The political and social path of the Baukultur Report 2020/21

Preparation Baukultur Report 2020/21
Completion Spring 2020

Public presentation and debates from June 2020 onwards

Distribution
- at events of the Federal Foundation and its partners
- to planners in different disciplines
- to municipalities
- to the real estate and housing industries
- at trade fairs
- to those interested in Baukultur
- as a download on the website of the Federal Foundation

Distribution to cities and municipalities

Parliamentary debate

Ministers of Construction Conference

Resolution proposal
Bundestag Committee for Building, Housing, Urban Development and Local Government

Committee Meeting
Bundestag Committee for Building, Housing, Urban Development and Local Government

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Public spaces of the Baukultur Report

Federal Foundation of Baukultur on the basis of PlanSinn 2019

- Parks, gardens, playgrounds, and sports areas
- Streetscapes
- Crossings
- Passageways
- Underpasses

Publicly accessible interior spaces
for instance shopping centres or railway stations

Publicly accessible (open) spaces of buildings

Publicly accessible open spaces

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Living in more space
Development of living area per person

Source: Federal Foundation of Baukultur 2014; Destatis 2012 + 2019
1.5 M new apartments in planning * 2018–2021

2.1 M vacant apartments **

36.9 M occupied apartments

285,900 apartments completed (2018)

*Federal government target  **Status: 2017, estimate of the BBSR

Residential housing stock and vacancy rate in Germany

Source: BBSR 2019; Destatis 2019; the federal government 2020
Unequal developments

Source: Destatis 2019; IÖR 2019; Federal Environment Agency 2019

Settlement areas and traffic infrastructure
49,254 km²

Inhabitants
83.0 M

Open areas*
87.9%

* Agricultural areas, forest and wooded areas, uncultivated plots of land, mining and tailings pile areas, and bodies of water

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
How much is being built in Germany?

Construction volumes for 2019 compared

Source: BMF 2019; BMWi 2017; DAT 2020; DIW 2020

Construction volumes in Germany

€430.2 M

Total government expenditure in Germany 2019

€356.4 M

Revenue from the tourism industry in Germany 2015

€287.2 M

Revenue from the new car market in Germany 2019

€121.1 M

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
The doughnut effect
Federal Foundation of Baukultur 2016

Dying municipalities
(doughnut effect)

Vital municipalities
(filled doughnut effect)

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Circular economy: construction
Federal Foundation of Baukultur 2019

Raw material extraction
Primary raw material

Building material and building component production

Construction

Use and operation
Completion
Maintenance
Renovation
End of life

Return to the materials cycle
Recycling
Reuse
Processing

Planning

Conversion planning
Dismantling

Emissions

Partial deconstruction
Deconstruction

Reprocessing
Downcycling

Demolition
Landfilling
Incineration

Building material and building component production
Employers: construction
Total workforce in selected professions relating to planning and construction in Germany

Source: Federal Employment Agency 2019; Federal Chamber of Architects 2019; Federal Chamber of Engineers 2018; DV, gif, IW 2017
Historical structures in urban planning
Source: OpenStreetMap contributors 2019

Medieval old town and cathedral (Freiburg im Breisgau)

Wilhelmine-era perimeter block development (Helmholtzplatz, Berlin)

Large housing estate of post-war modernism (Stellshoop, Hamburg)

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Urban tourism is booming
Overnight stays in selected cities and in Germany as a whole

Source: www.hotel.de 2019; TourMis 2019


Germany as a whole

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Commerce needs public spaces

Source: IHK survey for the Baukultur Report 2020/21

For what sectors are public spaces important?

Commerce
98%
Pricey pavement
Annual costs for residential parking compared with the theoretical purchase price for a parking space based on the value of the ground of neighbouring parcels

Sources: North Rhine-Westphalia 2019; Düsseldorf 2019; Frankfurt am Main 2019; Hamburg 2019; Berlin 2019

<table>
<thead>
<tr>
<th>City/Town</th>
<th>Street</th>
<th>Theoretical purchase price</th>
<th>Resident parking permit per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Düsseldorf – Königstraße</td>
<td>15 m² parking space</td>
<td>€540,000</td>
<td>€25</td>
</tr>
<tr>
<td>Frankfurt am Main – Neue Mainzer Straße</td>
<td>€255,000</td>
<td>€29,500</td>
<td>€25</td>
</tr>
<tr>
<td>Hamburg – Altstädter Straße</td>
<td>€229,620</td>
<td>€29,500</td>
<td>€25</td>
</tr>
<tr>
<td>Berlin – Kurfürstendamm</td>
<td>€225,000</td>
<td>€10.20</td>
<td>€10.20</td>
</tr>
</tbody>
</table>
In his plan of Rome published in 1748, Giambattista Nolli also presented the interiors of churches and important palaces as public spaces. Applying his principle to the centre of Cologne shows how important public spaces – shown in blue – are for our cities.

Source: Federal Foundation of Baukultur 2019; basic map of Cologne: North Rhine-Westphalia 2019
Public Spaces

A broader look at spaces, areas, and elements of daily use provides a comprehensive picture: Public spaces are diverse, varied, and more plentiful than generally thought. They have an indirectly or directly formative influence on people. Conversely, people shape public spaces by means of their formative influence on the built surroundings and the appreciation or rejection that they show for them by means of their user behaviour.

Ground floors
Street spaces
Play and sports areas
Parks and green spaces
Railway stations
Public squares
Publicly accessible open spaces
Crossings, passageways, underpasses
Publicly accessible interior spaces

One third to half of the areas are in municipal ownership.

<table>
<thead>
<tr>
<th>City</th>
<th>Ground floors</th>
<th>Street spaces</th>
<th>Parks and green spaces</th>
<th>Railway stations</th>
<th>Play and sports areas</th>
<th>Public squares</th>
<th>Publicly accessible open spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berlin</td>
<td>49.9%</td>
<td>24.8%</td>
<td>19.5%</td>
<td>0.6%</td>
<td>4.8%</td>
<td>22.5%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Cologne</td>
<td>44.5%</td>
<td>22.8%</td>
<td>16.0%</td>
<td>4.8%</td>
<td>2.1%</td>
<td>11.8%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Frankfurt a. M.</td>
<td>36.7%</td>
<td>9.5%</td>
<td>15.9%</td>
<td>2.1%</td>
<td>2.5%</td>
<td>26.5%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Dresden</td>
<td>36.4%</td>
<td>26.5%</td>
<td>16.9%</td>
<td>4.8%</td>
<td>3.5%</td>
<td>16.9%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Munich</td>
<td>34.8%</td>
<td>16.9%</td>
<td>11.8%</td>
<td>3.5%</td>
<td>1.4%</td>
<td>17.9%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Hamburg</td>
<td>32.4%</td>
<td>17.9%</td>
<td>11.8%</td>
<td>3.5%</td>
<td>1.4%</td>
<td>17.9%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Leipzig</td>
<td>29.3%</td>
<td>17.9%</td>
<td>11.8%</td>
<td>3.5%</td>
<td>1.4%</td>
<td>17.9%</td>
<td>1.4%</td>
</tr>
</tbody>
</table>
Noise exposure in Germany

In the past twelve months, to what degree have you felt personally disturbed or annoyed by the following things?

Street noise: 75%
Neighbourhood noise: 60%
Industrial / commercial noise: 42%
Air transport noise: 42%
Train noise: 35%

Source: Federal Environment Agency 2019

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Endurance resulting from attractive surroundings
Attractive surroundings increase acceptance of longer walks by up to 70%.

Source: H. Knoflacher 1995
Climate change is already noticeable
The municipalities surveyed confirm the following occurrences today
Source: Municipal survey for the Baukultur Report 2020/21

The following precautions have already been taken or are planned:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Extant</th>
<th>In planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy rains</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Droughts</td>
<td>69%</td>
<td></td>
</tr>
<tr>
<td>Heat stress</td>
<td>57%</td>
<td></td>
</tr>
<tr>
<td>Storms</td>
<td>46%</td>
<td></td>
</tr>
<tr>
<td>High water / flooding</td>
<td>41%</td>
<td></td>
</tr>
<tr>
<td>Rainwater usage</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>Roof and façade greening</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td>Ground coverings to counteract overheating</td>
<td>28%</td>
<td>72%</td>
</tr>
</tbody>
</table>

Has your municipality already adopted measures to adapt to climate change?
Source: Municipal survey for the Baukultur Report 2020/21

Yes
85%

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Added value through urban greenspace

Source: Federal Foundation of Baukultur 2019; ARUP 2014

- Economic added value
- Social and ecological added value

+ Increase in retail sales
+ Increase in land value
+ Increase in real estate value
+ Increase in prestige

- + Energy cost reduction
- + Sound insulation
- + Heat insulation

- + Mental health
- + Physical health
- + Wellbeing
- + Sense of responsibility

- + Water management / reduction of the effects of heavy rain events
- + Structure / design of traffic zones

- + Noise reduction
- + Increase in productivity

- + Social solidarity and identity

- + Clean water

- + Tourism and local recreation infrastructure

- + Increase in retail sales
- + Increase in land value
- + Increase in real estate value
- + Increase in prestige

- + Cooling
- + Fresh air production
- + Wind protection
- + Biodiversity

- + Clean water

- + Structure / design of traffic zones

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Real instead of virtual spaces

Source: Martini, Future Lab 2019; University of Pittsburgh Center for Research on Media Technology and Health 2017

> 2 hours/day social networks = twice as high a risk of social isolation compared to moderate use (0.5 hours/day)

55% of adults wish for more time with their friends

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Population development scenarios until 2060

Moderate growth until 2030, then a continuous decline

Source: Destatis 2019: 14th coordinated population forecast – lowest, moderate, and highest development

<table>
<thead>
<tr>
<th>Year</th>
<th>Inhabitants (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>83</td>
</tr>
<tr>
<td>2030</td>
<td>87.5</td>
</tr>
<tr>
<td>2040</td>
<td>78.2</td>
</tr>
<tr>
<td>2050</td>
<td>71</td>
</tr>
</tbody>
</table>

Prognose bei unterschiedlicher Entwicklung von Geburtenhäufigkeit, Lebenserwartung und Wanderungssaldo.

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Population forecast for the year 2060

Source: Destatis 2019: 14th coordinated population forecast for Germany – moderate development of birth rate, life expectancy and net migration

<table>
<thead>
<tr>
<th>Age</th>
<th>Million</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>67+</td>
<td>21.4</td>
<td>27%</td>
</tr>
<tr>
<td>18–66</td>
<td>44.1</td>
<td>56%</td>
</tr>
<tr>
<td>&lt;18</td>
<td>12.7</td>
<td>16%</td>
</tr>
<tr>
<td>Total</td>
<td>78.2</td>
<td>100%</td>
</tr>
</tbody>
</table>

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Dense city centres in Europe

Population density in city centres (inh./km²)


Inh./km²

13,241

Paris

10,844

Berlin

6,698

Munich

6,570

Rotterdam

5,417

Vienna

5,273

Frankfurt a. M.

4,468

Hamburg

3,002

London

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Cities with green lungs
Source: Interactive team of the Berliner Morgenpost 2016

Percentage of public and private urban greenspace in German metropolises of 500,000 inhabitants or more*

- Hamburg
- Dortmund
- Stuttgart
- Dresden
- Bremen
- approx. 70%

Percentage of public and private urban greenspace in all big German cities*

- Siegen
- Göttingen
- Bergisch Gladbach
- Salzgitter
- Pforzheim
- approx. 85%

* Assessed on the basis of 185 satellite images

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
74% of municipalities have tree preservation statutes.

80% of municipalities perceive trees as formative for the appearance of cities.

In every 2nd municipality, trees have been removed as a precaution in order to prevent tree failures.
Comparative growth of Germany
Development of the total area of factory outlet centres in m²
2010–2018
Source: ecostra basic research; trade data 2019

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
<th>2018</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>78,000</td>
<td>215,050</td>
<td>+176%</td>
</tr>
<tr>
<td>Poland</td>
<td>91,840</td>
<td>201,500</td>
<td>+119%</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>62,100</td>
<td>84,000</td>
<td>+35%</td>
</tr>
<tr>
<td>Austria</td>
<td>65,300</td>
<td>74,000</td>
<td>+13%</td>
</tr>
<tr>
<td>Denmark</td>
<td>12,580</td>
<td>20,000</td>
<td>+59%</td>
</tr>
</tbody>
</table>

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Building activities in objects with the label 'district'

Source: Bulwiengesa AG 2020

Assessment based on the object database of Bulwiengesa AG; no claim to completeness

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Perceiving public spaces

People
All senses are active and details are perceived. Exchange and conversation are possible. The smaller the distance is, the more intensively communication can take place.

People
Recognizing emotions like facial expressions and feelings is facilitated. Slightly raised voices can be heard.

People
Typical movements and characteristics like gender, age, and hair colour are recognizable and loud calls for help can be heard.

People
People's movements and body language are perceived indistinctly.

Baukultur
Details like windows, doors, and façade elements

Baukultur
Façades, balconies, and ground floors

Baukultur
Buildings, volumes, structure

Baukultur
Ensemble, urban development
Presence of advertising spaces
No municipality without advertising spaces, despite an adverse effect on appearance

Source: Municipal survey for the Baukultur Report 2020/21

96% of municipalities lease advertising spaces in public spaces.

96% of municipalities perceive private advertising systems as having an adverse effect.

33% (very) frequently
63% in individual cases

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Increase in new registrations of SUVs and caravans

Source: Federal Motor Transport Authority 2010–2020; Federal Foundation of Baukultur 2019

SUVs

+282%

Caravans

+197%

Greater space requirements and restricted views

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Better on foot

En route from Wenigemarkt to Domplatz in Erfurt: faster arrival and more impressions of the city

Source: Federal Agency for Cartography and Geodesy 2019

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Development of playground areas per inhabitant and number of private vehicles in Berlin

Source: Office for Statistics Berlin-Brandenburg 2008–2018; Senate Department for Health, the Environment, and Consumer Protection Berlin 2019

Number of vehicles +12%

Playground area per inh. ± 0%

The number of inhabitants increased by 11% in the same period.

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
'Stronger, faster, heavier, bigger'

Source: Federal Motor Transport Authority 2019

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Twice as wide, three times as good
Source: FSV, RVS 2012; Vienna 2011

As of 400 persons / hour
Confined foot traffic. Conflicts hard to avoid

Up to 1,500 persons / hour
More comfortable foot traffic. Barely any to few conflicts between pedestrians

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Desire for better traffic infrastructure


Traffic participants wish for:

- improved condition of streets and cycling and foot paths: 67%
- better coordinated public transport services: 57%
- more frequent public transport connections: 53%
- more cycling paths: 50%
- more parking options for cars: 45%
- more pedestrian-friendly pavements: 37%
- better traffic management: 36%
- more parking spaces for bicycles: 30%

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Modal split
All trips in selected cities in per cent for the year 2017

Source: BMVI 2018; Deloitte City Mobility Index 2018; Mobilitätsagentur Wien GmbH; Copenhagen 2017

Copenhagen

Amsterdam

Freiburg

Karlsruhe

Berlin

Munich

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Truck traffic in public spaces
Source: Allianz pro Schiene 2018, 2019; BMVI 2019; Deutsche Bahn 2019

Freight transport in Germany 2017

- Inland vessels: 8%
- Long-distance oil pipelines: 2.6%
- Rail freight: 18.7%
- Truck traffic: 70.7%

Federal per capita investment 2018

- Tracks: €77
- Roads: €89

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Double the budget!

Source: Population and municipal surveys for the Baukultur Report 2020/21

Complaints about the condition of …

<table>
<thead>
<tr>
<th></th>
<th>Streets</th>
<th>Squares</th>
<th>Parks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>74%</td>
<td>62%</td>
<td>44%</td>
</tr>
</tbody>
</table>

63% of surveyed municipalities find the maintenance budget / standard rates for park maintenance and path cleaning insufficient.
Responsibility and maintenance

Source: Population and municipal surveys for the Baukultur Report 2020/21

89% consider the condition of public spaces (very) important

People are less / not at all satisfied with the...

- Range of public facilities, e.g. WCs: 55%
- Development and condition of roads: 43%
- Attractiveness of city / town centres: 40%
- Design of buildings, streets, squares: 36%
- Condition of parks and green spaces: 26%

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Every second person is annoyed by the state of public sanitary facilities

Source: Blue Responsibility / GfK 2017

- Railway station: 58%
- City toilets: 51%
- Motorway service areas: 48%
- Event and concert halls: 39.8%

Who is less satisfied?

53.1% Women
43.1% Men

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Attractive public squares
Local community building
Playgrounds and sports areas
Multi-generation houses
Mobility options such as civic buses
Multi-functional village shops

- Analyse and serve needs
- Promote old rather than new buildings
- Advertise vacancies
- Promote shops in the town centre rather than supermarkets on the periphery
- Village beautification strategy
- Full-time contact person for Baukultur
- Name successful models from other regions
- Regular town meetings and citizen consultations
- Advice for new residents

Baukultur enhances rural life
Public spaces for vital town centres
Source: Berlin Institute for Population and Development 2019

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Increasing use of public spaces for demonstrations

Increase in demonstrations and rallies from 2008 to 2018

Source: rbb – Rundfunk Berlin-Brandenburg 2018

Stuttgart  +207%
Cologne  +140%
Frankfurt  +134%
Berlin  +90%
Dresden  +76%
Munich  +47%
Düsseldorf  +35%

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Meeting places for youth

Source: Population survey for the Baukultur Report 2020/21

14- to 17-year-olds find the following public places suitable for spending time together:

- Leisure time and sports facilities: 67%
- Parks and green spaces: 64%
- Gastronomic offers: 63%
- Football fields: 53%
- Playgrounds: 44%
- Skate parks: 29%
- Benches and street furniture: 22%

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Land policy instruments
The following instruments are actively used by the municipalities surveyed

Source: Municipal survey for the Baukultur Report 2020/21

Sales 77%
Business development consulting 73%
Purchases 70%
Leasing 58%
Concept processes 47%
Rentals 30%
Revolving funds 5%
None 7%

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Overcoming sectoral thinking
Coordinating responsibilities in public space across sectors

Federal Foundation of Baukultur 2020

Supply and disposal, telecommunications

Overcoming sectoral thinking
Coordinating responsibilities in public space across sectors

Federal Foundation of Baukultur 2020

Pavements and ground floors

Roadside greenery

Private transport

Public transport

Urban lighting

Façades and balconies

Stationary vehicles

Urban furniture

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
Project levels Phase Zero and Phase Ten

Federal Foundation of Baukultur 2020
with reference to HOAI's service phases 1–9

Phase Ten
operation, management, maintenance

Service phases 6–9
implementation

Service phases 1–5
planning

Phase Zero
preliminary investigations, pre-planning, project definition, participation, negotiation

© Bundesstiftung Baukultur, Design: Heimann + Schwantes
There is great citizen engagement for Baukultur

Associations, initiatives, calendar, and excursions for Baukultur in Germany

Source: Förderverein Bundesstiftung Baukultur e.V. 2019