

## BEIRUT POST-BLAST RECONSTRUCTION

### Climate-Heritage Planning to Build Back Better

*Urban Thinkers Campus - 17/03/2021*

On the 17<sup>th</sup> of March 2021, the Urban Thinkers Campus (UTC) on “Beirut Post blast reconstruction: Climate Heritage planning to build back better” tackled the dual concerns of cultural heritage preservation and climate change in the context of Beirut’s post-blast reconstruction, the aim being to Build Back Better. The UTC program was launched for the implementation of the UN New Urban Agenda (NUA) adopted in 2016 and the 2015 Sustainable Development Goals (SDGs), to be achieved by 2030. This UTC was the fifth of a set of conferences discussing urbanism and climate change. This webinar follows multiple conferences and debates which all contribute towards an integrated vision to achieve Beirut’s reconstruction. Most importantly, this seminar was organised in the wake of a conference organised on the 14<sup>th</sup> of March 2021 by the Order of Engineers and Architects of Beirut, which reiterated the Beirut Urban Declaration and strengthened it by disclosing 10 concrete proposals for immediate action to rebuild, rehabilitate and revitalise the neighbourhoods hit by the blast.

The UTC was organized by ICOMOS in partnership with the American University of Beirut (AUB) and specifically the graduate programs in Urban Planning, Policy and Design (MUPP/MUD) in the Department of Architecture and Design and Maroun Semaan Faculty of Engineering and Architecture (MSFEA), the Institut Français du Proche-Orient (IFPO), the Metropolitan and Territorial Planning Agencies global network (FNAU-MTPA) as well as the Institut Paris Region (IPR). The two round tables gathered local institutions (Mohafat of Beirut, Urban planning Directorate from the ministry of public works and transportation, Antiquities Directorate from the ministry of Culture and Agriculture, Order of Engineers and Architects of Beirut), international organizations (UN-Habitat, UNESCO, UNDP, World Bank), experts (Institut Paris Region, Khatib we Alami, URBI), academicians (AUB, IFPO), and NGOs’ representatives (ICOMOS Lebanon, Climate heritage Network, Gaia Heritage) of the heritage, urban planning and climate sectors.

### Context

The blast that occurred on the 4<sup>th</sup> of August 2020, taking off at the port of Beirut, the heart of the city, and expanding within a 2-mile radius, took the lives of more than 200 persons, wounded more than 6,000 and dislodged hundreds of thousands of others. The explosion also damaged over 8,000 buildings, mostly concentrated in the historical centre, of which 640 are of heritage value and 80 are now at a risk of collapse. Moreover, 64 art galleries, 20 libraries, 713 creative industries and 3,500 creative industry jobs are threatened. According to the European Union, United Nations and World Bank co-written ‘Lebanon reform, recovery and reconversion framework (3RF)’, damages are estimated at 3.8 to 4.6 billion USD, with the housing and the cultural sectors most severely affected. This urban crisis added to an already critical situation within the country, which is facing political, social, economic, and sanitary difficulties, leading to the collapse of essential public services. The reconstruction process is made even more arduous by the weakness since the blast of the national government and unsteady local institutions that are unable to coordinate funds, workers, volunteers, and most importantly to inspire trust within the population. However, aid has come in the form of more than 500 NGOs and institutions that have mobilised, alongside the population, the Lebanese

army and the Mohafez of Beirut. Dialogue and coordination between all these actors are critical to ensuring an integrated vision and response to the disaster.

Urban planning is at the heart of the politics of reconstruction as it impacts physical and social dimensions. However, despite its rich historical background and urban fabric, Beirut has had over the last decades a chaotic urban history. The 1954 urban plan known as ‘zoning’ attributing high occupation coefficients to ancient districts provoked an increased pressure and urban densification in the historical districts. The post-war reconstruction after 1990 was characterised by the *Solidere* plan, favouring the construction of modern buildings and the gentrification of neighbourhoods, resulting in the disappearance of countless historical buildings and in the displacement of local communities. A master plan already exists for Beirut metropolitan area but has never been applied due to lack of political will. Thus, Beirut has also been plagued for decades by the absence of a coordinated urban planning and public policy.

## Aim of the UTC

This UTC aims at mapping recommendations for the reconstruction of Beirut to Build Back Better, but also to position this recovery framework within Lebanon’s and Beirut’s specific context, assets, and drawbacks. This webinar was intended to lay out some creative solutions, alternatives, and recommendations towards rebuilding the city, while keeping in consideration one of the most critical challenges yet to be faced: climate change. The destruction might give the city of Beirut an opportunity to Build Back Better in acknowledgement of the rising climatic crisis, whilst being respectful and at the service of the public and its interest. The recovery process must be mindful of both climate change and the historical and cultural fabric of the city. Sustainable development and cultural heritage are not opposed but rather complementary. Although the explosion was, without question, a disaster, a blessing should be extracted from this evil as an opportunity to integrate within a new urban design and planning actions to adapt to the unavoidable consequences of climate change, but also to mitigate its impact. Cultural heritage should equally be one of the major stakes in the recovery process as a tool for physical, social, and economic reconstruction, but also as it is at risk from climate change.

## Principles

The integrated vision for Beirut’s reconstruction and this UTC are premised on the assumption that it is desirable to create an inclusive urban context in which the development model is redistributive and socially just, protective of heritage, and ecologically sound. As such, the rentier model that has dominated the growth of the city over the recent decades must be questioned. The historic neighbourhoods that were damaged by the blast used to precisely challenge this landowning rentier model, by making an adaptive economic re-use of its cultural heritage, attracting successfully creative industries, cultural and tourism activities and relatively maintaining a social variety. In addition, given that the post-blast recovery is occurring in the shadow of the breakdown of public institutions and a major financial meltdown, it is unlikely that any large-scale traditional master-planning will be possible or useful. Every disaster is unique, and no general action plan can be made applicable to every situation but must be fitted to each specific case. Guidelines are not all adapted to Beirut and recommendations need to be customized before they are applied to the Lebanese capital.

Most of the recommendations were based upon principles that are characteristic of the UNESCO and World Bank CURE framework: people-centred and place-based policies with sustainable physical and socio-economic recovery. As mentioned by Yasmine Makaroun, such a CURE framework should be applied to Beirut’s situation, and customized to its specific needs and context. The contribution of this

webinar were characterised by other prevailing principles and needs, such as the interconnectivity between all the neighbourhoods, to be respectful of the past and open to the future, to be environmentally sound, to rethink the institutional mechanisms, to coordinate sustainable reconstruction and to strengthen the role of local and central agencies. Objectives were added to those such as to stress the reconstruction of Beirut on Climate Heritage Planning, to offer an opportunity for dialogue, to give perspective for the implementation of the Declaration of Beirut, to summarize previous initiatives and debates and to share the best practices for innovation in climate resilient urban planning.

This conference was divided between two panels, the first one focusing on climatic and urban planning challenges, but also opportunities and recommendations, and the second one justifying how heritage has a crucial role to play in both the physical and social reconstructions, as well as in climatic resilience.

### **Introduction**

**Eric Huybrechts**, ICOMOS-CIVVIH, Institut Paris Region, FNAU-MTPA: Presentation of the UTC

**Teresa Patricio**, President of ICOMOS

**Christine Knudsen**, Director of External Relations, Strategy, Knowledge and Innovation, UN-Habitat

Marwan Abboud, Mohafez (Governor) of Beirut: Introduction

### **Panel A - Climate resilient planning**

**Kamel Dorai**, IFPO: Introduction

**Fouad Awada**, Director general of Institut Paris Region: Keynote speaker

Speakers: **Fadi Saliba**, Directorate of Urban planning of Lebanon  
**Jad Tabet**, President of the Order of Engineers and Architects of Beirut  
**Vahakn Kabakian**, UNDP  
**Georges Abi Sleiman**, UN-Habitat  
**Karima Ben Bih**, World Bank  
**Mona Fawaz**, MUPP-MUD and Beirut Urban Lab /AUB  
**Edgard Mourad**, Khatib & Alami

Questions/answers

### **Panel B - Culture and Heritage**

**Serge Yazigi**, AUB: Introduction

**Yasmine Makaroun**, ICOMOS Lebanon: Keynote speaker

Speakers: **Karim Hendili**, UNESCO Task force for the Reconstruction of Beirut  
**Habib Debs**, architect and urban planner, URBI  
**Christianna Johnnides Brotsis**, World Bank  
**Andrew Potts**, Climate Heritage Network  
**Howayda Al-Harithy**, MUPP-MUD and Beirut Urban Lab/ AUB  
**George Zouain**, Gaia Heritage

Questions/answers

## Speakers

**Teresa Patricio** (architect, President of ICOMOS) explained how ICOMOS was one of the first NGOs present after the blast to witness the complex and large-scale destruction of heritage sites dotted around the city. They assisted the inhabitants during times of emergency by giving logistical support and technical advice. In this context, it was urgent for them to draw some guidance for the recovery, but mindful of the environmental issues and sustainable development. Climate is one of the main current concerns of the ICOMOS who just dedicated to it new talking groups as well as a publication, *The future of our past*. ICOMOS also released several guidelines on post-trauma recovery, as well as the analysis of some case studies in collaboration with ICCROM, presenting the opinions and advice of international experts. Their analytical approach highlights crosscutting issues and promotes the involvement of local communities to ensure their recovery and sustainability. Teresa Patricio insisted on the historical and patrimonial value of the city of Beirut, being a crossroad of cultures, presenting numerous architectural heritages. This cultural diversity is constitutive of the city's identity and is one of its main assets, in terms of social but also economic benefits. The historic centre is crucial to the resilience of the city by creating social links. The historical fabric of the city must be preserved by restoring the historical buildings, using traditional building techniques, local crafts and knowledge which will boost a circular economy, but also include sustainable innovations.

*'Urban development is about thinking globally and acting locally'.*

**Christine Knudsen** as UN-Habitat Director of External Relations, Strategy, Knowledge and Innovation, Director of Emergencies, reminded the audience of the context of the Paris agreement on climate as well as the 2030 agenda for sustainable development that must be considered within any attempt of reconstruction. Amidst multiple crises, Beirut, as a capital city, must not forget that 'Climate change is the defining issue of our time' quoting the UN Secretary General. Climate is at stakes to determine and ensure future international peace and stability. In order to deal with all these issues, the reconstruction will have to solicit the potential of every actor, and will require a coordinated response on the ground, while maintaining a holistic approach in partnership with all the involved entities. UN-Habitat continues to engage on multiple fronts, aimed at enabling and contributing to a wider urban recovery at scale, while considering the multi-sector efforts necessary to do so. This includes ensuring that people have their most basic shelter needs met, undertaking housing repairs, rehabilitating schools and health care facilities, applying an environmental approach to debris management, while working in coordination with local authorities, communities and UN and non-UN actors who form part of the wider response and urban recovery efforts. Moreover, this situation must be used as an inspiration for other cases and create global debate.

*'Climate change is the defining issue of our time'*

**Marwan Abboud** (Mohafez of Beirut) reckons the multiple troubles that have befallen upon his country over the past few years, evolving beyond their capacities to be dealt with and calls for assistance. The absence of a national government following the explosion has curbed the recovery process and accentuated the already existing economic and sanitary pressures. He recalls that, a few months after the blast, one of the most deeply felt losses is that of heritage and identity as well as the ability of Beirut to safeguard its leading position as a cultural and creative hub. NGOs and public authorities have

aided since the first days the population in rehabilitating their homes to ensure their safe return to their neighbourhoods. To assume his role and responsibilities towards his fellow citizens he calls for an external helping hand for the reconstruction.

*‘Beirut shall rise again from the ashes with others’ assistance’*

**Kamel Dorai** (IFPO) recalled the different actions the IFPO led in collaboration with the French embassy following the catastrophe such as a partnership with the directorate of antiquities to help the reconstruction of old houses or the partnership with the urban lab of the UNDP and others academics to produce different reports.

**Fouad Awada** (Director general of Institut Paris Region) insisted on the strong link between climate change and urban planning, taking as example the city of Paris and the region Ile-de-France to suggest some recommendations that could be applied or inspiring to Beirut. Paris is currently revising its urban plan impacting over 2 million inhabitants at the municipal scale and 12 million at a regional one. Climate change and the preservation of diversity are new imperatives to be considered, alongside economic, social and health ones. The rise of temperature and of the subsequent sea-level, as well as more frequent and violent climatic events, can have disastrous consequences on the urban landscape and must be addressed today in a coherent response. Cities are becoming unbreathable, subjected to heat islands, and to an altered water-cycle provoking both draughts and floods. Two objectives are outlined: a short-termed objective is to adapt to these changes, and a long-termed one is to mitigate climate change. In the Ile-de-France region, for example, the new urban development program aims at reducing the mineralisation and artificialisation of soils which increase flooding in winter and heat in summer and hence endanger vulnerable populations and intensifies energy consumption through air conditioning devices. Active renaturation and de-mineralisation policies were enforced, additionally to an open ground ratio for construction operations which compels the builder to preserve 30% of the area in its original natural state. The aim is to have by 2050 a net zero artificialisation of soils by a renaturation of an equivalent surface. The use of bio-based construction materials, bioclimatic architecture and the energy renovation of already standing buildings is also recommended. These measures will reduce the impact of global warming on the inhabitants, as well as reduce their energy bill.

The question set forward is whether Lebanon can apply these recommendations to its own situation? One day this choice will no longer be available due to international treaties on climate change, consequently Beirut might as well adapt now and take the reconstruction as an opportunity to move towards climate and energy sustainability. It is necessary to bring back nature within the city, to prohibit mineralisation and to stop air conditioning outside. A tax policy could be devised on buildings, attributing bonuses to those saving energies, for the choice of biomaterials or reused ones and for thermal insulations. Moreover, urban extension must be curbed by favoring the reuse of waste lands. However, such urban energy proposals are not to be isolated from the wider Lebanese context, whose main CO2 emissions are produced by the transportation sector and the fossil fuel produced energies. Consequently, a whole reform on the energy sector must be acted in favor of a long-term plan promoting renewable energies, avoiding waste and renovating the distribution network. The transportation sector must also be revamped by encouraging the creation and use of train lines along the coast and metro lines within greater Beirut. This would encourage the reduction of single-car users and car traffic for the benefits of pedestrians and bicycles. However, all these proposals would



require a willing and committed central government capable of thinking in the long-term and of enforcing such measures.

*‘It’s all about the commitment and the sincerity in the commitment.’*

**Fadi Saliba** (Directorate of Urban planning of Lebanon) first pondered on the role of the port of Beirut, the city center, as well as the blast starting point. This incident is the opportunity to reconsider the role of the port in the Lebanese and Middle-East economy in the context of accelerating geopolitical variables. The port and its use are thus to be understood and studied beyond Beirut but in the context of the whole country and geopolitical region. A new transport plan is to be designed to link to areas beyond Beirut for transit and to fuel the economic assets to more remote parts of the country. The second part of his intervention dwelled on the crucial role material property holds as a guarantee in Lebanon facing an unstable national currency. He questions the capacity that construction ratios might have to regulate Beirut limited and pressured urban space. Indeed, local owners will feel a loss of rights which is bound to generate conflicts. Moreover, the disparities between the different municipalities will only hinder any decision-making process, as their general approval is necessary for any decision, unless the matter is submitted to the council of ministers. Each municipality has very different aims and directives and cannot be considered as a whole but dealt with independently respecting their singleness.

*‘The problem in Lebanon is not the lack of expertise, knowledge or report, but of political will’*

**Jad Tabet** (President of the Order of Engineers and Architects of Beirut) preferred not to include the issue of climate change in his contribution as he considered the issue too broad for the scale of the reconstruction of Beirut, in order to concentrate on more urgent issues at hand. Climate change should be addressed at national and regional levels, but not in the context of a municipal pressing reconstruction. Since the 4th of August, the Order of Engineers and Architects of Beirut played a major role and several experts were assigned to the affected neighbourhoods to assess the damages. They launched a survey of the area in cooperation with the local actors, the army, the local authorities and helped data collections, including heritage buildings. Meanwhile, they also published the ‘Beirut Urban Declaration’ for the reconstruction in October. He drew up some ideas and starting points for an integrated vision towards the protection and revitalisation of the urban fabric in a sustainable perspective. Such suggestions include the rehabilitation of heritage, the development of public space, the preservation of distinguished cultural identities, the reformulation of the relationship between the port and the city. Moreover, their order, following another workshop, published a set of 10 concrete recommendations to be executed immediately.

**Georges Abi Sleiman** (Environment Focal Point and Urban Planning Assistant at UN-Habitat Lebanon Country Programme) gave an overview of a collaboration between the Shelter Programme at Arcadis Global and UN-Habitat. Under this partnership, Water Sensitive Urban Design Guidelines are being developed to provide a framework to guide the creation of climate resilient, safe, and inclusive communal spaces for Beirut's most blast-affected neighbourhoods: Gemmayzeh, Rmeil and Mar Mikhael. These guidelines take into consideration the local cultural and historical significance of the

neighbourhoods with the aim of reviving them into the lively commercial and touristic hubs that they once were.

The Guidelines contain a series of seven interconnected idea sparks (“Rmeil Green Line” concept) that envision the revitalization of the areas’ public spaces and water infrastructure by incorporating innovative ways to mitigate stormwater run-off and flooding while creating a water cycle that not only improves drainage and waste and stormwater management, but also improves living conditions of residents and well-being through public spaces. A socio-economic framework and cost and time estimates are also developed.

Among the seven idea sparks, three were presented during the session:

- **Idea Sparks 1 & 2: Street Regeneration & Parklets**

Armenia, Pasteur and Gouraud are known for narrow and crowded sidewalks (F&B businesses take over much of the available space for their customers), congested and unmarked street-side parkings, non-permeable surface material for two-way travel lanes and the lack of pedestrian crossings. To address this, Arcadis and UN-Habitat have proposed to integrate parklets within the streets, introduce urban public furniture (e.g. bike racks, benches and trash bins) enforce a one-way traffic rule and promote alternative/sustainable means of transportation through wider sidewalks and two-way bike lanes. Additionally, these two idea sparks plan to increase water retention through green and communal spaces and the use of permeable material; and enhance walkability, security, and accessibility for all through consistent community engagement from beginning to end.

- **Idea Spark 6: Saint Nicholas stairs**

Saint Nicholas’ stairs have long been a meeting point and public space for the residents of Gemmayzeh. The Arcadis/UN-Habitat idea spark plans to revitalize them into a green communal space that maintains its historical character, fosters social exchange and inclusion, reduces the heat island effect and amplifies localized water retention and channel surface water runoff via innovative water and landscape channels.

**Karima Ben Bih** (urban and disaster risk manager at the World Bank) first recorded the World Bank’s involvement prior to the explosion in Beirut, including projects on cultural heritage and urban development, as well as mapping the geographical and climatic risks the city could be facing (sea level, flooding, seismic). A conference in Beirut in 2019 explored the strategies for long-term urban resilience planning. After the explosion their engagement went into assessing the damages, mapping the affected sectors to draw recommendations and define priorities for immediate measures to protect the most vulnerable populations, help people access housing needs and reintroduce public services. The World Bank wants to promote an integrated approach for recovery within the greater framework of the whole Middle Eastern and South Mediterranean region. All the concerned countries are deeply entangled by climatic concerns since 65% of their population lives in urban areas and generates 70% of the countries’ GDP while consuming 80% of the energy and producing 60% of the greenhouse gases emissions. These numbers are expected to grow as time goes. However, half a meter of sea-level rise is predicted which would jeopardize 80% of their industries. Therefore, information and collaboration are key at every level, sectorial, national and subnational. However, most decisions are in the hands of cities, the hubs of innovations, thinking and power, but will impact different levels of actions and implementation, requiring internal and external collaborations. In the case of Beirut, an integrated

approach is needed between the port and the city. It is also necessary to revitalise the city for jobs, homes and cultural activities in an inclusive and participatory manner. She outlined three priorities: restore liveability, enhance competitiveness, and build resilience.

**Mona Fawaz** (MUPP-MUD and Beirut Urban Lab /AUB) started her intervention by recalling the dire situation and low starting point for the rebuilding of Beirut, plagued by undernutrition, the closure of shops and businesses or the growth of refugees under the poverty line. She relativises all the inspiring theoretical urban management plans that might be designed but that are too often unrealistic and ineffective when they are not followed up, outdated or by the lack of funding. She mentioned an already existing resiliency plan that failed to be effective and the time required to implement anything. Moreover, she highlights the limits of planning and of a regulated built environment. For example, building permits only have a limited impact as they only measure square meters that people can build on without considering green spaces or the people's interests and needs. In Lebanon, landowners make the rule and rent parcels of land or housing for the highest price as possible as the only viable economic strategy. This artificially maintained system is now running out of steam and must be reevaluated and discarded. A new language in relation to construction and planning is needed as well as a custodian of the common good to enforce the rules of the exploitation coefficient. The prerequisite for a resilient and better reconstruction is to capsize the dominating role of the owner to place the common good forward, including environmental measures. The issue is not the lack of studies and expertise but of custodian and regulation. The role of the university of Beirut is the creation of knowledge and its general diffusion. It then creates a public debate to encourage a consensus and common understanding, to propose concrete plans. The role of the experts and academicians is to rebuild the trust between the municipalities and the authorities.

*'Green is not a luxury but a necessity.'*

**Edgar Mourad** (Director of Urban planning at Khatib we Alami) focused on the port, considering that the reconstruction must be twofold: first the port and then the surroundings and the city. The reconstruction, and the role of the port, must take into account the regional context and situation of this commercial facility. Beirut is historically a transit port which importance diminished with the competition of alternative destinations such as Tripoli, better located on the Mediterranean maritime and terrestrial transportation corridor. A complete refurbishment without including these factors would be a waste of money as well as environmentally destructive. The ecological impact of maintaining Beirut as a major transit harbour will not be equally balanced by economic assets. Beirut's port should concentrate its activity on containerisation on a medium scale and relocate to Tripoli oil and gas transit. Although the port cannot maintain a regional importance, it is still crucial to the national economy and conducts most of Lebanon's exports and imports. There is hence no need to expand the size of the port but to specialise it and make it more efficient by speeding up the time of transit by reducing customs and creating free trade zones. This will increase the activity without expanding its ground hold. Moreover, the army held basin could be freed up for public and touristic access. There is also a necessity to create a national port authority and to write criteria that will be used to negotiate with private partnerships that are doubtless to be attracted by this lucrative space and activity.

**Vahakn Kabakian** (Climate change adviser UNDP) explained his role to support governments in reducing gas emissions regarding the oncoming 2030 targets. The reconstruction of the port, and of the rest of the city, must consider the rise in sea-level and think ahead of the consequences of climate



change to not face them later when they strike. The infrastructures need to adapt now to these future challenges. The same can be said for the rise of temperature and the need for green spaces and energy efficiency to cope with that. Therefore, it would not be productive to rebuild the same, but to build back better by adapting certain structures with photovoltaic energy panels on roofs for example. The destruction is an opportunity to incorporate items that are necessary but that could not be integrated beforehand in the ancient structures.

*‘We are not rebuilding from zero, but we can incorporate the better.’*

**Serge Yazigi** recalled the importance of heritage in the reconstruction of Beirut and the role of AUB to support the efforts of the communities.

**Yasmine Makaroun** (ICOMOS Lebanon board member) explained the major role of ICOMOS -Lebanon to play in the heritage recovery of the city which started by developing doctrines and advocating for them. They assisted the Directorate General of Antiquities in making an inventory of all historical buildings damaged, as well as in collecting archives and documentation in order to implement a rescue plan. The ICOMOS Lebanon served as a relay-point to advise other NGOs such as Aliph, ICOMOS and ICCROM to coordinate funding, train volunteers and to conduct first-hand studies and assessments.

The Urban Agenda SDG11 recognized urban and cultural heritage as important factors in urban sustainable development with references to the roles of intangible and tangible cultural heritage in tourism, poverty reduction, and employment. Cultural heritage is thus a major component of the quality of life and plays a vital role for the societies and community’s wellbeing. The loss of such cultural heritage will impact the communities for several reasons:

- Cultural Heritage as an important symbolic and material value for a community’s identity
- Cultural Heritage has socio-economical value for the city
- Cultural Heritage as source of resilience for the communities

Therefore, cultural heritage should be a focus point for the reconstruction and development of the city. This attention is not exclusive of the new climate change imperatives, as climate change is a threat to both people and heritage. Consequently, heritage should adapt to climate change by foreseeing the inevitable loss and damages incurred by global warming.

**Karim Hendili** (head of Culture program at the UNESCO Office for the Maghreb and member of the Task force of Li Beirut initiative) started his presentation by a reminder of some of the first figures, collected just after the blast, about the latter’s impact on Beirut’s cultural heritage. Indeed, the very early assessments showed that out of 8000 buildings affected, 640 of them were of heritage value and 80 were at a risk of collapse, while 64 of the 88 existing art galleries, 20 libraries, 713 creative industries and 3,500 creative industry jobs were also affected. The first estimated amount just for the recovery was USD 310 million (the needs are higher) and has increased since then. He advocated that the recovery of Beirut is standing on two culture related components: the safeguarding of cultural heritage in all its forms and the revitalization of the cultural life.

The safeguarding of heritage would entail a minimum estimated budget of 70 to 100 million USD. After a process of assessment and documentation, concrete actions were taken for the consolidation of buildings and the protection against the weather. In the long term, an updated legal framework is required to work towards the improvement of the situation but also to have a political backing behind all actions. Moreover, any intervention must reach beyond just the damaged area but needs to be holistic and englobe all Beirut.

The revitalization of the cultural life and of the creative economy is also a major prerequisite for the physical and social reconstruction of the devastated city. Indeed, culture is a vector of social cohesion and a tool for the promotion of tolerance, notably by preventing radicalization. Moreover, the creative industries foster income generating activities often involving remote areas, women, and young people. Action is needed to rehabilitate the damaged culture related spaces and equipment to maintain existing creative jobs and avoid an exodus of creators and artists. Meanwhile, temporary spaces could be made available for the exercise and display of creative activities.

Both pillars fit within the new environmental framework, as cultural heritage is an entry point for the SDGs. Based on the 2018 and 2016 UNESCO global reports 'Re-shaping cultural policies: advancing creativity for development' and 'Culture: urban future; global report on culture for sustainable urban development', he asserted that 'people-centred cities are culture centred spaces', that 'quality urban environments are shaped by culture and lastly that 'sustainable cities need an integrated policy making that builds on culture. A territorial holistic approach is equally necessary to consider all the scales from the monument to the city and from the city to the territory and all the actors involved and their interactions. A process of advocacy towards decision makers in view of integrating culture in urban development must be implemented to adopt strategies and planning at both national and local levels. This can be done through the implementation of international normative instruments ratified by the country to reinforce the national institutional and legal frameworks.

Heritage is not opposed to development, on the contrary, it can be a driver of development. Culture should be considered as a long-term investment rather than just an expenditure. This change of paradigm can be carried forward, for instance, by a change in the used language from 'in charge of' to 'concerned by' culture.

*'Having a culturally dynamic context does not necessarily mean having a cultural policy, the latter being the expression of a vision about the role that culture should have in the development of a territory, be it a city or a country.'*

**Habib Debs** (architect and urban planner, director of URBI) highlighted the conflict between two potential development models: to adopt a productive development model based on tourism and creative industries opposed to the land and property rent-based development model that has guided the city's growth since the 1990's.

He advocates for the first one by asserting that historical districts can reuse their cultural heritage and maintain their heritage landscape which is a major stake regarding climate. Such a policy would attract creative industries, cultural and tourism activities as well as maintain the social variety of population. Among these historical centers, corridors of freshness and cool green islands can be preserved and even enlarged. The second model raises the threat of high-rise buildings with higher energy consumption hence generating heat islands and that rarely contribute to the street and the economy of the local life.

As Beirut is already a heat island, few proposals have already been made to contain this issue. For example, the Fouad Boutros highway project has been opposed in favor of a green corridor. This will enable the preservation of the remaining agricultural and natural spaces in the heart of Beirut. Similarly, the hitherto abandoned Mar Mikhail train station could be rehabilitated into a fresh island and be opened to the public, an easy and affordable opportunity to cool down the city. Beirut already has a very dense urban fabric, which should not be accentuated, but refreshed with more green spaces and a climate efficient reconstruction.

**Christianna Johnnides Brotsis** (World Bank) discarded the outdated opposition between culture and development. Culture is the foundation upon which cities like Beirut are built. Urban culture does not include just buildings, but also people, their stories and how they interact with one another. To enable communities to reconnect with their culture is to regenerate their sense of identity, thus helping the process of recovery and development. The blast hit the heart of the creative community and a CURE framework, with its place-based and people-centered approach can help to maintain both tangible and intangible heritage, diversity and creativity. Moreover, the commercial benefits from the cultural industry will directly go towards the communities and encourage a sustainable city.

*‘The greenest building is the one that already exists.’<sup>1</sup>*

**Andrew Potts** (ICOMOS and Climate Heritage Network) focused on the fight against climate change that needs to be taken in a global context. Every building, whether historical or not, and every community, is at threat due to climate change and needs to pursue transformative changes. Climate change is an anthropogenic problem (created by people) and therefore will only be solved by people. Cultural heritage has a role to play in that fight, as it drives communities in a people-centred approach to create self-resilient, inclusive and sustainable cities. Heritage also promotes reuse, conservation, circular economy and the reduction of waste, actions crucial to tackle environmental issues, and these strategies should be incorporated into efforts to ‘Build Back Better’ in order to accelerate green transition. It also works on the long-term, within a multigenerational timeframe.

Following the 2019 ICOMOS report ‘The future of our past’, written in the context of the Paris agreement, in March 2021 was launched a new report ‘European cultural heritage green paper’ in the lead of the European green deal. This new paper endeavors to bring cultural heritage perspectives to every climate needed action. Moreover, the Climate Heritage Network seeks to increase a cross discourse between culture and climate.

*‘Climate change is an anthropogenic problem and therefore needs to be solved by people.’*

**Howayda Al-Harithy** (MUPP-MUD and Beirut Urban Lab/ AUB) pointed out the dire need to reconceptualise heritage, to extract it from the regular prism of ownership, identity and memory. Those attributes are still valid but need to be redefined. The role of heritage for social memory is no longer to be proven. However, memory was too often understood through the lens of disciplinary memory which is different from social memory. A disaster such as Beirut’s blast alienates populations from their own culture. It is hence urgent to reconnect people back to the places linked to their heritage. There is an urgency to reconstruct and design open places of social significance that bring communities together. Open places are to be privileged over buildings since they are the privileged places where people relate, interact and create new memories, thus tackling cultural alienation. Industrial neighbourhoods, refugee camps are also social memory places, and need to be included within the definition of heritage.

People have the possibility to select what they want to remember from the past. We need to think of a new framework involving people and how they want to link themselves to places. The citizens must partake in the recovery process through a bottom-up approach, taking part in research and designing work.

<sup>1</sup> Carl Elefante, former president of the American Institute of Architects.

**George Zouain (Gaia Heritage)** dwelled on how start-ups in Culture and Creative Industries (CCI) and the creative economy at large can become again a leader in the regenerating abandoned urban places. The political and economic weight and ownership of land issues must be set aside for the benefit of the population, considering that the role of municipal authorities being that of balancing between real-estate development and the needs of the city's inhabitants. Such an approach would tackle the issues of the gentrification of districts and of high-rise buildings replacing smaller houses and businesses. He raised the problematic restoration focus on monumental architecture, whereas Beirut's historical fabric is mainly made of vernacular, small scale-architecture, regrouping churches, stairs, and small public places. These elements are crucial for the cultural identity of the communities. Moreover, the local and small-scale economy is vital for employment and to provide for basic life necessities. Therefore, and in the present large-scale destruction of whole districts of Beirut, multiple small-scale projects funded by external donors are more relevant than the sole restoration of historic and picturesque houses.

## Recommendations

Several recommendations were proposed by the different speakers and organised as follows.

### Urbanism and climate change

In order to build Beirut back better as a resilient and sustainable city, climate change concerns must be integrated within the urban reconstruction and development master plan. Cities, as hubs of innovations and power, must be at the heart of the transition towards climate resilience. Urban planning is therefore one of the key responses to curb climate change. Such adaptation would have a dual objective: adaptation to, and mitigation of, climate change. The destruction of Beirut's urban fabric must be an opportunity to integrate within the reconstruction energy saving elements that could not be added beforehand, in order to prepare the city for future challenges. The new urban master plan must consider every districts of Beirut, and particularly the port, the epicentre of the explosion, but also integrate Beirut into a wider national, regional and global context. Indeed, the reconstruction program must not only be of benefit to Beirut but to the country as a whole.

#### 1) *Urban planning*

1. The reduction of artificialisation and mineralisation of soils and the promotion of their renaturation are crucial for a city facing a rise in temperature and a loss of biodiversity. An open ground ratio should be created, and the reuse of waste lands should be favoured for any new construction to stop the spread of mineralisation.
2. The renaturation of urban spaces must be enacted by the creation of green corridors, mainly within the historic centre, to curb the 'heat island' effect. Green public spaces and green corridors should be developed such as in the hitherto abandoned Mar Mikhaïl train station and on Fouad Boutros highway. This could be accompanied by an improved water drainage system to avoid floods and draughts characteristic of weather hazards and provide better access to water and adequate sanitation.
3. These measures must be considered within the wider Lebanese context and the national energy sector must also be reformed to adopt renewable energies, reduce waste and improve the distribution network.
4. The transportation sector must also be revamped by encouraging soft mobility (walking, cycling, public transportation) and limit the place of the car in the city.

#### 2) *Buildings*

5. The reconstruction of the city must take into account the rise in temperature and must adapt the buildings to be energy efficient and energy saving. This could be done using biobased or reused construction materials, energy saving architecture and thermal renovation of existing buildings.
6. Tax policy on buildings insulation and energy savings could also be enforced, attributing bonuses to those saving energy. However, such regulations must be applied carefully to not deprive the owners of their rights by enforcing urban regulations and hence not to generate a sense of loss or alienation within the local population that will lead to conflict. A 'custodian of the common good' could regulate and implement the rules and coordinate all the stakeholders.



### 3) *The port of Beirut*

7. Although the port of Beirut has many assets, such as being the only deep-water harbour in the Eastern Mediterranean and being central to the country's economy and the city's international fame, it is facing alternative destinations more strategically positioned such as Tripoli. Therefore, Beirut's port activities should specialise in containerisation on a medium scale and the transit procedure should be accelerated by reducing customs and creating free trade zones so as to increase its activity without expanding its area. A complete refurbishment without including these factors would be a waste of money as well as environmentally destructive. Nonetheless, its activity should be preserved as it generates employment and riches for the whole country. The reconstruction of the port and of its subsequent activities must also bear in mind the oncoming rise of the sea-level.
8. A national port authority must be created to determine reconstruction and activity criteria and to negotiate with private partnerships that are bound to be attracted by this lucrative opportunity.
9. The port of Beirut should shelter a place of memorial for the explosion, an imperative to help the process of healing from this trauma and to encourage reconciliation without forgetting.

Overall, a wider reflection must be taken on the whole building, energy and mobility sectors. Rapid and far-reaching changes in the way we use buildings, design cities and mobility networks are required. However, in order to ensure the application of such changes a national agenda for climate change is necessary to implement it at all levels.

## Heritage and communities

The Urban Agenda SDG11 recognised urban and cultural heritage as important factors in urban sustainable development with references to the roles of intangible and tangible cultural heritage in tourism, poverty reduction, revenue generation, and employment. Cultural heritage is thus a major component of quality of life and plays a vital role in the wellbeing of the society and communities. Cultural heritage has a recognised crucial role to play in both the physical and social recovery process. In its physical reality, cultural heritage fits within environmental recommendations with an emphasis on the reuse of buildings, the conservation of already existing tangible elements, as well as on circular economy. In its social aspects, cultural heritage reconnects people to their urban landscape and preserves the identity of the affected communities. This is even more relevant regarding Beirut as it is a crossroad of cultures, presenting numerous architectural and social heritages, constitutive of the city's identity and one of its main assets.

10. The realm of heritage and the type of spaces it encompasses must be expanded beyond a physical and historical understanding to include more diverse spaces and practices which also have social significance. This starts by a systematic and meticulous inventory of the existing tangible and intangible heritage and of the communities related to them. Emphasis should be given to traditional knowledge and practices (including construction practices) that promote low carbon, place adapted, resource efficient strategies and values, and these should be incorporated into Build Back Better strategies and used to adapt to change climate conditions and reduce and avoid greenhouse gas emissions.

### 1) *Tangible heritage*

11. The rebuilding of the tangible historical buildings of the city is a priority facing many issues in terms of cost and time, as well as a selection of what to preserve and the definition of the procedures of destruction and reconstruction. Moreover, the safeguarding of heritage would entail an estimated budget of 70 to 100 million USD. The restoration of the historical fabric is, nonetheless, crucial to the resilience of the city as it creates social links. This reconstruction process must start by the consolidation of the buildings and their protection from the weather while simultaneously planning smaller scale rehabilitation of small buildings, and houses and public spaces.
12. A mere restoration of the historical fabric will not be sufficient, but a whole educational process will have to accompany it to demonstrate to the local population, and to other stakeholders, the benefits in restoring and regenerating historic buildings. Such education would increase and develop the knowledge of heritage buildings to extract their values, qualities, capacities and behaviours in order to work on them with an integrated approach.
13. The reconstruction and valorisation of the historical centre is essential to oppose the property and rentier model that used to rule the city. Changing this landowning paradigm would work in the people's interest by creating a sense of ownership and would curb the construction of new building that are contrary to the new climate imperatives. The property and rentier landowning model raises the threat of high-rise buildings with higher energy consumption; hence generating heat islands and rarely contributing to the street and the economy of local life.
14. Furthermore, the restoration must be done using local techniques, crafts and expertise. Such methods would have multiple benefits, including the involvement of the local population, the preservation of distinguished cultural identities, and climate efficient reconstruction reusing the old fabric and boosting a local circular economy.

### 2) *Revitalisation of the cultural life and of the creative industries*

The revitalisation of the cultural life and of the creative industry is also a major prerequisite for the physical and social reconstruction of the devastated city, for an estimated budget of 15 million USD. Indeed, culture is a vector of social cohesion and a tool for the promotion of tolerance that are essential to face future crisis.

15. The cultural and creative industries must be protected and revitalised as both social and economic assets as they will lift the national and local economy and provide employments and maintain Beirut as a cultural and creative hub. Moreover, the creative industry fosters income generating activities in a variety of trades often involving remote areas, women, and young people. Action is needed to rehabilitate the damaged space and replace destroyed equipment to maintain existing creative jobs and avoid an exodus of creators and artists. Meanwhile, temporary spaces could be made available for the exercise and display of creative activities. Such measures would respect the cultural significance of the local area and enhance its lively commercial and touristic activities.

### 3) *People and community centred*

16. The preservation of cultural heritage is as central as providing shelter and first-aid to a people-centred and place-based approach, two elements crucial to implement a CURE framework. The involvement of local communities will not only enable social, physical and economic recovery, but will also ensure sustainability and resilience. It is essential that the local communities are able to return to their own neighbourhoods and, whenever possible,

participate with their reconstruction, in order to foster ownership and inclusivity. Moreover, the reconstruction must fit the residents' priorities, needs and concerns.

17. In order to deal with all these issues, the reconstruction will have to solicit the potential of each actor, and will require a coordinated response on the ground, while maintaining a holistic approach in partnership with all the involved entities. Hence, there is an absolute need to build back the bridges and the trust between communities and institutions. The role of local authorities should be reinforced, notably in terms of coordination between institutions. Moreover, the disparities between the different municipalities will hinder the decision-making process, as their general approval is necessary for any decision. Each municipality has very different aims and directives and cannot be considered as a whole but dealt with independently.
18. To facilitate and accelerate the recovery process, small-scale initiatives with a bottom-up participatory approach should be prioritised over general urban reforms. The recovery process must be operated with small steps towards a long-term vision.

### III/ National and international engagement

This recovery process will require national and international support to compensate for the lack of internal government.

19. The international community can tap into its technical expertise and logistical support. A joint initiative with the UNESCO and the World Bank on a CURE framework and Historic urban Landscape (HUL) focused on an integral urban regeneration could be applied to Beirut. Furthermore, Beirut should be used as a case-study to draw up guidelines for future critical situations and generate global debate. Moreover, the cooperation among institutions concerned with urban development should be strengthened in such a way to ensure sustainability. All these institutions should engage in conversation over new legislation regarding sustainability and the preservation of heritage for a customised and revised master plan.
20. Institutions also need to develop the political will to, and awareness of, tackle climate change and preserve cultural heritage. Importantly, advocacy will have to be done in order to promote a structural change in the legal framework to encourage the shift towards energy resilient building and urban planning and towards a better preservation of cultural heritage. Therefore, a new and strong government, as well as strengthened and legitimate local authorities, will be required in order to implement the above-mentioned recommendations. This can be done through the implementation of international normative instruments ratified by the country in order to reinforce the institutional and legal frameworks.

This UTC has offered many propositions for urban development respectful of the environment and of cultural heritage and including its attached communities. However, although small-scale and local actions are necessary and recommended, a national commitment accompanied by a strong political will are essential to drive the reconstruction and the whole country towards climate resilient and cultural oriented policies.

This UTC will be followed by others contributing to draw an integrated framework for reconstruction and recovery to assist the Lebanese authorities in dire need of international support. On the 10<sup>th</sup> and

11<sup>th</sup> of April, another seminar will be held by the order of Engineers and Architect of Beirut to discuss the enactment of those and their own recommendations.

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