

Documentation

OWHC Regional Conference 2023 Northwest Europe and North America

“Climate Change and Heritage
Mitigating the challenges for keeping our cities liveable spaces”

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1 Introduction to the conference theme

Cultural Heritage's Vital Role in Climate-Change Related to Urban Transformation

Matthias Ripp, OWHC Secretariat Northwest Europe and North America



Cultural heritage is more than just a collection of historical artifacts; it is a dynamic system and a crucial process in the face of the biggest meta-challenge that affects all aspects of our world: climate change. While the usual discourse surrounding cultural heritage primarily centers on its preservation and the damages inflicted upon it by climate change, we are here to shed light on its multifaceted role in climate-change related urban transformation.

In this discussion, we propose that cultural heritage serves three fundamental functions in the context of climate-change related to urban transformation:

Preservation: The preservation of cultural heritage is a non-negotiable imperative. It is our responsibility to safeguard the remnants of our past for future generations. Climate change poses a significant threat to these tangible and intangible aspects of our heritage, and we must take proactive steps to protect them.

Resource for Urban Development: Beyond preservation, cultural heritage can be a valuable resource for urban development. Adaptive re-use of historical buildings and sites can play a vital role in sustainable urban growth. Integrating heritage into development strategies not only maintains a connection to our roots but also ensures a more resilient and adaptable urban landscape.

Identity and Sense of Home: In times of challenging urban transformations driven by climate change, cultural heritage provides a sense of identity and belonging. It connects communities to their history, offering a foundation of familiarity in the face of rapid change. It acts as a constant in an ever-evolving urban environment.

At our conference we looked at many relevant elements related to tangible and intangible heritage i.e. cultural heritage as a resource for urban development and its adaptive re-use; both approaches that honour our past while embracing the future.

2 Swords into ploughshares – Equipping cities for climate resilience

Key note by Graham Bell, UK member of the board of Europa Nostra



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[Europa Nostra](#) is the European Voice of Civic Society committed to Cultural Heritage, so World Heritage, especially cities, is a reflection of us all; the most enduring and refined expression of what humanity has made of where we are. Cities are the ultimate synthesis of continuity and creativity, of reconciling vision with overcoming challenges. The prize is satisfaction as values mature, enabling cities to acquire timelessness whilst remaining true to their sense of place – *genius loci* – grounded in the relationship of people and place. For cities, the accumulated legacy over generations adds (or detracts) a dimension. World Heritage status adds further responsibilities of sharing relevance and meaning with all societies – of being able to communicate life-enhancing significance across cultural differences.

How do World Heritage cities overcome differences? What is their unique selling proposition?

The presentation was an exploration of and exhortation for World Heritage cities to fully use their USP as a resource to overcome barriers, to ensure resilience in the face of adverse operating environments, especially climate change. What are the barriers preventing World Heritage cities from being universally valued – by their resident communities as well as the global audience? Can we apply ‘universal’ to something as organic and dynamic as a city, the priority for which is sustaining daily life, not memories or abstract values? Does our generation see ‘value’ in the same way as one a century ago or to come? Is intrinsic significance sufficient? Do revelations of heritage funded by exploitation or ideology cause recalibration of what is considered outstanding universal significance?

My challenge is to see the familiar, differently; to develop a capacity for seeing both sides of a barrier, to break down silos which divide, that threaten ‘outstanding’ and/or ‘universal’ and/or ‘value’; my aim of this presentation is to exhort OWHC to transform barriers (division) into interfaces (connectivity). As Donald Rumsfeld famously noted, it is the ‘unknown unknowns’ we need to look out for.

The pandemic caught everyone off-guard, challenging assumptions about what is normal. It was global, but also personal; the vulnerability of people we knew was real, and so we took it personally. However, the global threat of climate change has not triggered the same personal call to action; the pandemic was here and now, but climate is always going to be there isn’t it? It’s not personal because it is beyond our ability to make a difference. It isn’t a problem ‘knocking at our own door’. Or is it?



Projections abound, so who to believe? 2050 is only one generation away; the year our children will be our age, our grandchildren of an age of responsibility. There isn't time to wait and see if things for them will be OK. Like the proverbial supertanker, action now may only yield benefits in a generation's time. Some of the projections are scary. Many of Europe's economic gateway ports are historic; many therefore are in the front line if sea levels rise and, combined with tidal surges or storms, they are swamped. Bruges has an illustrious historical connection with the sea, 17km away. But an unprecedented 'perfect storm' could [bring the sea to Bruges](#); World Heritage status is no defence. An empty threat? I run [Cultura Trust](#) in the UK, which owns an [historic watermill](#) we've brought back into operation, making traditional bread. It is 27km from the coast but was under 1m of water in 2015. Having centuries of working in and with water, it is robust; after 48 hours the silt could be cleaned up and production resumed, but the city of Carlisle took years to recover.

Cities are only possible because of infrastructure – connectivity akin to the body's structure and circulation that support the metabolism of life. This is where cities are most vulnerable to climate pressures: not just the scenarios of rising seas, but all of the variables such as energy security, tourism capacity or demographic migration from rural to urban employment. What if the exceptional heat of 2023 around the Mediterranean forces the traditional summer vacation to shift 10 degrees north, from Madrid to Brussels, so that lying on the beaches of the Balearic Islands becomes an Easter habit?

In the [European Green Deal](#), the European Commission has set targets in 2030 and 2050 for carbon reduction. This includes the [Renovation Wave](#), the aim of which by 2030 is to achieve climate sustainability for 35 million buildings. As 40% of all energy consumed is by buildings, and 35% of Europe's buildings are over 50 years old, conflict between conservation of heritage authenticity and improving energy performance is a challenge especially relevant to World Heritage cities. Belgium is doing comparatively well on this, but there persist assumptions that protected historic buildings are exempt, or, as mounting utility bills come in, that private property is a private matter that will result in hidden, irreparable and irreversible compromises as people improvise below the consents radar.

Hence, the first two conservation/performance interface challenges for OWHC are public infrastructure, and services installed within buildings. These are where heritage and reality conflict or are reconciled. Converting barriers or silos into positive interfaces is critical because sustainability cannot be achieved in disparate, compartmentalised actions. Sustainability is the sum of the parts, and, in human terms, 'leaving no-one behind'. Whilst climate action is an imperative for all, magnified in significance through the lens of World Heritage, it should not and cannot be isolated as an action independent of all other factors. Cities are the sum of their parts, so the [UN Sustainable Development Goals](#) provide holistic, 'life support' diagnostics and pathways for their metabolism and wellbeing, embracing the interactive and interdependent relationships between environment, culture, economy and society. If anything defines a sustainable, resilient, responsible city, the SDGs come closest.

Taking Belgium as our host inspiration, and intergenerational succession planning as an invaluable commitment to sustainability by cities, several examples provide stimulus: [sdgs@school.be](#) shows that investing 'upstream' in young people is essential (and fun); the Covenant of Mayors' [SECAP](#) (Sustainable Energy and Climate Action Plan) and Bruges Horizon 2020 initiative [SPREM](#) (Sustainable Public Real Estate Management) are models others could emulate. The [2023 update on Sustainable Development in the European Union](#) shows SDG11 (Sustainable Cities and Communities) is averaging on progress, whereas SDG13 (Climate Action) is trailing well behind and even at risk of losing ground.

The recurrent disappointment is that ‘cultural heritage’ rarely is mentioned in any of these strategic overviews, therefore its impact, especially for World Heritage, is largely unquantified and invisible. This policy context is the third level of interface which OWHC needs for climate resilience and sustainability.

The launch in 2023 of the [European Heritage Hub](#), of which OWHC is a partner, is where this interface between all three levels of connectivity can transform each barrier into a synapse.

The presentation made reference to Isaiah’s ‘Swords into Ploughshares’ because there is no enemy in climate action, only the need for collective action; no weapons, only tools. The last slide showed the monument epitomising this prophesy: a [gift in 1959 from the USSR to the United Nations](#).

Presentation: [Download](#)



3 Adaptive reuse projects with social impact

Key note by Michiel Van Balen, Miss Miyagi



Miss Miyagi

[Miss Miyagi](#) is a service provider in the development of exemplary real estate projects with a positive social impact. What makes Miss Miyagi unique is the fact that it drives a twofold objective: make the places thrive and become protagonists of positive social impact. While it focuses on feasibility, it investigates ways to match inspiring places with the right users. The name 'Miss Miyagi' comes from the movie Karate Kid. Where Mr Miyagi, a karate master, teaches the young, Daniel LaRusso, to face his opponents in an ethical way. The link between the movie and the name of the real estate agency is that the founders of Miss Miyagi wanted to approach the world of real estate development from a different angle by igniting a quality and ethical vision for city development.

Since 2017, Miss Miyagi initiates and coordinates exemplary real estate projects with a positive impact on society. Its mission is to trigger bottom-up real estate development and to initiate and coordinate alternative real estate projects created by the actual end-user. They are coordinating these projects and try to coordinate them from concept and business plan up to the construction site. So, they relate to the site. Even when all is finished, they still assist in the governance model.

Currently there are 13 people at Miss Miyagi out of which 11 are both engineers and architects at the same time. They have three types of people: The Living-stone person exploring new stuff in area X; the bridge builders who are basically helping to translate what is in area X to people in area Z and the housekeepers (in area Z). What they don't want is for all to jump from Z to X without any critical reflection on this. They try to combine different voices in one corner.

Hal 5

Miss Miyagi initiated and coordinated the temporary adaptive reuse of [HAL5](#) in Leuven. Hal5 is an industrial Protected Monument which was abandoned for a long time and was not a target of re-development. Although it is located within walking distance of the train station of Leuven, it is situated in the middle of a densely populated area and difficult to reach by car. In structural terms, Hal5 has problems related to heat and acoustic insulation. In 2016, Miss Miyagi seized the opportunity of a lack of plan and approached the City of Leuven with a project. Miss Miyagi argued that temporary adaptive reuse is the best development strategy for two reasons: firstly, in a short period of time the building will cease being empty; secondly, seen the specificity of the heritage building, a temporary reuse is a good way to test feasibility before a proper renovation. The municipality found the project interesting and launched a public tender for the 2000 m² inside and 1800 m² outside space. The tender was open to anyone interested in submitting a project for five years (2017–2022) of temporary adaptive reuse of the abandoned building. According to the tender, the project needed to be fully self-sustainable financially. Subsequently, the city of Leuven organized speed dating during three-open

days where interested subjects were able to visit the location and meet other interested individuals/organizations, thus stimulating coalition formation.

Miss Miyagi won the tender and the first thing Miss Miyagi did together with its partners was to explain to the neighbourhood all the projects and ideas they had in mind. People from the neighbourhood were encouraged to come up with new ideas since there was still some space. The neighbourhood was welcomed to an open day in spring during which every organization showcased its project. At that point, HAL5 became the hotspot of all kinds of activities that have a hard time finding space in the rest of the city either because it's too expensive or because of regulations.

Miss Miyagi had the idea of financing the project through the neighbourhood exploiting the Flemish Government 'win-win' loan scheme. Also 1/3 of the outstanding amount was secured by the Flemish Government. Nevertheless, the project needed at least €300.000, and the Flemish loan is limited to €200.000. To overcome this challenge, Miss Miyagi made an agreement with Triodos bank to double the money which will be raised through the crowdfunding loan. The neighbourhood was invited to invest in Hal5 with three possible tranches: €2.500, €5.000 or €10.000. By the end of the day the maximum amount (€200.000) was collected. And as per the agreement, the bank doubled the money.

In May 2017, the renovation works of Hal5 started with the participation of all the project partners and the neighbourhood. Miss Miyagi coordinated the works and had different professionals working with volunteers from the community. Hal5 was inaugurated in September 2017 around 4 themes: 1-Food and drink space; 2-Community building; 3-Sustainable entrepreneurship; 4-Movement. The governance model for Hal 5 consisted of establishing a non-profit organisation (NPO), namely: VZW HAL5. All the different tenants are part of this NPO. VZW HAL5 rents the building from the city of Leuven, and it is responsible for developing the entire project but also: renting out spaces; finding new tenants; managing the bar; and renting out the events spaces. This successful temporary reuse won the Leuven Architecture Prize 2016–2019 of the City of Leuven.



An innovative cooperative investment fund

At the end of 2018, Miss Miyagi and in partnership with Cera, the heritage service of the city of Leuven, and Bart Vanhaeren started developing a cooperative investment fund. The aim of this fund is to realize exemplary real estate projects with a positive social impact. It strives for a goal maximization defined as creating valuable places and not a profit maximization. For this specific project, Miss Miyagi received a grant of 100k Euros from Circular Flanders for developing the fund. The grant was aimed at covering the cost of the investigation of how to create the fund. The research lasted for two years, and the team was investigating different directions with lawyers.

The main pillar of the cooperative investment fund is that people/ organizations can invest in the fund, which in turn invests in projects. In its turn, the fund aims at multiple returns; 3% annual financial added value; personal added value (connections with the projects and co-investors); and social added value. The Miss Miyagi Development Fund is a cooperative partnership. That means investors are shareholders in a cooperative, which in turn invests in various projects. Investors thus become (as partners of the fund) co-owner of all projects in the fund.

The Miss Miyagi Development Fund intends to invest in exemplary places with impact. Four real estate project typologies were identified, and projects must score highly on at least two of the following impacts: Contribute to the identity of the built environment; Cater for the vulnerable target groups; Induce the transition to a more local and circular economy; and make space for self-development, social interaction and urban dynamics. They believe that adaptive reuse of buildings has a double impact on the circular agenda. The first one by reusing the building which is covered from a technical view, but the second is more about creating this environment in buildings that have value and that actually connect stakeholders and creates an environment which is very sensitive to the circular philosophy. The fact that they can translate this to a theoretical system, a cooperative investment fund, where people are happier with smaller financial returns getting in return an insight on what is happening in these projects and creating within the cooperative organization a community of likeminded people who wants to take care of these buildings can create a huge impact on this circular philosophy. This fund was officially registered in December 2020 and opened to the public in February 2021. It will start with three projects and aims to collect three million euros in 2021.

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4 Making our historic urban areas climate-resilient

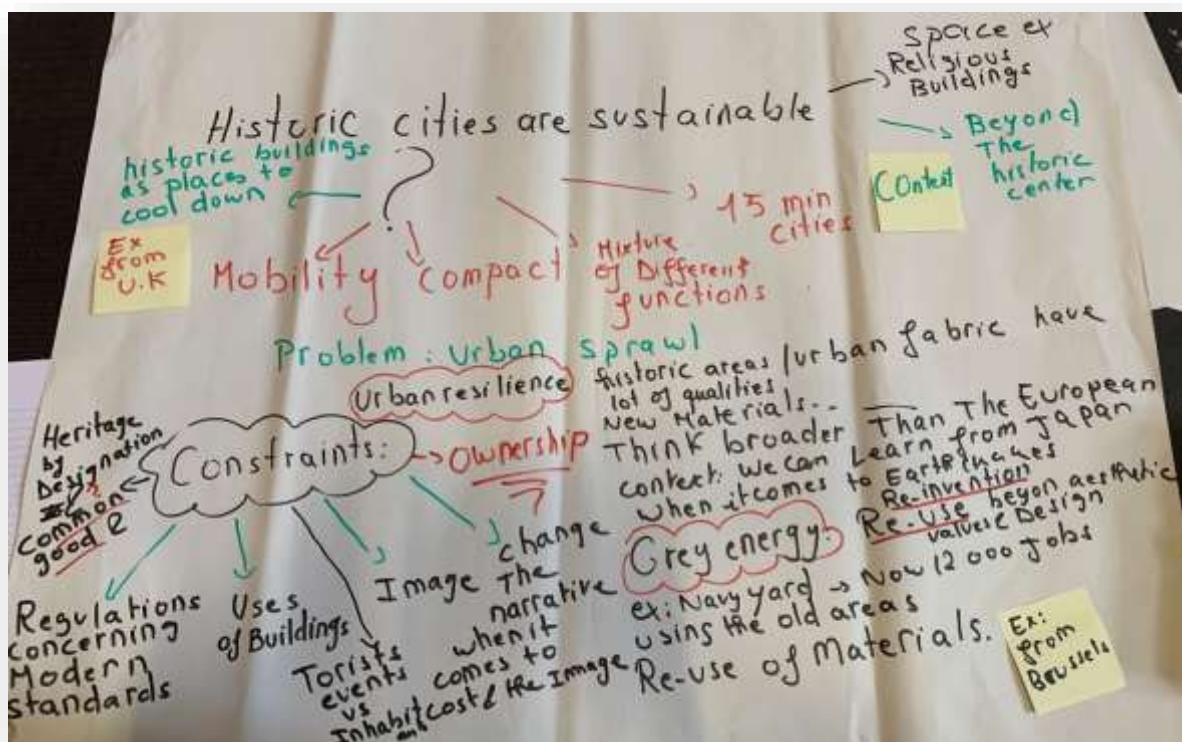
Working table results of participants

The participants discussed the following five topics at four tables, for which they collected ideas and recommendations:

1. **Opportunities** historic urban areas offer for climate protection and climate adaptation
2. **Constraints** and how to deal with them
3. **First steps and actions to start off** with climate protection and climate adaptation of historic urban areas
4. **Interesting projects and activities to advance** climate protection and climate adaptation in historic urban areas
5. **Important stakeholders to collaborate** with

Various ideas and recommendations were collected, whereby it became clear, that they need to be combined to achieve a greater effect!

1. Opportunities historic urban areas offer for climate protection and climate adaptation



- **Historic city centres support sustainable, urban models** such as the 15-min city, the city of short ways and the compact European city.
- **Historic urban areas are a knowledge resource** for environmentally friendly construction and natural building materials, which use and recyclability contributes to minimizing CO₂ emissions.

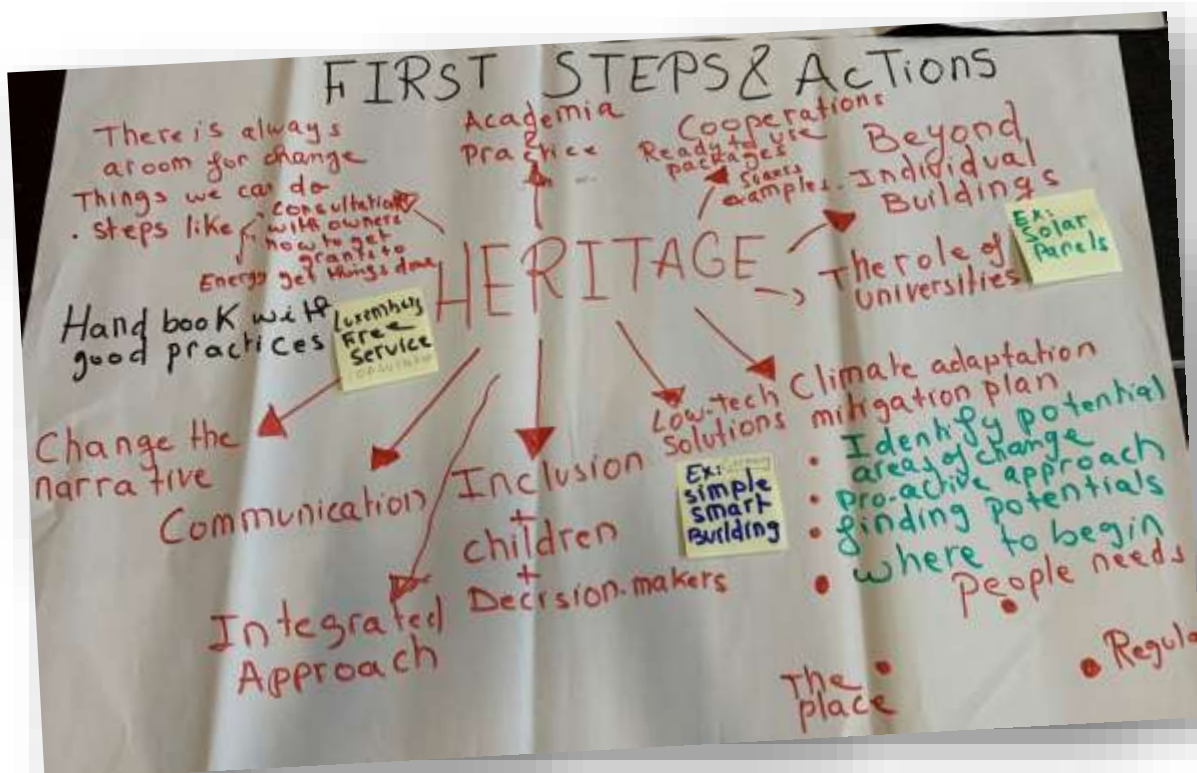
- The maintenance, renovation and adaptive re-use of buildings preserve their **grey energy** and thus contribute to the circular reuse and reduction of CO₂ emissions in the building sector.
- Heritage buildings, especially in hotter climates, already use **traditional, low-tech techniques that have been proven to work**, such as how buildings can provide a positive indoor climate even on hot days. These techniques can be harnessed for climate adaptation of buildings.
- Historic buildings like churches stay cool even during peak heat days. They can be opened to the public as cooling rooms.
- Historic urban neighbourhoods can thus help **communicate climate-smart urban re-development**.

2. Constraints and how to deal with them

- **Focus on high-tech solutions and lack of knowledge** of traditional, low-tech techniques, environmentally friendly construction and natural building materials with project developers, architects, craftsmen and owners in our regions
 - Campaigning, communication and education of these players in traditional, low-tech techniques, environmentally friendly construction and natural building materials that have been proven to work adapting buildings to climate change.
 - Bridging academia and practice in universities to enhance professional skills training in sustainable conservation.
- **Regulations concerning modern standards** can impede the adaptive re-use of buildings
- Association of the preservation and transformation of historic structures with considerable, resource-heavy, interventions and **high energy costs**, to the extent that adaptive re-use or renewal of any kind seems impractical
 - The concept of "grey energy" could counter-act these claims, in the sense of resource-saving construction where new ways of conservation and utilisation are necessary
- Historical buildings become less attractive due to **high (energy/renovation) costs**
 - Subsidies and tax incentives
- **Developers** are expecting fast money
 - Extra tax on none sustainable materials or subsidies dependent on the use of sustainable materials, etc.
- Due to the **large number of individual owners**, "collective, neighborhood" solutions are more difficult to implement, thus focusing on individual buildings.
 - An animator and coordinator is needed to promote collective solutions.
- **People expect amenities of modern housing** or new techniques are not compatible with historic buildings
 - Awareness raising for quality of life in old building structures
- **Silo structures** in administrations
 - Enable (informal) coordination and exchange rounds to listen and learn from each other



3. First steps and actions to start off with climate protection and climate adaptation of historic urban areas



Mapping

- Collect data on the actual needs for climate protection and adaptation of historic quarters, in order to align local adapted solutions with the actual needs.
- Map existing infrastructure (public and private) and its climate resilience as well as specific needs of communities to identify opportunities and needs and set focused local projects

Strategy – neighbourhood focus – first easy actions

- Develop an overall strategy for climate resilient historic quarters, thinking climate adaptation and mitigation together, and involve stakeholders from the very beginning. Communication and collaboration are key.
- Start not only to focus on single buildings (e.g. for solar and heating), but also at block/quarter structures for collective, neighbourhood solutions e.g. combined heat and power plants for several buildings, fully use roofs that are not visible for PV and make the electricity available to neighbouring buildings, use larger yards for geothermal energy
- Start with first, easy to implement actions and communicate them to raise the awareness about the topic and potential solutions; adapt your policies in support.
- Promote walking and cycling in historic urban areas

Policies – regulations – financial incentives

- Show political initiative and courage to set regulations. The market will follow.
- Use economic incentives to change behaviour and promote climate resilient quarters
- Introduce heritage management as essential part of modern, sustainable city development

Communication

- Change the narrative from heritage as an obstacle to heritage as an opportunity.
- Have guidelines, public “champions” and guides who communicate and consult how to adapt a building to climate change and to reduce energy consumption of buildings and people with “ready-to-use” examples of successful interventions or activities.
- Information campaigns, heritage education and awareness-raising, particularly of children through schools.

Networking

- Cross-departmental thematic working groups in the administration
- Team up with local initiatives and NGOs

4. Interesting projects and activities to advance climate protection and climate adaptation in historic urban areas

Mapping

- Heat mapping to identify urban heat islands (Philadelphia / Vienna), determine reasons for it and deriving targeted, place-based measures (e.g. greening, roof renewal, unsealing, water features)
- City climate analysis (Vienna) to identify cool air corridors and develop building policies ensuring these corridors stay unobstructed; greening these corridors keep incoming air cool

Service and Education

- Climate Point in the city office ([Bruges](#)) and information counter for adaptation of houses in a climate-friendly way – with counselling on possible funding through city/government and support in filling in application forms for funding
- Public agency for increased energy efficiency (Luxembourg): state-owned agency who offers a basic consultation service to people seeking information on how to improve their houses and informs them about the financial aid they may have
- Summer school for traditional architecture and building techniques (Bruges)
- Podcast (Germany) “Simple Smart Buildings” giving examples of low-tech approaches.

Greening and Renewable energies

- Greening of facades of historical buildings ([Bruges](#)): the city provides plants for free and plants them in the sidewalks, house owners just have to be caretakers – cooling effect is immense
- Mobile, pop-up greening of whole streets: example Vienna Museum Quarter, Brussels Boulevard Anspach, Bamberg - dare to change the appearance of your historical quarters
- Gaining soil for plants (Toulouse): They lift a whole square up 1 m to gain more soil space for plants/trees – new ways of urban planning and landscape architecture



- Pocket parks (Krakow): turning smaller, public spaces into everyday green spaces for local people
- Greening initiative, building public park above expressway (Philadelphia)
- Use of heat of sewage water (Regensburg) and block heating in a modern way

5. Important stakeholders to collaborate with



- Inhabitants and neighbourhood groups and organisations (can also get involved through participatory funding projects)
- Civil society (NGOs, associations etc. in the heritage sector / heritage and climate change activists)
- Private sector (real estate developers), producers, finance sector
- Different government/public agencies (different political levels and all subject areas involved) -> collaborate but have one responsible/leading department
- Climate resilience officers in your city
- (Landscape) Architects and architect associations
- Universities to design creative solutions
- Cities sharing similar challenges (mutual learning!)
- Media, social media and influencer as way of communication reaching a larger audience

5 Excursions

5.1 Béguinage – Intangible heritage as a resource for urban rehabilitation



The Princely Beguinage Ten Wijngaerde is the only preserved [beguinage](#) in Bruges. There are no more [Beguines](#) living there, but since 1927 it has functioned as a convent for Benedictines. In the same year the houses at the west side were also reshaped and enlarged into the Monasterium De Wijngaard, a priory of Benedictine nuns.

Workshop topic

The workshop focused on how to apply the UNESCO conventions “Protection of World Cultural and Natural Heritage” and “Safeguarding of intangible cultural heritage”. This double approach is currently applied in a research programme on the intangible aspects of the Beguinage of Bruges.

Three sets of questions were discussed:

1. How can intangible aspects of world heritage sites enhance the meaning and experience of world heritage? How do you work with the intangible aspects of world heritage? How do you make these intangible aspects visible and accessible to experience?
2. What role do living communities play in your world heritage? How are living communities connected to the world heritage in your city? As a resident, manager, or otherwise? How do the traditions, rituals, customs of the living communities strengthen or weaken the experience of the OUV of the world heritage sites?
3. Are there intangible themes in your city connected to world heritage, such as those here in Bruges: a site inhabited by women only, silence, religion and spirituality, care facilities, gardens and green spaces, crafts, education?

Workshop results

The OUV of a site is intangible. Thus, the approach to and the protection of a world heritage site starts from the intangible elements. This observation leads to further questions:

1. How can you get these intangible aspects across and to whom?
To demonstrate them to inhabitants it requires a longer process, to visitors you need a different, rather temporary approach. Visitors are often interested in the intangible aspects.
2. What is the sense of the place you want to maintain? How can you allow it to grow?
3. How can we develop methods to research and develop the intangible aspects in living cities and by involving inhabitants and visitors?

Combining tangible and intangible aspects of World heritage sites is rather new and there is little experience. Examples of connecting with living communities do exist, for instance craftsmen living and applying their crafts in a world heritage site in Warsaw (Poland). Universities and production sites like mines are also examples of tangible and intangible aspects and have communities as bearers of the intangible heritage. Regarding tourists as agents rather than as passive receivers creates opportunities for the co-creation of the tourist experience.

With both, inhabitants and tourists we need to think of new ways of interacting with the living communities. We need to start a dialogue on sustainable tourism.

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5.2 English Convent – The conversion of religious heritage



The 'Engels klooster' (English Convent), located in the historic centre of Bruges, has developed throughout the centuries and consists of a complex of mainly 17th-19th century buildings surrounding a beautiful walled garden. The Convent was founded and continued to attract English catholic nuns, who later started a school for young girls in order to provide a steady income. The school has ceased to exist in 1973 and the number of nuns has since then been decreasing, now with only seven nuns left.

Workshop topic

The nuns, still living in the convent, want to bring the [convent](#) with its gardens into the future and give it a new life. But they want to ensure that the spirit of the place (the community and spiritual life) remains and is reflected in the new uses. They have assigned [Miss Miyagi](#), a developer with a heart for projects with an added social value, to help them find a way to build a new future for the site by preserving the past.

Workshop results

Miss Miyagi has researched possible functions for the site and its potential impacts on the built environment (physical and financial). They also developed scenarios to implement new buildings on the site. Parallely, according to the possible functions and uses, they are approaching potential investors that could realise these uses to develop the strategy for the reuse together and checking if the current "plans" would work. Different types of ownership have been investigated e.g. ownership shares, multi-owners or users invest in the property and get a cheaper rent for it. In this way, the investors need to be creative and find the best way of dividing the property while still maintaining the open character of the gardens. It is thought, that some uses of the property will be profitable and others not; thus the profitable ones help to maintain the less profitable ones.

The nuns wish to keep the spirit of the place alive and therefore they would like to establish functions and services on the site for the neighbouring community. One function could be a surgery, connected to practices that make use of the gardens to improve the health of the patients. The gardens are an important asset and resource. There is a lot of demand for shared gardening.

Concerning the energy demand and improvement of the site it was discussed that first of all it could be tried to produce as much of the required energy as possible via renewable energies on the site, e.g. via geothermal energy, where there would be plenty of space due to the outdoor areas. This could possibly reduce the pressure of retrofitting the buildings and reduce it to less intervention-intensive measures.

It is also seen as a possibility to implement the adaptive reuse of the convent step by step and to test new functions first. Some areas could also be "kept free" for the time being so that they can be used flexibly by users and owners as needed - for a fee.

The participants were impressed by the spirit of the site and the silent power of the women that have built and kept it alive throughout the century. It is a good lesson that the nuns have taken themselves the initiative to start developing the new phase in the history of the site. In this way they can try to ensure the continuity of the spirit of the place even with the new functions.



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5.3 Water canals – The function of the historic water infrastructure in the city centre in past and future



Besides the historical importance of water in Bruges' city centre, the natural and man-made water system, hundreds of years old, is still an important asset for Bruges, and not only for the tourist boat tours.

Workshop topic

Throughout the walk, the group reflected on the historical aspect of water for transport and consumption, the choices that were made to dig, fill in or arch over certain canals and the impact on the city's appearance today.

Workshop results

During the excursion choices for today and the future to make Bruges a "Water Resilient City" was presented: separate rainwater and wastewater system, tackle wastewater discharge systems in the Reie via overflow, expand and optimise the sewer system parallel to the Reie in the vaulted Kraanrei, review sewer connection of houses in that stretch (as it was recently done during the construction of 't Zand), separate wastewater drainage from private dwellings from rainwater and heritage impact on outflow points in the Reien e.g. at the Vlaming bridge (executed in natural stone).

To keep the canals clean, several times a week rubbish boats collect litter on the canals. This has the effect that litter has been greatly reduced and the canals are clean. The future goal is to make the canals clean enough to be able to swim there. For this the entrance of sewerage/dirty water has to be solved.

To support fish and bird conservation, aeration is needed in several places as the flow rate of the Bruges inner canal is quite low.

Another idea is to use communal tax land as possible floodplain, expanding the buffer capacity of the Reie. The communal land was naturally created by the siltation or silting up of the canals, partly due to lesser use as a freight transport road. That washed-up land is leased for a symbolic amount to the homeowners bordering it, but can at any time be reclaimed by the city as a buffer basin.

To make the water system more robust, it is studied how the water wells could be used. Historically they were used with "moerbuizen (mother pipe)" system and Waterhuis with noria (water wheel) that supplied Bruges with fresh water from the ring of canals around the city as early as the 13th century. That system is separate from the groundwater wells that were also there, but not connected to each other like the "moerbuizen" system. This "moerbuizen" system was used in some parts of the city until the 1920s. It is now being studied again to see how this system can be used in the water-robust story.

To maximise water infiltration and reduce heat stress various small interventions in the streetscape have taken place to soften / de-pave where possible: planting beds, small green areas with low shrubs, including Zilverpand and Sint-Salvator church yard as a de-paving pioneer project (2010) (and by today's standards already too paved, grass = green concrete...). The greening also serves to increase the quality of life in the city. Another focus is on the many remnants of private (mostly monastery) gardens, which cover up to 20 % of the inner city's surface area and represent a huge opportunity for further softening/water proofing and heat stress reduction in the inner city.

To make water accessible again several projects have been implemented: region Kapucijnenrei and Koning Albertpark with open Kapucijnenrei, an open waterfront meeting place; a fountain at Stationsplein as meeting place and controlled inflow into the Reie (fountain as aerator). King Albert Park was recently redesigned as a park on top of a car park. The park was adapted to solve storm water storage and water quality problems in a very sensitive historical area, by creating an additional buffer of 400 m³ of water.

Also the idea of using the Reie as a heat pump for e.g. heating and cooling Bruges Town Hall was raised. This was studied already with the result that this would cause the Reie to have to be brought to frozen or boiling state.



6 Participants' take aways and lessons learnt



Make our cultural heritage places that matter to us

- Use cultural heritage to improve people's life
- The re-use of heritage buildings should, besides a financial return, also provide a social and personal return. That can motivate people to become involved.
- Heritage has only the value that people give it to
- Take more interests in the users of heritage buildings and not just the physical condition
- Engage younger people in the appreciation of heritage, make it their heritage
- Emphasis more cultural heritage in urban renewal

Seek collaborations and partnerships for holistic and better solutions

- Seek for synergies, partners and supporters
- Make alliance with colleagues, people and initiatives that share your passion and goals
- Share knowledge with colleagues to learn from each other
- Support interdisciplinary and cross-departmental working, learning from each other and bringing different views, knowledge and interests together; breaking down the silos!
- Involve stakeholders to develop collaboratively solutions and carry them out in partnership
- Involve more politicians
- Seek community involvement and engage with bottom-up approaches and the neighbourhood as a local support base / resource for the adaptive re-use of heritage buildings
- Bring top-down and bottom-up approaches together
- Apply the Miss Miyagi approach e.g. the scenario planning and multi-stakeholder/shareholder engagement



Practice examples inspire and we can learn from them

- Look for good-practices and learn from them
- Alternative project developers for the adaptive reuse of heritage buildings (also larger ones) exist and prove that a careful development (concept wise as financially) of heritage buildings in cooperation with the owner and end-users is possible and feasible. Miss Miyagi is a very fine example for this.
- The approach to re-use the English Convent [see 5.2] together with its current and future users based on the concept of “continuity, community and spirituality”.
- Water management in canal cities
- Bruges dedication to make its historic centre viable and green
- Shared history of port cities, shaping our economy and how climate change impacts these economies

Supporting climate protection and adaptation by

- Seeking for integrated planning approaches to address climate change properly
- Promoting adaptive re-use of buildings, saving the grey energy
- Greening our historic (stone) cities to improve the well-being of our inhabitants
- Seeking solutions how to integrate renewable energies in heritage projects
- Seeking quarter and neighbourhood solutions that reduce the pressure on energetic retrofitting of single heritage buildings
- Seeking solutions how to integrate renewable energies in heritage projects
- Presenting the urgency of actively dealing with climate change
- Connecting our global infrastructure to issues of climate change solutions

Change personal attitudes

- My work is meaningful: Taking care of our heritage is to take care of our community and people dear to us
- Climate change *is* my problem
- Be a Miss Miyagi to deal with climate change
- See rather the opportunities and chances than just the problems and obstacles
- A problem can be an opportunity to make you think and act
- Change the “business as usual”, start thinking out of the box and more creatively
- Changing mind sets and personal behaviour: challenging, but needed, cultural heritage can support this



Annex

Link list of interesting projects mentioned by the participants

Mapping

- Heat mapping to identify urban heat islands: [Philadelphia](#) / [Vienna](#)
- City climate analysis to identify cool air corridors: [Vienna](#)

Service and Education

- Climate Point in the city office and information counter for adaptation of houses in a climate-friendly way – with counselling on possible funding: [Bruges](#)
- Public agency for increased energy efficiency: [Luxembourg](#)
- Historic home-owner consultation, City of [Luxembourg](#)
- Summer school for traditional architecture and building techniques: [Bruges](#)
- Summer schools teaching theory and practice of social and sustainable architecture, sustainable construction methods and natural building: [Critical Concrete](#)
- Podcast (Germany) "[Simple Smart Buildings](#)"

Greening and Renewable energies

- Greening of streets and facades of historical buildings together with its citizens: [Bruges](#)
- Greening cool air corridors: [Vienna](#)
- Mobile, pop-up greening of whole streets: [Vienna Museum Quarter](#)
- Pocket parks: [Krakow](#)
- Greening initiative building public park above expressway: [Philadelphia](#)

Actions for climate change and heritage

- City of Vienna – [presentation](#)
- Brussels cooperative '[depot](#)' of "old" materials to be taken and used by construction workers for building re-use as circular approach
- [Climate, Health and Equity](#), global ideas for U.S. solutions

Adaptive reuse

- [Miss Miyagi](#), alternative project developer
- [2nd Chance](#) | Waking up the "sleeping giants", URBAN GUIDEBOOK for the Reactivation and Reuse of larger vacant buildings

Networking

- OWHC programme [City2City](#), a program that encourages cooperation between member cities of the OWHC
- [URBACT](#), EU funding programme for city exchange and networking to support cities to develop integrated practices for a shared challenge.
- [European Urban Initiative](#) (EUI), EU funding programme to support city-to-city exchange and peer reviews between cities.
- [European Heritage Hub](#), it gathers diverse expertise and pool resources to mobilise and strengthen a cultural heritage-driven movement in Europe.



Programme

12.10.2023

09:30 **Welcome**

- Welcome, Dries Vanbelleghem, Director of Department of Urbanization and Environment, City of Bruges
- Welcome, Wolfgang Dersch, City council member and head of the cultural department, Regensburg; Matthias Ripp, OWHC Secretariat Northwest Europe and North America
- Introduction to the thematic day: Nils Scheffler, Urban Expert

10:00 **Keynote speech 1**

- Swords into ploughshares: equipping cities for climate resilience
Graham Bell, UK member of the board of Europa Nostra
- Q&A with audience

10:45 Coffee Break

11:15 **Keynote speech 2**

- Adaptive reuse projects with social impact, Michiel Van Balen, Miss Miyagi
- Q&A with audience

11:55 **Panel discussion with keynote speakers**

- Graham Bell, UK member of the board of Europa Nostra
- Michiel Van Balen, Miss Miyagi
moderated by Nils Scheffler, Urban Expert

12:20 Group photo and Network lunch

13:30 Gathering for the workshops and walk towards the locations

14:00 **Workshops**

- Workshop 1: Béguinage – Intangible heritage as a resource for urban rehabilitation
- Workshop 2: English Convent – The conversion of religious heritage
- Workshop 3: Water canals – The function of the historic water infrastructure in the city centre in past and future

16:30 Coffee Break

17:15 **Official inauguration 'Flemish Béguinage: 25 years of World Heritage'**

- Mr Dirk De fauw - Mayor of the City of Bruges
- Mr Bruno Marchand - Mayor of Québec and President of the OWHC Board
- Mr Peter De Wilde - CEO Flanders Heritage Agency

18:30 Break

19:30 **Dinner**



13.10.2023

09:30 **Welcome**

- Introduction to the morning programme: Nils Scheffler, Urban Expert

9:40 **Joint reflection on the day before**

- Domino game
 - What have you learnt yesterday? What was most interesting and inspiring for you?
 - What do you take home for your work in this respect? What does it mean for you work?

10:30 **Exchange & Learning about historic urban areas, climate change and climate mitigation – Part 1**

- Exchange where cities are with regard to climate protection and climate adaptation of their historic urban areas

10:45 **Coffee Break**

11:00 **Exchange & Learning about historic urban areas, climate change and climate mitigation – Part 2**

- Workshop table
 - What opportunities offer historic urban areas for climate protection and climate adaptation? What constraints are they subject to and how could they be dealt with?
 - What should you do to start off with the topic climate protection and climate adaptation of historic urban areas? What can be first steps and actions?
 - What could be interesting projects/activities to advance climate protection and climate adaptation in your historic urban areas?
 - Who are important stakeholders to collaborate with? Who do you need for what?

12:20 **Farewell**

- Farewell, Matthias Ripp, OWHC Secretariat Northwest Europe and North America

12:30 **Network lunch**

13:30 **Gathering for optional visits**

- Gruuthuse-museum
- Conservatorium
- BRUSK

