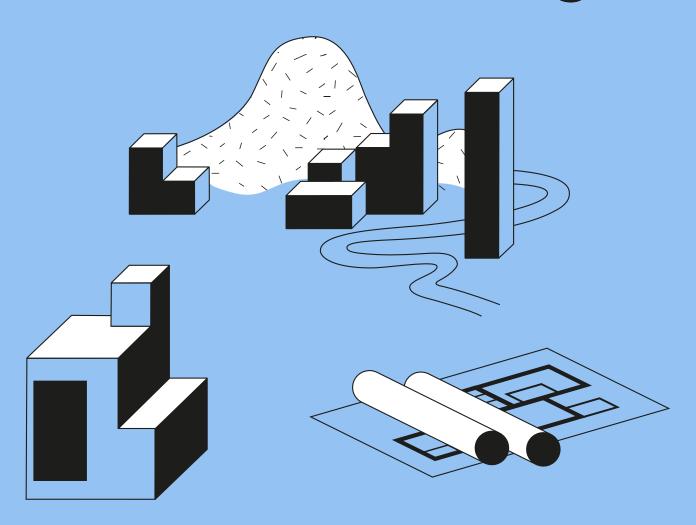
The Davos Baukultur Quality System

Eight criteria for a high-quality Baukultur — the whole story



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The Davos *Baukultur* Quality System proposes a multidimensional approach to defining the holistic concept of high-quality *Baukultur* and to assess the *Baukultur* quality of places.

It is a contribution to the ongoing Davos Process, which began in January 2018, when the European Ministers of Culture adopted the Davos Declaration "Towards a high-quality *Baukultur* for Europe". The Davos Declaration stresses the central role of culture for the quality of the built environment. *Baukultur* encompasses all activities with spatial impact, from craftsmanship details to large-scale urban planning and development of landscapes. The present paper builds on the Davos Declaration and deepens it in a scientific and political discourse.

High-quality Baukultur and the Davos Baukultur Quality System

The term *Baukultur* alone does not make a really specific statement about the required quality. Only high-quality *Baukultur* results in well-designed places that change in line with societal needs while preserving their historical characteristics. It focuses on social needs and sustainable use of resources and adds economic value. High-quality *Baukultur* is more than the absence of defects. Achieving high-quality *Baukultur* goes beyond fulfilling the defined technical requirements, like a desired programme, volume or material; it is equally important to reach a consensus about cultural values debated and defined by society.

High-quality *Baukultur* refers first to a place of any scale or configuration with superior quality, second to the high quality of the processes creating *Baukultur* and third to the excellent capabilities and competencies of all those involved in any transformation of the place.

The present Quality System aims to assess and improve the quality of *Baukultur* and is therefore committed to a high-quality *Baukultur*. It is a tool that assists in communication and indirectly in the implementation of a high-quality *Baukultur*. Space serves multiple purposes: artistic, aesthetic, cultural and social as well as environmental, economic and technical ones. High-quality *Baukultur* aims to maintain, develop and create places that are fit for purpose, sustainable, safe, comfortable and healthy for residential use, work, leisure or in-

frastructure. High-quality *Baukultur* brings people together and promotes social cohesion through specific and beautiful places. High-quality *Baukultur* thus promotes overall quality of life, subjective and collective well-being and a sense of community. All aspects of space need high quality, which ensures attractive, diverse and inclusive cities, villages and open landscapes.

Place

The Davos Baukultur Quality System uses the term "place" to designate the different types and scales of objects and situations, varying in time, scale, size and configuration, spanning the whole spectrum of the Baukultur concept: interiors, single and multipart buildings, urban fabric, neighbourhoods, a part of a village or a city, a region, infrastructures, public places, green spaces, cultural landscapes, all including their relative Context. It contains all spaces with a physical dimension - visible or hidden (e.g. built archaeological sites) - and created by human activities and experiences. However, a Baukultur place goes beyond the physical expression of space through built structures and in-between spaces. It is perceived as a dynamic, relational sociophysical construct. A place assigns meaning and triggers emotions, influences how people perceive, experience and value their built environment. Baukultur refers to all activities with spatial impact of all actors involved over time.

A place includes existing *Baukultur* – taking due account of built heritage – as well as projects, urban and landscape planning. Examples of projects are large-scale planning in urban development, the design of the transformation of an existing building or the planning of the construction of a new bridge. A place can find itself simultaneously in various project and process states. It often consists of heterogeneous component parts of various chronological layers and different historic and cultural values.

Baukultur and built heritage

Baukultur encompasses the whole building stock in its relation to society, including built heritage (immovable objects as monuments and built archaeological sites), gardens and open landscapes as well as today's building and planning for the future. High-quality Baukultur is not identical

with built heritage quality. Thus places assessed by the Davos Baukultur Quality System and judged as being high-quality Baukultur should not be mistaken for objects of an inventory or list of monuments. Both are complementary concepts, equally important for the maintenance and sustainable development of places, influencing each other but focusing on different aspects of built heritage. Where inventories and monument preservation in general concentrate on the significance of an object or site for a certain time period from the past and on its cultural-historical testimonial value, the Davos Baukultur Quality System and the concept of high-quality Baukultur in general aim at the democratic and inclusive connection of people in the built environment and take into account built heritage and its value for a high-quality space shaping the well-being of today's society. Aiming at high-quality Baukultur does not just mean protecting built heritage but integrating its substance and values in any planning and building activity makes it a valuable part of encompassing Baukultur and preserves it for future generations.

Objectivity

A place of high-quality *Baukultur* is determined by the values and quality requirements laid down in the Davos Declaration. High-quality *Baukultur* is elusive, but it is neither a subjective matter of taste, nor a purely formal issue. The individual experience of the quality of a place varies depending on the living situation, on prosperity or poverty, age and lifestyle. Yet common denominators and values of high quality can be defined and objectively assessed. Quality is a dynamic concept and depending on the time chosen, an assessment made about the quality of a place may be different. The specific situation must be considered.

Eight quality criteria

The Davos *Baukultur* Quality System proposes eight quality criteria, distilled from the Davos Declaration, with related principles of high-quality *Baukultur*, to assess the *Baukultur* quality of places. A place is determined by Governance, based on participatory democracy, with good processes and management of places. Functionality addresses the level of satisfaction of human needs and purposes. Respect for the natural Environment with mitigation of climate change contributes to the sustainability of a place. Economy with long life

cycles and long-term viability of places is an important component of *Baukultur* quality. Diversity ensures vibrancy and social inclusion. The particular spatial Context of a place with its physical and temporal characteristics, such as the shape and design of buildings, neighbourhoods, villages and landscapes and respect for built heritage has a great impact on the quality of a place. A specific Sense of place is created through social fabric, history, memories, colours, and odours of a place producing its identity and the attachment of people to it. Finally, places of high quality are authentic and respond to the human need for Beauty.

These quality criteria are all equally important. They may be weighted differently, taking into account the specificity of each place. Nevertheless, high-quality *Baukultur*, a choral expression of multidimensional aspects, requires consideration and quality statements for every single criterion. They address the different aspects of places and establish a comprehensive definition and assessment system. The various aspects of *Baukultur* can be clearly assigned to the eight criteria. Nevertheless, the individual criteria are interrelated and there are thematic overlaps in their content.

Quality assessment

The Davos *Baukultur* Quality System provides a framework for defining and assessing the *Baukultur* quality of places. It is the first approach to placing social, cultural and emotional criteria on an equal footing to more common technical, environmental and economic criteria. The set of eight fundamental quality criteria and principles is completed with questions to be answered. High-quality *Baukultur* is only achieved if there is reflection on all eight criteria in relation to a place and if quality statements are made for all of them.

Target groups

The main target public to apply a *Baukultur* quality assessment and the Davos *Baukultur* Quality System are *Baukultur* professionals. They are experts from public authorities and administrations as well as specialists in planning, design, construction, manual trades, reuse, conservation and restoration in both the public and private sectors; including investors, developers, owners and operators as well as professional associations in the field of *Baukultur*. These professionals and experts

are directly involved in spatial action and development. The assessment of quality shows them which quality requirements are already fulfilled and, in parallel, reveals *Baukultur* quality shortcomings, which are to be improved by fulfilling the quality requirements of the identified specific criteria.

However, the Quality System may also be used by non-specialised target and user groups from different backgrounds. *Baukultur* and its quality concerns all people and is visible, perceptible and experienceable every day in their living environment. It can help to raise awareness; it assists people to reflect on the quality of *Baukultur* and provides a tool to assess the *Baukultur* quality of a place.

Dialogue and discourse

Maintaining and improving the existing qualities of a place and creating new high quality must be the priority of any activity in space and the central aspect in any discourse on *Baukultur*. Continuous inclusive dialogue and professional and societal debate are important and there is a need for discussion on quality criteria and what constitutes them, to achieve a common and established understanding among people (experts and non-experts) of what distinguishes high-quality *Baukultur*. The Quality System contributes to this discourse.

Scope of the Davos Baukultur Quality System

The Davos *Baukultur* Quality System offers a basis to objectify high-quality *Baukultur* and scientifically deepen its concept. It is complementary to existing processes, tools, consultative bodies, legal systems and regulations. The possible fields of application of the Quality System are wide-ranging. It may be used:

- to disseminate and communicate high-quality *Baukultur* to the public;
- to represent a political and social message;
- as a guideline for citizens' workshops;
- to provide decision-makers with arguments;
- in various consultation and discourse formats;
- to be integrated into a political or legal framework;
- to be incorporated into existing activities and plans;
- to provide guidance;
- as a reference;
- as a quality criteria catalogue in competitions;

- as a quality criteria catalogue in design advisory boards;
- as a quality criteria catalogue in the evaluation of building and planning projects;
- to self-critically evaluate one's own projects;
- to document the success of planning processes in places.

In all these cases, the potential of the Quality System lies in taking into account and making transparent the complete and balanced consideration of central qualitative issues of *Baukultur*. Answering the questions of the Quality System can improve sensibility and recognition of places with a high-quality *Baukultur* among all societal and functional groups (experts and non-experts), build up knowledge and general awareness about *Baukultur* issues and promote debate in the broad public as well as in professional domains not yet gained for cultural and quality demands.

Assess your place!

The Davos *Baukultur* Quality System helps assessing the quality of *Baukultur* of any type and scale of a place, both of a project and an existing place. The assessors, whether it is a single person or a group of people, may need to adapt the questions according to the specificities of the place, while still considering and taking into account all eight criteria for high-quality *Baukultur*. The time reference of the assessment is always "today", which means that, depending on the place, either a grown condition with all its time layers, a just completed object or a planned intervention can be assessed.

Before starting the assessment, it must be defined which framework conditions exist for the assessment, which data are available, which time and knowledge expenditure is feasible or desired, which is the object of the assessment (the assessed place). Depending on these definitions, the questions of the catalogue are to be individually adapted and the answers to them will be more detailed, more specific and longer for certain criteria with comprehensive, available bases than for criteria for which only limited or partial bases are available and answers will therefore be more general, shorter and summarised.

The best results in assessment are achieved when the Davos Baukultur Quality System is completed in an interdisciplinary and participatory way. The concept of Baukultur is complex and, accordingly, the criteria to be assessed in a more detailed and objective manner are usually not manageable for one person or professional group alone. The Davos Baukultur Quality System therefore represents a useful instrument to stimulate interdisciplinary, cross-sectional dialogue involving specialists and non-specialists in administration, economy, planning and construction, cultural heritage, etc. as well as locals in the discourse on Baukultur quality, the goals and measures to achieve it and capacitating them to participate and co-decide and co-shape space feeling responsible for it. The questionnaire provides a low-threshold basis for addressing the issue in public workshops, etc. and may be helpful to create a dialogue between professionals and locals.

As a practical assessment method, the Davos *Baukultur* Quality System proposes a form to be filled in with answers to the questions for each of the eight quality criteria. The answers will define the grade of fulfilment of the quality requirements for each criterion, to be explained in text form as well as to be ranked on a scale.

The final result of all answers to all criteria will show the level of *Baukultur* quality of the place. The Davos *Baukultur* Quality System proposes a non-exhaustive list of possible questions, which can be adapted, and individual questions that are specific to the place may be added. For a detailed objective assessment, indicators and their benchmarks may be defined for each criterion, according to the scale and the type of place to assess.

A place is of high-quality *Baukultur* if all eight criteria meet well the quality requirements. The specific situation must be considered, the assessment of rural and urban locations, of monofunctional buildings (e.g. schools) and mixed-use neighbourhoods may be based on different weighting of criteria reflecting the specificity of the place. The concluding statement in text form as well as ranked on a scale should give an overview of the specific qualities of the place, both its high-quality *Baukultur* strengths and its potential of improvement, reference the statements given for each criterion and make it comprehensive and plausible for third parties.

(1)

1 From the Davos Declaration 2018 to the Davos Process

In January 2018, the European Ministers of Culture adopted the Davos Declaration "Towards a high-quality *Baukultur* for Europe". It highlights pathways for politically and strategically promoting the concept of high-quality *Baukultur*. Since then, an increasing number of states, organisations, institutions and companies have committed to the Davos Declaration and to a high-quality *Baukultur*. The Davos Declaration 2018 has become an important international policy document.

The Davos Declaration stresses the central role of culture for the quality of the built environment. It recalls that building is culture and creates space for culture. Baukultur refers to the constitutive and relational dimension of society and to all activities with spatial impact of all actors involved over time. The Davos Declaration calls for a holistic approach that emphasises the joint responsibility of society for the built environment. The Declaration states that *Baukultur* includes all human activities with spatial impact. Baukultur therefore encompasses all historic fabrics including built heritage, which represents an important and valuable part of Baukultur, gardens and open landscapes as well as today's buildings and planning for the future. The term Baukultur alone does not make any statement about the quality of space, only a high-quality Baukultur results in a high-quality space.

The Davos Declaration 2018 marks the starting point of the ongoing Davos Process. It continues the discourse on Baukultur with two pillars. The first pillar focuses on the scientific and content discourse. Referring to and based on the Davos Declaration, more in-depth content is emerging from the national and international debate. The concept of Baukultur will be further elaborated, key terms of the declaration will be scientifically consolidated and corresponding instruments developed. The second pillar focuses on the strategic and political discourse. International conferences and debates on a political level deepen the awareness, understanding and sense of responsibility for the implementation of high-quality Baukultur. There is a need for policies that recognise the cultural aspects of preservation, planning and construction and establish high-quality *Baukultur* as a primary political goal.

The present Davos *Baukultur* Quality System is a contribution to the first pillar of the ongoing Davos Process. It aims to bring clarity to the concept of high-quality *Baukultur*, to further define and objectify the notion of high quality and to give guidance on how to assess it. In adherence to the Davos Declaration, the Davos *Baukultur* Quality System represents a primarily European perspective and focuses on implementation in Europe. Application beyond Europe is of course also welcome and encouraged.

2 High quality as the strategic imperative for people's well-being

What is quality?

"Quality" as a term used to have neutrally described features with only a slight general positive value judgement. Nowadays, however, the term "quality" is no longer limited to this once rather neutral description of characteristics and already has a more explicit positive connotation. The term "quality" refers to the totality of the characteristics of an object, good or product. Characteristics can be inherent in an object, like weight, size and density, or perceived by a human, like taste, smell and colour. In the philosophical discourse, they are divided into primary, hard or objective characteristics and secondary, soft or subjective sensory impressions.

Quality can refer to the state of an object as well as to the processes of its creation. Technical standards⁴ define quality as any characteristics that determine whether an object is "good"/"high" or "bad"/"low" against a certain standard. It is about the extent to which a good meets the defined requirements. A "good"/"high" quality is in this case defined as "zero defects".⁵

Quality in the Davos Declaration and high-quality Baukultur of a place

The term *Baukultur* alone does not make a really specific statement about the required quality. Only high-quality *Baukultur* results in well-designed places that change in line with societal needs while preserving their historical characteristics. It focuses on social needs and sustainable use of resources and adds economic value. High-quality *Baukultur* is more than the absence of defects. Achieving high-quality *Baukultur* goes beyond fulfilling the defined technical requirements, like a desired programme, volume or material; it is equally important to reach a consensus about cultural values debated and defined by society.

The Davos Declaration states that the built environment serves multiple purposes: artistic, aesthetic, cultural and social as well as economic, ecological and technical ones. All aspects of space need high quality, which ensures attractive, diverse and inclusive cities, villages and open landscapes. High-quality *Baukultur* places special emphasis on the cultural functions of space. Places that people love, that offer social interaction, and where they feel healthy, comfortable and safe are achieved when high-quality standards are applied to all aspects of activities concerning space.

High-quality *Baukultur* refers first to a place of any scale or configuration with superior quality, second to the quality of the processes creating *Baukultur* and third to the capabilities and competencies of all those involved in any transformation of the place. While all three of them are important, the Davos *Baukultur* Quality System focuses mostly on the place, both of a project and an existing place, more precisely on an objectification and assessment of its quality. The multiple and different kinds of processes, including the care for and management of a place, are understood as part of the Governance of a place. The Quality System assesses these processes as one criterion amongst others conveying the high quality of a place.

The Davos *Baukultur* Quality System uses the term "place" to designate the different types and scales of objects and situations, varying in time, scale, size and configuration, spanning the whole spectrum of the *Baukultur* concept: interiors, single and multipart buildings, urban fabric, neighbourhoods, a part of a village or a city, a region, infrastructures, public places, green spaces, cultural landscapes, all including their relative context. The perimeter of the place must be newly established for each assessed case study with the Quality System. It contains all spaces with a physical dimension

² ICOMOS (2020), p.19.

³ Rönn, M. (2012).

⁴ e.g. ISO 9000.

⁵ Crosby, P. (1979).

⁶ Rönn, M. (2011).

⁷ e.g. Context document of the Davos Declaration, p. 7f.

⁸ In relation to the topic of *Baukultur*, this paper follows the comprehensive understanding of urban open spaces and green spaces of the Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit (BMUB) and the Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR) (2017).

– visible or hidden (e.g. built archaeological sites) – and created by human activities and experiences. However, a place goes beyond the physical expression of space through built structures and in-between spaces. It is perceived as a dynamic, relational socio-physical construct. A place assigns meaning and triggers emotions, influences how people perceive, experience and value their built environment. ⁹ Places embody a materialised form of social and political history and structure with a reciprocal impact on socio-political processes.

A place includes existing *Baukultur* – taking due account of built heritage – as well as projects, urban and landscape planning. Examples of projects are large-scale planning in urban development, the design of the transformation of an existing building or the planning of the construction of a new bridge. A place can find itself simultaneously in various project and process states and is continuously used, constructed and reconstructed. It often consists of heterogeneous component parts of various chronological layers and different historic and cultural values.

High-quality *Baukultur* is about the human acknow-ledgement that something is good or well made. Therefore, quality is a dynamic concept and judgements about what is "good"/"high" can change over time, may differ among individuals and depend on context. High quality can be assured through specific procedures and processes as quality work, quality control and quality management. It is a requirement that must be defined, specified, controlled and implemented. An established instrument of quality assurance in *Baukultur* is assessment committees, such as townscape, building or planning commissions, juries of variance procedures or competitions, and other (interdisciplinary) expert groups.

Creating and maintaining high quality, with a view to preserving and improving the quality of any place, must be the goal of any maintaining, planning or design activity in space and therefore the central aspect in any discourse on *Baukultur*. There needs to be a discussion on quality criteria and what constitutes them to achieve a common and established understanding among people (experts and non-experts) of what distinguishes high-quality *Baukultur*. The Davos *Baukultur* Quality System offers a contribution to this discourse on high quality.

The quality of a place is determined by an expression of multidimensional aspects including Governance, Functionality, Environment, Economy, Diversity, Context, Sense of place and Beauty. The high quality of a place contributes to fulfilling human needs as well as individual and collective well-being. It brings people together and promotes social cohesion. This notion of quality of a place goes far beyond the pure formal impression of how the form and shape of a place is perceived, extending to the inherent values of its being.

Human needs as essential factors for the quality of a place

Human needs are often represented in a five-tier psychological model or a five-stage pyramid, placing material and physical needs at the bottom and psychological and self-fulfilment needs at the top. 10 According to these models, the stages build on each other and the needs at the bottom must be met before the needs at the top arise. However, transitions are fluid and, depending on the situation, needs can arise simultaneously at different stages.

At the very bottom of the pyramid, "basic needs" are divided into basic physiological and urgent safety needs. High-quality Baukultur provides and sustainably maintains physiological needs like shelter, air, food and water. It ensures safety needs such as security, employment, property, health and well-being. In the middle of the pyramid lie the "psychological needs", e.g. "love and belongingness needs" and "esteem needs". Once physiological and safety needs have been fulfilled, psychological and social needs must be met. Places with a highquality Baukultur create a sense of belonging and spaces to meet people. At the top of the pyramid, the urge for "self-actualisation" addresses the achievement of one's full potential including creative activities. High-quality Baukultur creates the space in which every individual can seek personal growth and self-fulfilment. It also includes a large number of creative activities that contribute to the self-fulfilment of individuals.

High-quality *Baukultur* addresses all these human needs and therefore contributes positively to happiness, well-being, life satisfaction and the quality of life of individuals and society.

⁹ Carmona, M. (2019a); Cheng, A., Kruger, L., Daniels, S. (2003), p. 87f.; Löw, M. (2001).

¹⁰ Maslow's hierarchy of needs: Maslow, A. (1943).

Well-being as a result of high-quality Baukultur

High-quality Baukultur promotes people's wellbeing: places have to satisfy human needs for health, comfort and safety, whether for residential, working, leisure or infrastructure use, in the public domain or in the open landscape. People react to stimuli in their built environment. Research in environmental psychology and neuroscience proves the strong connection between space, human emotions, behaviour and health. Health and well-being are achieved in the long term through the absence or reduction of discomfort, pollution and stress in the built environment and the feeling of safety and generally positive emotions. High-quality Baukultur thus promotes the overall quality of life, subjective and collective well-being and the sense of community.11

Similar to *Baukultur*, well-being is a multidimensional concept. The latter is currently a key notion in discussions about prosperity and sustainability. The new, more universal understanding of well-being encompasses not only material living conditions such as income, employment and housing situation, but also intangible dimensions of quality of life and subjective perceptions such as health, education, quality of the environment, safety, civic participation and work-life balance.

There are various approaches to measuring well-being: composite indices such as the UN's Human Development Index (HDI),¹² which combines information on life expectancy at birth, mean years of schooling for adults, expected years of schooling for children and gross national income per capita and provides a single overall result, or the Organisation for Economic Co-operation and Development's (OECD) "How's Life" with a series of indicators presented on a dashboard.¹³ The extent of these dimensions varies according to the

spatial structure of a city, region or place. This regionalisation of the concept is taken up in the OECD report "How's Life in Your Region". ¹⁴ Eurostat has been publishing a series of indicators in the online tool "Regions and Cities Illustrated" ¹⁵ since 2017.

High-quality *Baukultur* makes a significant contribution to people's well-being. The design of the place, the relationship between places and their built and natural context, spatial and temporal coherence, scale and materiality are all factors with a direct impact on people's well-being. Wellbeing, similar to life satisfaction and happiness, and all human needs is an important, complex and broad subject area, which certainly touches on questions of *Baukultur*, but also goes far beyond them.

High-quality Baukultur as a sustainability concept

All places are subject to the requirements of the Agenda 2030 and its Sustainable Development Goals (SDGs). The Davos Declaration with its sustainability demands is in harmony with the Agenda 2030 Goals. Central aspects of the Agenda's objectives are the promotion of sustainable economic growth, the reduction of disparities in living standards, the creation of equal opportunities and the sustainable management of resources, ensuring the preservation of ecosystems and strengthening their resilience. These objectives emphasise that people are at the heart of sustainable development. Respect for human rights is thus a particularly important aspect.

By adopting the Agenda 2030,¹⁶ the international community recognised the role of culture in sustainability for the first time.¹⁷ Culture is referred to explicitly as well as implicitly through many of the goals and targets contributing transversally to

¹¹ The New European Bauhaus, launched by the EU, is an environmental, economic and cultural project that aims to combine design, sustainability, accessibility and investment to contribute to the implementation of the European Green Deal; central values are therefore sustainability, aesthetics and inclusivity; https://ec.europa.eu/commission/presscorner/detail/en/ip_21_111.

¹² Human Development Index, http://hdr.undp.org/en/content/human-development-index-hdi; Human Development Reports, http://hdr.undp.org/en/contries; see also Hall, J. (2019).

¹³ OECD (2020), http://www.oecd.org/statistics/how-s-life-23089679.htm, with well-being framework consisting of 11 dimensions: income and wealth, housing, work and job quality, health, knowledge and skills, environmental quality, subjective well-being, safety; work-life balance, social connections, civic engagement.

¹⁴ OECD (2014), http://www.oecd.org/gov/how-s-life-in-your-region-9789264217416-en.htm.

¹⁵ European Commission, Eurostat: https://ec.europa.eu/eurostat/cache/RCI/#?vis=nuts2.labourmarket&lang=en.

¹⁶ United Nations, Agenda 2030: https://sdgs.un.org/2030agenda.

¹⁷ UNESCO (2019a) Culture | 2030 Indicators, p. 12. See also the initiative of Culture Action Europe "Implementing Culture within the Sustainable Development Goals. The role of culture in Agenda 2030": https://cultureactioneurope.org/news/implementing-culture-within-the-sdgs/ and the related campaign "Ensuring culture fulfils its potential in responding to the COVID-19 pandemic, statement by the culture2030goal campaign, launched on 21 May 2020, World Day for cultural diversity for dialogue and development": https://culture2030goal.net/.

the five critical dimensions of sustainable development – people, planet, prosperity, peace, partnerships. On the other hand, the economic, social and environmental dimensions of sustainable development contribute to promoting the preservation of cultural heritage, enhancing culture and creativity. The contribution of sustainable development is seen through cultural heritage, creative industries, local culture and products, creativity and innovation, local communities, local materials and cultural diversity. The importance of local knowledge and community participation in achieving sustainable development - from health to education - is recognised. Culture and in our case highquality Baukultur contribute to sustainability as a standalone sector of activity and as an intrinsic component present in other sectors. Culture in general and high-quality Baukultur specifically, are drivers that contribute directly to bringing about economic, ecological and social benefits, and are also enablers that contribute to the effectiveness of development interventions.

SDG 11 "Make cities and human settlements inclusive, safe, resilient and sustainable", together with its several targets, is central to all activities that have an impact on space. The Davos Declaration takes up the sustainability goals and sharpens them through its demand for high quality for both building stock and new projects. High-quality Baukultur implements the relevant SDGs by demanding, inter alia, adequate, safe and affordable housing, sustainable materials, construction and transport systems, inclusive and sustainable urbanisation, public spaces and capacity for participatory, integrated and sustainable human settlements, including supply of renewable energy. Culture is explicitly referenced with cultural heritage in SDG 11, Target 4 "Strengthen efforts to protect and safeguard the world's cultural and natural heritage". This is also an important goal of the Davos Declaration, and emphasised in the quality demand for space by integrating heritage in contemporary planning and construction.

High-quality *Baukultur* is sustainable and understood not exclusively as the fulfilment of the technical requirements of a single goal or target of the Agenda 2030, but as a comprehensive approach in the pursuit of sustainability. In addition to efficiency aiming at more productive use of raw materials and resources, and consistency in seeking alternative technologies and materials that are better for nature and the environment, the

sufficiency pillar of the sustainability concept, which has been too undervalued in the discussion so far, aims at lower overall consumption of resources, such as energy and materials. *Baukultur* quality requirements, such as maintaining valuable building stock, developing and constructing only what is necessary, economising resources and considering long life cycles, ensuring the coherence of context and landscape, design and beauty demands and protection of built heritage, take account of the sufficiency perspective of sustainability. Sustainability is a transversal theme as is *Baukultur* and quite a few of their objectives overlap. Both can only be achieved in an interdisciplinary and cross-level manner with a high level of expertise and quality.

Climate change and loss of biodiversity are two of the most important challenges the world has to cope with. High-quality *Baukultur* makes a strong contribution to overcoming these threats in a truly sustainable way, while integrating social and cultural factors along with the technical-ecological and economic aspects. High-quality *Baukultur* is thus not to be understood as an additional complication, hindering fast and effective measures mitigating climate change, or as a concept against biodiversity through its connection to the building sector, but as a very effective tool to reach climate goals and foster biodiversity in the built environment.

The contribution of culture to a comprehensive understanding of sustainability is, however, still undervalued and too often overlooked. This is stated in the Davos Declaration 2018, which aims to promote awareness of the value and impact of culture and high-quality *Baukultur*, to increase their visibility and make them more appreciated as an important contribution to sustainability by decision-makers and society as a whole.

3 The need for an objective quality assessment of Baukultur

The quality of space has to be improved. Article 7 of the Davos Declaration on high-quality *Baukultur* gives a clear direction:

"We urgently need a new, adaptive approach to shaping our built environment; one that is rooted in culture, actively builds social cohesion, ensures environmental sustainability, and contributes to the health and well-being of all. This is high-quality *Baukultur*."

A place of high-quality *Baukultur* is determined by the values and quality requirements laid down in the Davos Declaration. High-quality *Baukultur* is elusive, but it is neither a subjective matter of taste, nor a purely formal issue. The individual experience of the quality of a place may vary depending on the individual living situation, on prosperity or poverty, on age and lifestyle. Yet, common denominators and values of high quality can be defined and objectively assessed. Quality is a dynamic concept and depending on the time chosen, an assessment made about the quality of a place may be different because of changing values.

The Davos *Baukultur* Quality System proposes a set of eight fundamental quality criteria and principles, distilled from the Davos Declaration and each complemented by their own set of questions. They systematise and place the quality of *Baukultur* at the centre of an all-embracing assessment. The answers provide information about various aspects, which influence the *Baukultur* quality of places. The specific situation must be considered, the assessment of rural and urban locations, of monofunctional buildings (e.g. schools) and mixed-use neighbourhoods may be based on different weighting of criteria reflecting the specificity of the place.

In a more in-depth analysis, experts may execute a thorough and evidence-based assessment by going into more detail by collecting further information for their answers and the indicators supporting them. Quantitative and qualitative indicators are assessed by different means and methods. Quantitative assessment methods consist of quantitative content analysis (data, structures, sources), standardised interviews, surveys, standardised observation, monitoring, mapping, observations, statistics, counts, estimates, etc. Qualitative assessment methods are qualitative content analysis, interpretation, value judgements, individual interviews (focus groups), polls, monitoring, mapping, design competitions, etc.¹⁹

The Davos *Baukultur* Quality System is thus the first approach to placing social, cultural and emotional criteria on an equal footing to more common technical, ecological and economic criteria, thus giving them due importance in a comprehensive and balanced assessment.

Existing methods, tools, certification systems

There is no other method or tool currently available to assess the *Baukultur* quality of a place as a whole. Various instruments, initiatives, statements, principles or certification systems touch upon different aspects of Baukultur and have been reviewed for the Davos *Baukultur* Quality System.²⁰ They concentrate on the assessment of single specific aspects of Baukultur, for example sustainability and green building (e.g. SNBS, DGNB, LEEDS, BREEAM), housing and buildings (e.g. Wohnungs-Bewertungs-System WBS-CH, The Design Quality Indicator DQI), or urbanism (e.g. The Quality Ladder), spatial development instruments, cultural heritage (e.g. ICOMOS European Quality Principles), historic urban landscape (e.g. UNESCO Recommendation on the Historic Urban Landscape); a few of them are Baukulturspecific guidelines and statements (e.g. Austrian Federal Guidelines on Building Culture, Innsbruck statement of ACE). While these existing instruments provide important contributions to the assessment

¹⁸ Angélil, M., Christiaanse, K., Lampugnani, V. M., Schmid, Ch. (2016), p. 136.

¹⁹ See Annex 9. Indicators for evidence-based assessments of Baukultur places. See also: UNESCO (2019a) Culture | 2030 Indicators, https://whc.unesco.org/en/news/2058.

²⁰ See Annex 10. International certification systems and instruments. The list of systems and instruments is not exhaustive. See also Annex 11. International documents with regard to Baukultur.

of *Baukultur*, they are either formulated at a rather abstract level or do not cover the entire concept of *Baukultur* in all its numerous aspects, including cultural heritage, contemporary creation, non-built, green spaces, infrastructures, streets and squares.

definitions about present built heritage requiring maintenance and – if possible and necessary with regard to sufficiency – to be sustainably developed.

Baukultur in relation to built heritage and its preservation

Baukultur encompasses the whole building stock in its relation to society, including built heritage (immovable objects such as monuments and built archaeological sites), gardens and open land-scapes as well as today's building and planning for the future. Built heritage, for example monuments and built archaeological sites, deserve special mention: they are an important part of Baukultur as they represent immovable tangible objects of cultural heritage with spatial impact, including not (yet) visible elements in the soil or water.

High-quality Baukultur is not identical with built heritage quality. Thus, places assessed by the Davos Baukultur Quality System and judged as being high-quality Baukultur should not be mistaken for an inventory or list of places identified as built heritage. Both are complementary concepts, equally important for the maintenance and sustainable development of places, influencing each other but focusing on different aspects of built heritage. Where inventories and monument preservation in general concentrate on the significance of an object or site for a certain time period from the past and on its cultural-historical testimonial value, the Quality System and the concept of Baukultur in general aim at the democratic and inclusive connection of people in space and take into account built heritage and its value for a high-quality space shaping the well-being of today's society.²¹ The way we handle built heritage expresses our *Baukultur*. The protection and conservation of built heritage is to be considered as integral to any development strategy. Built heritage is an important element of the relationship between people and space, but not the only factor. Aiming at high-quality Baukultur does not just mean protecting built heritage, but integrating its substance and values in any planning and building activity makes it a valuable part of encompassing Baukultur and preserves it for future generations. Any existing (historic) place has to be analysed and there have to be statements and

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The Davos *Baukultur* Quality System proposes a multidimensional approach to define the holistic concept of high-quality *Baukultur* and offers a practical way to assess the quality of places. Eight criteria distilled from the Davos Declaration enable the assessment of quality in *Baukultur*:

- Governance
- Functionality
- Environment
- Economy
- Diversity
- Context
- Sense of place
- Beauty

The quality criteria are completed with principles making statements on the criteria and about how they are to be implemented with a view to preserving and developing places of high-quality *Baukultur*. They address the multifaceted aspects of places and establish a comprehensive definition and assessment system. The various aspects of *Baukultur* can be clearly assigned to the eight criteria. At the same time, the individual criteria are interrelated and there are thematic overlaps in their content. These quality criteria are all equally important. They may be weighted differently, taking into account the specificity of each place. Nevertheless, high-quality *Baukultur* requires reflection and binding quality statements for every single criterion.

Questions for each criterion

To know if a place meets a criterion, a set of questions is provided that need to be answered as objectively as possible. The assessing persons may need to adapt the questions according to their specific needs, scale and type of place, while still taking into account all eight criteria for high-quality *Baukultur*. Everyone who is willing and able to engage more profoundly in an assessment and that has the necessary data can support their answers by adopting indicators. They allow for a more in-depth and objective assessment by providing evidence. A non-exhaustive list of indicators is to be found in Annex 9.²²

A form for practical assessment

The Davos *Baukultur* Quality System offers a PDF form to answer the questions, allowing practical implementation of the system for the quality assessment of places.

To assess a place, find the PDF form to fill in the table and answer the questions.

Assessment form

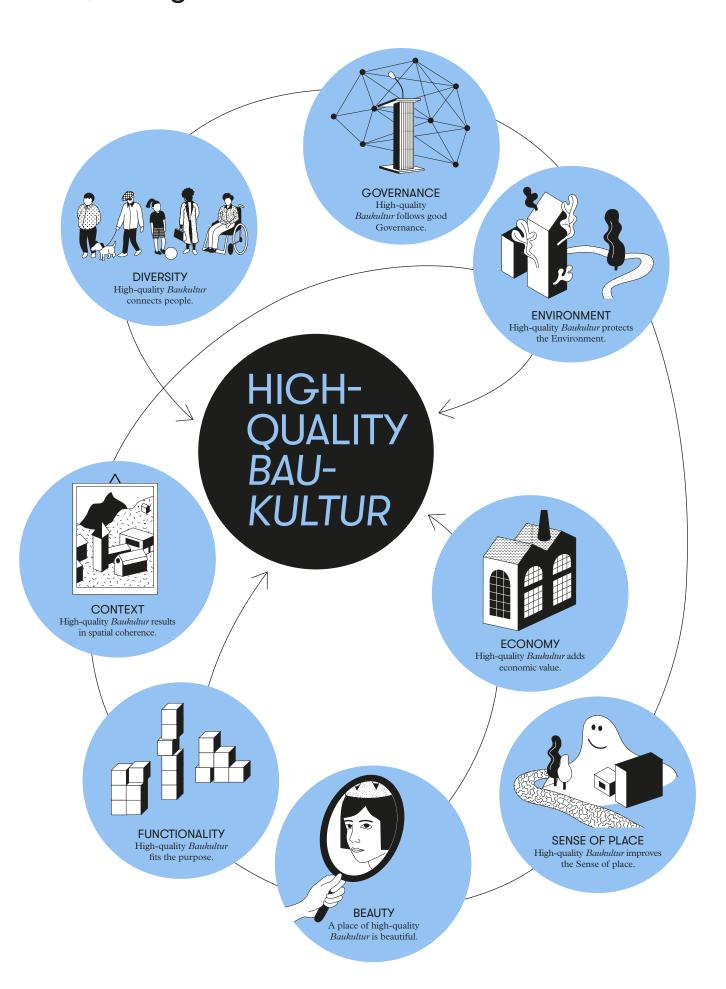


Find the most important facts about the Davos *Baukultur* Quality System in this brochure.

Eight criteria for a high-quality Baukultur



4 Quality criteria



Governance

Davos Declaration - Article 1

"Therefore, culture must be placed at the centre of development policies and its contribution to the pursuit of the common good must be emphasized."

Article 15

"High-quality Baukultur must form part of the relevant legal instruments."

Principle

High-quality Baukultur follows good Governance.

High-quality Baukultur promotes quality-oriented and place-specific processes, led by skilled actors working in teams. It facilitates public engagement and contributes to transparent and inclusive participatory governance for decision-making, management and care for the place.

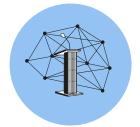
Definition

Governance structures and sustains rules, norms and action, guiding place shaping and management processes. It refers to the processes of interaction and decision-making based on participatory democracy and full respect for human rights. Governance not only concerns the different levels of governmental administration but equally governmental agencies, public-private partnerships (PPPs), non-governmental organisations (NGOs) and the private sector as well as the implication of the communities.

The *Baukultur* quality of places is highly influenced by Governance decisions made by the multiple stakeholders of a place over time. The tools of Governance can be formal or informal.²³ Formal tools are "hard power" in nature, such as laws, norms and regulation on planning and building activities. Informal tools are non-regulatory or "soft power", for example publications of guidance for high-quality *Baukultur*, design competitions, peer review mechanisms and design advisory boards, architectural centres, education initiatives to raise awareness and build up knowledge of the quality of space and financial incentives for the protection, maintenance and creation of places with high-quality *Baukultur*.²⁴

Research

Current research suggests that the exclusive use of formal tools often leads, despite good intentions, to insufficient quality of places. It is therefore argued that the synergy of formal and informal tools in the Governance of places leads to high-quality *Baukultur*.²⁵



²³ Carmona, M. (2017); Löw, M. (2018).

²⁴ Urban Maestro (2019).

²⁵ http://www.urbanmaestro.org.

Formal tools represent the established approach to the public sector's engagement with the maintenance, design and creation of places. They are quite effective, but usually generic, and do not emerge from a place-based design. Formal tools fall into the following categories: guidance tools are used by most countries and range from regulation, standards and codes, through policies, parameters and guidelines to plans and zoning. Incentive tools are state-aided tools, e.g. state investment in specific infrastructure, or state-encouraged, e.g. zoning bonuses. Control tools are about the power to approve or reject a project. Many European countries have established policies to promote places with high-quality *Baukultur*. Depending on the country and its different political, legal and administrative systems, these policies focus on different aspects of *Baukultur*, such as urban design, architecture or built heritage.²⁷

Urban Maestro conducted a survey in 2019 for an in-depth understanding of the practice in Europe and the potential of informal tools in Governance. It distinguishes between quality culture tools, which focus on the creation of a positive decision-making setting, and quality delivery tools, which contribute to the creation of specific high-quality projects and places. Informal tools fall into five broad categories. Evidence-based tools, e.g. research, aim to understand how places are shaped. Knowledge tools, e.g. best practice guides, case studies, libraries, education and training initiatives, provide the sound knowledge of what *Baukultur* is and its quality to a broad public. Promotion tools, e.g. design awards and targeted campaigns, proactively make the case for the establishment of places with high-quality *Baukultur*. Assessment tools, e.g. expert design review, design advisory boards, design competitions and expert judgement, focus on the assessment of particular projects, places or processes. Assistance tools, e.g. grant-in-aid, hands-on professional enabling, research by design and design-led community participation, directly enable the development of places with high-quality *Baukultur*.²⁹

Governance in Baukultur and relation to other Baukultur criteria

Good Governance facilitates better high-quality *Baukultur* decisions, ensuring proper place management. Formal tools are tied to regulatory responsibilities. They encompass legislation and resulting procedures, standards, coding and frameworks for guidance as well as control processes. A well balanced interplay of formal and informal tools helps to overcome communication gaps between the multiple disciplines in *Baukultur*, e.g. built heritage conservation, architecture, planning, engineering and craft. Furthermore, well established dialogue between all the *Baukultur* professionals and local people is important. Informal tools like the establishment of participatory processes, professional training or general education enable the refinement of the manifold processes involving *Baukultur* and strengthen its importance as a common good. ^{30, 31} For participatory processes to be implemented successfully, there must be awareness of the topic in general and a sensitivity for the place, its history, qualities and the possibilities for transforming and shaping it. Education and capacity building play a central role in establishing these skills and sensitisation and are therefore a central informal tool.

Governance is all encompassing and plays into all professional areas and social groups. It is therefore strongly related to all the following seven criteria.

²⁶ Carmona, M. (2019b).

²⁷ See list: https://www.ace-cae.eu/architects-in-europe/eu-architectural-policy/.

²⁸ Urban Maestro (2019), p. 11.

²⁹ Carmona, M. (2017).

³⁰ Council of Europe (2005).

³¹ Council of Europe (2017).

How to achieve high-quality Baukultur in terms of Governance

Different actors and contexts lead to the diversified application of Governance tools. Governments, authorities and public agencies should strive to improve legislation and regulation in a *Baukultur*-compatible and conducive way, expand the use of informal tools and make the protection, the development and the design of places with a high-quality *Baukultur* a matter of public interest and vibrant debate. *Baukultur* policies, e.g. architectural policies or policies on the preservation and valorisation of built heritage, at national level and by local administrations lead to spaces that are promising for high-quality *Baukultur*. The establishment of quality-oriented procurement procedures like design competitions and developers and owners working exclusively with interdisciplinary teams leads to a deeper understanding of the place and its multiple characteristics and thus to the implementation of high-quality *Baukultur*. The use of site-specific design processes by planners leads to site-specific results that are supported by the population. Promoting inhabitants and users of places to engage in civil society organisations leads to places that people can identify with, that they care about and that they engage with.

The implementation of participatory governance is highly beneficial for establishing places with a high-quality *Baukultur*. A genuine public participation process involves the following steps. First, real information is needed that is easily understood and accessible to all. Second, education or training in the specific issues raised by the participation process is required for the people involved. Third, there has to be real co-decision between all participants on the issues raised.³²

Engagement between any administration and the local community is very important to establish a high-quality Baukultur. Discursive processes can be strengthened through the Davos Baukultur Quality System, which may be used as a helpful mediation and communication tool. Representation of the population is to be understood beyond the election of representatives in a local council, and an open dialogue should be implemented according to needs. Including the population in transparent decision-making processes with effective communication, taking into account the considerations of local inhabitants and stakeholders during planning, construction, maintenance and management of the place, promotes the identification of communities with their space and strengthens their sense of shared responsibility for its Context. On the other hand, however, it also requires the population to have an awareness of questions of quality and *Baukultur* and the ability to understand them. The broad establishment of a general *Baukultur* education (albeit not exclusively) for children from a young age is of central importance in this regard. The aim is to increase public engagement and thus support for participatory governance. Participation assists people in assuming responsibility and caring for their space. Good Governance tools enable them to understand the content and importance of Baukultur, to define common values and share them, to actively participate in the design of the space and to assess its overall quality.

There is great potential for community participation in connection with existing building stock (including built heritage). Regarding the reuse of existing buildings, a public consultation on the nature of the new function generates new ideas and creates a connection of people with the place,³³ which then ensures acceptance and utilisation. Participation and local community involvement play an important role in cultural heritage conservation, especially in vulnerable areas, where self-management initiatives lead to practices aimed at improving spatial equity or the involvement of the resident population in an integrated conservation approach. Citizen involvement is an opportunity for cultural heritage policy to strengthen inclusion and social well-being.³⁴

³² European Union (2014). See also: European Council of Spatial Planners (ECTP-CEU) (2016); Bouche-Florin, L.-É. (2019); ECTP-CEU (2013).

³³ See also paragraph on the criterion Sense of place p. 42 and place attachment.

³⁴ Council of Europe (2018).

Taking the criterion of Governance into consideration also means the provision of effective training and education. Professional actors in development, planning, construction and facility management need training, skills and experience. Communities require access to general education in *Baukultur*. Information concerning *Baukultur* has to be easily accessible by all and mediation activities by the government, NGOs and other actors should be actively supported.

High-quality *Baukultur* thrives in the context of transdisciplinarity. Solution-oriented discourse and negotiations between policymakers, authorities, planners and the business community are important, so is multi-level and cross-sectoral cooperation. High-quality *Baukultur* has to be negotiated and debated across all social groups and professional disciplines. Good Governance thus raises awareness, encourages dialogue and fosters cooperation to achieve places with a high-quality *Baukultur*.

Key questions to be answered for assessment

- Are all stakeholders familiar with the *Baukultur* concept and concerned with the quality of the place?
- Is there guidance for *Baukultur* and its quality through legal regulation, standards, norms and policies, by financial or procedural incentives?
- Is there a broad public debate on the quality of the place, for example through design competitions, reviews or other?
- Is the decision-making process about the place participatory, accessible to all people concerned and transparent at all stages?
- Do all professional actors and stakeholders involved have the necessary experience, knowledge, skills and expertise for their tasks?
- Do professionals work in transdisciplinary teams?

Functionality

Davos Declaration - Article 8

"High-quality *Baukultur* thus not only fulfils functional, technical and economic requirements, but also satisfies people's social and psychological needs."

Principle

High-quality Baukultur fits the purpose.

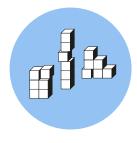
The design and construction methods of high-quality *Baukultur* satisfy the human needs for health, comfort, safety and accessibility. They are enduring and the results adaptable to existing and changing uses and purposes, whilst safeguarding built heritage.

Definition

To be functional, a place must fulfil its purpose for people. Places need to meet different purposes that may change over an extended period and are therefore flexible and adaptable. Many existing places are functional, as their original use can be maintained over centuries. Some of them are functional and converted or switched to a different use to the original one(s), safeguarding eventual built heritage. The planning of places needs to anticipate changing conditions, i.e. in population, climate, and natural hazards. Functional existing places and technical state-of-the-art new constructions with continuous innovation and quality craftsmanship beyond the domain of architecture fulfil the Vitruvian utilitas and firmitas as self-evident requirements for the correct, careful and long-living completion of every place by being structurally stable and safe. Functionality of place also means that places satisfy the human need for health, comfort and safety, be it for living, working, leisure or the use of infrastructure or public areas, including easy accessibility with soft modes of transport. Places must be conducive to people's physical and mental health to ensure healthy living and lifestyles with sufficient general comfort. Functionality further implies that they have to protect people from weather, natural and other hazards and provide security against violent acts.

Research

The European CEN standards and other legislation and regulation together with all the different national construction and planning standards represent the result of all the research done to be able to plan, design, build, preserve, retrofit and reuse functional buildings and implement constantly innovative concepts, techniques and materials resulting from this research.³⁵ In compliance with the planning, building and preservation standards and their continuous development, Functionality in places represents today's state of the art, which is anticipating changing needs and conditions.



³⁵ See note 50 on sustainability research at ETH Zurich with NEST (Next Evolution in Sustainable Building Technologies).

Functionality is further focused on issues offering solutions to ensure adaptability and flexibility of places,³⁶ requested through the increasing importance of adaptable and open-use housing and workplace concepts. Key terms in this context are system separation with a simple skeleton and linear load transfer for the modular upgrading of floor space, open structures so that room units can be adapted, easily accessible and simply adaptable installation concepts. Buildings whose structure is based on systems that can be changed, expanded and separated are often already part of sustainable real estate strategies.

Research is also being done on building stock in general and built heritage in particular, on the value of the stock and how places can remain functional by being reused, adapted, renovated and preserved through smart, small, low-cost interventions and how these interventions relate to the most effective strategy,³⁷ while destruction and reconstruction not only often entail higher energy impacts and costs, but may also lead to the loss of built heritage.³⁸ Schools of architecture are becoming increasingly aware that future professionals are no longer to be trained only with regard to design on non-built isolated plots on greenfield sites, as they are increasingly dealing with conversions, reuse and extension of existing settlements and buildings, rather than designs for new ones. The long-term Functionality of the building stock in the places of the future is a relevant issue in research as well as in practice, in addition to conditions for the preservation of built heritage.

With regard to health, the focus of research is often on identifying the sources of illness.³⁹ It has been proved how the design of a place, together with healthy materials can contribute positively to physical and mental health as well as to safety and security,⁴⁰ that the design of our physical Context has a strong influence on our psychological state and well-being and its impact on our thoughts, emotions and physical response is recognised. The interdisciplinary approach of an intersection of neuroscience and architecture (neuroarchitecture) is able to understand what type of places contribute to the well-being and health of users.⁴¹

Studies have recently shown how to improve the safety perception of users with regard to stability, security and durability by design, but also by social and Governance measures. Namely, well designed public spaces can reduce the risk of assault and prevent fear of spaces and "fearscapes",⁴² changing them into "safescapes",⁴³ improving the sense of safety and contributing to people's comfort, while insecurity and fear restrict their freedom of movement.

Functionality in Baukultur and relation to other Baukultur criteria

Functionality as a criterion of *Baukultur* has higher demands than mere compliance with current building standards that guarantee state of the art. It takes into account issues related to sufficiency, durability, adaptability, health compatibility, innovation in both the use of materials and urban, architectural and landscape design, and comfort in use to ensure well-being. Places must be functional and adaptable to the mixed uses of mixed people over the long term. This allows a large number of different functions and users in the long run as well as sustainable longevity of use. Functional existing places can be converted or switched to a different use, taking their social and heritage values into consideration. High-quality craftsmanship and healthy materials ensure the longevity of the buildings, infrastructure and public

³⁶ Schütze, T., Willkomm, W. (2000); Ghafouri, A. (2016); Loch, S. (2011).

³⁷ Petzet, M., Hellmeyer, F. (2012).

³⁸ Conejos, S., Langston, C., Smith, J. (2011).

³⁹ e.g. Payne, S., Potter, S., Cain, R. (2014) and Gilbert, E., Galea, S. (2014) on chronic exposure to noise; Dutton, R. (2014) on the effect of insufficient daylight.

⁴⁰ e.g. UK Green Building Council (2016); Allen, J. G., MacNaughton, P., Laurent, J. G. C. et al. (2015); Amanjeet Singh, A., Syal, M., Grady, S. C., and Korkmaz, S. (2010); Cedeno-Laurent, J. G., Williams, A., MacNaughton, P. et al. (2018).

⁴¹ Ellard, C. (2019); Ellard, C., Montgomery, C. (2013). See note 99 on Ellard's research with the Urban Realities Laboratory at Waterloo University, Canada.

⁴² e.g. UN Habitat (2016); Prevention Institute (2015); Tulumello, S. (2015).

⁴³ Zelinka, A., Dean, B. (2001).

space, while being open for innovation and development. Adequate safety is achieved when there is protection from adverse events resulting from natural hazards or human action and which are not deemed acceptable.⁴⁴

Local and traditional techniques of craftsmanship (\rightarrow Sense of place), the minimising of the upkeep of new and existing places by adequate maintenance costs through smart and low-tech interventions (\rightarrow Economy), and thus significantly increased sustainability through this type of intervention (\rightarrow Environment), social safety guaranteed by socio-political instruments as social mixing and mix of uses, together with the attractive and vibrant atmospheres people want today, especially in urban areas (\rightarrow Governance, Diversity), accessibility for people with disabilities (\rightarrow Diversity) are dealt with in the aforementioned other criteria.

How to achieve high-quality Baukultur in terms of Functionality

To be functional over the long term, high-quality *Baukultur* places are maintained, planned, designed and built so that they give access to basic public, commercial and cultural services, satisfying the needs of mixed people, allowing mixed uses. High-quality *Baukultur* places adapt as simply and successfully as possible to changing and diverse conditions, requirements and purposes (types of use), as this is one of the main factors for the longevity of a place, integrating and safeguarding built heritage. Planning must take into account and incorporate changing framework conditions, especially with regard to population development, the biodiversity crisis or climate change and the associated increase in natural hazards. If a place does not adapt to changes over time, it deteriorates and loses economic value and its Functionality.

High-quality *Baukultur* distinguishes itself through easy access to technical installations and equipment in order to renew them with minimum effort and through flexibility regarding layout and sufficient room height to change uses in a simple way. Easy access and adaptability of use are required equally for infrastructures, open and green spaces, and landscapes, as they contribute significantly to the health and wellbeing of people. Open and green spaces as well as mobility and traffic areas are to be conceived in a multifunctional way and designed in diverse manners to reach complete Functionality and resilience. Existing places require careful treatment if converted or switched to a different use from the original one by preserving the main structure, minimising interventions and taking full account of the eventual built heritage (landscape, monument, structure, materials, Context, etc.). Costs must remain commensurate and the appearance aesthetically appealing, while maintaining and using the existing substance.

High-quality *Baukultur* stands out as regards health-relevant aspects through the use of natural, non-toxic and high-quality building materials and an architectural design that provides light and air quality and quantity at the right place, to the right extent and in the right mix. Balanced temperature, light and shade contribute to a good, healthy, comfortable indoor climate and well-being for housing, work and leisure places. Exposure to noise and (ionising) radiation in buildings and their Context must therefore be kept as low as possible. Easy accessibility should be ensured by walkability and bikeability, which contribute equally to healthier mobility and life-styles. Technical security by adequate lighting of principally public but also semi-private and private spaces as well as high visibility and permeability⁴⁵ ensure the individual feeling of safety and security of all people and allow the diverse appropriation of a superior variety of spaces.

⁴⁴ Sendai Framework for Disaster Risk Reduction 2015–2030 of the United Nations.

⁴⁵ See the seminal work of Appleton, J. (1975) for locomotive and visual permeability.

Key questions to be answered for assessment

- Does the place fit the purpose now?
- Is the place functional over a long-term period, adaptable to changing conditions, needs and uses, while at the same time preserving its eventual built heritage?
- Is the place healthy and comfortable for its users in terms of design, materials, light, air, noise and other?
- Is the place safe for its users in terms of design, materials, light and other?
- Is the place easily accessible for everyone?
- Does the place have low traffic and is it walkable and bikeable?

Davos Declaration - Article 12

"High-quality Baukultur protects the environment."

Principle

High-quality Baukultur protects the Environment.

High-quality Baukultur contributes to conserving natural resources and biodiversity, mitigating climate change and thus supporting sustainability. It preserves, promotes and develops an intact natural Environment and diverse cultural and natural landscapes through responsible land use and settlements, sustainable mobility, energy efficiency, and use of durable construction materials and methods with regard to the whole life cycle.

Definition

Environment as a quality criterion is defined as the natural environment encompassing all living and non-living things naturally present on the earth, with interaction of all living species, climate, weather and natural resources affecting human life. Components of the complex environmental system and its causal relationships are flora and fauna with a diverse variety of living organisms (biodiversity), the air, the water, and the soil with its mineral deposits. Humans and other living organisms satisfy their existential needs from the Environment and extract renewable and non-renewable raw materials from it.

The Environment almost throughout Europe is in a close relationship with humans who have spatial impact on it, having created and creating landscapes of diverse types and qualities. Today, around 74% of Europe's population live in urban areas, and by 2050 the proportion of urban population in Europe is expected to be around 80%. ⁴⁶ The planning and construction sector responsible for both the high percentage of fossil energy consumption and production of waste has a major impact on the Environment: shaping it together with the two other main domains of agriculture and mobility and influencing climate and weather by the non-renewable fossil energy sources consumed. Reciprocally, building activities and design are conditioned by climate and weather impact. High quantities of sealed soil surfaces and elevated temperatures produce changed conditions for the ecosystems, reducing biodiversity and increasing natural hazards. Air, water and soil are affected by waste and polluting anthropogenic emissions through products and materials used for building activities.



Research

Central research priorities consist of the preservation, design and development of an intact Environment, emission control, protection and sustainable use of resources and ecosystems, as well as coping with climate change and risk. As food, housing and mobility are responsible for the majority of the environmental impacts caused by human activity, research is essential in interdepartmental topics that meet the objectives of sustainability and allow interdisciplinary scientific cooperation to be strengthened. Better coordination and systemic approaches are needed to tackle the major environmental challenges. The current state of research on the Environment in relation to Europe is given in the State of the Environment Report (SOER) 2020,⁴⁷ stating serious gaps between the state of the Environment and existing EU near-and long-term policy targets; the same messages can be found in the actual major global scientific reports from the Intergovernmental Panel on Climate Change (IPCC), Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Integrated Resource Plan (IRP) and UN Environment.⁴⁸

Buildings and infrastructure are resource-intensive and account for 40 percent of greenhouse gases. Research focuses on delivering buildings with net-zero greenhouse gas emission levels, reducing at the same time energy-intensive materials to cut emissions from construction.⁴⁹ In view of the sustainability principles, building stock has to increase its energy efficiency, replace primary energy sources for heating/cooling by renewable energy sources and, at the same time, improve urban development and design quality towards the necessary, of what is "sufficient". In this combined field of energy, construction, design and lifestyle, there are diverse solutions adaptable to almost all types of fabrics.⁵⁰ Simple, but yet carefully planned construction design and methods allow durable buildings without energy input for heating and cooling, extensive equipment and appliances. Choice of materials (radiation, sealing, insulation, etc.), shape of buildings and their position in the urban fabric (interrupting/strengthening air corridors) have a great influence on the Environment and awareness of this aspect must be developed further.

Natural resources (mineral and energy resources, soil resources, water resources and biological resources) and particularly non-renewable resources (oil, gas, earth minerals and metal ores, groundwater) must be better protected. At a transnational level, research on biodiversity is being repositioned through the EU Horizon 2020 programme "Protection of the environment, sustainable management of natural resources, water, biodiversity and ecosystems"⁵¹ by consolidation of the European Research Area (ERA) on biodiversity and ecosystem services. Land consumption is still too high and landscape qualities are declining despite spatial planning efforts. Research contributes to the development of valuable and intact landscapes⁵² and provides numerous instruments and solutions of densification and quality urbanism, but their implementation is hesitant and deficient in practice. A change of mindset is needed.

⁴⁷ European Environment Agency (2019). See also: https://ec.europa.eu/environment/integration/research/newsalert/about.htm.

⁴⁸ IPCC (2018) reports on global warming of 1.5°C and how to achieve CO₂ reduction targets advocated by the international scientific community; IPBES (2019) reports on biodiversity and ecosystem services and their interlinkages at the global level; IRP (2019) reports on the combination of resource efficiency, climate mitigation, carbon removal, and biodiversity protection policies; UN Environment (2019) reports on the current state of the Environment, possible future trends and the effectiveness of policies.

⁴⁹ e.g. ETH Zurich, chair of Sustainable Construction, https://sc.ibi.ethz.ch/en/, presenting 2019 at SBE19 Graz conference an awarded design integrated parametric tool for real-time Life Cycle Assessment (Bombyx project). Empa Materials Science and Technology https://www.empa.ch.

⁵⁰ e.g. Next Evolution in Sustainable Building Technologies (NEST) is a dynamic modular research and demonstration platform for advanced and innovative building technologies at the Swiss Federal Laboratories for Materials Science and Technology (Empa), ETH Zurich: see papers on NEST and on the DFAB house: https://www.empa.ch/web/nest/publications-dfab-house.

⁵¹ https://cordis.europa.eu/programme/id/H2020-EU.3.5.2.

⁵² European Landscape Convention of the Council of Europe, adopted on 20 October 2000 in Florence (Italy): https://www.coe.int/en/web/landscape.

Environment in Baukultur and relation to other Baukultur criteria

Environment as a criterion of *Baukultur* considers the use of natural resources, biodiversity and emissions in the field of planning and building activities, including the handling of the limited resources of land and materials and the impact on the open landscape. Diversity of flora and fauna from private gardens to public spaces, green space and open landscapes on a larger scale are taken into account in this criterion as well as energy consumption by and energy sources used in the building industry and emissions into the Environment, as they have a major impact on the climate. Mobility has a strong influence on the Environment and is dealt with here with regard to its environmental sustainability. Food, which causes one third of the total environmental impact, is considered here under the aspect of sustainable production of food by agriculture and in the future also more urban farming, as contributions to a more conscious approach to the Environment, ecosystems and nutrition.

The integration of buildings and infrastructures into the landscape as well as the preservation of protected areas and objects, where Environment is understood as a spatial concept (\rightarrow Context), place quality including the big scale of landscape with its significance for people's identification and place attachment (\rightarrow Sense of place), economic sustainability (\rightarrow Economy) and social aspects (\rightarrow Diversity) of Environment are dealt with in the aforementioned other criteria.

How to achieve high-quality Baukultur in terms of Environment

High-quality *Baukultur* is climate and environment-friendly, protects and preserves natural resources and landscapes, contributes actively to their high-quality development and promotes biodiversity throughout the entire territory in all planning, construction and preservation processes.⁵³ It shows responsible land use and adequate occupancy rates. Dense, compact settlement patterns with sufficient high-quality green and open spaces are required for housing as well as for industrial zones, with zero-emission buildings. In rural areas, spatial development should prevent urban sprawl. This ensures sustainable infrastructure works to avoid high individual mobility and commuter flows on long routes. Places of high-quality *Baukultur* implement circular economy (CE) significantly mitigating climate change by conserving resources, promoting their efficient use and reducing greenhouse gas emissions through long-lasting use of materials and constructions. Environmental impact assessments (EIA) should be made regularly for projects, but also for existing places as well as studies about the carrying capacity of places.

In places of high-quality *Baukultur*, the good quality building stock should be maintained, if necessary carefully renewed, upgraded and reused extending its life cycle, renewable energy resources employed and waste management applied. Although renovated buildings emit more CO₂ during operation, they cause around forty percent less grey greenhouse gases than new buildings⁵⁴, since these gases are produced to a large extent during construction. Reuse of building stock and existing structures is to be promoted as sufficiency-oriented behaviour, taking into account the entire life cycle of buildings from construction, operation to retrofitting, conversion, demolition and recycling. High-quality *Baukultur* construction methods are simple, long-lasting and energy-efficient, materials and components contain minimal embodied energy and can be easily re-used; they are pollutant-free, durable, local, recyclable and recycled. Equipment is long-living, often low-tech and presents low maintenance needs.

Biodiversity is to be supported through interlinked and valuable green and open spaces, sufficient unsealed areas with gardens and parks containing mainly native, site-appropriate and site-typical non-invasive species, increasing the variety of possible

⁵³ Swiss Federal Council (2017).

⁵⁴ Herzog, A. (2020).

experiences. Cultural and natural landscapes with sustainable economic and agricultural activities promote biodiversity. Care, management and development of open landscapes, urban and peri-urban spaces, green spaces and urban agricultural areas contribute to high-quality *Baukultur* places and avoid the use of chemical products and pollutants (e.g. fertilisers, pesticides) harmful to the Environment and health. Rural areas foster biodiversity by maintaining precious crop rotation soils.

Key questions to be answered for assessment

- Does the place show responsible land use (e.g. in terms of open spaces, green spaces, appropriate density and occupancy)?
- Does the place promote biodiversity (genetic, species and ecosystem diversity)?
- Is the place maintained and sustainably developed, with preservation and integration of built heritage?
- Does the place feature simple and thus durable construction methods, long-living equipment and adequate maintenance needs, thus implementing the 5 Rs: refuse, reduce, repair, reuse, recycle?
- Is the place free of pollutants (e.g. noise, light, products), that are harmful for the Environment and people's health?
- Do sufficiency as well as sound and comprehensive scientific analysis and instruments (e.g. environmental impact assessments) influence the decision-making regarding energy efficiency, carbon footprint (e.g. embodied energy) to minimise the impact on the Environment?
- Does the place encourage sustainable mobility?

Davos Declaration - Article 13

"High-quality Baukultur adds economic value."

Principle

High-quality Baukultur adds economic value.

High-quality Baukultur prioritises cultural values and long-term investments over short-term economic gain, conserves and increases economic value, and is high value in use. It maintains and develops resources through long-term uses in alignment with the location and the design, Economy of construction and operation, and through the use of high-quality, long-lasting building fabric.

Definition

Economy describes the maintenance, production, distribution, trade and consumption of goods and services by individuals, businesses, organisations or governments. It encompasses business administration as well as welfare economics and covers fields that include accounting, finance, project management and marketing. Economy addresses such questions as which human activity brings the greatest possible benefit to an individual or a community. There used to be a close link between economic growth and environmental degradation. While the conventional Economy is primarily concerned with economic growth and the efficient allocation of resources, the ecological or green Economy has the declared goal of sustainable scale and fair distribution first and only thereafter efficient and sufficient allocation. Economy is one of the three pillars of sustainability next to society and Environment. 55 It promotes inclusive and sustainable economic growth, full and productive employment and decent work for all.

Companies and businesses aim for the most efficient use of their resources; this can be any kind of resource: financial, material or labour force. Economic planning and execution of buildings and places is a subdivision of Economy. In this context, the economic handling of all things in order to achieve the best possible ratio between expenditure and result is important. With regard to construction, this is about materials, other resources, and the amount of work involved, which is kept as efficient and valuable as possible. Real estate economics is about the development, production, management and marketing of real estate. Both fields have a major impact on the Economy of a country or region and have to be resilient and sustainable in the long term.



Research

Research in the field of construction, operation and maintenance of the built environment mostly focuses on the optimisation of planning, construction and management processes to ensure cost and resource efficiency. Digitalisation is an especially important driver: the impact of building information modelling (BIM) in planning and construction is studied and apps for the assessment of the real estate value are being developed. Furthermore, there is a growing interest in the social and environmental consequences of human action. Sustainability standards such as SNBS, LEED or BREEAM build on this holistically sustainable approach to the economic aspects of planning and construction. Within economics, the contribution of the building to the regional Economy, through the resulting housing, jobs or public use, as well as through the awarding of contracts, is assessed. In terms of cost management, not only the costs of construction are to be kept low, but the entire life cycle needs to be considered. This leads to long-term economically, ecologically and socially sustainable investments. Welfare economics studies show how the structure of markets and the attribution of goods and resources influence the overall well-being of society. The goal is to provide tools for public policy to achieve beneficial social and economic outcomes for society.

Research has shown that high-quality *Baukultur* has positive external price effects. The willingness to pay (WTP) increases for living near attractive places, which are a WTP factor. ⁵⁶ Conservation areas are often regions with high and stable economic value and provide benefits to local homeowners by reducing uncertainty regarding the future of their area. ⁵⁷ World Heritage status can have significant socio-economic effects. ⁵⁸

Economy in Baukultur and relation to other Baukultur criteria

Property uplift, reduced public expenditure and more viable investments are examples of possible economic benefits in places with high-quality *Baukultur*. On this subject, there may also be social disadvantages for the community, for example rising living costs, especially rents, and gentrification. An important factor is the economic viability in the long term, throughout the entire life cycle and beyond individual owners and users.

Market prices have to be considered for the assessment of the Economy of a place. The market price of all types of *Baukultur* is influenced by the attractiveness of the place, closeness to facilities, public services, heritage sites, the accessibility of the place and the quality of construction and design. Important aspects for the assessment of a realistic demand for real estate are the population and job development as well as a lack of supply in certain residential, office or industrial segments. The target groups for which supply is created are therefore decisive. Economic activities are unevenly distributed in the built environment, there is a concentration of economic activities in cities and especially in dense areas of cities.^{59, 60} Furthermore, the ownership structures influence the Economy of a place. In terms of economic sustainability, the aim should be that generally a building or property is easily tradable (not necessarily valid for specific typologies, e.g. for churches, courts, opera houses, schools) and deviations from sole ownership can restrict marketability and financial viability. Diverse ownership structures and investment models, however, offer potential for innovation and various income groups and may therefore be the best solution for the Economy of certain places.

⁵⁶ Properties close to Frank Lloyd Wright buildings in the Chicago area sell at premiums up to 5–8% and the heritage site "Hansaviertel" in Berlin has land values that are 20% higher than in comparable areas: Ahlfeld, G. (2012a). See also Incentive (2015).

⁵⁷ Ahlfeld, G. et al. (2017)

⁵⁸ Socio-economic Impacts of World Heritage Listing: https://whc.unesco.org/en/socio-economic-impacts.

⁵⁹ Ahlfeld, G. (2012).

⁶⁰ Ahlfeld, G., Pietrostefani, E. (2019).

The management of places (\rightarrow Governance), the sustainable use of space (\rightarrow Environment, Context), the realisation of mixed-function spaces and the accessibility (\rightarrow Functionality) are dealt with in the aforementioned other criteria.

How to achieve high-quality Baukultur in terms of Economy

High-quality *Baukultur* in terms of Economy is achieved through the best use, maintenance and development of resources over the long term, through a sustainable and sufficiency-based approach and in correspondence with local culture and design. Maintaining, planning and building places of high quality does not add costs, but rather creates and adds value in the long term. Thus, high-quality *Baukultur* prioritises long-term cultural value over short-term economic gain.

Durable building materials need to be used in construction and renovation. If the construction costs are kept reasonably low, this also increases the affordability of the place, prevents increasing segregation and therefore has positive social effects. Adequate maintenance costs and long life cycles create economically viable places and therefore conserve or increase economic value. The costs of Baukultur are considered from planning and construction through operation and maintenance to deconstruction and recycling. The aim is to minimise the total life cycle costs in relation to its location and to operate the place in a sufficient way. However, the place has to add value to the regional Economy. Thus the economic benefit of any maintenance, planning or construction of a property for the Context is taken into account. The more contracts are awarded in the region, the greater the contribution to the regional Economy and society. Economic efficiency in construction and planning projects is an important basis for the establishment of high-quality Baukultur. If places are of high quality, socio-economic benefits and incentives for local sustainable, economic growth are created. Taking the whole life cycle into account is of great importance when assessing costs and the economic efficiency of places.

The maintenance of an economic dynamic is of vital importance for the quality of a place and the establishment of a high-quality *Baukultur*. This economic dynamic may be very different from one place to another, depending on whether the use is housing or industrial or commercial and on whether it is located in a city or in the countryside. Constructing new places of high quality and maintaining places with valuable built heritage in a responsible way increases the attractiveness of the location and of investment: by companies in industrial and service buildings for economically interesting workplaces, by the public sector in administrative buildings and buildings for public services and cultural activities, in housing, infrastructure and green spaces, but also by the private sector in residential buildings.

Natural landscapes, heritage sites and high-quality architecture positively influence the Economy of a place by increasing the willingness to pay and therefore need to be protected and enhanced, even though their maintenance costs might be higher than a new construction. This kind of sustainable handling leads to enduring investments and has a positive impact on the economic development of future generations. An intelligent tourism strategy that takes into account the place, its cultural characteristics and the people who live there, can improve the economic viability of rural regions, in particular with valuable cultural landscapes, and thus contribute to the long-term maintenance and enhancement of high-quality *Baukultur*. However, tourism may also influence whole cities and regions in an unsustainable way, which leads to places that are out of touch with local people and culture and are devoted to foreigners and consumerism. Temporary renting systems like Airbnb lead in particular to an increase in prices and displacement of the local population in touristic places. These negative effects need to be included in local tourism strategies and minimised.

Key questions to be answered for assessment

- Does the place enhance its long-term attractiveness as a life, working, leisure and/or tourism space by being close to diverse resources, facilities and/or public services?
- Do construction materials and methods have a long life cycle thereby reducing maintenance costs, and is the value of the place therefore stable or increasing?
- Is the place economically viable over a long-term perspective?
- Has best use been made of public and private resources over a long-term perspective against short-term gain, taking into account the costs of the whole life cycle?
- Does the Economy of design, construction and operation add to the affordability of the place?
- Do ownership and/or investment models of the place contribute to vibrant and mixed-use neighbourhoods?

Davos Declaration - Article 11

"High-quality Baukultur fosters vibrant and mixed-use neighbourhoods."

Principle

High-quality Baukultur connects people.

High-quality Baukultur reflects and promotes inclusive societies and encourages mixed uses, thus facilitating interaction and shared responsibility, which lead to social and spatial cohesion. It contributes to a diverse culture of planning.

Definition

Diversity is a concept used in sociology and social psychology for the distinction and recognition of group and individual characteristics. In our increasingly globalised, individualised urban societies with people of various origins, ethnicities, ages, gender, sexual orientation, people with disabilities, various religious practices, cultural and socialisation-related identities, Diversity is to be regarded as the norm. A strong diversification of the population in socio-economic, social and ethnic terms, but also with respect to lifestyles, attitudes and activities is the reality. The recognition and equal treatment of different groups with their manifold tasks in private and social life, the perception of the positive effects of this Diversity for society and its well-being are equally a great challenge and a long-term goal of democratic countries.

While Europe is probably experiencing an unprecedented phase of social openness, expressed by institutional aims, such as inclusiveness and respect for minorities, different values and social fluidity, the issues of inequality, migration, growing populism and even rising new fascistic voices reveal the vulnerability of our societies and values. Recognising Diversity and linking the various groups improves social and spatial cohesion and is an important contribution to a democratic, peaceful coexistence based on human rights.

Research

Spaces are created by social action, at the same time social action is dependent on spatial structures. Research done on a relational concept of space⁶¹ gives new answers to the dynamic relationship between the Diversity of society reflected in the Diversity of the space, which again has an impact on society. Specific interest is shown in urban Diversity in the field of planning, design and construction⁶² in connection with diverse quality assurance instruments. As places, especially cities and peri-urban areas, are becoming increasingly heterogeneous and complex, "difference-oriented urban planning"⁶³ has been introduced to cope with the increasing differentiation in



⁶¹ Löw, M. (2018), p. 44.

⁶² Tsan-Kok, T., Van Kempen, R., Raco, M., Bolt, G. (2013).

⁶³ Cattacin, S., Gamba, F. (2019).

modern societies and their needs. ⁶⁴ Growing depopulation of rural areas is countered by redefining them as living environment, improving the viability and competitiveness of all types of agriculture, promoting innovative farming practices and sustainable forestry, and diversification of rural economies. ⁶⁵

Diversity in Baukultur and relation to other Baukultur criteria

The criterion of Diversity in *Baukultur* is of great significance in terms of its social function for space. *Baukultur* taking into account the criterion of Diversity ensures human rights, reflects and promotes inclusive societies and strengthens social cohesion by being attuned to the user's specific needs, encouraging the connection of people, thus facilitating interaction and shared responsibility, supporting mixity and the integration of all types of societal groups and preventing segregation, gentrification, alienation and abandonment.⁶⁶ It fosters places with people of different social groups, ethnic origins, various age groups, abilities and disabilities. Vibrant and mixed-use neighbourhoods with social Diversity are accessible and inclusive for everyone, contribute to democratic societies based on human rights and leave no one behind⁶⁷ – an imperative condition for public policy.⁶⁸ In rural areas, Diversity in *Baukultur* is to be understood as social Diversity of people in small centres offering a mix of functions reflected in vernacular spatial settings (landscapes, settlement patterns and buildings).

As Diversity is a very transversal criterion, aspects of this concept can be found in other criteria constituting *Baukultur*: a diverse culture of planning and decision-making involves all relevant actors and heterogeneous societal groups in the process (→ Governance); openness (flexibility and adaptability) of structures and planning contexts allow a diverse mix of functions of places, which adapt to changing, mixed uses and users with easy access for all people (→ Functionality); fostering natural values, and particularly biodiversity, leads to natural and landscape Diversity (→ Environment); diverse ownership structures and investment models offer openness for innovation and various income groups (→ Economy); reacting in a sensitive way to Context and improving or creating Beauty (→ Context, Beauty) increases Diversity in the form and shape of the built and non-built space. These aspects of the Diversity criterion are dealt with in the aforementioned other criteria.

How to achieve high-quality Baukultur in terms of Diversity

Residential, work and leisure places have to be developed and structured to allow social and economic mixity, offering diverse layouts and designs.⁶⁹ High-quality *Baukultur* ensures Diversity by conceiving barrier-free and gender-equitable⁷⁰ places – taking into account the needs of children and young people equally – to be able to contribute to social Diversity and inclusion for all. High-quality *Baukultur* enhances connections between people also, but not exclusively, in well-designed public spaces, allowing diverse forms of living together and at the same time reflecting one's own attitude towards diverse forms of families, social groups and people of various origins

⁶⁴ Cattacin, S. (2011).

^{65 &}lt;a href="https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/rural-development_en">https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/rural-development_en. See also: European network of rural development (ENRD) of the European Commission with its publication EU Rural Review 3 "Rural Diversity", January 2010, https://enrd.ec.europa.eu/publications/eu-rural-review-3-rural-diversity_en.

⁶⁶ Council of Europe (2003).

⁶⁷ Human rights-based approach (HRBA) e.g. as principle one of the UN Sustainable Development Cooperation Framework, https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach, in relation to social protection see e.g. https://socialprotection-humanrights.org/introduction-to-a-rights-based-approach/.

⁶⁸ Council of Europe (2018).

⁶⁹ Jacobs, J. (1961); Lynch, K. (1962).

⁷⁰ Building gender equality into urban planning in seven European cities: https://ec.europa.eu/regional-policy/en/projects/Greece/building-gender-equality-into-urban-planning-in-seven-european-cities; see also: UN Habitat (2012).

and ethnicities ensuring human rights. Shared ownership and shared identity of a place with high economic and social resilience can be created through a shared perception of a place supported by democratic participative co-decisional processes – in our specific case in the planning and construction domain. People are combined into spaces and linked with each other through imagination or memory, social goods and language. This mixity and proximity prevent segregation through the economic impact of whole urban areas with prohibitive rents for most of society or, at the other end of the scale, the abandonment of large quarters.

Public space, squares and green areas with a high quality of stay are designed, preserved and have to remain public to offer attractive and stimulating possibilities for easy access and frequent interaction among people of different social groups. This is an important element of social integration. Social and design Diversity in high quality thus stands as a premise for each planning or building action of high-quality *Baukultur*, with the aim of preventing gentrification and ghettoisation of specific groups in certain areas by maintaining or creating features of a place preventing it from being claimed by any one group, and indirectly, but crucially, enhancing its safety. In rural areas, traditionally and regionally shaped communities can be, to some extent, very diverse. The uses of living and working often take place in quite confined spaces, the age structure is or was often mixed; on the other hand, it should be noted that Diversity brought in from outside is met with reduced acceptance. Rural Diversity has to be maintained specifically for community resilience in the future, and encouraged as abandonment and depopulation tend to reduce said Diversity.

Key questions to be answered for assessment

- Does the place ensure human rights as equality, freedom, safety and livelihood?
- Does the place contribute to vibrant and mixed uses (e.g. housing, working, leisure, etc.) in relation to its characteristics?
- Does the place promote and provide diverse attractive and comfortable private and public spaces to connect people?
- Does the place promote a mix of users (e.g. by gender, age, ability, origin, etc.) and diverse communities in relation to its functions?
- Does the place show shared responsibility for private, but above all for public spaces (e.g. through participatory processes, neighbourhood associations, etc.)?
- Does the place prevent segregation, gentrification and ghettoisation of specific groups in certain areas?
- Is the place socially resilient?

Context

Davos Declaration - Article 8

"The design of the built environment, the relationships between objects and their built and natural surroundings, spatial coherence, scale, materiality: these are all factors which have a direct impact on our quality of life."

Article 9

"Cultural heritage is a crucial component of high-quality Baukultur."

Principle

High-quality Baukultur results in spatial coherence.

Places of high-quality Baukultur refer to their built and natural Context. They embrace built heritage and contemporary creation, and dialogue with local features and their characteristics in terms of age, scale, typology and materiality.

Definition

Context, in this paper, is understood as spatial and temporal Context and means the nature and quality of the relationship between the surroundings and a place over time. Context considers all the characteristics, connections and phenomena of a geographically defined area in which a place – a single building or a larger unit such as an industrial estate or village – is embedded, or in other words how a place is in relation to its surroundings at any scale through time.

In Europe and in large parts of the world, there is hardly any untouched natural Context left and even building on non-built greenfield sites equates by definition to transforming an already anthropogenic space where people find themselves in cultural landscapes shaped by human beings and their traditions through centuries. All space-related activities in a place, such as planning, new construction, retrofit of building stock and preservation of the built heritage, have an impact on the spatial Context and modify the existing situation. They will equally influence the future potential of the place and inscribe themselves into its spatial and temporal Context. The relationship between a place and its built and non-built Context is determined by its large scale cultural landscape and morphological characteristics, such as urban grain, coherence, scale, materials, colours, etc. which distinguish and define the quality of a place, integrating coherently spatial with temporal features.

Research

Research defines spatial Context under quite different aspects, but basically it treats the types of relations a place has with its surroundings and its scale-dependency. Global challenges such as rural exodus, the enormous growth of cities and the massive construction activity in the last century have created new issues to research on



spatial Context and its quality. Historic urban settlements have been under pressure, abandoned, demolished, transformed, enlarged. After the adoption of the European Landscape Convention⁷² with its holistic understanding of landscape, policies and research have been committed to comprehensively recording and assessing landscape quality,⁷³ not exclusively of particularly beautiful or protected landscapes, but also considering the general importance of the landscape for the conservation of the diverse natural and cultural heritage.⁷⁴ Research programmes investigate how spatial quality can be defined, integrating history and how such qualities can be produced, improved and developed.⁷⁵

Studies of spatial and temporal coherence of a Context are of central interest in relation to *Baukultur*. Important in this regard is research on the coherence of urban form understood as interacting systems. Complex large-scale wholes are assembled from tightly interacting subunits at many different levels of scale and type, in a hierarchy going down to the natural structure of materials. A variety of elements and functions at the small scale is necessary for large-scale coherence. ⁷⁶ In addition to essential form-based (normative) concepts in urban design, there are material, typological, historical and aesthetic concepts as well as function-related aspects that influence Context and its coherence.

Context in Baukultur and relation to other Baukultur criteria

The three-dimensional spatial extension of places, containing most of the time different temporal layers, must be defined depending on the place scale under consideration. Existing and planned places of any type and scale stay in a complex relationship and dialogue - reflecting small or large-sized characteristics - with landscape, urban grain, typology, colour and materiality. Integrating new objects into a given Context can increase, maintain or diminish the spatial coherence and the quality of the place with regard to its cultural landscapes, built heritage, building stock, existing infrastructure, public and green spaces. The Context criterion gives evidence of these relationships and connections and assesses them in terms of spatial and temporal coherence: depending on the concrete realisation, planning and building measures influence the scale of the Context, take up existing open landscape, infrastructure, settlement structures, density patterns, building typologies, volumes, materials, colours and the specific history of the Context or oppose them, whereby in specific cases both approaches can be of high quality. Built heritage is valued by positive relationships with new buildings, it is preserved and protected or harassed by insensitive reaction to the setting, and impaired or demolished for new developments in the worst case; building stock is reused, converted, repaired or renovated. A pedestrian scale is maintained or a motorised perspective is taken into account. Public and open spaces are available and integrated into the urban patterns.

The aspects of social Context (→ Diversity), economic Context (→ Economy), natural Environment (→ Environment) as well as identity through Context (→ Sense of place) are dealt with in the aforementioned other criteria.

- 72 European Landscape Convention of the Council of Europe, adopted on 20 October 2000 in Florence (Italy): https://www.coe.int/en/web/landscape.
- 73 https://urbanmaestro.org/about/. See also the LABES project, part of the "Landscape Monitoring Switzerland" (LABES) project, on landscape perception delivers statements on cultural, experience-based assessments of "landscape" observing the landscape quality and assessing it with indicators https://www.bafu.admin.ch/bafu/en/home/topics/landscape/state/indicators.html. Cassatella, C., Peano, A. (ed.) (2011). Landscape character assessment (LCA) in UK: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/691184/landscape-character-assessment.pdf. Tudor, Ch. (2014).
- 74 e.g. ETH Zurich with its Network City and Landscape (NSL) and Grêt-Regamey, A., Neuenschwander, N., Wissen Hayek, U. et al. (2012).
- 75 e.g. Swiss National Research Programme NFP65 on "New urban quality". See: Angélil, M., Christiaanse, K., Lampugnani, V. M., Schmid, Ch. (Kretz, S., Kueng, L. ed.) (2016); Sulzer, J., Desax, M., Leitungsgruppe NFP 65 (ed.) (2015), Wehrli-Schindler, B., Leitungsgruppe NFP 65 (ed.) (2015).
- 76 Urban coherence was originally introduced on a conceptual basis by Salingaros, N. (2000). Caliskan, O., Mashhoodi, B. (2017) propose a computational framework and an analytical method for the definition and measurement of urban coherence.

How to achieve high-quality Baukultur in terms of Context

The key to creating and maintaining places of high-quality *Baukultur* as regards Context is to take into account the surroundings and their history adopting a deliberate and careful approach to their development. The quality of the spatial Context of a place is influenced by and depends on the specific geographic, social and economic setting. The existing state and character of any place in its historical, physical and spatial configuration is to be taken as a compelling and profitable starting point for high-quality *Baukultur*.⁷⁷ Any intervention should be made understanding and in knowledge of the existing place and its Context at the pertinent scale, having executed prior analysis and studies: from small-scale neighbourhood to large-scale cultural landscape. New buildings and settlements need to be embedded not only in the spatial Context but also in the cultural history of the respective places in a way that preserves and develops its coherence and identity.

At the level of regional and supra-regional spatial development, common goals and strategies, clear and binding provisions for joint development endeavours are pre-requisites for spatial coherence, key elements are regional development strategies, promotion of cooperation, superior coordination of sectoral policies and their alignment towards a common vision. Spatial concepts with broadly formulated themes and larger geographical units can strengthen horizontal coordination, to think and act more regionally, beyond local self-interest.

At local and building level when contemporary creation – whether planning, new construction or conversion – addresses the built and non-built Context, the required outcome is a respectful dialogue with regard to the existing, regional specificities, built heritage and new creation. Built heritage must be enhanced or preserved, contemporary creation respects the specific features of the natural and cultural heritage, of open landscapes, sites and buildings, including their Context. In the best of cases of high-quality *Baukultur*, contemporary creation provides spatial coherence between existing qualities and characteristics of landscape, urban grain, typology, colour and materiality. The objective of spatial coherence does not mean lacking conviction and timidly fading into the Context: while a design based on the current proportion, scale, materiality and colour can be the best approach, setting a distinct, new emphasis at the right place with adequate means in an existing settlement pattern may reinforce and accentuate its inherent Context quality or bring out a new quality.

Context as a criterion should also not be neglected if a new building or several new buildings or infrastructures are being constructed in more recent Contexts. The skilful reference of the design of objects to their Context or the unrelated juxtaposition of the same, without paying attention to the Context, can occur in every planning and building activity and in any place.

Key questions to be answered for assessment

- Was the Context of the place studied and thoroughly analysed prior to the programming of the intervention?
- Does the place dialogue reflecting small and large-sized characteristics with the surrounding open landscape, urban grain, colour and materiality?
- Are built heritage and regional specificities (e.g. unity of built heritage, existing and contemporary creation and landscape qualities) recognised and preserved, adopted and integrated in all interventions?
- Does contemporary creation dialogue respectfully with the features of the Context of a place and does it preserve and enhance the quality of the place?
- Does the Context of the place contain green spaces that are easily accessible and does it preserve and enhance the quality of the place?

Davos Declaration - Article 10

"High-quality Baukultur improves our sense of place."

Principle

High-quality Baukultur improves the Sense of place.

High-quality Baukultur shows characteristics that foster people's emotional response to the place establishing a positive relationship with it. It promotes attachment to the place through its strong identity and distinctiveness, thus contributing to fulfilling social, psychological and cultural needs.

Definition

The current megatrends of globalisation, digitalisation and intense mobility have increased the yearning for distinct places with a strong and specific identity. Sense of place is a multidimensional, complex construct which characterises the relationship between people and spatial built and non-built settings. It is often used in relation to those characteristics that make a place special or unique, as well as to those that foster a sense of authentic human attachment and belonging.⁷⁸The authenticity of the place is characterised not only by its natural and physical identity but fundamentally also by its social fabric and associated interaction. Together, they form the basis of the cultural identity of a place and give meaning to life in that place. These characteristics are either intrinsic to the place or the meaning people give to it, but more often a mixture of both. The umbrella concept Sense of place includes such aspects as place attachment, place identity, familiarity, belonging, etc. Places said to have a strong Sense of place have a strong identity that is deeply felt by inhabitants and visitors.⁷⁹ Locally specific topographic, morphological and socio-economic structures determine and shape the character of a place, its atmosphere, but also its capacities for action and problem solving, thus structuring the lives of people.⁸⁰

Research

There is increasing interest in the relevance and complexity of the relationship between people and place in the context of rapid and interconnected global changes, but the evidence is scattered. Sense of place as a comprehensive concept is not conclusively



80 Löw, M. (2010), p. 64.

⁷⁸ ICOMOS International (2008) *Québec Declaration on the Preservation of the Spirit of the Place* taking into account tangible (sites, buildings, landscapes routes, objects) as well as intangible elements (memories, narratives, written documents, festivals, commemorations, rituals, traditional knowledge, values, textures, colours, odours, etc.), which all significantly contribute to making a place and to giving it spirit, putting the focus on the performance of cultural heritage.

⁷⁹ See the basic research on Sense of place by Shamai, S. (1991), p. 355. Measuring Sense of place e.g. Shamai, S. (1991) and Shamai, S., Ilatov, Z. (2005).

defined, ideas and terms used are often vague, overlapping and interchangeable with ever new facets. In recent decades, research on Sense of place has shown three contrasting conceptual traditions:⁸¹ phenomenological research, which examines experiential aspects of Sense of place as the sensory, perceptual, emotional and cognitive dimensions of human experience; empiricist-analytic research mostly associated with environmental psychologists, which applies measurable criteria to Sense of place and correlates respondents' degree of place involvement with independent variables like social status, home ownership and community ties via measurable criteria drawn from interviews, questionnaires and observational studies;⁸² and social-constructionist research, which examines how human attributions of Sense of place are a social and cultural construction of reality.⁸³

Sense of place seems to be a key factor in adapting to ecosystem changes and transformations and is important in motivating people to act on behalf of their Context. The relationship between people, place and nature helps to explain social motivations and identify behaviour leading towards sustainability. Hethodical approaches and practical tools for analysis and spatial representation of the different ecosystem and landscape performances to support spatially relevant decisions are to be further developed and implemented, values and qualities of landscapes to be perceived and enhanced. The potential of a strong Sense of place to provide high performance of landscapes and sites as housing, work and recreation locations, offering aesthetic enjoyment, supporting identification with and familiarity of people living there, contributing to attractiveness for inhabitants and tourists and having positive economic effects on margins and sales of products, the property market, regional economy and business location are still to be investigated more deeply.

Sense of place in Baukultur and relation to other Baukultur criteria

Sense of place in relation to *Baukultur* is understood in this paper as the general concept which describes the relationship between people and their (local) spatial settings, subsuming concepts such as place attachment, place identity and place dependence. Place attachment is defined as a positive emotional bond that develops between groups or individuals and their space, at any scale and thus including landscape and nature. Place identity represents those aspects of self-identity which involve and are reflected by the space and its social and personal meanings. Place dependence refers to how well a setting serves goal achievement, given an existing range of alternatives. Sense of place is influenced and conditioned by a place's spatial but at the same time societal identity and vice versa: the character of these relations is reciprocal and dynamic. The following ideas are commonly discussed in literature and encompass a Sense of place: place attachment, place identity, place dependence, privacy, sense of belonging, social interaction, familiarity, social and nature bonding and aesthetics. Se

Aspects of the criterion Sense of place, such as the aesthetic perception of the Beauty of a place (\rightarrow Beauty), social Diversity and cohesion (\rightarrow Diversity), the different topographic and physical-constructive layers and characteristics of the surroundings (\rightarrow Context) and civic participation (\rightarrow Governance) are dealt with in the aforementioned other criteria.

⁸¹ Seamon, D. (2021).

⁸² Manzo, L. C., Devine-Wright, P. (ed.) (2021).

⁸³ Cresswell, T. (2014).

⁸⁴ Masterson, V. A., Enqvist, J. P., Stedman, R. C. et al. (2019).

⁸⁵ Hunziker, M., Buchecker, M., Hartig, T. (2007); Jorgensen, B. S., Stedman, R. C. (2001).

⁸⁶ Place attachment: Low, S. M., Altman, I. (1992), place identity: Proshansky, H. M., Fabian, A., K., Kaminoff, R. (1983), place dependence: Stokols, D., Shumaker, S. A. (1981), privacy, sense of belonging and social interaction: Kyle, J. B. (2007), cultural bonding/familiarity: CEM (2010), nature bonding: Wolf, K. L. (2010); see also use as indicators by Gokce, D., Chen, F. (2018).

How to achieve high-quality Baukultur in terms of Sense of place

High-quality *Baukultur* results in places with which people have a special connection, places that the local people are proud of, that they take an interest in and commit to,⁸⁷ that are also attractive to others, and therefore express a strong Sense of place. Social research and environmental psychology have shown that people who are aware of and familiar with the characteristics of a place, its specific identity and history, can relate more to the place and experience it as a special location.⁸⁸ High-quality *Baukultur* improves and supports emotional attachment to a specific place (place attachment), prevents crime and vandalism⁸⁹ and thus contributes to people's well-being. People like to live and work in urban and rural places in which they feel rooted and are generally positive about.⁹⁰ Social bonding, interaction and belonging create familiarity and connection with people and contribute to a Sense of place. This also happens, although not exclusively, in the interaction with physical space. Most people prefer places with a distinct identity as opposed to faceless settlements and landscapes. There is a host of connections and interrelations among people (and their identities) and their built and non-built living space (and its identities).⁹¹

A respectful dialogue with the existing spatial Context simultaneously respects the existing place identity and strengthens the Sense of place, which is fragile and can react sensitively to excessive violent or ill-considered interventions. Sense of place can emerge or be congenially enhanced and "built up" through a smart upgrade of non-structured urban sprawl, by maintaining existing and creating new authenticities and identities in the space, and through neighbourhood development with strong civic participation. Specific, non-standardised solutions strengthen design variety, thus preventing regional or local differences from becoming levelled out and giving people emotions and reasons to develop an attachment. Design tradition, technological innovation and social change therefore serve as equal starting points for high-quality contemporary work and reuse creating places where people are proud of their special identity and attractiveness. Sense of place can be threatened and endangered by political, social, economic and other changes as well as by planning and construction activities, which do not add layers of meaning but destroy or dilute them. Cultural heritage is fundamental to anchoring people's understanding of history. Places – consisting of family, friends and enemies, work and leisure, nature and landscape, colours and smells - offer a number of built and non-built references contributing to individual and collective emotion and memory.

High-quality *Baukultur* in terms of Sense of place is achieved by measures that must be especially defined for each spatial situation. It can be accomplished in a variety of ways, as long as the locally-specific human requirements are included among the central goals. High-quality *Baukultur* recognises and respects all aspects of multi-diverse identity to offer a specific Sense of place for everybody.

⁸⁷ Semken, S., Butler Freeman, C. (2008); Proshansky, H. M., Fabian, A. K., Kaminoff, R. (1983), p. 57–83.

⁸⁸ Illies, C. (2019).

⁸⁹ e.g. Hedayati Marzbali, M., Safizadeh, M., Tilaki, M. J. M., Abdullah, A. (2021); Foster, S., Giles-Corti, B. (2008).

⁹⁰ Nagel, R. (2015), p. 19.

⁹¹ Baumberger, C., Brun, G. (2013); Löw, M. (2010) p. 65ff.

⁹² Lynch, K. (1960), Council of Europe (2009).

⁹³ See paragraph Diversity, p. 35.

Key questions to be answered for assessment

- Is the place set apart by its local character, distinctiveness, authenticity and identity, which promotes people's bonding with the place?
- Does the place foster place identity, place attachment and thus contribute to a sense of belonging?
- Does the place show nature and landscape qualities enhancing nature and landscape bonding?
- Are local and regional values and the history of communities and individuals respected by materiality, design, construction and management of the place and transmitted to future generations?
- Is the use compatible with the carrying capacity of the place, maintaining or improving the quality of space as well as the integrity of human life within it?
- Does the place contribute to spatial and social cohesion by creating or enhancing opportunities for social interaction, reinforcing a shared vision of its identities and civic pride?

Davos Declaration - Article 8

"A high-quality *Baukultur* is therefore expressed in the application of conscious, well-debated design to every building and landscaping activity, prioritizing cultural values over short-term economic gain."

Principle

A place of high-quality Baukultur is beautiful.

High-quality Baukultur takes into account the sensory perception and understanding of the relationship between objects, spaces and people, increasing people's life satisfaction and quality of life. It emphasises the need for positive aesthetic appreciation and a fulfilling relationship between people and the place.

Definition

The Vitruvian *venustas* implying a visual quality in architecture that would arouse the emotions of love and delight has evolved over time. Until the eighteenth century, most philosophical accounts of Beauty treated it as an objective quality. After 1750, the traditional value of proportion and ornament became highly controversial and with the introduction of the term "aesthetics" by Alexander G. Baumgarten, the visual merits of all artefacts tended to be assessed more subjectively as judgement of reason – despite Kant's definition of Beauty with its claim to "subjektiver Allgemeinheit" (subjective universality) – and lost its value after 1800, when Beauty was "altogether in the eye of the beholder".

Beauty is not a physical value and measurable like height or width, there is no intrinsic variable of beauty or non-beauty within a place, but a judging ascription of characteristics and values to an entity that provides a perceptual experience of pleasure or satisfaction, leading to feelings of attraction and emotional well-being. Besides the subjective perception of the beholder of the Beauty of an entity,⁹⁴ there are objective criteria determining Beauty by mechanisms and properties that seem to be preferred irrespective of culture and personal preferences.

Research

Research and debate on arts and Beauty have been democratised and now involve more people than in the past. Important studies have been done on the broad variety of associations people have with Beauty, generally including nature, memories, happiness and appreciation. An interesting finding is that where places are con-



⁹⁴ Beauty can be perceived and interpreted differently according to one's identity and over time, and even within the same culture, different concepts of beauty can come into conflict: Eco, U. (2004).

cerned, people seem to relate Beauty more often to their overall emotional experience of it than to a specific visual experience. 95

Subjectivity, located "in the eye of the beholder", or objectivity, objective features of a beautiful thing, is the basic issue in the theory of Beauty and still debated today. Research states that people do agree on what they perceive as beautiful to a certain extent and within a given period and cultural frame of reference, hence Beauty is neither fully subjective nor solely a question of taste. 96 Attractiveness research on the human face reveals a high level of uniformity when judging the Beauty of human faces or proportions. Neuroaesthetics focuses on the psychological, neuronal and socio-cultural bases of perceived Beauty.⁹⁷ This discipline within cognitive neuroscience is concerned with understanding the biological bases of aesthetic experiences involving appraisals of natural objects, artefacts and spaces. Recent evidence shows that aesthetic experiences emerge from the interaction between sensory-motor, emotionsvaluation, and meaning-knowledge neural systems. 98 Objective evidence of Beauty is gathered on the biologically measurable positive or negative response of humans to different aesthetic encounters. A series of characteristics seems to contribute significantly more to the individual positive perception than others and may be linked to the experience of Beauty, although partially conditioned by the cultural experience of the subjects. Current work in neuroaesthetics and evolutionary biology has shown that there is a link between environmental design and human response and that in various domains most people have preferences for certain design and space shapes and forms; this was shown by participants, who were exposed to different types of facade styles and who expressed positive or negative emotions which were measured.99

There is widespread and intersubjective agreement¹⁰⁰ as to the aesthetic effect of a landscape on people, or as regards how they perceive and judge the landscape. Nevertheless it becomes complicated to scale dependency from a natural science and a social perspective when assessing landscapes. For example, some changes in landscapes may be accepted by the majority of the country but not by the local population¹⁰¹ or place quality with certain formal characteristics is assessed totally differently by locals compared to foreign observers.

Beauty in Baukultur and relation to other Baukultur criteria

Beauty in *Baukultur* results from a highly positive aesthetic, spatial and atmospheric impact on the beholder who experiences the place emotionally. The beholder, whether a person or society in general, has a sensory perception of the place, expresses an opinion and judges its Beauty. The "perceived beauty of landscape" represents a fundamental cultural and experience-based assessment in landscape monitoring. In the context of *Baukultur* "perceived beauty" in relation to a specific place always includes its Context or – depending on its scale – the surrounding landscape. The emotional experience 104 of Beauty has to be followed by a rationally founded attribution of specific

- 95 Ipsos MORI (2010), p. 4.
- 96 Mader, E.-O., Mang-Bohn, J. (2019).
- 97 e.g. in Germany the Max Planck Institute for Empirical Aesthetics in Frankfurt a. Main with research on music and literature; Max Planck Institute for Empirical Aesthetics (2019).
- 98 Chatterjee, A., Vartanian, O. (2014); Coburn, A., Vartanian, O., Chatterjee, A. (2017).
- 99 Ellard, C. (2019) and related research.
- 100 Hunziker, M. (2010), p. 33–41; Hedblom, M., Hedenås, H., Blicharska, M., Adler, S. et al. (2019).
- Hunziker, M., Buchecker, M., Hartig, T. (2007). Space and place Two aspects of the human-landscape relationship. In: Kienast, F., Wildi, O., Ghosh, S. (ed.) A changing world. Challenges for landscape research (p. 47–62).
- 102 Herold, S. (2018), p. 394.
- A survey conducted as part of the "Landscape Monitoring Switzerland" (LABES) project, on landscape perception delivers statements on cultural, experience-based assessments of "landscape". Data was gathered on the indicators of "particular type of the landscape", "authenticity", "fascination", "perceived beauty of the landscape", "perceived landscape quality in the living space", "place attachment": Bundesamt für Umwelt (BAFU) und Eidg. Forschungsanstalt für Wald, Schnee und Landschaft (WSL) (ed.) (2013), p. 42–60; see also: https://www.bafu.admin.ch/bafu/en/home/state/indicators.html. Cassatella, C., Peano, A. (ed.) (2011).
- 104 Pallasmaa, J. (2014), p. 237.

aesthetic value.¹⁰⁵ Smart and profitable marketing aside, there are places universally known as being of incomparable Beauty, which are aesthetically, socially and economically stimulating for their communities and which make them a destination for visitors of every social class and culture. There are landscapes of outstanding Beauty perceived as such by everybody and some of them are assessed and listed.¹⁰⁶

Place quality referring to the relationship of people in terms of place attachment, place identity (→ Sense of place), specific geographic spatial Context (→ Context) as well as social (→ Diversity) and economic (→ Economy) values of Beauty are dealt with in the aforementioned other criteria.

How to achieve high-quality Baukultur in terms of Beauty

There are no universal Beauty standards or canons anymore and the values ascribed to a place and the meanings allocated vary among individuals and over time. There is no possible return to the belief that there is only one architectural style to be implemented to be able to create beautiful buildings¹⁰⁷ or infrastructure works and high-quality garden culture and landscape architecture today are wanted and accepted as diverse. However, this does not make Beauty arbitrary. Beauty must be an explicitly declared objective of any place-making, of any planning or building activity to achieve high-quality *Baukultur*. To reach this objective, professionals and experts must engage in an ongoing, broad debate on what is or can be perceived and judged as beautiful based on rationally founded experience, going beyond the simple question of good design, in parallel taking into consideration discussion and empirical data on what local people like. ¹⁰⁸ Lively discussion and debate must take place on different levels, as Beauty in *Baukultur* is relevant to everyone and has to be conceived not as an exclusively expert issue and additional cost factor, but as an essential cultural value and shared perception.

Professionals and experts are called to conduct research and establish the reasons for qualifying a place as beautiful. That requires empirical qualitative surveys¹⁰⁹ of local views and preferences and may include formal indicators, such as balance, proportion, materiality, illumination, etc.¹¹⁰ for the assessment. Such indicators may differ depending on the place in question and full transparency is required regarding the applied value judgements.

Key questions to be answered for assessment

- Does the place have an aesthetic, spatial and atmospheric impact on the beholder?
- Does the place make people feel at ease?
- Do people perceive the place as beautiful?
- Is the place attributed specific aesthetic values, balanced between its formal qualities and its integration in its complex Context?
- Does the place's Beauty contribute to people's well-being and life satisfaction?

¹⁰⁵ Scruton, R. (2011), p. 7.

e.g. World Heritage List, criterion vii "to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance": UNESCO (2019b); Mitchell, N., Leitão, L., Migon, P. and Denyer, S. (2013).

¹⁰⁷ Building Better Building Beautiful Commission (2020), p. 19.

Building Better Building Beautiful Commission (2020), p. 101; see also: Cullon, T. G. (1961).

¹⁰⁹ Ipsos MORI (2010).

Indicators listed in relation to good design, high-quality architecture principles: balance, proportion, symmetry, simplicity, complexity and variety, unity (in variety), composition, rhythm, movement, emphasis/contrast, articulation, expression, space, alignment, materials, scale, transparency, authenticity (sources: Design Quality Indicator (DQI) of UK http://www.dqi.org.uk/, Indicators to measure design quality of buildings https://core.ac.uk/download/pdf/42955784.pdf, Design principles www.designingbuildings.co.uk/wiki/Design_principles, etc.).

5 Target groups and scope of the Davos Baukultur Quality System

The present Davos *Baukultur* Quality System offers an inspiring basis to define, understand and objectify high-quality *Baukultur* and scientifically deepen its concept, to disseminate and communicate it to the public, to provide decision-makers with arguments, to be integrated into a political or legal framework, represent a political and social message, guidance and much more. It can be used as a reference or appropriately incorporated into existing activities and plans. It is complementary to any existing processes, tools, consultative bodies, legal systems and regulations. The Quality System is a comprehensive foundation for an objective assessment of the quality of *Baukultur*.

In the future, the Davos *Baukultur* Quality System can be further developed and adapted to the specific needs of its users. This specification and refinement can be done by its users adapting the questionnaire to a certain target group, a specific task, a determinate typology of preservation, planning or construction. A systematic definition of relevant indicators and their integration into the Quality System still needs to be elaborated.¹¹¹

The main target public to adopt and use the Quality System are *Baukultur* professionals and experts in public authorities and administrations as well as specialists in preservation in both the public and private sectors, planning, design, construction, manual trades, reuse, including investors, developers, owners and operators as well as professional associations and NGOs in the field of *Baukultur*. The majority of these professionals and experts are directly involved in spatial action and development. They have a big impact on the quality of space.

However the Davos *Baukultur* Quality System may be used not only by specialists, but also by non-specialised target and user groups from different backgrounds. *Baukultur* and its quality concerns all people and is visible, perceptible and experienceable every day in their living environment. The Quality System can help to raise awareness; it assists people to reflect on the quality of *Baukultur* and provides a tool to assess the *Baukultur* quality of a place.

The possible fields of application of the Quality System are wide-ranging. For example, it could be used as a quality criteria catalogue in the evaluation of building and planning projects, in competitions, design advisory boards or as a guideline for citizens' workshops and in various consultation and discourse formats. It can also be used to self-critically evaluate one's own realised projects or to document the success of planning processes in places. In all these cases, the potential of the Davos *Baukultur* Quality System lies in taking into account and making transparent the complete and balanced consideration of central qualitative issues of *Baukultur*.

Answering the questions of the Quality System can improve sensibility and recognition of places with a high-quality *Baukultur* among all societal and functional groups (specialists and non-specialists) and build up knowledge and general awareness of *Baukultur* issues.

6 Assessment with the Davos Baukultur Quality System

The Quality System helps assessing the quality of *Baukultur* of any type and scale of a place, both of a project and an existing place. The assessors, whether it is a single person or a group of people, may need to adapt the questions according to the specificities of the place, while still taking into account <u>all eight criteria</u> for high-quality *Baukultur*. It should be noted that a monofunctional building (e.g. a school) should not necessarily be rated poorly on the Diversity criterion, nor should a rural hamlet be necessarily rated poorly on the Environment criterion for low occupancy, since the criteria are to be interpreted and weighted differently depending on the place characteristics.

Before starting the assessment, it must be defined which framework conditions exist for the assessment, which data are available, which time and knowledge expenditure is feasible or desired, which is the object of the assessment (the assessed place). Depending on these definitions, the questions of the catalogue are to be individually adapted and the answers to them will be more detailed, more specific and longer for certain criteria with comprehensive, available bases than for criteria for which only limited or partial bases are available and answers will therefore be more general, shorter and summarised.

The time reference of the assessment is always "today", which means that, depending on the place, either a grown condition with all its time layers, a just completed object or a planned intervention can be assessed. The quality of an historic place should be assessed taking into account today's values and parameters, but the Davos Baukultur Quality System does not make any statement on the historic or cultural heritage value of a place. It can thus be implemented in many different situations: the questionnaire may address places with different chronological layers as well as places designed altogether at the same time. Used as a preliminary assessment, quality characteristics of places can be defined, shortcomings and quality deficits registered and the planning can be adapted accordingly. If the questionnaire is used and

answered after execution of planning and construction activities, the achieved *Baukultur* quality of the place can be judged.

The best results in assessment are achieved when the Quality System is completed in an interdisciplinary and participatory way. The concept of Baukultur is complex and, accordingly, the criteria to be assessed in a more detailed and objective manner are usually not manageable for one person or professional group alone. 112 The Quality System therefore represents a useful instrument to stimulate interdisciplinary, cross-sectional dialogue involving specialists and non-specialists in administration, economy, planning and construction, cultural heritage, etc. as well as locals in the discourse on Baukultur quality, the goals and measures to achieve it and capacitating them to participate and co-decide and co-shape space feeling responsible for it. The questionnaire provides a low-threshold basis for addressing the issue in public workshops, etc. and may be helpful to create a dialogue between professionals and locals.

An interdisciplinary, diverse group that assesses the quality of a place is desirable but does not represent a prerequisite, as limited issues and small places will not justify large discussion groups. However, the size of this group depends on the effort or the perimeter and the complexity of the place; the greater the effort, the more potential there is for setting up an interdisciplinary and diverse group. A system providing guidance on how to understand, assess, improve and ensure quality in *Baukultur* is highly beneficial for those users.

As a practical assessment method, the Davos *Baukultur* Quality System proposes a form to be filled in with answers to questions related to the eight quality criteria.

The answers per criterion will define the grade of fulfilment of the quality requirements for a criterion, to be explained in text form as well as to be ranked on a scale. Users are to indicate prior to their answers the bases (norms, standards, certification systems, text, archival and data sources, etc.) on which they affirm the fulfilment of a quality requirement, so that others can understand how the quality assessment was performed and how it is justified.

For a detailed objective assessment, indicators and their benchmarks may be defined for each criterion, according to the context and the type of place to assess. A series of possible indicators are listed in the annex. ¹¹³ For some of the criteria, relevant indicators may not be available. To collect the relevant data, it may therefore be necessary to conduct studies, surveys and other conceptual work.

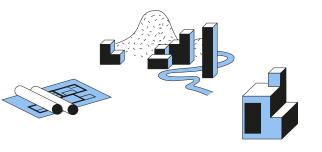
Concluding statement

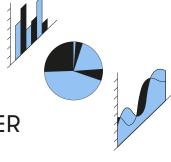
A place is of high-quality *Baukultur* if all eight criteria meet well the quality requirements. The specific situation must be considered, the assessment of rural and urban locations, of mono-functional buildings (e.g. schools) and mixed-use neighbourhoods may be based on different weighting of criteria reflecting the specificity of the place. The concluding statement in text form as well as ranked on a scale should give an overview of the specific qualities of the place, both its high-quality *Baukultur* strengths and its potential of improvement, reference the statements given for each criterion and make it comprehensive and plausible for third parties.

This is the core of the holistic and choral principle of the quality criteria for high-quality *Baukultur*.

1. CHOOSE YOUR PLACE

Define the scale and the typology of the place you wish to assess. It may be a single building, a neighbourhood, a landscape, a city, etc. It may already exist or be in the planning stage.



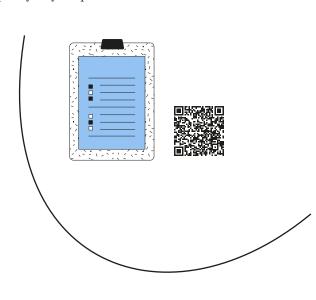


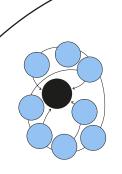
2. GATHER DATA

Collect accessible and existing general information and data on the place. You may research additional data (e.g. conducting surveys) for a more in-depth understanding of the place.

3. ACCESS THE FORM

Use the comprehensive form provided by the Davos *Baukultur* Quality System to assess the *Baukultur* quality of your place.

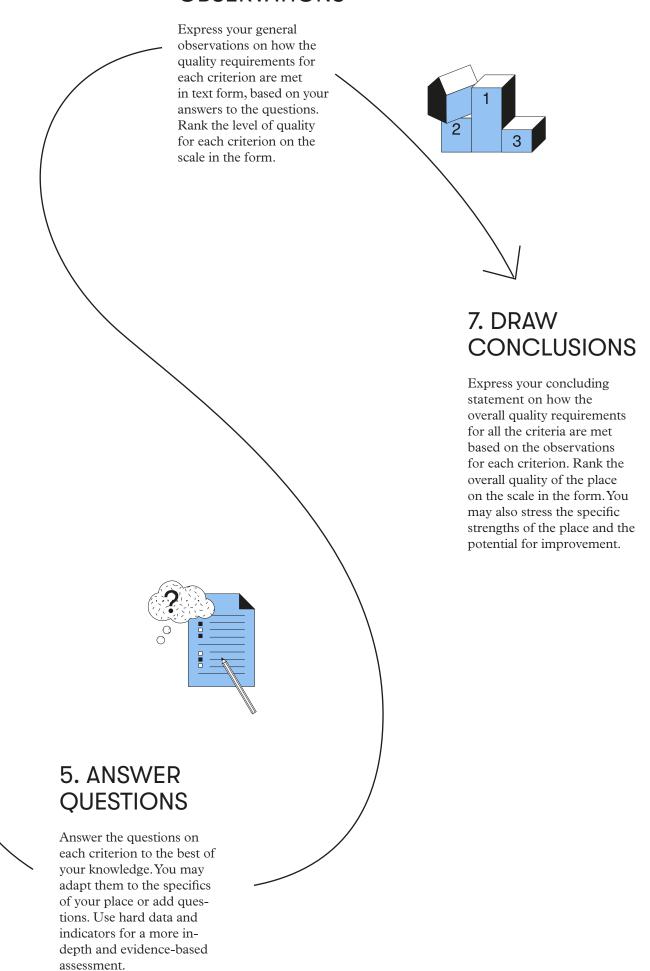




4. DISCOVER THE CRITERIA

Discover the eight quality criteria of the Davos *Baukultur* Quality System. They are distilled from the Davos Declaration, formulate related principles of high-quality *Baukultur* and will structure your assessment.

6. STATE OBSERVATIONS



7 Glossary

Archaeological site

Site or group of sites on which remains of past human activities are preserved or discovered. They are part of the cultural heritage (see: Cultural heritage). Archaeological sites are partly built and visible, but not all of them (e.g. layers of earth, alpine sites, single finds, burial sites, etc. or anthropogenic changes to natural bodies such as bowl stones or rock drawings, etc.).

Baukultur

Neutral description of every human activity that changes the space. It encompasses existing buildings, including monuments and other elements of built heritage, as well as the design and construction of contemporary buildings, infrastructure, public spaces and landscapes embedded in and relating to the natural environment. In addition to architectural, structural and landscape design and its material realisation, *Baukultur* is expressed in the planning processes for building projects, infrastructures, cities, villages, and open landscapes. *Baukultur* refers to both detailed construction methods and large scale transformations and developments, embracing traditional and local building skills as well as innovative techniques.

Baukultur, high-quality

Description of every human activity that transforms space in a positive way. Comprehends processes of a high quality, includes excellent capabilities and competencies of all those involved in any transformation of a place and results in high-quality spaces. Fulfilling the requirements of the eight *Baukultur* quality criteria leads to well-designed places of a high quality and well-being for people.

Building stock

Built structures of the past that exist in today's space, some of which may be, but not all of them, valuable Built heritage.

Built environment

The constructed space that surrounds people, which they actively shape and which in turn impacts on people's life and behaviour.

Built heritage

Comprises immovable objects which encompass part of the tangible objects identified by people as a reflection and expression of their dynamic and evolving relationship with time and space, including monuments and built archaeological sites in their relation to people. They can give evidence of manifold human activity, historic events and evolutions, artistic creations, social institutions and technical achievements. Built heritage is part of the Cultural heritage (see: Cultural heritage).

Cultural heritage

Group of resources inherited from the past which people identify as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions, encompassing intangible, tangible and digital objects, expressions or knowledge, and attaching significance to the processes associated with its creation, use, preservation, maintenance, appropriation and transmission; Cultural heritage includes all aspects resulting from the interaction between people and places through time; is inherently interdependent as continuously redefined by human actions and therefore not a static, unchanging entity, and emphasising the relationship to the spatial environment (see CoE, *Faro Convention*, 2005, art. 2).

Landscape

The entire space as people perceive and experience it (e.g. landscape quality, beauty, protection, management and planning). With its natural and cultural values, it is the spatial basis of life, i.e. living, residential, working, recreational, movement, cultural and economic space for people. Landscapes are dynamic systems and are constantly evolving due to natural factors, human use, planning and design.

Monument

Immovable objects which bear witness to the past. They give evidence of manifold human activity, historic events and evolutions, artistic creations, social institutions and technical achievements. They are part of the Built heritage (see: Built heritage). This testimonial value is allocated by society through cognitive perception, defined and listed in inventories and other.

Place

Refers to a section of space which varies in scale, size and typology. It spans interiors, single and multi-part buildings, urban fabric, neighbourhoods, a part of a village or city, a region, infrastructures, public places, green spaces and cultural landscapes, all including their relative Context. It contains all spaces with a physical dimension consisting of one or several chronological layers (planned or existing), visible or hidden, and created by human activities and experiences. Place is perceived also as a socio-physical concept assigning meanings and triggering emotions, being continuously constructed and reconstructed and relational in nature. It embodies a materialised form of social and political structure with a reciprocal impact on socio-political processes.

Space

The environment in which people live, move and spend time, in which they are active, which they actively shape and which in turn impacts on people's life and behaviour.

8 Case studies

The Davos *Baukultur* Quality System has been tested in real case studies of different types of places in different countries and was assessed for its applicability two times during its development (July 2020 and October/November 2020).

The feedback of the testing contributed successfully to the improvement and finalisation of the Quality System. The following is a list of the places tested and by whom.

Slovenia, July and November 2020

Co-ordinated and edited by Špela Spanžel

Institute for the Protection of Cultural Heritage of Slovenia (Mateja Kavčič):

• Podsreda, small settlement and its surroundings

Museum of Architecture and Design (Matevž Čelik):

 Planica, Nordic Centre, sports architecture in the Triglav National Park

Ministry of the Environment and Spatial Planning, Spatial Planning, Construction and Housing Directorate (Jernej Červek):

 Zgornje Jezersko, preservation of a typical settlement in the highlands

Institute for the Protection of Cultural Heritage of Slovenia (Mateja Kavčič, Katarina Odlazek, Irena Potočnik, Boris Deanovič):

 Plečnik's Ljubliana, heritage of Jože Plečnik (1872–1957) enhanced

Aleš Vrhovec (member of the OMC group of Member States' experts on High-quality architecture and built environment for everyone):

 general observations in relation to the new Islamic Religious and Cultural Centre in Ljubljana

Germany, November 2020

Bezirksamt Mitte von Berlin, Stadtentwicklungsamt, Fachbereich Stadtplanung (André Zschaler):

• Berlin, Karl-Marx-Allee, second Bauabschnitt, pavillions

Switzerland, October/November 2020

Graser Architekten, Zurich (Jürg Graser, Mike Fingelton, Maike Hunds, Beda Troxler):

- Biel-Bienne, Tour de la Champagne, housing tower 1968–1970, retrofitting
- Berne, Gewerblich-Industrielle Berufsschule GIBB 1996–1999, new ensemble integrated into heritage context
- Berne, urban development Brünnen, city border
- Fläsch, village, positive rural development
- Burgdorf, castle, 13th century, reuse, conversion of heritage

Tribu architecture (Gaël Cochand), Lausanne, in collaboration with Fondation Culture du Bâti (CUB):

- Geneva, lido, 2019, landscape protection and redevelopment
- Trélex, maison Minergie, 2016, single-family house in single-family-house context
- Bellevaux, apartment buildings 1930s,
- Viaducs de Chillon 1966–1969, integration of infrastructure into listed landscape

9 Indicators for evidence-based assessments of Baukultur places

Professionals and experts who wish to execute a thorough and evidence-based assessment of the Baukultur quality of places, may adopt the Davos Baukultur Quality System answering the questions by going more into detail with the collection of further information and more precisely indicators. Information may be procured in the different disciplines involved in Baukultur, data access and availability will not always be easy and comprehensive. Sometimes, even the conducting of surveys or analyses would be helpful. Quantitative and qualitative indicators are assessed by different means and methods. Quantitative assessment methods consist of quantitative content analysis (data, structures, sources), standardised interviews, surveys, standardised observation, monitoring, mapping, observations, statistics, counts, estimates, etc. Qualitative assessment methods are qualitative content analysis, interpretation, value judgements, individual interviews (focus groups), polls, monitoring, mapping, design competitions, etc. The assessment methods depend on the data available and the data to be collected, concrete specific figures, Likert scale results, survey and interview results in various forms to support the indicators. Users of the Quality System need to indicate on what bases the answers are formulated, if indicators were applied and what standards, norms, certification systems were used.

The indicators proposed in the non-exhaustive list below are related to the criteria and provide a possible basis for answering the questions with evidence. This list is a first start towards a complete objectivity of the assessment of the quality of *Baukultur*, which will need more deepening in the future. Further questions may be added and users may adapt the Quality System with additional indicators to answer the questions properly. The assessing group or person will specify the used indicators, explain them and define the relevant parameters with regard to high-quality *Baukultur*.

The indicators listed have no defined minimum, intermediate and maximum benchmark values. If a concrete, specific place of a certain scale, typology, urban grain, etc. is to be assessed, these values need to be determined specifically and in a differentiated manner by the assessor: for example, in a

mountain or metropolitan area, density values, diversity factors, public transport facilities or apartment density may vary to be sustainable and compatible with high-quality *Baukultur*; indicator benchmark values may also differ from state to state under certain circumstances.

Baukultur quality criteria and related indicators:

Governance

Formal tools

Guidance

- Baukultur regulation (yes/no)
- Baukultur standards (yes/no)
- Baukultur codes (yes/no)
- Baukultur policies (yes/no)
- masterplans, parameter plans (yes/no)
- Baukultur guidelines (yes/no)
- zoning plans (yes/no)

Incentives

- state aided, e.g. state funded (yes/no)
- state encouraged, e.g. zoning bonuses (yes/no)

Control

- state approved (yes/no)
- building permit (yes/no)

Informal tools

Evidence

• Baukultur research (yes/no)

Knowledge

- best practice guides for high-quality Baukultur (yes/no)
- case studies/libraries for high-quality *Baukultur* (yes/no)
- general education in high-quality Baukultur (yes/no);
- access to complete information (yes/no)
- organisation of public training and collective learning (yes/no)
- professional training in high-quality *Baukultur* (yes/no)
- counselling services in high-quality Baukultur (ves/no)

Promotion

- design awards for high-quality *Baukultur* (yes/no)
- targeted campaigns for high-quality *Baukultur* (yes/no)
- private public cooperation (yes/no)

Assessment

- expert design review (yes/no)
- design advisory boards (yes/no)
- design competition (yes/no)
- expert judgement (yes/no)
- certifications (yes/no)

Assistance

- grant-in-aid (yes/no)
- research by design (yes/no)
- community participation and co-decision to project conception and assessment of the project (yes/no)
- interdisciplinary teams (yes/no)

Functionality

State of the art

- planning, architectural and engineering rules and norms
- planning/construction/engineering (also calling upon local skills)
- appropriate use of (local) materials

Adaptability of structures

- access to technical equipment (easy adaptability)
- room height (flexibility of uses/functions)
- ratio of floor space to main usable area
- ratio habitation/industry/ trade/crafts
- ratio uses/building
- availability of services (public, commercial, cultural, etc. services)
- multifunctionality and adaptability to diverse uses of landscapes, urban open spaces and green spaces

Health/comfort

- measured values of pollutants (formaldehyde, etc.)
- daylight in rooms
- ventilation possibilities
- maintenance of technical equipment (e.g. filters)
- passive cooling/warming (yes/no)
- possible shading in rooms
- exceedances of daily limit value noise pollution
- walkability, bikeability
- presence of healthy urban open spaces, green spaces and landscapes within easy access

Safety and security

- risk according to the local natural hazard situation (incl. climate change)
- night lighting (bridges, underpasses, lifts) (yes/no)
- number of security incidents
- orientation and overview in space, visual permeability
- density and appropriation (social security)

Environment

Environmental impact

- environmental impact assessment (yes/no)
- waste management
- sufficiency
- land use/building
- floor space/occupant
- population density (people/hectare p/ha)
- apartment density (number of apartments/ hectare)
- building density (ratio built surface/non-built surface)

Biodiversity

- ratio of unsealed surfaces
- ratio of native species
- site-appropriate and site-typical species
- diversity of ecosystems
- interlinked natural areas
- chemical fertilisers/pesticides/products
- intensity of light emission in otherwise dark conditions

Materials and construction

- primary energy demand
- greenhouse gas emission
- types of material/construction

Operation/life cycle

- primary energy demand
- greenhouse gas emissions
- share of energy supply through renewable sources

Mobility

- primary energy demand
- greenhouse gas emissions
- distance to public transport

Economy

Life cycle

- life cycle profit
- life cycle (time)
- maintenance cycle
- adequate maintenance costs
- long-living building materials

Value

- market price/land price
- property value indicated by willingness to pay (WTP)
- attractiveness of the place, closeness to facilities
- closeness to public service
- closeness to heritage sites
- closeness to green and open spaces
- closeness to resources
- vacancy rate
- rental amount/sqm
- density

Management

- cost management
- ownership structures
- affordability of the place
- tourism strategy (yes/no)
- masterplan/development strategy (yes/no)
- cost construction/ renovation/operation
- renovation cycle

Diversity

Social/economic mixity

- social, financial and age index
- education: ratio primary school/high school/ professional school/university
- ratio of diverse ethnicities
- gender equitability
- number of disadvantaged persons/number of tenants
- barrier free yes/no
- financial aid yes/no
- segregation index
- diverse ownership structures

Interaction quality/frequency

- social interaction (interaction rates and quality of stay in private and public spaces)
- ratio nb common rooms/total nb of rooms
- availability of green and public spaces
- occupancy rate of common rooms
- user satisfaction with interaction places

Context

Knowledge

- analysis of existing situation/context/characteristics
- research and survey prior to formulation/design of a project
- identification of regional specificities and cultural heritage

Scale, typology and materials

- integration into the landscape/situation/neighbourhood
- building density, urban grain
- typology of building, urbanisation, landscape, topography
- infrastructure, open and green spaces and their integration in the surroundings/landscape
- scale (height, volume, etc.)
- colour
- materials

Cultural heritage and regional specificities

- processes for preservation of cultural heritage and regional specificities
- inventories
- number of heritage buildings under protection
- use of cultural heritage and regional specificities

Surroundings

- relationship place, built and natural surroundings (landscape)
- relationship heritage, regional specificities, building stock, new constructions, infrastructure, public space: e.g. integration of new buildings into the historic fabric of a settlement

Sense of place

Place attachment

- place attachment (emotional bonds between groups/individuals with their built and nonbuilt cultural and natural environment)
- place identity (aspects of self-identity which involve and are reflected by the environment and its social and personal meanings, comprising memories, ideas, feelings, attitudes, values, preferences, meanings, and conceptions of and towards a place)
- place dependence (how well a setting serves goal achievement given an existing range of alternatives, functional dependence, how it supports needs, goal, activities of a person)

Social bonding

- sense of belonging
- social interaction
- social bonding
- privacy

Beauty

Emotional experience

- emotional experience (capacity of feelings bringing forth aesthetic quality by attribution of values): relationship place—surroundings—people
- shared perception of beauty/beauties

Sensory perception

• sensory perception of the place: visual, acoustic, tactile and olfactory experience (positive → rather positive → neutral → rather negative → negative)

Attributed formal aesthetic values

balance – proportion – symmetry/asymmetry – simplicity/complexity – unity/variety – composition – rhythm – movement – emphasis/ contrast – articulation – expression –space – alignment – materials –scale –transparency/ opacity or openness/closedness – authenticity

10 International certification systems and instruments

Sustainability and "green building" certification systems

As sustainability is most largely defined based on the three pillars of environment, economy and society, building assessment is characterised by these three main domains. The different building sustainability assessment tools and certification systems, however, show noticeable differences, as they are designed for assessing different types of buildings, and they emphasise different phases of their life cycle. In addition to environmental aspects of so called "green buildings", sustainable buildings include economic and social aspects.

While BREEAM and LEED for example put the greatest emphasis on environmental aspects, DGNB, BNB and SNBS on the other hand weigh the categories equally (social, economic and environmental aspects). In the Swiss SNBS, a third of all indicators relate to environmental aspects such as primary energy, greenhouse gas emissions, resource conservation, mobility, settlement densification, flora and fauna, while the others are distributed between the categories of society and economy.

Standard nachhaltiges Bauen Schweiz (SNBS)

The Sustainable Construction Standard Switzerland SNBS Building Construction is the Swiss construction standard that comprehensively reflects the sustainability of buildings. It originates from the Swiss Federal Council's Sustainable Development Strategy and was launched in 2013. It integrates existing Swiss instruments and tools such as recommendation SIA 112/1 "Sustainable Building", the objectives of the 2000-watt society or the requirements of Minergie-Eco. And it is based on the phases of the SIA model. It is divided into 3 areas – society, economy and environment – each with 4 themes and a total of 23 criteria. The themes are assessed using a total of 45 indicators. On the basis of the SNBS, buildings can be certified for the following types of use: office/administration, residential and educational. This applies to

new buildings as well as to renovations. In residential and office buildings, mixed use with commercial use on the ground floor is possible. In 2020, the SNBS was extended to infrastructure.

In the SNBS, the *Baukultur* value is an own measurement parameter in the indicator "High urban planning and architectural quality" in the area of society. It is 1 indicator out of 45 indicators and 1 out of 5 measurement parameters in the subject of Urban planning and architecture. https://www.snbs-hochbau.ch/

Deutsche Gesellschaft für Nachhaltiges Bauen (DGNB)

German Sustainable Building Council (DGNB), since 2009. The system is based on the life cycle concept and, unlike most of the assessment methods introduced, includes economic and socio-cultural topics in addition to ecological aspects. Assessment categories are: ecology, economy, social and functional aspects, technology, processes, location. https://www.dgnb-system.de/en/

Bewertungssystem Nachhaltiges Bauen (BNB)

The Assessment System for Sustainable Building (BNB) for buildings of the Federal Ministry of Construction: a holistic quantitative assessment procedure for office and administrative buildings that supplements the Sustainable Building Guidelines is limited for the time being to national administration and office buildings (new buildings). Five sub-aspects are each assessed separately in their main criteria group and combined with a fixed weighting to give an overall score: ecological quality 22.5%, economic quality 22.5%, socio-cultural and functional quality 22.5%, technical quality 22.5%, process quality 10.0%, site characteristics 0%.

https://www.bnb-nachhaltigesbauen.de/en/

Building Research Establishment Environmental Assessment Method (BREEAM)

BREEAM, appearing in 1990, has dominated the environmental assessment of UK buildings for nearly 20 years. Factors contributing to the BREEAM rating: energy, health, well-being, transport, water use, ecology and biodiversity, materials, waste and pollution are measured, with credits awarded under each metric, equating to an overall score, which distinguishes a building in achieving its certification rating. Includes well-being in its scope, through design and operation. https://www.breeam.com/

Leadership in Energy and Environmental Design (LEED)

Launched in 1998. Assessment categories are: sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation and design process. https://www.usgbc.org/help/what-leed

WELL Building Standard

Launched in 2014, the WELL Building Standard certification focuses on achieving performance and health and well-being outcomes. BREEAM and WELL have worked together to provide guidance to help save time and costs associated with double certification. WELL has an increased focus on the post-occupancy assessment and softer issues beyond typical performance goals. It also measures seven elements that impact occupant health: air, water, nourishment, light, fitness, comfort and mind. https://www.wellcertified.com/

Level(s)

Level(s) is a European approach to assess and report on the sustainability performance of buildings throughout their full life cycle. Using existing standards, the Level(s) framework with its manageable number of indicators provides a common language for building sustainability, which can be used directly on building projects and portfolios, or as a basis for other initiatives, policies, schemes and actions, to include life cycle thinking and circularity.

https://ec.europa.eu/environment/topics/circu-lar-economy/levels_en

Housing and Buildings

Apartment Rating System WBS

The housing assessment system WBS of the Swiss Federal Office of Housing (BWO) is an instrument for planning, assessing and comparing residential buildings. With 25 criteria, the utility value is determined in the three areas of residential location, housing estate and apartment. The focus is on the concrete benefit and the added value for the residents. The criteria are assessed in relation to quantity and potential, innovation as well as quality. Design quality is not mentioned. https://www.wbs.admin.ch/de

The Design Quality Indicator (DQI)

Tool launched in 2001 to measure, evaluate and improve the design quality of buildings. The criteria and the method of assessment are a form of multi-attribute utility analysis executed by facilitators licensed to use it. Structured assessing approach based on the vitruvian principles of functionality (utilitas), build quality (firmitas) and impact (venustas).

http://www.dqi.org.uk/

Urbanism

The Quality Ladder

This report distils 271 empirical research studies to show the qualities of the built environment that are good for people and provide place value. The Ladder of Place Quality is a simple tool for decision-makers to use when considering what is required and what to avoid to make a great place. Matthew Carmona: Place Value & the Ladder of Quality. A Place Alliance Report, March 2019. http://placealliance.org.uk/research/place-value/

Spatial development instruments

Spatial development acts, structuring plans at the various institutional levels, zoning plans, neighbourhood plans, building regulations.

11 International documents with regard to Baukultur

The following survey presents selected international policies, which relate, directly or indirectly, to questions of *Baukultur*. It concentrates on multilateral agreements on a political level and does not include such documents as charters issued by advisory or expert bodies. The presented policies form both the context of and an important foundation for the Davos Process and the Davos *Baukultur* Quality System.

United Nations

New Urban Agenda. United Nations Conference on Housing and Sustainable Urban Development. Habitat III Quito 17–20 October 2016

The United Nations Human Settlements Programme, UN Habitat, adopted a New Urban Agenda at the Habitat III Conference in 2016, which outlines general development goals and focuses on questions of governance, social cohesion and the environment. Because of increasing worldwide urbanisation, urban areas are seen as most in need of action. The agenda includes high-quality public spaces as a contribution to sustainability and thus to the quality of life of inhabitants. The New Urban Agenda acknowledges the importance of preserving cultural heritage. http://habitat3.org/wp-content/uploads/NUA-English.pdf

Transforming our World: the 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly, New York, 25 September 2015

As part of its 2030 Agenda for Sustainable Development, the UN has agreed on a number of goals and targets. Goal 11 strives to "make cities and human settlements inclusive, safe, resilient and sustainable". It aims at access to safe and affordable housing and transport, enhancement of participatory, integrated and inclusive settlement planning and urban development, protection and safeguarding of cultural and natural heritage, provision

of inclusive and accessible green and public spaces. https://sustainabledevelopment.un.org/post2015/transformingourworld/publication

Sendai Framework for Disaster Risk Reduction 2015-2030. United Nations Office for Disaster Risk Reduction. Adopted at the Third UN World Conference on Disaster Risk Reduction in Sendai, Japan, 18 March 2015

The Framework outlines targets and priorities for action to prevent new and reduce existing disaster risks. It aims to achieve the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.

https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030

UNECE

Convention on Access to Information,
Public Participation in
Decision-Making and Access to Justice
in Environmental Matters.
The United Nations Economic
Commission for Europe
(UNECE), Aarhus, 25 June 1998

The Aarhus Convention's goal is to protect the human right to live in a healthy environment. It defines people's rights to access environmental information and promotes public participation in decision making and access to justice in environmental matters.

https://unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf

UNESCO

The Hangzhou Declaration. Placing Culture at the Heart of Sustainable Development Policies. Hangzhou International Congress, China, 15–17 May 2013

The Hangzhou Declaration stresses the crucial role of culture for sustainable development, peace and security and advocates the full integration of culture in all development policies and programmes. http://www.unesco.org/new/fileadmin/MULTI-MEDIA/HQ/CLT/images/FinalHangzhouDecla-ration20130517.pdf

Recommendation on the Historic Urban Landscape. United Nations Educational, Scientific and Cultural Organisation (UNESCO), Paris, 10 November 2011

The special value of historic urban areas is high-lighted by UNESCO's Recommendation on the Historic Urban Landscape. This recognises cultural heritage as an important contributor to the quality of life, promoting economic development and strengthening social cohesion in a changing global environment. It proposes the integration of strategies for the conservation, management and planning of historic urban areas into local and urban development processes in order to counteract rapid and uncontrolled urbanisation.

http://portal.unesco.org/en/ev.php-URL_ ID=48857&URL_DO=DO_TOPIC&URL_ SECTION=201.html

Convention for the Safeguarding of the Intangible Cultural Heritage. United Nations Educational, Scientific and Cultural Organisation (UNESCO), Paris, 17 October 2003

The convention's aim is to safeguard and ensure respect for the intangible cultural heritage of communities, groups and individuals. In the context of the convention, intangible cultural heritage encompasses not only practices, representations, expressions, knowledge and skills but also associated instruments, objects, artefacts and cultural spaces. The convention encourages the transmission of knowledge and skills and promotes cultural diversity and intercultural dialogue. https://ich.unesco.org/en/convention

Convention Concerning the Protection of the World Cultural and Natural Heritage. United Nations Educational, Scientific and Cultural Organisation (UNESCO), Paris, 16 November 1972

The World Cultural Heritage Convention aims to preserve natural and cultural heritage of outstanding universal value for future generations, as part of the world heritage of humankind as a whole. The most important tool in achieving this is the list of world heritage sites. http://whc.unesco.org/archive/convention-en.pdf

Convention for the Protection of Property in the Event of Armed Conflict. United Nations Educational, Scientific and Cultural Organisation (UNESCO), The Hague, 14 May 1954

The Hague Convention for the Protection of Cultural Heritage in the Event of Armed Conflict aims to prevent cultural heritage from being destroyed or damaged during war or armed conflict and protect it from looting and other forms of illegal seizure. Two protocols with additional agreements were adopted in 1954 and 1999 respectively. Besides the rules that are intended to guarantee the protection of and respect for cultural heritage during armed conflict, the agreement also includes peacetime safeguarding measures such as the preparation of inventories and emergency measures. http://www.unesco.org/new/fileadmin/MUL-TIMEDIA/HQ/CLT/pdf/1954 Convention EN 2020.pdf

Europe

New European Bauhaus, Brussels, 18 January 2021 (EU)

The New European Bauhaus is an initiative to design future ways of living, situated at the crossroads between art, culture, social inclusion, science and technology. It brings the Green Deal to our living

places and calls for a collective effort to imagine and build a future that is sustainable, inclusive and beautiful. The movement will be based on sustainability, accessibility and aesthetics to bring the European Green Deal closer to people and support recycling, renewable energies and biodiversity. https://ec.europa.eu/commission/presscorner/detail/en/IP 21 111

The European Green Deal (COM(2019) 640 final). Brussels, 11 December 2019 (EU)

Climate change and environmental degradation are an existential threat to Europe and the world. To overcome these challenges, Europe needs a new growth strategy that will transform the Union into a modern, resource-efficient and competitive economy, where there are no net emissions of greenhouse gases by 2050, economic growth is decoupled from resource use, no person and no place is left behind. The European Green Deal shall also be a new cultural project for Europe, and not only a sustainable environmental or economic initiative. https://eur-lex.europa.eu/legal-content/EN/TX-T/?euri=CELEX:52019DC0640

Council conclusions on the Work Plan for Culture 2019–2022 (2018/C 460/10). Brussels, 21 December 2018 (EU)

The Work Plan for Culture 2019–2022 was adopted by the Council of the European Union in 2018. It is a strategic document setting out priorities and concrete actions to respond to the increasing shift to digital technologies, globalisation and the growing diversity of societies in the field of cultural activities. Particular attention is drawn to the quality of architecture and the designed environment. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XG1221%2801%29

Davos Declaration 2018. Informal meeting of Ministers of Culture, Davos, 20–22 January 2018

The Davos 2018 Declaration "Towards a high-quality *Baukultur* for Europe" highlights pathways for politically and strategically promoting the concept of a high-quality *Baukultur* in Europe. It recalls that building is culture and creates space for culture.

https://davosdeclaration2018.ch/

European Cultural Heritage Strategy for the 21st Century (The Namur Strategy), 2017 (CoE)

In 2017, the Committee of Ministers of the Council of Europe adopted with its recommendation (CM/rec(2017)1) the European Cultural Heritage Strategy for the 21st Century as drafted by the Steering Committee for Culture, Heritage and Landscape (CDCPP) in 2016. The strategy harks back to the Conference of Ministers of the Council of Europe organised by Belgium in 2015 in Namur, adopting the Namur Declaration. It aims to promote good governance and social participation in cultural heritage and thus improve its positive impact on society.

http://www.coe.int/en/web/culture-and-heritage/strategy-21

https://rm.coe.int/16806a89ae

Urban Agenda for the EU 'Pact of Amsterdam'.
Informal Meeting of EU Ministers
responsible for Urban Matters, Amsterdam,
30 May 2016 (EU)

The Pact of Amsterdam aims at sustainable policies for the living environment and establishes an Urban Agenda for the EU. The Pact of Amsterdam refers to social, planning and financial aspects of the built environment.

https://ec.europa.eu/regional_policy/sources/policy/themes/urban-development/agenda/pact-of-amsterdam.pdf

Council conclusions on participatory governance of cultural heritage (2014/C 463/01). The Council of the European Union, 23 December 2014 (EU)

With reference to the Council conclusions of 21 May 2014 on cultural heritage as a strategic resource for a sustainable Europe, these council conclusions promote a more participatory approach to cultural policy-making.

https://eur-lex.europa.eu/legal-content/EN/ TXT/PDF/?uri=CELEX:52014XG1223(01)&-from=EN Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Towards an integrated approach to cultural heritage for Europe (COM (2014) 477 final).

European Commission, Brussels,

22 July 2014 (EU)

The Communication emphasises the influence of cultural heritage as a strategic resource for a sustainable Europe. It stresses the importance of strong cooperation between the countries to strengthen the contribution of cultural heritage to sustainable growth and employment.

http://ec.europa.eu/assets/eac/culture/library/publications/2014-heritage-communication_en.pdf

Nafplion Declaration: Promoting Territorial Democracy in Spatial Planning, 2014. Council of Europe Conference of Ministers responsible for Spatial/Regional Planning (CEMAT), Nafplion, 17 June 2014 (CoE)

The Nafplion Declaration provides guidelines for leveraging the potential of participatory democracy in spatial planning. The declaration sets up a framework in which people can express informed opinions regarding spatial plans that affect them directly or indirectly and can influence, to varying degrees, the spatial plans of their territories. https://rm.coe.int/council-of-europe-conference-of-ministers-responsible-for-spatial-regi/168076c728

Conclusions on cultural heritage as a strategic resource for a sustainable Europe. Education, Youth, Culture and Sport Council meeting, Brussels, 21 May 2014 (EU)

The Conclusions emphasise the role of cultural heritage as an irreplaceable and precious resource for Europe. The document further states that cultural heritage enhances the quality of life, promotes social inclusion and, by virtue of its economic influence, supports the sustainable development and regeneration of rural and urban areas. https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/educ/142705.pdf

Council conclusions on architecture: culture's contribution to sustainable development (2008/C 319/05). The Council of the European Union, 20 November 2008 (EU)

The conclusions highlight the cultural relevance of architecture and emphasise the contribution of culture to sustainable development. They call for all political stakeholders to take the cultural component of architecture into account and view high-quality architecture as a factor in economic dynamics. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52008XG1213(02)&-from=DE

The New Leipzig Charter. The transformative power of cities for the common good. Informal Ministerial Meeting on Urban Matters, Leipzig, 30 November 2020 (EU)

The New Leipzig Charter highlights that cities need to establish integrated and sustainable urban development strategies and ensure their implementation for the city as a whole, and refocuses on the linkages between urban governments and other levels of governance. It also provides an urban policy framework to deliver global and European agreements such as the United Nations 2030 Agenda and the Paris Agreement, the Urban Agenda and the European Green Deal. https://ec.europa.eu/regional_policy/en/information/publications/brochures/2020/new-leipzig-charter-the-transformative-power-of-cities-for-the-common-good

Leipzig Charter on Sustainable European Cities. Informal Ministerial Meeting on Urban Development and Territorial Cohesion, Leipzig, 24–25 May 2007 (EU)

The Leipzig Charter focuses on integrated policies of urban development, and promotes the creation and maintenance of high-quality public spaces. High-quality architecture is understood as a necessity for the city as a whole and its surroundings. https://ec.europa.eu/regional_policy/archive/themes/urban/leipzig_charter.pdf

Council of Europe Framework Convention on the Value of Cultural Heritage for Society. Faro, 27 October 2005 (CoE)

The Faro Convention emphasises the important aspects of heritage as they relate to human rights and democracy. It defines cultural heritage as an important resource for the promotion of cultural variety and the sustainable development of society, the economy and the environment. It calls for the creation of a framework that puts cultural heritage at the centre of societal attention and strengthens public access to and participation in cultural heritage. https://rm.coe.int/1680083746

Council resolution of 12 February 2001 on architectural quality in urban and rural environments (2001/C 73/04). The Council of the European Union, 12 February 2001 (EU)

The Council resolution centres on the demand for a high-quality built environment. It states that high-quality architecture improves citizens' living environments and their relationship with their rural and urban surroundings, and makes an effective contribution to social cohesion, the creation of jobs, the promotion of cultural tourism, and regional economic development.

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001G0306(03)&from=EN

Guiding Principles for Sustainable Spatial Development of the European Continent. European Conference of Ministers responsible for Regional Planning (CEMAT), Hanover, 7–8 November 2000

The Guiding Principles for Sustainable Spatial Development of the European Continent are aimed, in particular, at bringing the economic and social requirements to be met by Europe into harmony with its ecological and cultural functions and at contributing in this way to long-term, large-scale and balanced spatial development. In this context, they emphasise the importance of the built cultural heritage for sustainable development. They stress that it is not only conservation of the past that is challenged, but also the harmony between modern architecture, urban design and cultural heritage.

https://rm.coe.int/1680700173

European Landscape Convention. Florence, 20 October 2000 (CoE)

The European Landscape Convention is based on a broad understanding of landscape. It encompasses all levels of landscape, including natural, rural, urban and suburban landscapes. Besides addressing beautiful or protected landscapes, it also underlines the importance of the quality of landscape for the preservation of the diverse natural and cultural European heritage in general. It gives an impetus to the adoption of gentler treatment of the entire landscape, which is gaining importance, particularly in urban and peri-urban areas. https://rm.coe.int/1680080621

ESDP European Spatial Development
Perspective. Informal Council of
Ministers responsible for Spatial Planning,
Potsdam, 11 May 1999 (EU)

The ESDP sees cultural diversity as one of the most important factors in the development of the EU and sees Europe's cultural heritage as an expression of the European identity. The formulated principles include polycentric spatial development, a new relationship between urban and rural areas, and careful management of nature and cultural heritage.

http://ec.europa.eu/regional_policy/sources/do-coffic/official/reports/pdf/sum_en.pdf

Convention for the Protection of the Archaeological Heritage of Europe (revised) (European Treaty Series no. 143). Valletta, 16 January 1992 (CoE)

The Valletta Convention replaced and updated the original London Convention of 1969. It reflected the change in the nature of threats to the archaeological heritage, which started to come less from unauthorised excavations and more from the major construction projects carried out all over Europe from 1980 onwards. The revised text makes the conservation and enhancement of the archaeological heritage one of the goals of urban and regional planning policies.

https://rm.coe.int/168007bd25

Convention for the Protection of the Architectural Heritage of Europe (European Treaty Series no. 121). Granada, 3 October 1985 (CoE)

The Granada Convention addresses the importance of the quality of the built environment. Its main purpose is to enhance Europe's cultural heritage through the promotion of conservation policies. It is the first document to include the principles of integrated conservation. It stresses that architectural heritage constitutes an irreplaceable expression of the diversity of the European cultural heritage and establishes the principles of "European coordination of conservation policies" including exchanges on ways of promoting architectural creation as a contemporary contribution to European cultural heritage.

http://www.coe.int/en/web/conventions/full-list/-/conventions/rms/090000168007a087

European Regional/Spatial Planning Charter. European Conference of Ministers responsible for Regional Planning (CEMAT), Torremolinos, 20 May 1983

The goal of the Torremolinos Charter is to strengthen and foster cooperation and the interchange of information concerning spatial planning. It stresses the contribution of regional/spatial planning to a European identity through better spatial organisation in Europe. It emphasises that all European citizens should be enabled to participate in regional/spatial planning measures.

https://rm.coe.int/6th-european-conference-of-ministers-responsible-for-regional-planning/168076dd93

European Cultural Convention. Paris, 19 December 1954 (CoE)

The European Cultural Convention was the basis of the concept of a joint European cultural heritage and laid the foundation for cultural-political collaboration in post-war Europe. The convention aims to promote mutual understanding between the peoples of Europe and ensure the appreciation of different cultures.

http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/018

Organisations

European quality principles for EU-funded interventions with potential impact upon cultural heritage. ICOMOS International, Paris, second revised version, 2020

The document establishes quality principles for the conservation and management of cultural heritage with a special focus on built heritage and cultural landscapes. It was developed by ICOMOS International on behalf of the European Commission in the framework of the European Year of Cultural Heritage Year 2018.

http://openarchive.icomos.org/id/eprint/2436/

Innsbruck Statement of ACE 2019: Achieving Quality in the Built Environment. Architects' Council of Europe (ACE), Innsbruck, 4 May 2019

The Architects' Council of Europe (ACE) presented the "Innsbruck Statement: Achieving Quality in the Built Environment" on 4 May 2019 in Innsbruck (Austria) on the occasion of the ACE conference "How to Achieve Quality in the Built Environment: Quality assurance tools and systems". It does not quote the Davos Declaration, however it is close to the subject covered by *Baukultur* and makes statements principally on issues of built environment in an architectural perspective, which does not cover the holistic concept of *Baukultur* including non-built, green spaces, infrastructures, streets, places.

https://www.ace-cae.eu/fileadmin/New_Up-load/_15_EU_Project/Creative_Europe/Conference_Quality_2019/Inn_Stat_EN_FINAL.pdf

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Eight criteria for a high-quality Baukultur - the whole story



Eight criteria for a high-quality Baukultur



Assessment form



Davos Declaration (PDF)



Davos Declaration (website)



Imprint

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