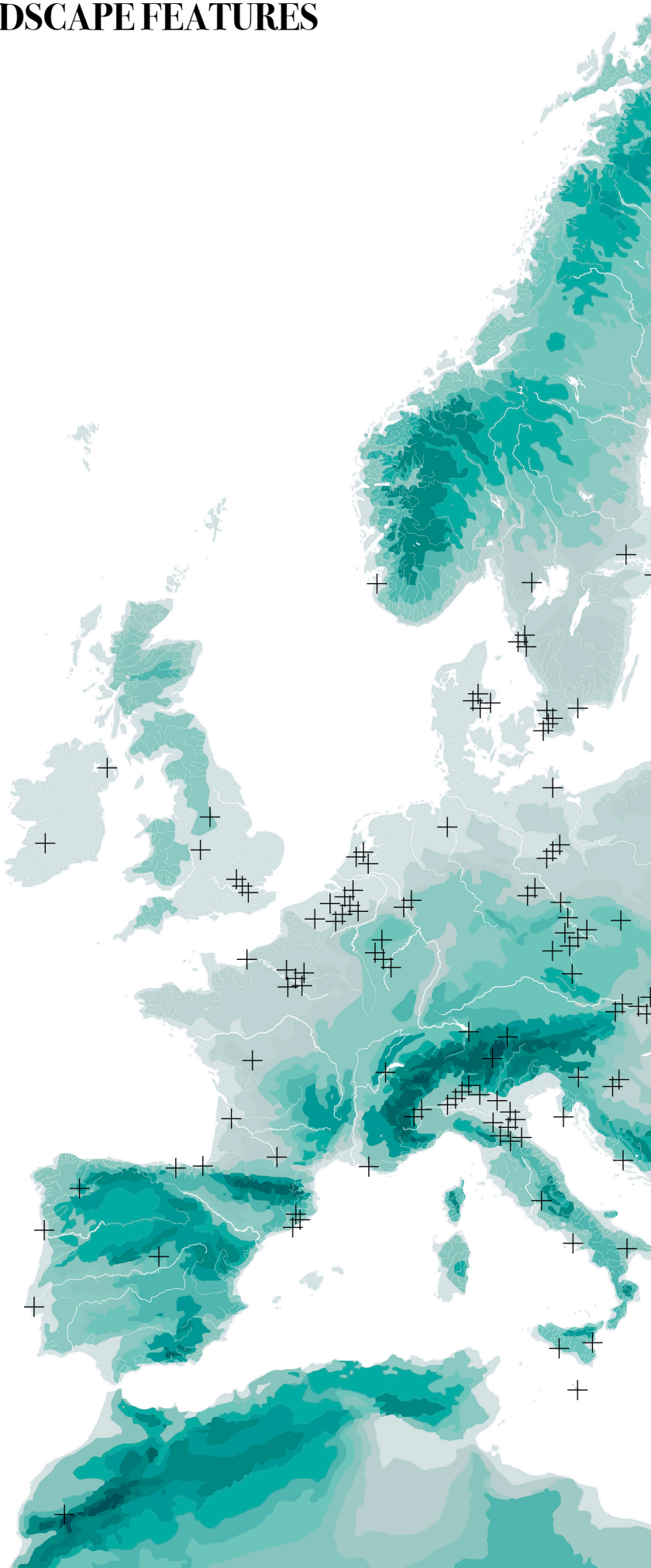
August 2023 - 44.0 °C measured temperature the highest ever recorded in the north of Spain *Bitamine Faktoria* (Irun, Spain) Image source : bitamine.net

October 2023 - Flood in Aarhus
Institut for (X) (Aarhus, Denmark)
Image source : Institut for (X)

TOWARDS A LANDSCAPE APPROACH

CULTURAL CENTRES AND LANDSCAPE FEATURES





CULTURAL CENTRES AND LANDSCAPE FEATURES

Teh constellation

Centres
Trans Europe Halles' intercative map
https://www.teh.net/our-members/

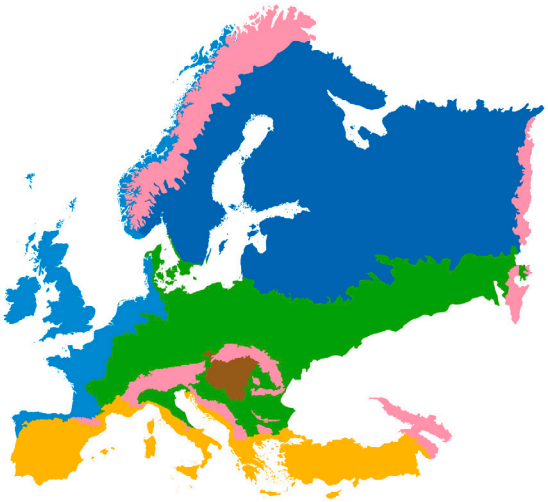
Landscape features

Hydrography
European catchments and Rivers network system (Ecrins)
https://www.eea.europa.eu/en/datahub/datahubitem-view/a9844d0c-6dfb-4c0c-a693-7d991cc82e6e

Topography
https://www.mapzen.com/tag/terrain/

Biogeographical regions
https://www.eea.europa.eu/data-and-maps/figures/biogeographical-regions-in-europe-2

- Alpine
- Atlantic
- Boreal
- Continental
- Mediterranean
- Pannonian



In terms of landscape features, TEH centres are situated within a wide variety of conditions, representative of European's strong topographical and geological diversity.

On a more detailed level, due to the specificity of the former uses of TEH buildings, most of the centres are located within environments that particularly suited for industrial development: characterised by a mainly flat topography allowing for the development of transport infrastructures (i.e. rail network, transportation channels etc.) and the progressive growth of the same, i.e. river beds, shores, valley beds and plateaus. A smaller selection of centres, in particular in Southern Europe, are surrounded by a more dramatic landscape while still benefitting from the advantages of plain-type situations that have developed artificially or naturally amidst this topography, a dual condition that particularly affects weather and run-off conditions. Finally, a small number of centres are characterised by full mountainous conditions, such as those located within the Alps or the Balkan mountains.

On a larger scale, looking at European biogeographic regions,[34] it can be established that most TEH centres are located within the Atlantic (characterised by low elevations to the north and hillier conditions to the south, and the wide floodplains of the Danube and Po rivers with their related vegetation), Boreal (characterised by its relatively low elevations, its coniferous and taiga forests and water streams, humic lakes and wetlands)[35] and Continental (characterised by its proximity to the Atlantic Ocean, its low elevation and intense human-led landscape alterations) regions. Beyond the relatively similar topographies, such variations account for different climate, vegetation and biodiverse contexts between the centres. As mentioned earlier, a smaller number of centres are characterised on the one hand by a mountainous Alpine landscape (characterised by harsh climate and mix of grasslands, scrub heath and rocky environments hosting two thirds of European vegetal species that need to be protected) and, on the other hand, by a Mediterranean context (characterised by a strong proximity to the sea, hilly terrain, semi-arid steppes, sandy and rocky shores and vegetation composed of scrubs, woodlands and forests), a landscape hosting an extremely rich and diverse flora/fauna, increasingly threatened by intensive touristic activities and development practices to which cultural centres offer interesting alternatives.

Finally, a smaller selection of centres, resulting from the post-Soviet development of the network in Eastern Europe, are located in the Pannonian bio-georegion of the Great Hungarian Plain characterised by sand dunes and steppes, grasslands, and mixed forests. Such centres lie in the vast alluvial basin delimited by the Carpathian Mountains, the Alps and the Dinaric Alps and structured by the Danube and Tisza rivers. Due to the complex nature of this area, the centres regularly face varying weather conditions, including significant storms, caused by interactions between wet winds from the west, dry winds from the south and cool winds from the Alps and Carpathian ranges. This is an area that is expected to face stronger droughts in the decades to come, causing the drainage of wetlands, important salinisation and alkalisation of the soils while still dealing with consequent heavy metal pollutions of many local rivers due to the mining industry.

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34 The bio-georegions or bio-geographic regions are a tool defined by the European Environment Agency in an effort to set a general framework for coordinating and reporting overall results of conservation efforts. First established in 1992 through the Habitats Directive, this map has since then been updated several times to cover the entire pan-European area and acknowledge the main differences between the regions. The different regions are established following a series of biological, climate and topographical criteria, which in turn allow the characterisation of the main threats the regional biotopes are facing.

35 Humic or dystrophic lakes contain high amounts of humic substances and organic acids allowing little biodiversity to survive. These mainly consist of algae, phytoplankton, picoplankton, and bacteria.

Val Venosta Alpine valley
Basis Vinschgau Venosta (Silandro, Italy)

Rhodopes mountains
Pro Rodopi Art Centre (Smolyan, Bulgaria
Image source : Rodopi Foundation

CHARACTERS

Name	Year of foundation	Geographical location	Internal spaces (sqm²)	External spaces (sqm²)	Historical function	Year of building's construct
7Arte	2006	Mitrovice, Kosovo	500	70	Ex-bank	1977
A38 Ship	2003	Budapest, Hungary	1.500	-	Stone-carrying ship	1968
A4 - Space for contemporary culture	2004	Bratislava, Slovakia	654	100	YMCA organisation for their activites	1921
Allerweltshaus Köln E.V.	1987	Cologne, Germany				
Alte Feuerwache	1977	Cologne, Germany	5.213	2.500	Fire station	1890
Amigdala / ovestlab	2008	Moderna , Italy	300	100	Workshop	1953
Anibar	2010	Peja, Kosovo	800	100	Cinema	1950
Antic teatre - espai de creació slu		Barcelona, Spain				1650
Aparaaditehas	2014	Tartu, Estonia	14.000	3.000	Manufacture of refrigeration equipment	
Art Factory Łódź / Fabryka Sztuki	2007	Łódź, Poland	8.100	5.097	Textile factor	1886
Asociatia arta În dialog (cinemá arta)	2019	Cluj-Napoca, Romania	400	/	Cinema	1913
Asociatia casa plai	2006	Timisoara, Romania	815	200	Hat factory	1942
Association Toplocentrala	2014	Sofia, Bulgaria	2.300	2.650	Heating plant	1981
Associazione Oltre...Aps	2014	Bologna, Italy				
Ateliersi	2013	Bologna, Italy	600	100	Religious	1100
Bakelit Multi Art center foundation	1999	Budapest, Hungary			War products and textil factory	1900
Banda Larga Associazione Culturale		Turin, Italy				
Basis Vinschgau Venosta	2014	Silandro, Italy	2.300	40.000	Military barracks	1937
Beat Carnival	1993	Belfast, United Kingdom	1.951	/	Engineering works and various other manufactu	1800
Bitamine Faktoria	2011	Irun, Spain	255	/	Innovation center (historical and actual functio	2011
Blivande		Stockholm, Sweden	963	2.800	Industrial harbor administrative building and re	1919
Bloom	1987	Mezzago, Italy	600	450	Ballroom and cinematograph	1948
Brunnenpassage	2007	Vienna, Austria	350	/	Market hall	
C.AR.M.E	2017	Brescia, Italy	1.640	100	Church	1150
Cads Youth Yorkshire	2009	Sheffield, United Kingdom			Iconic cinema	1920
Center for creative industries (cci) fabrika	2005	Moscow, Russia	17.500	/	Technical paper mill	1929
Center for cultural decontamination	1995	Belgrade, Serbia	220		Private museum	1931
Centrala Space	2015	Birmingham, United Kingdom	400	/	Warehouse	1880
Communitism	2017	Athens, Greece	180	370	Photography workshop	1969
Consorzio Wunderkammer	2011	Ferrara, Italy			River warehouse	1940
Cooperations	1990	Wiltz, Luxembourg	5.000			
Cultural centre rex	1994	Belgrade, Serbia				
Cultural development association	1995	Zagreb, Croatia	338	/	Industrial	1960
Culture Hub Prostor	2017	Split, Croatia	150	/	Commercial	1971
Cultureghem	2012	Anderlecht, Belgium	10.000	100.000	Hall for cattle	1888
Culturen		Västerås, Sweden	4.200			1913
Die Bäckerei - Kulturbackstube	2010	Innsbruck, Austria	1.500	50	Bakery	1950
Fabrika Tbilisi	2016	Tbilisi, Georgia	8.000	3.878	Sewing factory	-
Farm Cultural Park	2010	Favara, Italy	2.500	2.500	Private houses and courtyards	2010
Fix in Art	2011	Thessaloniki, Greece			Brewery	1888
Fort!		Le Havre, France		70.000	Military fort	1856
Friche la belle de Mai	1992	Marseille, France	50.000	50.000	Tabacco manufacture	1868
GEH8	2007	Dresden, Germany	960	1.200	Train workshop	1968
Haceria Arteak	1997	Bilbao, Spain	1.445			1950
Halle 14		Leipzig, Germany	20.000		Cotton mill	1890
Ifö Center	2011	Bromölla, Sweden	43.000		Ceramic factory	
Imbarchino	2019	Turin, Italy	608	200	Boat depot	1970
Institut for (X)	2009	Aarhus, Denmark	2.500	10.000	Train depot	1920
Institute for environmental solutions	2013	Cēsis, Latvia			Brewery	
Izolyatsia / Izone	2010	Kyiv, Ukraine	2.000	2.500	Insulation materials factory	1927
Kaapelitehdas	1991	Helsinki, Finland	63.000	1.500	Cable factory	1939
Kanepes Kulturas Centrs		Riga, Latvia				
Klub Mocvara URK	2008	Zagreb, Croatia	937	600		1950
Konstepidemin	1987	Gothenburg, Sweden	5.633	/	Hospital	1886
Kulbroen / The Coal Bridge	2015	Aarhus, Denmark	100	3.000	Coal bridge	1952
Kultura Medialna	2019	Dnipro, Ukraine	2.800	1.000	Military structure	1852
Kulturfabrik	1983	Esch-sur-Alzette, Luxembourg	5.184	3.000	Slaughterhouse	1888
Kulturzentrum Schlachthof	1979	Bremen, Germany			Slaughterhouse	1897
La station/Collectif MU	2016	Paris, France	1.300	6.500	Coal station	1950
Laminarie	1994	Bologna, Italy	650	12.500	Dome Social Services	1967
L'Asilo	2012	Naples, Italy				
Le confort moderne	1977	Poitiers, France	4.076	4.620	Household appliance shop	1905
Le plus petit cirque du monde	1992	Bagneux, France	1.900	9.400	Sport centre	1960
Les Halles de Schaerbeek	1977	Brussels, Belgium	2.000	/	Covered market	1865
L'hybride (rencontres audiovisuelles)	2007	Lille, France	540	/	Car garage	1970
Magacin cultural center	2007	Belgrade, Serbia	2.128	/	Warehouse	
Mains d'oeuvres	2001	Saint-Ouen, France	4.000	300	Social and sports workers' centre	1959
Malakta	2007	Malax, Finland	800	7.000	Dairy	1930
Maltafabrikken	2013	Ebeltoft, Denmark			Malt factory	1861

s tion	Typology	Building materials	Relation cultural centre & city centre	Proportion open space/built-up space	Use of renewable energies	Insulating the centre
	Infrastructural	Concrete	Located in historic centre	Equal distribution of spaces	Dependent on a conventional energy network	No
	Infrastructural	Steel	Located in historic centre	Prevalence of open spaces	Dependent on a conventional energy network	Yes
	Evenementiel	Brick, concrete	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	No
			Located in periphery of the centre	Equal distribution of spaces		
	Service	Brick	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	No
	Industrial	Concrete block	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	No
	Evenementiel	Brick, concrete	Located in historic centre	Prevalence of built spaces	Produces part of its energy	No
		Stone	Located in historic centre	Prevalence of built spaces		
	Industrial	Brick	Located in periphery of the centre	Equal distribution of spaces	Dependent on a conventional energy network	Yes
	Industrial	Brick, concrete	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	No
	Evenementiel	Brick, concrete	Located in periphery of the centre	Equal distribution of spaces	Dependent on a conventional energy network	No
	Industrial	Brick, concrete	Located in periphery of the centre	Equal distribution of spaces	Dependent on a conventional energy network	Yes
	Infrastructural	Brick, concrete	Located in periphery of the centre	Equal distribution of spaces	Dependent on a conventional energy network	Partially
			Located in periphery of the centre			
	Religious	Brick, concrete	Located in historic centre	Prevalence of built spaces	Dependent on a conventional energy network	Yes
	Industrial		Located in periphery of the centre	Equal distribution of spaces		
			Located in periphery of the centre	Prevalence of built spaces		
	Military	Brick	Located in rural area	Prevalence of open spaces	Dependent on a conventional energy network	Partially
	Industrial	Brick, steel	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	Partially
	Service	Concrete, glass	Located in periphery of the centre	Prevalence of open spaces	Dependent on a conventional energy network	Yes
	Industrial	Wood	Located in periphery of the centre	Prevalence of open spaces	Dependent on a conventional energy network	Yes
	Evenementiel	Brick, concrete	Located in rural area	Equal distribution of spaces	Dependent on a conventional energy network	Partially
	Service	Steel, glass	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	Partially
	Religious	Brick, concrete	Located in historic centre	Prevalence of built spaces	Dependent on a conventional energy network	Partially
		Stone	Located in periphery of the centre	Prevalence of built spaces		
	Industrial	Brick, concrete	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	Yes
	Evenementiel	Stone	Located in periphery of the centre	Prevalence of built spaces		
	Industrial	Brick, concrete	Located in periphery of the centre	Prevalence of built spaces	Produces part of its energy	Partially
	Residential	Concrete	Located in historic centre	Prevalence of built spaces	Dependent on a conventional energy network	No
	Infrastructural		Located in rural area	Prevalence of open spaces		
			Located in rural area			
	Evenementiel		Located in historic centre	Prevalence of built spaces		
	Industrial	Brick, concrete	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	No
	Domestic	Concrete	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	No
	Infrastructural	Steel	Located in periphery of the centre	Equal distribution of spaces	Produces part of its energy	No
	Industrial	Brick, steel	Located in periphery of the centre	Prevalence of built spaces		
	Service	Brick, concrete	Located in historic centre	Prevalence of built spaces	Dependent on a conventional energy network	No
	Industrial	Concrete	Located in historic centre	Prevalence of built spaces	Dependent on a conventional energy network	No
	Domestic	Brick, glass	Located in historic centre	Equal distribution of spaces	Dependent on a conventional energy network	No
	Industrial		Located in periphery of the centre			
	Military	Brick	Located in periphery of the centre	Prevalence of open spaces		
	Industrial	Concrete	Located in periphery of the centre	Equal distribution of spaces	Dependent on a renewable energy network	Partially
	Infrastructural	Brick, concrete, steel	Located in periphery of the centre	Equal distribution of spaces	Dependent on a renewable energy network	Partially
	Industrial		Located in periphery of the centre	Prevalence of open spaces		
	Industrial	Steel	Located in periphery of the centre	Prevalence of built spaces		
	Industrial	Concrete	Located in periphery of the centre	Equal distribution of spaces		
	Infrastructural	Concrete, wood	Located in periphery of the centre	Prevalence of open spaces	Dependent on a renewable energy network	Partially
	Infrastructural	Brick	Located in periphery of the centre	Prevalence of open spaces	Dependent on a renewable energy network	Partially
			Located in rural area	Prevalence of open spaces		
	Industrial	Concrete, steel	Located in periphery of the centre	Equal distribution of spaces	Dependent on a conventional energy network	No
	Industrial	Brick	Located in periphery of the centre	Prevalence of built spaces	Produces part of its energy	Yes
	domestic		Located in historic centre	Equal distribution of spaces		
	Industrial	Concrete	Located in periphery of the centre	Equal distribution of spaces	Dependent on a conventional energy network	No
	Service	Brick	Located in historic centre	Equal distribution of spaces	Dependent on a conventional energy network	No
	Infrastructural	Concrete	Located in periphery of the centre	Prevalence of open spaces	Dependent on a conventional energy network	Yes
	Military	Brick, concrete	Located in periphery of the centre	Equal distribution of spaces	Dependent on a conventional energy network	No
	Agricultural	Brick, concrete	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	Partially
	Industrial	Brick, metall, glass	Located in periphery of the centre	Prevalence of built spaces	Produces part of its energy	Partially
	Infrastructural	Brick, concrete	Located in periphery of the centre	Prevalence of open spaces	Dependent on a conventional energy network	No
	Infrastructural	Brick, concrete	Located in periphery of the centre	Prevalence of open spaces	Dependent on a conventional energy network	No
	Religious	stone, wood	Located in historic centre	Prevalence of built spaces		
	Industrial	Concrete block, steel	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	Partially
	Service	Wood	Located in periphery of the centre	Prevalence of open spaces	Produces part of its energy	Yes
	Service	Stone, metalic structure	Located in historic centre	Prevalence of built spaces	Dependent on a conventional energy network	Yes
	Industrial	Brick, metalic structure	Located in historic centre	Prevalence of built spaces	Dependent on a conventional energy network	No
	Industrial	Brick	Located in historic centre	Prevalence of built spaces	Dependent on a conventional energy network	No
	Service	Brick	Located in periphery of the centre	Prevalence of built spaces	Produces part of its energy	No
	Industrial	Brick, concrete, wood	Located in rural area	Prevalence of open spaces	Produces part of its energy	Partially
		Brick, concrete	Located in historic centre	Equal distribution of spaces		

Name	Year of foundation	Geographical location	Internal spaces (sqm²)	External spaces (sqm²)	Historical function	Year of building's
Malý Berlín	2017	Trnava, Slovakia	475	500	Townhouse, shops and workshops	2014
Manifatture Knos	2007	Lecce, Italy	4.000	15.000	Metallurgical school	
Meatpack	2017	Antwerp, Belgium	1.000		Foam factory	
Mejeriet	1987	Lund, Sweden			Dairy factory	
Melkweg	1970	Amsterdam, The Netherlands			Sugar factory and dairy	1920
Menu Spaustuve (Arts printing house)	2002	Vilnius, Lithuania	2.910	/	Printing house	1585
Moos		Berlin, Germany				
Moritzbastei	1982	Leipzig, Germany	1.610	1.400	Military bastion	1551
Mottattom	1999	Geneva, Switzerland	1.100	/	Shed stables	1910
Moving Station	2000	Pilsen, Czech Republic			Train station	
Nau Ivanow	1997	Barcelona, Spain	1.200	425	Painting factory, textile factory	1958
Nimac	1994	Nicosia, Cyprus	720	650	Powerhouse	1928
Noas	1998	Riga, Latvia				
Not Quite	2002	Fengersfors, Sweden	2.600	500	Paper factory	1792
Nová Cvernovka	2016	Bratislava, Slovakia	18.000	22.000	Chemistry school	1948
ODC Ensemble		Athens, Greece	2.000			
Ormston House	2011	Limerick, Ireland			Beverage commerce	1750
P60	2001	Amstelveen, The The Netherlan	2.090			
Plum Yard / Švestkový Dvů	2013	Malovice, Czech Republic	1.074	2.286	Farm	1868
Pohjala Tehas	2018	Tallinn, Estonia	15.000	17.000	Russo-baltic shipbuilding and	1924
Pragovka Gallery		Prague, Czech Republic	1.400		rubber factory	1950
Pro Rodopi Art Centre	2004	Bostina, Bulgaria	1.400		Kindergarden	
Röda Sten Konsthall	2006	Gothenburg, Sweden	1.500	/	Boiler house	1940
Rojc Alliance (savez udruga rojca)		Pula, Croatia	16.739	33.354		1870
SCS Centar Jadro		Skopje, North Macedonia				
SODAS 2123	2020	Vilnius, Lithuania	4.400	8.489	School for children with special needs	1940
Spielboden Kulturveranstaltungs GmbH		Dornbirn, Austria				
Studio Alta	2007	Prague, Czech Republic	600	930	Care centre for disabled veterans	1731
Subtopia	2002	Stockholm, Sweden			Barn	1902
Tabacka Kulturfabrik	2009	Košice, Slovakia	2.000	700	Tabacco factory	1851
Timis Country Youth Foundation	1978	Timișoara, Romania	11.000		Sports and recreation building	
TOU	2001	Stavanger, Norway	14.500	500	Brewery facilities	1895
Truc Sphérique - stanica	2003	Žilina, Slovakia	300	1.500	Train station	1945
Truc Sphérique - synagoga	2011	Žilina, Slovakia	1.200	200	Synagoga	1931
Ufafabrik	1979	Berlin, Germany	6.000	18.500	Cinema production factory	1933
Veřejný sál Hraničář	2014	Ústí nad Labem, Czech Republic			Cinema	1923
Verkatehdas	1980	Hämeenlinna, Finland			Baize factory	1850
Viernulvier	1982	Ghent, Belgium	15.298	136	People's House	1913
Village Underground	2006	London, United Kingdom			Railway viaduc and warehouse	
Vzlet	2021	Praha, Czech Republic	1.800	100	Cinema	1921
WUK	1981	Vienna, Austria	12.000	/	Locomotive factory, technical high school	1866
Zentralwerk	2006	Dresden, Germany	7.200	3.456	Weapon factory	1920
Zo centro culture contemporanee	1997	Catania, Italy	1.600	400	Sulphur refinery	2001

Typology	Building materials	Relation cultural centre & city centre	Proportion open space/built-up space	Use of renewable energies	Insulating the centre
Domestic	Brick, concrete	Located in historic centre	Prevalence of built spaces	Produces part of its energy	Yes
Industrial	Concrete	Located in periphery of the centre	Prevalence of open spaces	Produces part of its energy	Partially
		Located in periphery of the centre	Prevalence of built spaces		
Industrial	Brick	Located in historic centre	Equal distribution of spaces		
Industrial	Brick	Located in historic centre	Prevalence of built spaces		
Industrial	Brick, concrete, steel	Located in historic centre	Equal distribution of spaces	Dependent on a conventional energy network	Yes
		Located in periphery of the centre	Prevalence of built spaces		
Military	Brick	Located in historic centre	Equal distribution of spaces	Dependent on a renewable energy network	Yes
Industrial	Concrete, metal framewo	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	No
Infrastructural		Located in periphery of the centre	Prevalence of built spaces		
Industrial	Brick, glass	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	Partially
Infrastructural	Brick, concrete, steel	Located in historic centre	Prevalence of built spaces	Dependent on a conventional energy network	No
	Concrete	Located in historic centre	Prevalence of open spaces		
Industrial	Brick	Located in rural area	Prevalence of open spaces	Dependent on a conventional energy network	No
Service	Brick, concrete	Located in periphery of the centre	Equal distribution of spaces		
Industrial		Located in historic centre	Equal distribution of spaces		
	Stone	Located in historic centre	Prevalence of built spaces		
		Located in periphery of the centre	Prevalence of built spaces		
Agricultural	Brick, stone, wood	Located in rural area	Equal distribution of spaces	Dependent on a conventional energy network	Partially
Industrial	Concrete	Located in periphery of the centre	Equal distribution of spaces	Dependent on a conventional energy network	Partially
Service	Stone, bricks	Located in periphery of the centre	Prevalence of open spaces		Yes
		Located in rural area	Prevalence of open spaces	Produces part of its energy	
Infrastructural	Brick, concrete	Located in periphery of the centre	Equal distribution of spaces	Dependent on a renewable energy network	No
Military	Brick, concrete, stone	Located in periphery of the centre	Equal distribution of spaces	Dependent on a conventional energy network	Yes
Industrial		Located in periphery of the centre	Prevalence of built spaces		
Service	Brick, concrete	Located in periphery of the centre	Prevalence of open spaces	Dependent on a conventional energy network	Partially
		Located in periphery of the centre	Equal distribution of spaces		
Service	Brick, stone, wood	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	Yes
Agricultural		Located in periphery of the centre	Prevalence of open spaces		
Industrial	Brick, steel	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	Partially
Service	Concrete	Located in periphery of the centre			
Industrial	Concrete	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	Partially
Infrastructural	Brick	Located in periphery of the centre	Prevalence of open spaces		Yes
Religious	Brick	Located in historic centre	Prevalence of built spaces		No
Service	Brick, concrete	Located in periphery of the centre	Equal distribution of spaces	Produces all its energy	Partially
Evenementiel		Located in historic centre	Prevalence of built spaces		
Industrial	Brick	Located in periphery of the centre	Equal distribution of spaces		
Evenementiel	Brick	Located in historic centre	Prevalence of built spaces	Produces part of its energy	Yes
Infrastructural	Brick	Located in periphery of the centre	Prevalence of built spaces		
Evenementiel	Brick, concrete	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	No
Industrial	Brick, concrete	Located in historic centre	Prevalence of built spaces	Produces part of its energy	Partially
Industrial	Concrete	Located in periphery of the centre	Prevalence of built spaces	Produces part of its energy	Yes
Industrial	Brick, concrete	Located in periphery of the centre	Prevalence of built spaces	Dependent on a conventional energy network	No

CHARACTERS

To further characterise the diversity of TEH centres, an inventory of the centres has been established through 13 different criteria. This inventory can be understood as an attempt at a first synthesis of the TEH constellation. We present it here through the seven most relevant criteria.[36]

Analysis by country

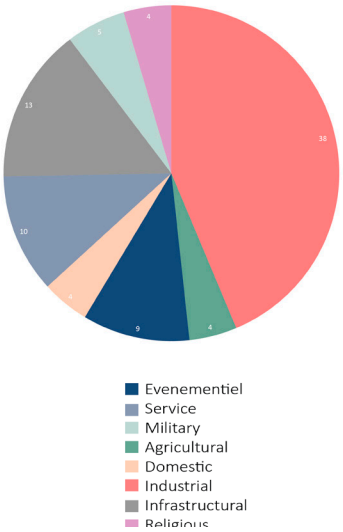
Looking at the distribution of the TEH centres by country, it can be observed that members are well spread out across Europe, with most countries hosting one to three centres. Indeed, only a few EU members do not host any TEH members, namely Malta, Poland, Portugal and Slovenia. TEH is particularly prevalent in Italy (14 centres) and Sweden (10 centres). The Swedish predominance can be explained by the fact that TEH has, since its origins, developed close relationships with the country, to the point of eventually moving its current headquarters to Lund in Sweden. The Italian majority is less clear: while most of the Italian centres are a direct result of the intense industrial development of the Po River plain, we have not seen the same prevalence in equally industrial regions such as Northern France, West Germany or the United Kingdom, which only host four centres despite being an infamous industrial cradle.

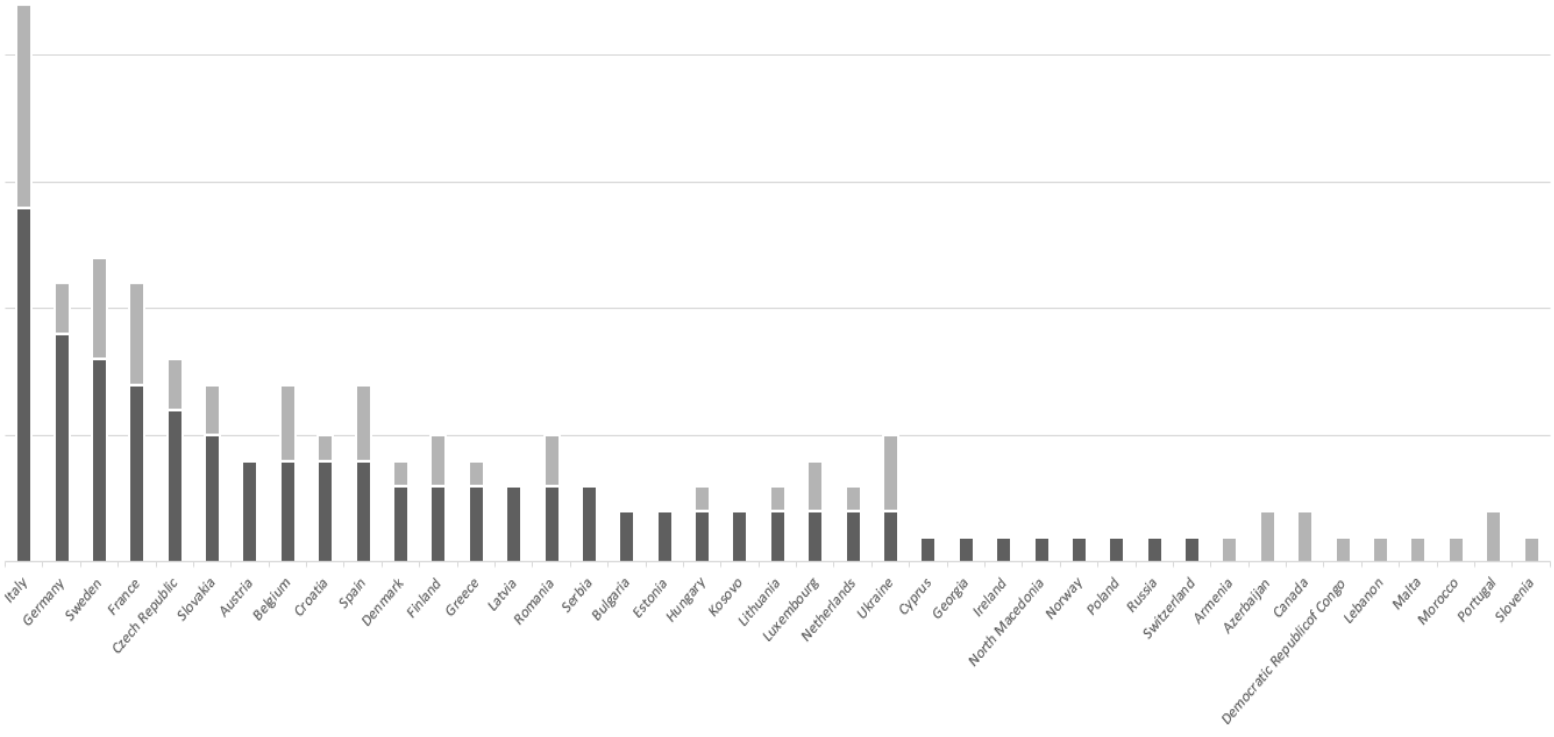
36 This inventory has been established based on a survey addressed to all of the TEH members in 2023. The answers to this survey have been completed, when possible, by research through the available literature. Not all centres have answered this survey or responded to every question. These figures are therefore entirely approximate.

Analysis of the built assets

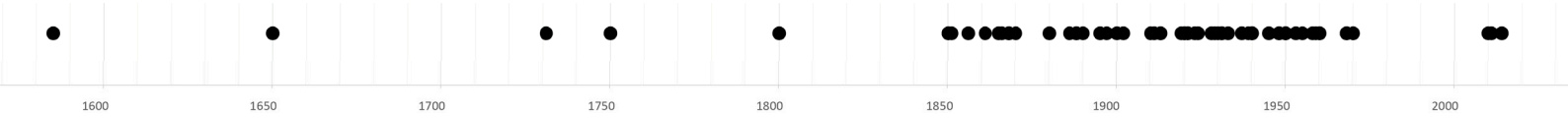
Looking at the year of construction of TEH building stock also gives a sense of an extremely layered knowledge and of the capacity of cultural centres for a wide array of adaptation techniques/strategies. While most centres are located in buildings constructed between 1850 and 1950 (the "industrial" century), the network exists within a relatively wide range of typologies, which highlights the TEH network's capacity to adapt many different manifestations of European's industrial heritage, from its earlier forms (19th century flour mills, small workshops etc.) to its more extensive coal then oil-based forms (large-scale factories, mining infrastructures etc. developed through most of the 20th century). The great "agility" of cultural centres' trans- formation skills (achieving similar outcomes despite very distinct architectural/historical circumstances) is further highlighted by the fact that several members have also transformed/

TYPOLOGY





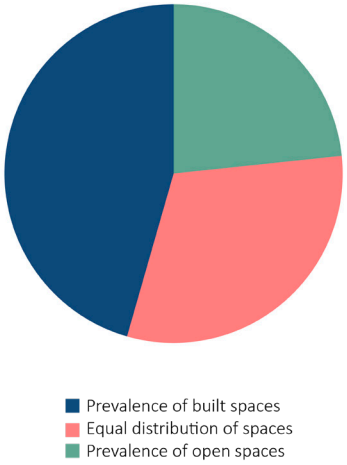
CULTURAL CENTRES BUILT STOCK :
YEARS OF CONSTRUCTION



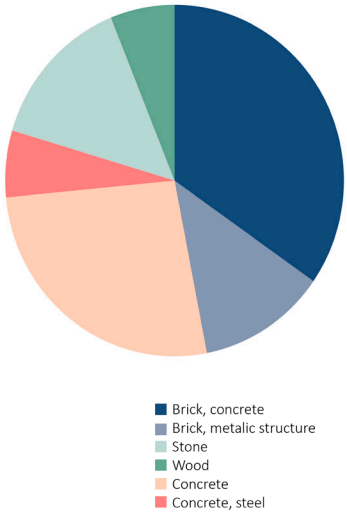
adapted buildings dating from the late 18th century all the way back to the16th century. Such buildings (churches, abbeys, forts etc.) have a distinct set of typologies and relationships to heritage policies and socio-cultural attachments that distinguish them heavily from the rest of the centres.

Looking more closely at the building's **typology** allows us to extend this analysis. As expected, almost half of the surveyed centres occupy abandoned "industrial" buildings of various kinds. On a second level, we see the "infrastructural" (railyards, abandoned rail stations, etc.), "evenemential" (abandoned cinemas, theatres, etc.) and "service-related" typologies (schools, hospitals, sport venues, offices, etc.). A small number of centres occupy a wide array of typologies, from agricultural (4%) or military sites (5%) to domestic or religious buildings (4% each). Again, the versatility and agility of cultural regeneration as employed by the TEH network can be here observed showing its capacity to renew a great variety of built typologies constructed throughout the 19th and 20th century.

RELATION BETWEEN BUILT/NON BUILT SPACE

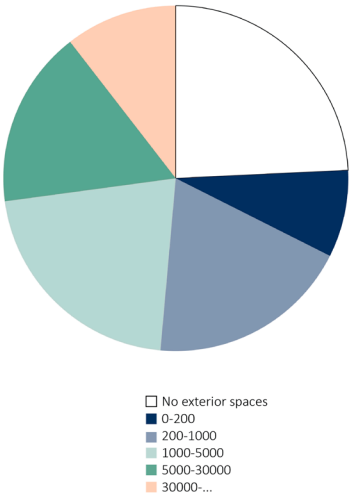


MATERIALS



As building reconversion is considerably influenced by the built stock's construction materials, it is also interesting to characterise the variety of the cultural centres' built assets through their differences in building materials. Due to the industrial nature and time of construction of the majority of buildings, there is a predominance of mixed "brick/concrete" and "full concrete" structures while steel supporting structures are also extremely common. The use of materials such as wood and stone related to an earlier era are present but to a much lesser extent.

EXTENTION OF EXTERNAL SPACE (m^2)



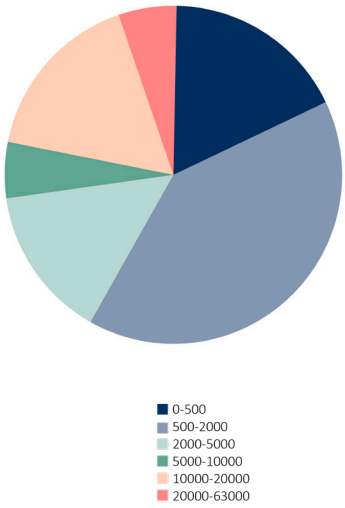
Analysis of the built and unbuilt context

Another informative dimension to further characterise the TEH network can be seen in the size of their buildings and building plots. Indeed, the surveyed centres show a great variety of dimensions (some taking place in an area of barely 200m² while others extend beyond tens of hectares). Nonetheless most TEH members are located in medium-sized areas between 500 and 2,000 m². Those benefit from indoor spaces between 500 and 2,000m² that are well suited to cultural and social events, artistic practices or local communities' gatherings, often allowing the presence of one or two major communal room (exhibition space, workshop, representation space, etc.).

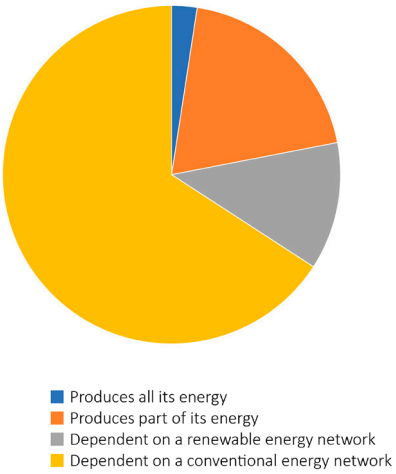
However, a number of centres stray from that description. About a third of the surveyed centres have the use of much larger indoor spaces, extending between 2,000 m² (the smallest) and 20,000m² and up to 63,000m². Space dimensions bring specific opportunities/ issues (and related knowledge) in terms of occupation, maintenance, regulations and activity opportunities. In terms of **non-built/open space** (absent for a quarter of the surveyed centres, at the risk of having a limited outdoor activity) a half of the surveyed centres exceed 1,000 m2 (allowing for relevant outdoor activities/ skills) while a quarter fall below this figure. Centres whose open spaces extend between 5,000 to 70,000 m² (parks, biodiversity reserves, fields, meadows or forests) display particular skills in terms of biodiversity management and integration.

Looking at the **relationship between built and open space**, the prevalence of members benefitting from extensive (over 30,000 m²) important outdoor space can explain why at least a quarter of the surveyed centres show a prevalence of open space in comparison to indoor space. While most members show a predominance of built spaces, about a third show an equal distribution of built and open spaces, making for interesting opportunities and a certain "climatic agility".

EXTENTION OF INTERNAL SPACE (m²)



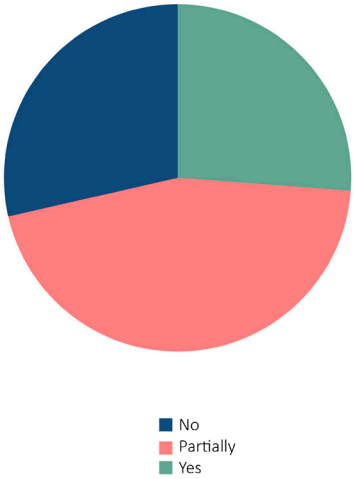
RENEWABLE ENERGIES



Analysis of energy performances

A final aspect that can help understand where the TEH network stand in terms of sustainable practices lies in the energy performances and strategies they deploy. While the economic situation of most cultural centres remains precarious, and the reuse of industrial buildings can jeopardise attempts to improve their performances, many TEH members show considerable efforts in the use of renewable energies (a quarter of the surveyed centres produce part of their energy) and building insulation (three quarters of the centres have entirely or partially insulated their building stock).

INSULATION



3

LESSONS FROM TEH: TOWARDS THE CONSTRUCTON OF A "WORKING" MANUAL

3.1 Tacit knowledge: TEH as precursor?

Drawing on these first explorations of the history, geographies and make up of Trans Europe Halles, one can observe that the network, over its 40 years of existence, has developed a "tacit" (Avermate et al, 2023) yet deep knowledge concerning the cultural regeneration strategies of the industrial European built environment, a knowledge demanding to be unrevealed and valorised. "Tacit knowledge"[1] – also known as "experiential" or "tribal" knowledge – is a set of skills/abilities that is often difficult to explicitly communicate, spreading throughout an organisation without being documented and possibly never actively pointed out or discussed. It is an implicit knowledge that can potentially be made explicit through some effort or reflection. Today, in light of the many challenges to come (for our built and un-built environment) and of the European Union's ambitious agenda for a "New European Bauhaus", lessons learned from the TEH expertise concerning the transformation/adaptation of a wide range of formerly industrial built stock seem particularly valuable.

This is a knowledge developed organically over time and somewhat involuntarily; each TEH member (and the network as a whole) is a community of practice[2] that has grown and adapted through time within a trial-and-error methodology. This signifies that, while no two centres are alike, each has refined the way it occupies/transforms its built environment through continuous testing and prototyping in a way that similar public and private initiatives usually cannot do due to the limited economic and temporal frameworks they usually are operating within. TEH members usually operate with few to very few economical means, especially when compared to their public and private counterparts. This is a condition that has slowly evolved since the early 2000s, with the growing recognition of local and international levels of the network and its centres. Cultural actors compensate for their precarious economic situation through a strong voluntary and creative workforce in their local communities, incremental changes brought to their environment in function of opportunities (specific grant calls, collaborations, surplus of volunteers or materials etc.) and a general attitude based on DIY and reuse strategies. Such practices show important and proven strategies of regeneration in tight economic contexts,[3] which could be invaluable in many situations in Europe and beyond in the coming decades.

As shown on a preliminary basis in these pages, each centre has developed a specific expertise shaped by its local circumstances, a finely tuned answer to local political, socio-economic and natural contexts as well as particular built typologies and architectural features inherited from the past. As such, they each entail a set of opportunities to learn from on-site experiments fully integrated and adapted to the many European regional particularities. These are a set of expertise, skills and know-hows, however, that are more often than not tacit; not always valorised or necessarily even acknowledged. This study tackles the need to unveil this knowledge in the hope of both valorising it and helping more initiatives to learn valuable lessons from it.

3.2 Building a "Working Manual"

To achieve the above-mentioned goal, we propose designing a first book (a "working" manual), intended as a set of "lessons to be drawn" from the many "cultural regeneration" prototypes led by TEH members over the last decades. These lessons aim to contribute to a better understanding of what good practices of cultural regeneration can look like and how they could help to shape an ambitious New European Bauhaus. This in turn invites us to turn such lessons into a manual of sorts in the future. This would offer a set of principles and strategies that have proven efficient and sustainable, which could be reproduced under similar circumstances to contribute to the shift in paradigm that the NEB calls for.

This first book's lessons will be structured to highlight the centers' contribution to the current discussion on the European transition

1 "The concept of 'tacit knowledge' was formulated in 1958 by the Hungarian chemist and philosopher Michael Polanyi. Polemical in nature, it was part of an effort to refute the idea that scientific knowledge can be reduced to closed sets of statements or logical propositions. For Polanyi, scientific knowledge implied a worldly commitment on the scientist's part, manifest in the artisanal aspects of constructing experimental installations that involve the mastery of embodied non-explicit implicit knowledge, constitute the basis from which explicit knowledge can emerge, and explain why one always knows more about a particular subject than one can put into words. Polanyi thus positioned tacit knowing in between an idea of 'embodied knowledge' and '[socially] shared knowledge' that remains unspoken" (Ibid).

2 Educational theorist Etienne Wenger (1998, 2006), who has coined the term, defines "Communities of practice" as groups of people who share a concern or a passion for a topic, a craft, and/or a profession. These individuals deepen their knowledge and expertise through regular interaction with each other.

3 While those strategies show great potential under many aspects, we need to acknowledge they emerge from a place of constraints; while they may not cost economically as much as a more conventional approach of reconversion, they may come at considerable costs for the energy, motivation and resilience of the communities involved and are not necessarily sustainable over the long-term. In that sense, the interest we carry here for these strategies should not be confused for an advocacy of a model to be applied as such, but rather as a set of practices that need to be supported and sustained by sustainability policies.

towards sustainable architectural and urban practices.

The book's first part, which has been displayed in the previous pages, introduces the reader to the general aspects of Trans Europe Halles, its history, geographies and make up of the network, and the relevance of the network in the current discussion on the regeneration of the built environment.

The second part constitutes the core of such lessons, displaying a selection of concrete strategies developed throughout the TEH network. This selection is organised in four categories, each addressing a specific set of stakes within cultural regeneration strategies. The first, MATTER MATTERS deals with strategies addressing the radical reuse of materials and built assets, the (re)distribution of matter and space in service of local communities and the refusal to "build more", in keeping with Malterre-Barthes' call for a global moratorium on (new) construction (Malterre-Barthes, 2024).

The second, OUT OF THE BOX includes projects and spatial strategies displaying experimental approaches to urbanism and architecture which thwart expectations and known codes (Bouchain et al, 2014). Strategies that tend to reinvent relationships between the actors conventionally involved in the building process (owners, architects, contractors, residents, users etc.) in ways that break down the usual hierarchies and allow for more collaborations, co-conceptions, and co-constructions.

The third, TIME, TIME, TIME features strategies integrat- ing a plurality of temporalities within the design process (Morton, 2015). This displays articulations between different conceptions of time as well as different uses of time, from the very short (implementation of ephemeral events/approaches) to the very long (approaches going beyond strictly human temporalities and entailing long-term processes such as the regeneration of an ecosystem, for example).

Finally, NEW COEXISTENCES addresses strategies that actively contribute to a redefinition of the divides that modern rationality has constructed between the cultural and the natural, the social and the biological, the human and the non-human, towards a "new biopolitical project" (Vigano, 2023). Such initiatives feed into important discussions on the role of architecture, urbanism and landscape design towards a more inclusive project concerning living entities and bodies in space. Space is here designed as to weave new relationships between living beings, which in turn become a powerful reservoir of possibilities for subjects to emancipate themselves, beyond the human/non-human divide. As such, this second part of the book consists of a first set of concrete lessons from the TEH centres on "cultural regeneration" as shareable knowledge.

The third part brings together the fruits of three short-term experimental projects (Prototypes) carried out within the "Rebuilding to Last" research project. The aim of these projects (carried out in the form of workshops) has been to explore the "scalability" of a series of eco-socio-spatial strategies launched by cultural centres at the urban/territorial scale and for a larger public (human/non-human).

The fourth part stems from the previous parts, drawing a "roadmap and toolkit" aiming to help any actor initiating a cultural centre initiative within a "cultural regeneration" framework.

This book aims to build a first important step towards the construction of a TEH NEB MANUAL, which could be drawn from further enquiries from members of the TEH network (and comparable initiatives). As such, we believe that these lessons could fundamentally contribute to a concrete and ambitious expansion of what the "New European Bauhaus" could look like and how we could achieve it in a systematic way.

While this publication is only a stepping stone towards this goal, it is an essential one that it rooted within long-term, situated and applied strategies. Bringing such innovative and forward-looking experiences alive constitutes the beginning of a wide-ranging and significant research programme that can make an important contribution to a truly sustainable Europe – both in spirit and action.

Institut for (X) (Aarhus, Denmark)
Rethinking the spaces of the railway
Image source : Institut for (X)

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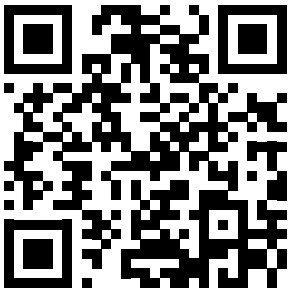

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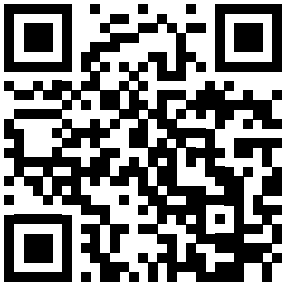

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