100 Urban Trends

A Glossary
of Ideas from the
BMW Guggenheim Lab
Berlin

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LAB

100 Urban Trends: A Glossary of Ideas from the BMW Guggenheim Lab Berlin

After opening in New York in the summer of 2011, the BMW Guggenheim Lab traveled to Berlin. Over the course of thirty-three days, the Berlin Lab offered free programs, including workshops, screenings, and tours, and implemented urban projects in Berlin neighborhoods and online—all centered around the topic of life in cities today. As part of the culmination of the Lab's experience in Berlin, this glossary aims to identify 100 of the most talked-about trends in urban thinking, all of which played a role during the Lab's first European venue.

Created as a resource, the glossary offers contextualized definitions that apply to the way we understand, design, and live in cities. Integral to this glossary is the concept of cities as "idea makers." In cities, people come together, share their thoughts and common interests, and generate the ideas that shape our world. Dense, growing cities have been and continue to be the catalyst for human progress, powered by daily proximity among their citizens as much as anything else. Despite some of the drawbacks of such massive urban centers, they may well embody the future for human life. Today's cities are competing to attract more people; greater urban density can mean more conflict, but it can also produce a greater diversity of viewpoints and more opportunity for positive change.

In recent years, there has been an unequivocal shift in the study of cities. Urban thinking, whether related to architecture or urbanism, has become dramatically less focused on infrastructure, and more on the ultimate goal and reason for the existence of cities—that is, the well-being of the people that inhabit them and constitute their very soul and essence. "Cluster," "concentrate,"

and "collaborate" seem to have become the three big Cs of urban thinking of late—but that story is not new. Clustering, searching for a concentration of people, and finding ways to collaborate have been part of the human experience since prehistoric times. Then, as now, people gathered in search of protection, conviviality, and exchange.

The terms that follow reflect this type of urban exchange. Their definitions aim to document and take the "temperature" of a particular time and place—Berlin in the summer of 2012—and to understand what city experts and non-experts alike gathered to discuss: what cities were, are, and can be. The terms included are new and old, classic and ephemerally fashionable. Among them are some of urbanism's "usual suspects," which interestingly, keep reappearing in the urban discourse of the early twenty-first century. Each definition concludes with an example of a Berlin Lab program that illustrated the relevance and context of each term.

What do people talk about today when they discuss the future of cities? Many things. One hundred of them follow.

1, 3-D Printer

A 3-D printer is a machine that prints objects by laying down successive layers of plastic or other materials. 3-D printers have existed since the 1980s. Today, several companies are working to create models that are available for personal use and at a low price point. In the last few years, the rise of 3-D printers in rapid prototyping has popularized and democratized the creation of objects at an individual level, proving that there is a viable alternative to the previous dependence on industrial mass production. This radical change has meant a turning point for a variety of fields, most notably biomedicine, architecture, and design. Thus, 3-D printers are changing the way we understand and construct our built environment.

The BMW Guggenheim Lab in Berlin hosted a two-week period of programs focused on making in which visitors used 3-D printers to do rapid prototyping. Portable 3-D printers were also developed, built, and donated to various cultural producers in Berlin.

Marathon of Making Things
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/marathon-of-making-things?instance_id=659

Related terms
Do-It-Yourself (DIY)
Empowerment Technologies
Maker Movement

2, Accessibility Design

Accessibility design is urban design that takes into account the full spectrum of other-abled (including elderly, disabled, and handicapped) individuals by creating a user-friendly urban and domestic environment. The Americans with Disabilities Act of 1990 (ADA) was revised in 2010 to include regulations and standards for accessibility design in the United States. Accessibility design allows for an urban landscape that is more considerate of the needs of every citizen.

Designer John Schimmel and accessibility activist and organizer Raul Krauthausen conducted a workshop intended to identify and map locations with and without equal access.

Accessibility Walkabout
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/accessibility-walkabout?instance_id=1280

3, Active Transformation

Active transformation is a state of continual movement, improvement, and change of the urban commons. Motivated individuals can trigger moments of transformation, changing city life into something more collaborative, sustainable, and conducive to well-being.

Lab Team member Rachel Smith's Lab Platz program called attention to the importance of public space, by transforming parking spaces for one whole day and turning them into places for leisure, cooking, socializing, and learning.

Transforming Parking Space: Lab Platz
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/transforming-parking-space?instance_id=1179

The Marathon of Transformation gathered together a group of more than fifteen international and Berlin-based influencers and transformers and presented the ways in which they are actively bringing about urban change.

Marathon of Transformation
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/marathon-of-transformation-how-would-you-transform-your-city?instance_id=1161

4, Activist Citizen

Activist citizens are committed to community life and the urban environment. Rather than relying on institutions or the government to fix things, they lead change independently and embrace active community involvement. In 2011, *Time* named "The Protester" the person of the year. This choice came after a turbulent year of uprisings in the Arab world that influenced the development of the Occupy movement worldwide. These movements illustrated the central role activism plays in city life.

At the Lab, Ernst-Dieter Lantermann of the Institute for Psychology at the University Kassel examined activist groups from a psychological perspective, exploring how activism works and what positive and negative effects it can have on satisfaction in life. Lantermann argued that the way an individual sees himself as a part of the larger society hugely affects that individual's emotional well-being.

Social Involvement—Life Satisfaction and Participation
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/social-involvementlife-satisfactionparticipation?instance_id=1307

Related terms
Bottom-Up Urban Engagement
Citizen Empowerment

5,

Aging Population

Today, twenty percent of the population is older than sixty-five; in 2060, every third person will have reached that age. The effect of the aging population on the urban environment and on social services is one of the most significant global challenges and opportunities of the next fifty years. Intergenerational exchange creates opportunities for knowledge sharing and social interaction. Urban design, community initiatives, and public services can help meet the needs of young and old citizens alike.

The Ageless Evening at the Berlin Lab offered an evening of intergenerational encounters through cooking, dance, age simulation, and more.

Ageless Evening
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/ageless-evening?instance_id=1243

Related term
Intergenerational Interaction

6,

Anthropocentric Urbanism

Anthropocentric urbanism refers to urban planning and city design that revolves solely around the needs and desires of human beings. Mostly as a result of the anthropocentric theories developed during the Enlightenment in the eighteenth century, the human being has long constituted the gold standard by which all things are measured. Historical architectural styles have operated on this assumption for centuries. However, more recent thinking and twentieth-century urban and environmental theories advocate for a separation from anthropocentric thinking in urban planning and argue that it is this mindset that has caused much of the challenges faced by cities today. Cities that flourished under an anthropocentric mindset were not created with a larger context in mind that could be inclusive of the environment and other living creatures.

Natalie Jeremijenko, artist and engineer, explained how artistic interventions and urban actions can be successful prescriptions for a more inclusive urban design that tackles environmental issues including pollution, overcrowded cities, and lack of wildlife in city areas.

Natalie Jeremijenko: Toward a Healthy Urban Environmental Commons
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/natalie-jeremijenko?instance_id=1175

7,

Architecture of Necessity

The architecture of necessity is design conducted by everyday citizens in response to individual or collective needs and site-specific conditions. Due to political restrictions and/or low-income scenarios, neighborhoods and individuals make customized and informal alterations to their living spaces, thus creating innovative new typologies for architecture and urbanism. Ernesto Oroza coined the term in his 2006 book, *For an Architecture of Necessity and Disobedience*, to refer to the efficiency and ingenuity of Cuban citizens under Fidel Castro's regime and their approach to self-made solutions for their everyday needs. Virserum Art Museum has also used the term to talk about sustainability in architecture.

Ernesto Oroza led a two-part workshop at the Berlin Lab that had visitors documenting architectural hacks in Berlin neighborhoods and compiling them into a customized tabloid. He also gave a lecture about the Architecture of Necessity in Cuba.

Ernesto Oroza:
Provisional Space/Collaborative Design
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/ernesto-oroza-provisional-spacecollaborative-design?instance_id=708

Architecture of Necessity and Disobedience
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/architecture-of-necessity-and-disobedience?instance_id=1177

Related term
Upcycling

8,

Arduino

An Arduino is a piece of electronic hardware—a single-board microcontroller used to create basic hardware-to-software communication through circuitry control. Developed by a team of inventors led by Massimo Banzi, Arduinos are widely used in computer programming. As an easy-to-use module, the device can be employed to test basic programming functionality or even operate a small robot. The Arduino is particularly practical for rapid prototyping. Its design is distributed under the Creative Commons license and low-cost kits are available through a number of organizations.

At the Lab, Making Sense with Arduinos was a workshop that empowered visitors to engage with basic electronics and programming in an effort to make small-scale interventions into our urban environment.

Making Sense with Arduinos
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/making-things-sense-with-arduinos?instance_id=698

12,

Bicycle Safety

Bicycle safety includes rules and strategies designed to protect cyclists from risks associated with riding. Some of these include personal safety precautions like helmets and lights. Others require collective action from government or community organizations including bikeways, traffic laws, and riding conduct. Higher bicycle-safety levels result in a greater number of bicycle riders sharing city streets.

During the Cycling Fast Facts presentations, Jorg Leben spoke about the needs of cyclists and other road users. He touched upon the importance of bicycle safety, the problematic of mixed traffic issues, the inefficiency of pavers, and the issues of rights-of-way in different countries. Leben concluded that sufficient space and keeping bikers away from main roads would lead to an increase in bicycle use.

Cycling Fast Facts
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/cycling-fast-facts?instance_id=1143

Copenhagenize Index presented a program at the Lab about the world's most bike-friendly cities. The Copenhagenize Index was developed in 2011 by Copenhagen Consulting as an index for measuring support of urban cycling in cities worldwide. The index measures eighty major cities around the world based on specific criteria including bicycle infrastructure, bike share programs, perception of safety, and politics. When these needs are met, cities experience an increase in cyclists, which has a positive effect on city livability and infrastructure.

The World's Most Bike-Friendly Cities
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/sidsel-birk-hjuler-the-worlds-most-bike-friendly-cities?instance_id=1156

13,

Body Language

Body language is a form of non-verbal human communication. While we mainly focus on verbal strategies for sharing information, body language is a powerful form of communication that connects with our senses. Most of the communication that occurs in urban public space occurs through conscious or unconscious body language signals. For this reason, understanding, learning, and analyzing body language is of crucial importance for urban psychologists.

At the Lab, the programs devoted to the topic of Urban Micro Lens explored how all forms of communication represent a skill that can be developed and perfected. When this is done successfully it can dramatically improve our urban life.

The Basics of Perception and Urban Micro Lens
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/basics-of-perception-and-the-urban-micro-lens?instance_id=752

14,

Bottom-Up Urban Engagement

Bottom-up urban engagement places the citizen at the root of urban change. The term "bottom-up" first appeared in relation to its opposite, "top-down," in the 1942 edition of Harvard University's *Quarterly Journal of Economics*: "In the long run it is part of the larger question of whether 'bottom-up' control can be as efficient as 'top-down' control."

In an urban context, this approach has two key, complementary directions: first, a trend that encourages social, cooperative models of city organization; second, a growing interest from government officials, academia, and the professional sector in resorting to digital, open-sourced data and models as key resources for understanding urban interactions.

Dietmar Offenhuber's research centers on the possibilities and limitations of self-organized infrastructure. Based on the work of the SENSEable City Lab, Offenhuber discussed the effectiveness and potential of bottom-up infrastructure at the Berlin Lab in a lecture titled Can Infrastructure Be Crowdsourced?

Can Infrastructure Be Crowdsourced?
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/can-infrastructure-be-crowdsourced?instance_id=761

Related terms
Activist Citizen
Citizen Empowerment

9,

Behavior Change

Behavioral change is an ongoing process of replacing the ways we respond to our environment with newly acquired patterns of action. Behavior standards respond to social norms and needs; in an urban context, certain targeted behavioral shifts can lead to important changes in urban interaction and design. The key to large-scale urban improvement lies in the majority of the population adopting and maintaining more behaviors that produce small but incremental change for the common good. These could include more responsible consumption and waste practices and greater conviviality and sharing.

Through his programs, which explored the power of technology in cities, Lab Team member Carlo Ratti argued that sensing and actuating is a powerful transformative process that can lead to behavior change—the first step in large-scale transformation.

Carlo Ratti's Introduction
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/sanitary-cities-and-the-senseable-city?instance_id=760

10,

Bike Sharing

Bicycle-sharing programs provide bikes for rent or temporary use in urban environments. Today, there are bike-sharing programs in 165 cities around the world. Bike-sharing systems typically involve customized bike design, docking stations, and an affordable membership fee to avoid theft and promote financial sustainability. Bike sharing provides free or low-cost transportation with no emissions. The system was first employed in Amsterdam in 1969 when a fleet of bikes was painted white and distributed throughout the city. Other cities with bike-sharing programs include Berlin (with two programs, started in 2003 and 2009) Paris (2007), Barcelona (2007), and London (2010), among others. New York City will be launching one in the spring of 2013. In major cities around the world, the programs are typically sponsored by major corporations.

Sidsel Birk Hjuler:
The World's Most Bike Friendly Cities
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/sidsel-birk-hjuler-the-worlds-most-bike-friendly-cities?instance_id=1156

Cycling Fast Facts featured a group of biking experts to showcase a crosssection of the Berlin cycling community to discuss the challenges and opportunities of biking in cities.

Cycling Fast Facts
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/cycling-fast-facts?instance_id=1143

11,

Biking and Traffic Regulations

Biking and traffic regulations are the rules that ensure the orderly and safe operation and interaction of motor vehicles, bicycles, pedestrians, and others during transit. More recently, some urban and traffic planners have come to believe that over-regulation of traffic and pedestrian flows can be counterproductive to the safety and efficiency of urban mobility, and that adequately designed, more flexible and intuitive systems can lead to better mobility performance in cities.

Philipp Poll from ADFC Berlin e.V. explained biking and traffic regulations and showed how pedestrians, drivers, and bikers can be conditioned not to break traffic rules. Poll discussed how thoughtful design and planning that responds to psychological responses to space can offer intuitive guidance for those on the road. Such improved planning efforts can be more effective than mandatory rules in promoting road safety.

Cycling Fast Facts
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/cycling-fast-facts?instance_id=1143

15,

City Center versus Periphery

The city center is often the location of the most significant, historical, cultural, and political landmarks and institutions. At times, this area also serves as the economic hub, and is commonly frequented by tourists. Hence cities are often characterized or known by the more stereotyped postcard visions of their city centers. Traditionally, the center is the most highly valued area, in contrast with the city periphery, which has often housed artists, immigrants, and those with low income. This creates a tension that leads to various types of urban regeneration and gentrification processes. Both areas require attention and can serve as creative incubators and urban transformation sites for rapid gentrification. With the development of megacities, the notion of center versus periphery is a blurred one, as cities develop multiple centers and urban sprawl continues to expand urban surfaces beyond precise limits.

Maurice de Martin organized C-Zone, a tour of Berlin's fringe and often-neglected outer ring in the East Berlin neighborhoods of Lichtenberg, Treptow-Köpenick, and Marzahn. The tour visited local experts and residents of non-central Berlin areas to underscore the fact that Berlin consists of more than just the central zone more usually seen by tourists.

C-Zone I
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/c-zone-i?instance_id=1250

C-Zone II
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/c-zone-ii?instance_id=1256

Related term
Gentrification

16,

Cities as Idea Generators

Cities are successful forms of organization because they attract people. And when people gather together and interact, innovation happens and new ideas are generated. Thus, urban theorists and economists identify cities as engines of progress and idea generation since their inception.

Identifying cities as centers for innovation and collaborative thinking, Barry Kudrowitz ran a workshop on idea generation through improvisational practices that engaged visitors and encouraged them to interact.

Idea Generation through Improvisation
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/idea-generation-through-improvisation?instance_id=653

Related term
Multidisciplinary

17,

Citizen Empowerment

Citizen empowerment is the state of feeling that one's actions actively contribute to urban decision-making processes and change. By creating opportunities for communication and participation, citizens feel empowered to contribute their time, energy, and ideas in the city.

Carsten Joost, a well-known Berlin activist from Media Spree Versenken, shared various strategies for social involvement during his lecture at the Lab, while giving examples of how activists have changed the urban landscape in Berlin.

A Waste of Time and Effort?
Twenty Years of Civic Participation
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/a-waste-of-time-and-effort-twenty-years-of-civic-participation?instance_id=1281

Ernst-Dieter Lantermann of the Institute for Psychology at the University Kassel, examined activist groups from a psychological perspective, exploring how activism works and what positive and negative effects it can have on satisfaction in life. Lantermann argued that the way an individual sees himself as a part of the larger society hugely affects that individual's emotional wellbeing.

Social Involvement—Life Satisfaction—Participation
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/social-involvementlife-satisfactionparticipation?instance_id=1307

Related terms
Activist Citizen
Bottom-Up Urban Engagement

18, City as Organism

"City as organism" refers to the similarity between an urban system and a complex live organism formed by multiple, interrelated components. As with an organism, many of the elements that form a city are not apparent to the naked eye, yet they are essential to the city's ability to function. It is important to give equal importance to both the visible and invisible areas of a city, as both are crucial to its development.

Maurice de Martin organized C-Zone, a tour of Berlin's fringe and often-neglected outer ring in the East Berlin neighborhoods of Lichtenberg, Treptow-Köpenick, and Marzahn. The tour visited local experts and residents of non-central Berlin areas to underscore the fact that Berlin consists of more than just the central zone usually seen by tourists.

C-Zone I
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/c-zone-i?instance_id=1250

C-Zone II
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/c-zone-ii?instance_id=1256

19, Climate Change

Climate change is the slow alteration of weather patterns that occurs over time as a result of various conditions, including natural geographic transformation, orbital variations, evolution, and human influence. There is serious debate about the current and future repercussions of climate change. These effects may be ultimately irreversible and are largely due to an increase in carbon dioxide levels—of which the highest levels are produced in cities. Through large-scale governmental guidelines (such as the Kyoto Protocol of 1997) and individual initiatives, urban planners and citizens are becoming more aware of these issues, resulting in more responsible design and lifestyle choices that can lead to urgently needed reductions in emissions.

Climate Media Factory presented a session on climate change, cities, and mobility and questioned how we can better communicate climate change to encourage more individual action. They presented a variety of methods, including social media, which could encourage better education on Berlin's climate-change data.

Tell Your City: Lectures on Narrating Climate Change
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/tell-your-city-lectures-on-narrating-climate-change?instance_id=1232

20, Closing the Loop

"Closing the loop" is an expression used to define the closure of a process, from its inception to its end, in a manner that leaves no loose ends. In the urban context, "closing the loop" is increasingly used to allude to the effectiveness of digital-to-physical interactions in cities. Successful uses of digital technologies in cities, through sensor devices or social media, for instance, are of no use if they do not manage to achieve an impact on the physical world. That is, if we amass large quantities of urban data through cutting-edge sensors, but we fail to implement a practical solution in the real world to the questions the data was asking, we will not have closed the loop. Similarly, if we have thousands of friends on Facebook, yet fail to meet anyone for coffee in weeks, the digital-physical loop is not closed.

Carlo Ratti devoted a series of programs to the topic of Scripted Spaces in which he analyzed the ways in which physical "actuation" has become increasingly important in the highly digital cities that we inhabit.

Scripted Spaces
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/scripted-spaces?instance_id=1323

21, Collaboration

Collaboration—the act of cooperative work undertaken to achieve a common goal—is at the core of human interaction. Since the beginning of civilization, people have gathered in search of protection, conviviality, and exchange. Within cities, collaboration is crucial to the achievement of common goals for improving the shared urban experience.

Lab Team member Corinne Rose's Make Space project initiated and implemented a collaborative process through which a group of senior citizens worked together to create a community garden in a Berlin neighborhood. Through a blog that described the working process, the project functioned as a how-to guide for brainstorming solutions for spaces for common use. The garden and blog also served as sources of inspiration for residents and neighbors ready to transform a space of their own.

Make Space/Räume schaffen: A Community Garden Project
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-city-projects/make-space-community-garden

26, Crowdfunding

Crowdfunding is a fundraising strategy that relies on the collective support of many individuals who contribute a small amount of money to support a cause, start-up, artistic project, or relief fund. This strategy relies primarily on the Internet to market needs and garner support. Websites like Kickstarter have made this type of fundraising popular. The trend has extended to the world of architecture and design: a variety of product-design and urban projects have sought funding through these avenues. Crowdfunding is a symptom of a larger social trend toward sharing and gift-based transactions.

At the Lab, Coralie Winn and Ryan Reynolds from Gap Filler spoke about DIY urbanism and regeneration in post-quake Christchurch, New Zealand, and gave examples of crowdsourced projects that had changed the fabric of the city after a natural disaster; Heidemarie Schwermer developed her views on a society based on sharing; and Van Bo Le-Mentzel presented his crowd-sourced Karma Economy project and book.

Marathon of Transformation
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/marathon-of-transformation-how-would-you-transform-your-city?instance_id=1161

Living by Sharing:
Heidemarie Schwermer
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/living-by-sharing-heidemarie-schwermer?instance_id=1273

Karma Economy and Book Release Hartz IV Moebel
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/karma-economy-and-book-release-hartz-iv-moebel-hatje-cantz?instance_id=1252

Related term
Crowdsourcing

27, Crowdsourcing

Crowdsourcing is a problem-solving model that relies on the voluntary sharing of information or skills with an undefined public. Often relying on the Internet, crowdsourcing allows for collaboration and participation between a variety of people from different backgrounds and levels of expertise. The term was coined in 2006 by author Jeff Howe in an article for *Wired*.

At the Lab, Dietmar Offenhuber discussed how crowdsourcing could be applied to city infrastructure. In this talk, he gave examples of how this is being done and explained the main issues and possibilities of this approach. Crowdsourcing is thought to be a tool that could create smarter cities by allowing the addition of real-time sensing to all elements of an urban system.

Can Infrastructure Be Crowdsourced?
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/can-infrastructure-be-crowdsourced?instance_id=761

Van Bo Le-Mentzel held a book-release event for a text that he created with collaborators from around the world—a project that was facilitated through crowdsourcing.

Karma Economy and Book Release
Hartz IV Moebel
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/karma-economy-and-book-release-hartz-iv-moebel-hatje-cantz?instance_id=1252

Related terms
Crowdfunding
Digital Democracy
Open Governance
Open-Source

22, Collaborative Urban Mapping

People have been documenting place and advancing the science of cartography for thousands of years. Unlike early maps, today's mapping offers the ability to display a plurality of data and information with a high level of precision. Furthermore, the role of the cartographer as a singular author has been replaced with a form of mapping that is produced through collaboration and open-source data sharing, leading to maps that can contain several layers of information in one single digital source.

During the Marathon of Transformation day of programs, Joe Peach, the founder of This Big City, explained how digital urban citizen engagement projects, in particular collaborative urban mapping, contribute to city transformation.

The Marathon of Transformation
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/marathon-of-transformation-how-would-you-transform-your-city?instance_id=1161

Foodscape Mapping engaged visitors in collaboratively mapping waste and parasites, sewage systems, smells, markets, and the food supply chain, as well as the economic trends in the area connected with food.

Foodscape Mapping
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/mapping-the-edible?instance_id=765

23, Comfort

Comfort is a sense of physical or psychological ease, often characterized as a lack of hardship. Maximizing comfort has not only fostered the ability to cope with sometimes grueling urban conditions, but it has also become a measure of individual wealth, success, and status. Unfortunately, the irrepressible human aspiration to find ease often creates behaviors that challenge individual health, ecological sustainability, and economic moderation—hence the need to look for sustainable, responsible ways to find comfort in urban environments.

Anton Burdakov's Anchor Points program revealed how our perception of space can create feelings of comfort and security by identifying whether we are inside or outside a so-called protected space.

Anchor Points
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/anchor-points?instance_id=1241

24, Connectivity

Connectivity refers to the ability to connect people in better, more efficient ways that allow them to thrive to the best of their capacity. Cities have become the larger connective tissue that can provide the basis for connective strategies. In urban environments, citizens can connect through the proliferation of widespread technology, and just as importantly, through personal, narrative connections that reflect microhistories of place.

As a nexus for the exchange of ideas, the Lab functioned as a connective hub for experts and non-experts alike to put forward urban theories, test out new methods of urban participation, and share personal stories of transformation and experimentation.

Through his programs, Lab Team member Carlo Ratti explored the power of technology in cities. In a video for the Lab, Carlo explains how the Lab is a mobile platform that gives people an opportunity to think about architecture and design—and how both relate to cities. Ratti points out that today, new technologies have allowed people to connect and act on a different level and come together in new ways.

Carlo Ratti on the BMW Guggenheim Lab
bmwguggenheimlab.org/multimedia/media/157?library_id=1

Related term
Urban Microhistories

25, Creativity

Creativity is the ability to make connections that are not necessarily obvious between seemingly unconnected things, leading to new ideas. Associative learning theories support a variety of methods to connect abstract concepts in our brains in order to find novel outcomes, thus promoting creativity.

Barry Kudrowitz led an active and engaged workshop and talk about idea generation and creativity and suggested a variety of tools to increase innovative thinking, from mind mapping to games that can help release our inhibitions. The most successful designers and thinkers don't innovate through seriousness, but through playful brainstorming and idea-association, which are proven to foster creativity.

How Play and Humor Help Us Innovate
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/how-play-and-humor-help-us-innovate?instance_id=654

Related term
Innovation

28, Customization

Customization is the method of responding to individual needs and directives. Customization is often used to refer to a shift in manufacturing and production to a more flexible methodology. The term, which dates back at least as far as the turn of the twentieth century, was featured in the 1997 book *Future Perfect* by Stan Davis in which he discussed its application to mass production. The last decade has seen a dramatic increase in products and services that are designed and built to user specifications. Customization has the potential to transform the way we build and inhabit cities, making them ever more flexible, personalized, and livable.

Dale Dougherty discussed the turn towards customization and personal fabrication rather than mass production in his talk What is the Maker Movement? He claimed that making has created a prototyping revolution that fosters experimentation, customization, and innovation.

What is the Maker Movement?
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/dale-dougherty-what-is-the-maker-movement?instance_id=685

29, Data Visualization

Data visualization is the representation of information through graphs and other visual means. The purpose of data visualization is to translate complex data sets or subjective information into easily digestible, graphic forms, bringing together the practical need to communicate with an aesthetic sensibility. Visualizing urban behavior and patterns can create awareness about important urban conditions (traffic, cell phone use, bike usage, pollution levels) and can also lead to diagnosing situations that need improvement.

Dissected Trash Objects allowed visitors to engage in real-time data collection, analysis, and visualization. Led by Dietmar Offenhuber and Pablo Rey from Basurama, the workshop exposed the hidden waste processes associated with global consumables.

Dissected Trash Objects
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/dissected-trash-objects?instance_id=1282

Related term
Collaborative Urban Mapping

30, Decentralization

Decentralization is the process by which elements of a whole are dispersed. The term is commonly used in the context of government to refer to a process that involves a greater sharing of power among various sectors and players. In the field of economics, the term refers to responsible investment strategies that allocate funds to diverse lots, rather than keeping all assets in one place. In urban planning, decentralization has been referred to as an alternative to cities' central infrastructure and social systems. A dispersion of centers is seen as a way to avoid dependency on a centralized system whose malfunction could cause widespread disruption.

A key component of decentralization has been the increase in democratizing the uses of technology. This concept was the core element of José Gómez Márquez's programs at the Lab.

Empowerment Technologies
bmwguggenheimlab.org/what-is-the-lab/people/berlin-lab-team/jose-gomez-marquez

Related term
Empowerment Technologies

31, Deregulation

Deregulation is a process whereby the government decreases its involvement and limits its amount of regulations. It has been argued that, in some cases, deregulation can increase individual or institutional initiative, which allows for more personalized and localized solutions to emerge in cities. However, the term and its applications are the subject of highly polarized debate.

Ben Hamilton Baille, architect and urban designer, explained the principles of street design and place-making by presenting new approaches to traffic engineering, speed, safety, and civility practices. He claimed that deregulation of traffic and pedestrian rules is a crucial step towards street safety.

Street Design and Place-Making: New Approaches to Traffic Engineering, Speed, Safety, and Civility
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/street-design-and-place-making-new-approaches-to-traffic-engineering-speed-safety-and-civility-?instance_id=1144

Related term
Self-Regulation

32, Design-Build

Design-build is a process whereby the design and construction of a structure is conceived of and implemented by a single entity. This process is particularly effective when working with students or amateurs who can be exposed to the full spectrum of processes that go into the creation of a building or development initiative. The term has been adopted by artists and architects who create temporary projects on a short timeline.

The Lab hosted a four-day collaborative design-build project led by Peter Fattinger. Visitors were involved in the brainstorming, planning, and ultimately the building process of this structure, which became a temporary, mobile kitchen that later hosted cookouts and cooking events at the Lab and at offsite Berlin locations.

Learning by Doing
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/design-build-learning-by-doing?instance_id=1314

Related term
Do-It-Yourself (DIY)

33, Digital Democracy

Digital democracy is the implementation of information technologies, communication technologies, and social media in service of political and government processes. In a successful form, it provides broader citizen participation while increasing transparency. Digital democracy also serves to increase accountability among government agencies and the participating public.

The Open Governance Panel at the Lab discussed the influence of new technology on our communication and decision-making processes. Panelists included Dieter Zinnbauer, Senior Program Manager of Emerging Policy Issues, Research and Knowledge Group at Transparency International; Anke Domscheit-Berg, the founder and director of opengov.me; and Helmut K. Anheier, Professor of Sociology and Dean at the Hertie School of Governance.

Open Governance Panel
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/open-governance-panel?instance_id=1317

34, Disneyfication

Disneyfication refers to the transformation of the built environment to resemble the logic of a theme park. While the term has been used broadly by social scientists, it was first coined by Sharon Zukin in 1996. The term is used to describe a process of urban transformation that increases homogeneity and simulated reality rather than the preservation of historical elements and cultural difference.

Cold War Center: Checkpoint Charlie sought to observe and analyze the prevailing spectacle culture that has come to unfold in one of Berlin's most iconic historic locations. The panel of experts discussed the need for a Cold War museum at Checkpoint Charlie and the benefits or disservices that the theme park effect can have on collective urban memory.

Cold War Center: Checkpoint Charlie
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/cold-war-center-checkpoint-charlie?instance_id=1306

35, Do-It-Yourself (DIY)

Do-It-Yourself (DIY) refers to an impulse to learn and make without relying on experts. The term was first used in the 1950s as home improvements were popularized by a widespread shift to the suburbs. Today, this approach has been adopted by skilled builders and hobbyists alike who have taken making into their own hands to improve their domestic and urban environment.

Van Bo Le-Mentzel talked about his collection of DIY home and furniture design, instructions for which are available for download online and in his new book, Hartz IV Moebel. The project seeks to democratize good, cheap design and affordable homes, and engage people in the building process.

Karma Economy and Book Release
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/karma-economy-and-book-release-hartz-iv-moebel-hatje-cantz?instance_id=1252

Related terms
Hackerspace
Maker Movement

40, Empowerment Technologies

Empowerment technologies are innovative uses of technology that empower citizens in the process of actively contributing to their built environment. Following a do-it-yourself philosophy, tangible actions like making, building, and hacking lead to greater citizen participation and thus empowerment within the urban environment.

The Lending Library and Engineering Genius Bar developed by José Gómez Márquez empowered visitors to use technology to meet their own needs.

Lending Library and Engineering Genius Bar
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/lending-library?instance_id=1149

Related terms
Do-It-Yourself (DIY)
Maker Movement

41, Environmental Footprint

The ecological footprint is an indicator of human pressure on the Earth's natural resources. In particular, it represents the amount of land or water needed to sustain a segment of the population or an individual. Each year, the UN publishes a number that is calculated based on various metrics measuring humanity's stress on the environment, which is increasing at unsustainable rates, especially in cities. A recent report claimed that by the year 2030 we will need approximately two Earths to support us. This hyper-consumption is a pressing issue that requires everyone—from high officials to average citizens—to commit to collective problem solving.

Natalie Jeremijenko, artist and engineer, explained how artistic interventions and actions can be successful prescriptions for environmental issues including pollution, overcrowded cities, and lack of wildlife in city areas.

Natalie Jeremijenko: Toward a Healthy Urban Environmental Commons
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/natalie-jeremijenko?instance_id=1175

Related terms
Climate Change
Emission Reduction

42, Experiential Technology

Experiential technology is an immersive digital environment that allows citizens to experience an event or a place without being there physically.

C.A.P.E. is a Computer Automated Personal Environment, created by the Brussels-based performance group CREW, that was showcased at the Berlin Lab. Using guided virtual-reality headset devices, visitors explored the site of the 2011 tsunami in Tohoku, Japan and took a walk through Brussels, questioning the limits of reality and asking whether we even need to be in a city to experience it.

C.A.P.E.: Into the Heart of the Experience
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/cape-into-the-heart-of-the-experience?instance_id=1266

43, Experimentation

Experimentation is a word that comes from science and refers to methods of testing a thesis. It is a process of action, reflection, and learning whereby new ideas can be tested and, if successful, implemented. Experimentation is a key element of healthy cities, which should embrace challenges to the status quo and seek ways to push thoughtful progress forward in creative, original ways.

The Lab project itself is a form of urban experimentation through creative urban interventions and programs. At the Lab, certain experiments were also carried out, such as Testing, Testing!, an experiment and study by the University of Waterloo's Professor Colin Ellard, which launched at the Lab in New York. Through Ellard's ongoing initiative, visitors take part in a study of the emotional and physiological effect of various urban spaces.

Testing, Testing!
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/testing-testing-berlin4?instance_id=1289

36, Electric Car

An electric car is an automobile that is propelled by partial or full electrical energy. Since the mid-2000s, the production of electric cars has experienced a renaissance due to advances in battery and power management technologies and concerns about peak oil prices and the environmental consequences of carbon dioxide emissions. The current debate around electric cars points to the near-future possibility of urban environments with 100-percent electric car usage. This would dramatically change urban spaces, given the need to create charging and parking spaces for these new types of vehicles. The adoption of hybrid vehicles, which combine oil usage with partly electric-powered engines, is a transitional step toward an all-electric automotive environment.

Plug In Park Up explored e-mobility and the future of parking by inviting experts from the fields of mobility, cycling, and climate change.

Plug In Park Up
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/plug-in-park-up?instance_id=717

Related terms
Climate Change
Urban Mobility

37, Emission Reduction

Emission reduction is a process of energy efficiency intended to decrease pollution. Cities have the capacity to approach emission reduction in innovative ways, allowing for a full-systems approach to this challenge.

During the Cycling Fast Facts presentations, Frank Müller, CEO, Urban-e GmbH, talked about how to replace your car with a cargo e-bike. He showcased the advantages of e-bikes and cargo e-bikes and advocated for replacing cars with electric bikes for more sustainable urban environments.

Cycling Fast Facts
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/cycling-fast-facts?instance_id=1143

Related terms
Climate Change
Electric Car

38, Emotional Connections

While today we have more and more digital friends, we experience fewer emotional connections in our "real-world" daily lives. In growing cities, we are seeing a decline in the number, value, and duration of our physical interactions with people. Designers and architects are approaching city planning in a way that facilitates meaningful interactions.

Bubble Lab was an event meant to foster communication between strangers in an age of growing cities with increasingly anonymous interactions. Strangers met and spoke, illustrating the need to communicate, collaborate, and share common visions in urban life.

Bubble Lab
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/bubble-lab?instance_id=1264

Related term
Emotional Intelligence

39, Emotional Intelligence

Emotional intelligence (EI) refers to the capacity to identify, measure, and control one's emotions and recognize emotional information as it is expressed by others. The EI, as opposed to the IQ (intelligence quotient), is a measure of one's capacity to perceive emotional signals. Peter Salovey, Daniel Goleman, and John D. Mayer are the leading psychologists working on the subject, and have been active in this area of study since the 1990s. EI combines the ability to perceive with empathetic emotions—critical skills for urban dwellers who seek to create a more convivial social network.

At the Lab, Isabel Dziobek used the Emotionstrainer software to ask if our daily interactions would change if we taught people how to better read emotions.

Emotionstrainer
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/emotionstrainer?instance_id=1279

Related term
Emotional Connections

44, Food Consumption

Food consumption is the act of eating animal or vegetable elements in order to sustain life and provide energy. Historically, the location of markets and food-distribution centers has been a crucial component for the establishment and planning of cities, and has also affected economic and social transactions. Food is not equally accessible in cities around the world: hunger affects 925 million people and 98 percent of them live in developing countries. Cities are working to eradicate hunger through innovative new initiatives facilitated by technology. Eliminating extreme hunger worldwide is one of the United Nations' Millennium Development Goals.

Nicola Twilley, author of the blog Edible Geography and co-director of Studio X at Columbia University Graduate School of Architecture, gave a talk and led a workshop that explored the need for making food production and consumption processes in cities more transparent.

Foodscape Mapping
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/mapping-the-edible?instance_id=765

45, Forecasting

Forecasting is the practice of making predictions about events that have not yet occurred. Forecasting typically involves data analysis and statistical methods to predict the future. Founded in 1968, the Institute for the Future pioneered the field of forecasting and currently offers a compelling look into future trends, possibilities, and challenges.

Matthias Böttger of Raumtaktik and DAZ (Deutsche Architektur Zentrum) involved a group of students from the University of Montreal and other participants in a planning session at the Lab for the future of cities. The participants broke into groups, and each one was charged with forecasting a future scenario for a city.

The Future is the New "But": Wild Speculations about the Future of Cities
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/future-is-the-new-but-wild-speculations-about-the-future-of-cities?instance_id=1255

46, Future of Parking

Parking—the practice of storing one's automobile—typically happens along city streets in blocks of pavement reserved for the purpose. This practice of using street space for parking is draining city infrastructure and space. As our cities become increasingly populous, we have less space to store cars. With this in mind, "the future of parking" explores alternatives for personal automobile use and storage.

The Parking 2.0 panel at the Lab explored the negative impacts of our existing personal mobility system and what new demands urban parking will face in the near future. In addition, the daylong event, Labplatz called attention to the importance of public space by transforming parking spaces into places for leisure, cooking, socializing, and learning.

Parking 2.0; The Future of Parking
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/hypothetical-parking-20?instance_id=1265

Labplatz
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/transforming-parking-space?instance_id=1179

47, Gentrification

Gentrification is a globally spread urban phenomenon whereby underdeveloped areas are transformed. The process is often coupled with rising rents, a shift in the social fabric of neighborhoods, and, in many cases, the influx of multi-national corporations. Every individual life choice has the potential to promote gentrification in cities.

Tracking Gentrification was a gentrification tour led by urban curator Jurgen Breiter. For more than five hours, participants had the opportunity to walk around two already gentrified areas: Mitte and Prenzlauer Berg. The tour gave an insightful view of the origins, causes, and physical manifestations of gentrification in the area, and analyzed how the same process is starting in the nearby area of Wedding.

Tracking Gentrification Tour by Jurgen Breiter
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/tracking-gentrification-?instance_id=1315

48,
Hackerspace

Hackerspaces offer a place for like-minded individuals to gather and share ideas and resources. Emerging out of the Maker Movement over the past few years, hackerspaces have proliferated globally. Hackerspaces serve a diverse group of individuals, most commonly those involved with engineering, science, computer programming, art, and digital technology. By pooling resources and expertise, hackerspaces provide a generative platform for citizens to innovate and build digital and physical interventions in the city.

Bilal Ghalib talked about the proliferation of hackerspaces around the world in the last four years. He shared his research into hackerspaces in countries in the Middle East, where commonly governments have traditionally been less supportive of open-source or free information, and how these spaces have created new opportunities for learning and sharing.

Skillshare Workshop
bmwguggenheimlab.org/where-is-the-lab/new-york-lab/new-york-lab-events/event/skillshare-workshop?instance_id=1178

Related terms
Maker Movement

49,
Happy City

The Happy City is the concept that cultivating "urban joy" can dramatically improve the city on an emotional, infrastructural, and economic level. Coming down to the core value of trust, citizens who feel good about where they live are more likely to take care of it, spend money, and socialize with strangers.

At the Lab, Charles Montgomery led a tour to test the theory that urban design can alter the way we feel and treat other people. Later, he gave a talk about his research for his forthcoming book, *The Happy City*.

Green City, Grey City, Good City: Workshop with Charles Montgomery
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/green-city-grey-city-good-city-workshop-with-charles-montgomery?instance_id=1278

The Happy City
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/charles-montgomery-the-happy-city?instance_id=1305

Related terms
Urban Livability

50,
Hybridity

Hybridity is a term that originated in biology to refer to the offspring of two different species. It has since been adopted by theorists working with identity politics, post-colonialism, race, and multiculturalism. With their dynamic mix of cultures and ideas, today's cities are places where hybridity thrives.

In his talk about socially engaged architecture, Andres Lepik, Director of the Architekturmuseum of TUM, discussed the new hybrid role of the architect and the shifts and ethical obligations that the architectural profession now faces.

Mirko Zardini, Director of the Canadian Centre for Architecture (CCA), also discussed how he sees the role of the architect evolving. The profession is changing rapidly and demands flexibility in addition to the traditional, more defined work scope of architects and urban planners.

Andres Lepik: Moderators of Change—Socially Engaged Architecture
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/andres-lepik-moderators-of-changesocially-engaged-architecture?instance_id=1248

Actions: What You Can Do with the City
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/actions-what-you-can-do-with-the-city?instance_id=657

51,
Influencer

An influencer is a person whose actions affect change on a large scale or within a group of people. The term, commonly used in sociology, psychology, ethics, geopolitics, and economics, recently has been widely adopted online to refer to websites or web content that exerts a strong effect on public opinion.

The Marathon of Transformation gathered together a group of more than fifteen international and Berlin-based influencers and transformers who presented the ways they are actively affecting urban change.

Marathon of Transformation
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/marathon-of-transformation-how-would-you-transform-your-city?instance_id=1161

56,
Learning by Doing

"Learning by doing," a theory that comes from economics, refers to the capacity of workers to self-educate and improve their skills on the job. In the realm of pedagogy, it refers to a style of learning that resists the traditional hierarchy of education and elevates practical activity and experience as viable sources for knowledge. Architects such as Frank Lloyd Wright were important advocates of learning by doing in architecture and design. These leaders in the field based their designs and educational methods on teaching architecture students to make things with their hands in order to incorporate experience into their theoretical education. Architects and designers can validate learning by doing by encouraging participation by experts and non-experts alike, and by valuing participation over being correct or highly skilled.

Fattinger Orso Architektur, a Vienna-based design and fabrication studio, led a workshop in which participants collectively conceived of, prepared plans for, and built a temporary outdoor structure over a period of only four days.

Design Build: Learning by Doing
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/design-build-learning-by-doing?instance_id=1314

Related terms
Do-It-Yourself (DIY)
Participation

57,
Liegenschaftsfond politik (Property-fund politics)

Liegenschaftsfonds is the policy whereby city-owned plots in Berlin are sold in a bidding process where monetary value determines the selling price. The policy raises a number of important issues, including the privatization of public land and the support of organizations whose social contribution is high, but whose operating budget is low. The *Liegenschaftsfonds* was established in 2001 in Berlin as a company, the full shareholder of which is the city of Berlin.

Free Space Berlin: A Panel Discussion on the *Berliner Liegenschaften* invited key stakeholders and politicians to discuss the crisis of the sale of public land in Berlin.

Free Space Berlin: A Panel Discussion on the *Berliner Liegenschaften*
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/free-space-berlin-a-panel-discussion-on-the-berliner-liegenschaften?instance_id=1244

Related term
Vacant Space

58,
Maker Movement

The Maker movement is a participatory, social culture that invites and inspires all kinds of people and communities to invent, build, and hack. Making and doing with your hands encourages creativity, innovation, and ultimately, design thinking. This mentality advocates for transparency in design and production and resists built-in obsolescence. It also favors self-initiated production over consumerism. The Maker Faire, which was founded by Dale Dougherty in 2006, is an important meeting point for makers worldwide, as are the two leading maker-oriented journals, *Make* and *Craft*.

Dale Dougherty, founder of *Make*, explained the basics of the maker movement, the attributes of a maker, and the long-term effects of the maker philosophy on personal life, business, and culture.

What is the Maker Movement?
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/dale-dougherty-what-is-the-maker-movement?instance_id=685

Related terms
Do-It-Yourself (DIY)
Empowerment Technologies
Learning by Doing

52,
Innovation

Innovation refers to activities at the forefront of society that challenge the status quo and push for meaningful progress. Often used in the field of science, technology, and the arts, the term implies the production of new ideas or notable improvements to existing ideas.

Toy designer Barry Kudrowitz led an interactive talk that focused on the connections between innovation, humor, and play.

How Play and Humor Help Us Innovate
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/how-play-and-humor-help-us-innovate?instance_id=654

Related term
Creativity

53,
Intergenerational Interaction

Intergenerational interaction is the sharing of activities, space, and knowledge between the old and young. As our aging population surpasses that of any previous time in history, it is becoming increasingly important that the barriers, both physical and mental, that keep people of different ages apart are removed.

Ageless Evening brought together psychologists, artists, and theater performers to create an evening of intergenerational socializing and sharing.

Ageless Evening
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/ageless-evening?instance_id=1243

Related term
Aging Population

54,
Intuition

Intuition involves the use of sense-based abilities and the unconscious to make decisions rather than relying entirely on reason or comprehensible, tangible information. Originating from Carl Jung's writings about ego in the 1920s, where he posited that intuition comes from a person's clarity of perception, the term has been used in the field of psychology and neurology to refer to right-brain activity. Intuition is a key component for the creativity and innovation required in urban development and design.

At the Lab, Gerd Gigerenzer argued that intuition can be a powerful tool for decision making and should be considered more widely in addition to other hard data or reason-based methods.

The Power of Intuition
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/the-power-of-intuition-?instance_id=1274

55,
Laser Cutter

A laser cutter is a device used to sever durable materials with a powerful, targeted laser beam. Originally used in industrial manufacturing, the tool has recently been democratized for widespread use among independent citizens, makers, and crafters.

During its first weeks in Berlin, the Lab housed a state-of-the-art laser cutter and ran daily workshops to teach people how to use it to make customized creations.

Marathon of Making
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/marathon-of-making-things?instance_id=659

59,
Megacity

Megacity is a term used by the United Nations Center for Human Settlements to describe "urban agglomerations" consisting of more than ten million people. One of the greatest challenges facing society today is the rapid acceleration of the population concentrated in these urban centers. Despite the challenges of megacities, they are thought to be the key to a sustainable future for the planet, mainly due to their efficient concentration of services, products, and people.

As part of its film series, the Lab featured *Megacities* (Michael Glawogger, Austria, 1998), a movie that tells stories of survival in four megacities around the world: Mumbai, Mexico City, Moscow, and New York.

Megacities
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/screening-megacities?instance_id=1277

60,
Minimum Variation—Maximum Impact

Large-scale change is usually the result of the accumulation of many minor changes. It is through this minimal variation that we will achieve the maximum impact. Many architects and designers today are concerned with making small changes in order to create a more sustainable and socially responsible city.

Architecture curator and historian Andres Lepik spoke about the social responsibility of architecture, art, and design. Beyond its function, architecture has a strong influence on society: forms, materials, proportions, and the design of buildings as a whole permanently shape the everyday life of individuals.

Andres Lepik: Moderators of Change—Socially Engaged Architecture
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/andres-lepik-moderators-of-changesocially-engaged-architecture?instance_id=1248

61,
Mixed-Use

Mixed-use buildings are designed to incorporate a variety of uses for otherwise single-use structures. Rejecting the notions that buildings should be confined to specialized or themed purposes and that people of different ages and socioeconomic status should be separate, proponents of mixed-use development seek to encourage a healthy balance that stimulates social well-being, creative industries, and the economy at large.

During his Happy City lecture, Charles Montgomery brought up examples of how the implementation of mixed-used building in the city of Vancouver brought tangible examples of social improvement and neighborhood development.

The Happy City
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/charles-montgomery-the-happy-city?instance_id=1305

Related term
Hybridity

62,
Multidisciplinary

Multidisciplinary practice refers to a collaborative approach that encourages those with diverse backgrounds to contribute to a project or to solving a problem. The term can be traced back to scientific publications of the 1930s and '40s, where it was sometimes used to describe work conducted across multiple fields. In our current age of over-specialization, multidisciplinary projects have a central role in bringing together the most advanced knowledge from each area and applying it towards a common goal.

The Lab itself is a multidisciplinary urban project that brings together experts from a multiplicity of fields to focus on one topic: cities. All programs, collaborators, and staff of the Lab study cities from a multidisciplinary perspective in order to crowdsource a richer, more holistic learning experience about our urban environment.

63,

Non-Expert

A non-expert is an individual who engages in an activity despite having no formal training or background in it. This type of participation is essential to city development because cities are made up of individuals who are not necessarily experts. Rather, these people have powerful lived experiences that can be harnessed as valuable resources for identifying issues and solutions in cities. The notion of the non-expert resonates in the context of the rise of crowd-sourced urban initiatives. Relying on the power of the many non-experts that constitute a city, such measures work to create a detailed piece of information or infrastructure.

At the Lab, several programs spoke to the importance of the non-expert in city life, including The Power of Intuition and Can Infrastructure Be Crowdsourced?

Dr. Gerd Gigerenzer argued that intuition can be a powerful tool for decision making and should be considered more widely as a complementary addition to other hard data or rational-based methods.

The Power of Intuition
bmwguggenheimlab.org/where-is-the-lab/berlin/berlin-lab/berlin-lab-events/event/the-power-of-intuition-?instance_id=1274

Dietmar Offenhuber shared how crowdsourcing could be applied to city infrastructure. In this talk, he gave examples of how this is being done and what the main issues and possibilities are. Crowdsourcing is considered a tool that can create smarter cities by allowing the addition of real-time sensing to all elements in an urban system.

Can Infrastructure be Crowdsourced?
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/can-infrastructure-be-crowdsourced?instance_id=761

Related terms
Learning by Doing
Intuition
Maker Movement
Tinkering

64,

Open Governance

Open governance harnesses technology to enable widespread participation and collaboration in governmental decision-making processes. In 2009, the Obama administration implemented an initiative, OpenGov, which allows all citizens to access information about policy and decision-making, while surveying citizen ideas and suggestions.

The Open Governance panel brought together Dieter Zinnbauer, Transparency International; Anke Domscheit-Berg, the founder of Opengov.me; and Helmut K. Anheier, Dean of the Hertie School of Governance to discuss the possibilities and challenges of open governance.

Open Governance Panel
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/open-governance-panel?instance_id=1317

Related terms
Digital Democracy
Open-Source

65,

Open-Source

"Open-source" refers to any software whose code is designed in such a way that the user participates in the creation of data. The term was originally coined by a group of engineers in 1998 when they founded the Open Source Initiative. The term is closely related to free software, Copyleft, and Creative Commons — all initiatives that seek to democratize access to information.

Joseph Grima spoke about open-source architecture at the Lab. Grima analyzed this trend, which allows the ideas of multiple people and especially end users to come together in the form of a built artifact.

Open-Source Architecture
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/joseph-grima-and-carlo-ratti-on-open-source-architecture?instance_id=1158

Related terms
Open Governance
Participation
Responsive Infrastructure

69,

Rapid Prototyping

Rapid prototyping — a model for quickly realizing new designs using 3-D printing and other digital platforms — has caused a prototyping revolution in just the past few years. As the first and second industrial revolutions signified a shift from the handmade to the machine-made to the assembly line, this third revolution represents a dramatic shift in manufacturing. With 3-D printing technology, we are able to produce at low cost, in low quantities, with minimal labor, and with a new level of precision and customization. This technology is creating remarkable opportunities for the technology and medical fields; for cities, rapid prototyping allows us to dramatically alter the urban landscape to meet our needs at an accelerated rate.

The Lab in Berlin hosted a two-week period of programs focused on making, where visitors used 3-D printers to do rapid prototyping. Portable 3-D printers were also developed, built, and donated to various cultural producers in Berlin.

Marathon of Making Things
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/marathon-of-making-things?instance_id=659

Related terms
3-D Printer
Customization

70,

Reduce, Reuse, Recycle

"Reduce, reuse, recycle" is the motto that has been adopted to educate and promote responsible ways to discard waste while making it useful. The "three *Rs*" explain a hierarchy of processing waste, with the first tier being the reduction of consumption, the second, the reuse of existing materials, and the third, recycling.

Jo Royle, build project manager and skipper of the Plastiki, presented the Plastiki project: an eighteen-meter-long catamaran built from 12,500 reclaimed plastic bottles and other waste products.

Plastiki Expedition: Jo Royle
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/plastiki-expedition-jo-royle?instance_id=1236

Related term
Upcycling

71,

Responsive Infrastructure

Responsive infrastructure is the theory that the relationship between user and system can allow for two-way feedback. Responsive infrastructure is directly related to the notion of intelligent buildings and smart cities. Responsive city infrastructure systems are designed to measure, respond, and alter their services and appearances based on a specific set of needs.

Poiesis Fellows Orit Halpern and Nerea Calvillo, together with Poiesis program director Harel Shapira, discussed the dangers and opportunities of fully responsive cities, such as the extreme example of Songdo, Korea — a city built from scratch and used as a testing ground for cutting-edge sensor technologies by Cisco Systems.

Beautiful Data: Visualization, Territory, and the Future of Urban Space
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/beautiful-data-visualization-territory-and-the-future-of-urban-space?instance_id=1316

Related terms
Open-Source
Smart City

72,

Self-Regulation

Self-regulation is a model whereby the user is asked to monitor and control his or her own behavior, rather than relying on an outside entity to do so. If properly implemented in cities, it can effectively mobilize a participatory civic body that collectively monitors and changes city life without the input of policing or heavy-handed control.

Ben Hamilton Baille, architect and urban designer, explained the principles of street design and place-making by presenting new approaches to traffic engineering, speed, safety, and civility practices. He claimed that deregulation of traffic and pedestrian rules is a crucial step towards street safety.

Street Design and Place-Making: New Approaches to Traffic Engineering, Speed, Safety, and Civility
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/street-design-and-place-making-new-approaches-to-traffic-engineering-speed-safety-and-civility-?instance_id=1144

Related term
Deregulation

66,

Ownership of Public Space

Public space is a term that derives from the Latin word *populicus* (people). It describes the free use of shared land over which no one person has sole ownership. This concept of the commons goes back to Greek and Roman ideals and has percolated throughout Western culture to shape the notion of public space in contemporary cities. The right for people to peacefully assemble is inscribed in the United States Constitution. However, in each country, public space and the right to it is defined differently. Strategies that seek to give back public space to the citizens come as a reaction to the elements of exclusion that can happen in public space.

Putting public space back into the hands of citizens was a core element of several Lab programs, including Labplatz and Free Space Berlin: A Panel Discussion on the *Berliner Liegenschaften*.

Labplatz called attention to the importance of public space by transforming parking spaces for one whole day and turning them into places for leisure, cooking, socializing, and learning.

Labplatz
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/transforming-parking-space?instance_id=1179

Free Space Berlin: A Panel Discussion on the Berliner *Liegenschaften* invited key stakeholders and politicians to discuss the crisis of the sale of public land in Berlin.

Free Space Berlin: A Panel Discussion on the Berliner *Liegenschaften*
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/free-space-berlin-a-panel-discussion-on-the-berliner-liegenschaften?instance_id=1244

Related term
Liegenschaftsfond politik

67,

Participation

Participation is the process by which citizens make valued contributions within any collective activity. Participation is particularly important in maintaining a functioning democracy. Internet culture and open-source platforms have increased citizen participation in recent years. The Occupy movement and other participatory movements have also helped take citizen participation in urban social welfare to the next step, generating citizen-involvement initiatives and questioning city governance that is neither transparent nor participatory.

Ernst-Dieter Lantermann discussed the psychology of participation at the Lab in his lecture about social involvement, while activist Carsten Joost described his lifelong experience as a highly participatory citizen.

A Waste of Time and Effort?
Twenty Years of Civic Participation
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/a-waste-of-time-and-effort-twenty-years-of-civic-participation?instance_id=1281

Social Involvement — Life Satisfaction and Participation
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/social-involvementlife-satisfactionparticipation?instance_id=1307

Related terms
Digital Democracy
Open Governance
Open-Source

68,

Place-Making

Place-Making is a term that refers to a practice of making inclusive design decisions for the well-being of all. Place-Making involves policy-makers, designers, and community members who are interested in creating new urban environments and places that can bring people together and be conducive to various needs.

Jörg Stollmann led a tour of Gropiusstadt, where he and his team are working with and for its residents in a setting of community-based research and design. Their goal is to turn this urban complex, built in the 1960s, into a new place for improved design and social interactions.

Step by Step: A Walk through Gropiusstadt
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/step-by-step-a-walk-through-gropiusstadt?instance_id=1270

73,

Self-Solving

Self-solving is a process of independent problem-solving using creative-thinking strategies. It helps to build up people's skills while minimizing their reliance on various federal and state apparatuses. Self-solving is an important mindset for the responsible citizen, who, with the power of technology or other means, can solve most of his problems without relying on the expertise of specialists or the need to buy new devices.

Upstall Kreuzberg, a Kreuzberg-based group of architects and urban planners, presented their proposal for the transformation of a coveted empty lot of land in the district of Kreuzberg. The five-hectare lot for sale is owned by the federal government, and at risk of being sold to the highest bidder without contemplation of the neighborhood's qualities and needs. Upstall was founded in 2011 by a group of professionals interested in active citizenship who took it upon themselves to responsibly develop the empty lot based on a series of carefully considered criteria.

Marathon of Transformation: How Would You Transform Your City?
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/marathon-of-transformation-how-would-you-transform-your-city?instance_id=1161

74,

Sensor

A sensor is a tool that measures the prescribed physical quality or presence of something and communicates that data through an electronic or digital device. Examples of common sensors include a thermometer, a smartphone, or a carbon dioxide detector. Complex sensors are becoming ever more ubiquitous in cities — especially as the popularity of smartphones increases — and are usually mentioned when discussing smart cities. However, without a meaningful understanding and analysis of the data they are built to collect, sensors can prove senseless and devoid of any real interest or usefulness.

Physical Objects That Talk Back was a workshop that explored how to turn inanimate objects into intelligent devices that respond to human input.

Physical Objects That Talk Back
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/physical-objects-that-talk-back?instance_id=700

Related term
Smart City

75,

Share Culture

Even though sharing is a concept as ancient as human culture itself, in recent years technology has enabled sharing on an unprecedented level. Through community websites, live interface, and social media, sharing has become a viable alternative to monetary exchange on- and off-line. Sharing is most common in transportation, infrequent-use items, and physical spaces. While sharing thrives on a peer-to-peer level, it is also a logic that must be considered in city planning to be implemented on a large scale as more people demand carpooling, bike sharing, shared Internet connection, and other collective resources.

Heidemarie Schwermer shared her experience of living without money for more than sixteen years. She engaged Lab participants in a conversation about how she has managed to live without her own apartment and with only a few possessions, just by sharing.

Living by Sharing: Heidemarie Schwermer
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/living-by-sharing-heidemarie-schwermer?instance_id=1273

Swap Shop
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/swap-shop?instance_id=1272

Related term
Open-Source

76,

Skill Share

A skill share is a platform for individuals to exchange knowledge. The most notable skill share, Skillshare International, has roots in the Service Civil International (SCI), an organization established in the wake of World War I to encourage servicemen across borders to share skills and services. In the city, this ethos of skill sharing can create solidarity based on cooperation and generosity.

The Lab in Berlin became an active center for skill sharing between locals and international participants and visitors. Workshops like the Lending Library and Engineering Genius Bar encouraged MIT program organizers to share their skills with visitors and vice versa.

Lending Library and Engineering Genius Bar
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/lending-library?instance_id=1149

Related term
Share Culture

77, Smart City

The Smart City refers to the city that offers both the physical infrastructure and the technological apparatus to support a sophisticated, underlying information, communication, and sensing network. The presence of cutting-edge technology in an urban environment does not, in itself, constitute a smart city. Smart cities can only become such when the balance between technology and its benefits to people is successfully achieved.

Poiesis Fellows Orit Halpern and Nerea Calvillo, together with Poiesis program director Harel Shapira, shared their research about smart cities, with a focus on the city of Songdo, Korea.

Beautiful Data
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/beautiful-data-visualization-territory-and-the-future-of-urban-space?instance_id=1316

Related term
Sensor

78, Space Activation

Space activation is the practice of bringing life to unused urban spaces. Turning spaces into vibrant areas can be undertaken by city governments or by individual initiatives. Spaces that are used and lived in increase safety, encourage socio-economic interactions in neighborhoods, and lead to an improved feeling of ownership and belonging to a city area.

Dynamic Public Spaces was an intensive two-day workshop led by researchers from the MIT SENSEable City Lab and the Austrian Institute of Technology. The first part of the workshop covered the basic theory and science of crowd dynamics and how humans act in public spaces. The workshop then continued with a hands-on component where a group of visitors went to Alexanderplatz for a site-specific action. They altered public space and, with the help of image processing and 3-D cameras, documented the effects of the intervention.

Dynamic Public Spaces
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/dynamic-public-spaces?instance_id=1183

79, Space Consumer / Space Producer

Individuals can be associated with two opposing attitudes when it comes to city space and how it is created and used. Some may identify with the more passive approach of a consumer of urban spaces, while others might consider themselves active space producers. The passive, consumerist behavior is encouraged by a more capitalist trend of thought that imagines citizens as end receivers. However, leading urbanists and city activists stress the importance of encouraging citizens to take on the producer role. Through ownership of one's space, changes and actions can be made in the fabric of our cities.

Lab Team member Rachel Smith's Labplatz program called attention to the importance of public space by taking over parking spaces and transforming them into places for leisure, cooking, socializing, and learning.

Labplatz
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/transforming-parking-space?instance_id=1179

Related term
Place-Making

80, Sustainable City

The sustainable city is engineered to create the smallest possible ecological footprint by employing state-of-the-art conservation strategies and public education, and minimizing waste, pollution, and resource consumption. Environmental consciousness in architecture goes back to Reyner Banham's 1969 book, *The Architecture of the Well-Tempered Environment*. Since then, the field of "green urbanism" has grown and produced ecological strategies designed to maintain and build more sustainable urban models. Many buildings seek LEED certification in order to be granted sustainable, green status. However, more recent trends indicate that LEED certification for buildings does not solely determine sustainability in design. Rather, LEED criteria should become the rule for responsible building, with an additional set of behavior-centered practices leading the way towards more sustainable cities and buildings.

Making Environment explored how do-it-yourself technologies can enable citizens to better understand and improve their environmental footprint.

Making Environment
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/making-environment?instance_id=704

85, Tinkering

A tinkerer is someone who enjoys repairing or inventing with machine parts. This act of innovation through doing and repairing is what tinkering is all about. The word derives from "tinker," used as early as the twelfth century to refer to someone who repaired household utensils. It has been widely appropriated by the maker community.

Making Things Digital engaged visitors in tinkering, an act that gives us the possibility to change our relationship to machines and electronics, creating a two-way dialogue.

Making Things Digital
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/making-things-digital?instance_id=701

Related terms
Maker Movement
Thinkering

86, Transformation

Active transformation is a state of continual movement, improvement, and change of the urban commons. Change agents and motivated individuals can trigger moments of transformation and make full system change possible for cities. The best way to achieve transformation is through "transformation champions," individuals who push possible transformation forward by showing successful examples of their own transformative power.

The Marathon of Transformation gathered together a group of more than fifteen international and Berlin-based influencers and transformers who presented the ways in which they are actively affecting urban change.

Marathon of Transformation
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/marathon-of-transformation-how-would-you-transform-your-city?instance_id=1161

87, Trust

Effective urban relationships are largely based on notions of trust, rather than systems that rely on control. While strategies of trust imply uncertainty about the outcomes—which can prove challenging for some—they are also known to benefit process-driven thinking and experimentation. Trust leads to more convivial cities in ever more diverse urban contexts.

Field Trips took visitors on biking excursions to meet individuals from various backgrounds and professions as they told their own personal Berlin stories. For each edition, in an act of trust, Berlin citizens opened the doors of their homes and businesses, letting Lab visitors in to learn about their way of life.

Field Trips
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/field-trips-?instance_id=770

Related terms
Deregulation
Intuition

88, Upcycling

As opposed to recycling, which converts and downgrades used materials, upcycling is the practice of reusing available materials for new purposes of equal or higher value than that of the object they originally came from. The term became popular in the mid-1990s when the effectiveness of recycling was being questioned and a rediscovery of craft and making was taking place. Upcycling gives value to repurposed materials by adding a design element to the final product and investing it with the "cool" factor that sustainable items have acquired in recent years. Some argue that upcycling can render a product counterproductive if the amount of packaging to market it results in the creation of more disposable materials.

Andreas Strauss, artist and designer, explained how, by adding function to everyday items, we can create a mentality of reuse. Strauss engaged visitors in a workshop to collectively convert a waste receptacle into a mobile stove. When closed, the object looks like a regular trash bin. When opened, it looks like a gas stove with surfaces for serving and preparing food.

Soupermobile: Build a Dumpster Kitchen
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/soupermobile-build-a-dumpster-kitchen?instance_id=1321

Related term
Reduce, Reuse, Recycle

81, Sustainable Tourism

The objective of sustainable tourism is to support the local economy by channeling the best assets of a city into tourism in a responsible way. This can be achieved through communication, inspiration, and positive deviance from tourism norms. The future of a positive, socially engaged tourism relies on resilience, ecology, economy, and prosperity. Sustainable tourism is built on a foundation of social and community connections and can thus empower citizens and neighborhoods.

Manda Brookman, director of CoaST, One Planet Tourism, led a two-part master class about sustainable tourism practices.

Sustainable Tourism Master Class
bmwguggenheimlab.org/multimedia/media/106?library_id=1

82, Temporary Architecture

Temporary architecture refers to structures that are meant to exist only for a limited amount of time. Sometimes, temporary architecture can also be mobile. Temporary architecture is not created with the goal of permanence—rather, its value lies in the impact it can have on people within a limited period of time. It can encourage architects to think on a more cross-disciplinary plane and inspire inhabitants to act, think, and feel in unconventional ways. Temporary architecture can give a sense of place without stasis, while challenging the concept of what a building can be. Temporary architecture also enables the subversive. In a world of cloud living, temporary architecture has become the expression of a society in constant flux.

The Temporary Architecture panel included Teddy Cruz, Estudio Teddy Cruz; Robert Kronenberg, Roscoe Chair of Architecture, University of Liverpool, School of Architecture; Jürgen Mayer H.; Lena Kleinheinz, Magma Architecture; and Peter Fattinger, Design-Build. The panelists engaged in a deep discussion of the purpose and potential of temporary buildings.

Temporary Architecture Panel
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/temporary-architecture-panel?instance_id=1318

83, The New Architect

Human beings have created spaces and built structures since prehistoric times. However, the specialization and definition of those who build as architects is a modern phenomenon. During medieval times and earlier, those in charge of building were more anonymously associated with craftsmen or artisans. Only in the modern era did architecture become differentiated from the work of the craftsman or engineer as a profession in its own right. This elevation of the architect reached its apogee at the end of the twentieth century with the rise of the so-called "starchitect."

In the last decade, the profession of architect has undergone dramatic shifts, due in part to the combination of economic hardship and slowed-down construction practices with the impossibility of sustaining starchitect aspirations for yet more iconic creations. Specialists and theorists in the architectural sphere point to a need for a New Architect, a revised role whereby the architect acts as a social catalyst, community organizer, and facilitator for organizing space and brokering urban relationships.

Andres Lepik, architecture curator and historian, spoke about the new role of the architect who needs to act more like a community organizer than a top-down designer in the traditional sense.

Andres Lepik: Moderators of Change— Socially Engaged Architecture
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/andres-lepik-moderators-of-changesocially-engaged-architecture?instance_id=1248

84, Thinkering

Thinkering is a combination of the words "tinkering" and "thinking." It suggests a mode of thinking that brings together the thought moment with the execution moment, a shift that is facilitated by technology and rapid prototyping platforms.

Joseph Grima explained that "thinkering" is the idea that, through a mix of tinkering and thinking, design can reach new levels of functionality and efficiency. In the past, reaching the consumer with a finished product was the goal. Now, we often see the end user participating in the packaging and creation of the end product.

Joseph Grima and Carlo Ratti on Open-Source Architecture
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/joseph-grima-and-carlo-ratti-on-open-source-architecture?instance_id=1158

Related term
Tinkering

89, Urban Beauty

Urban beauty is the subjective assessment of the aesthetic values of a city. Some argue that allowing layers of history and urban decay to be revealed produces the ultimate urban aesthetic. Others prefer new, pristine developments that are clean, orderly, and employ the newest technology or building techniques. This multiplicity of perspectives, and the patchwork that the city becomes as a result, is the ultimate manifestation of urban beauty.

What is Beautiful? featured presentations and a panel discussion about the perception of beauty in cities by leading academic and professional figures in the fields of aesthetics, architecture, and urban planning in Berlin. Wolfgang Welsch discussed the subjectivity of beauty as a condition of unique human-centered vision. He analyzed one of modernity's key principles—that only from a human perspective can we understand the world as valuable.

What is Beautiful?
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/what-is-beautiful?instance_id=1267

Related term
Urban Ugliness

90, Urban Data

Urban data is the information that cities produce, which is measured and turned into facts, figures, and visualizations. According to Google CEO Eric Schmidt, the amount of data collected between the dawn of humanity and 2003 is equivalent to the amount we now produce every two days. With this proliferation of data comes the task of filtering and making accessible this wealth of information.

Poiesis Fellows Orit Halpern and Nerea Calvillo, together with Poiesis program director Harel Shapira, delivered a talk about the use of data in Smart Cities.

Beautiful Data: Visualization, Territory and the Future of Urban Space
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/beautiful-data-visualization-territory-and-the-future-of-urban-space?instance_id=1316

Related term
Smart City

91, Urban Fatigue

Urban fatigue is a condition common in city dwellers, where city life results in increased anxiety, fatigue, stress, and overstimulation. Stress produced by the demands of city life is one of the leading silent epidemics of the modern era, with serious physical and psychological effects.

Body Cartography revealed that, in cities, we often censor our feelings to push against overstimulation created by overcrowded, loud, densely populated urban situations. The program worked on undoing this behavior by trying to promote empathy with our physical surroundings.

Feeling the City: An Investigation in Urban Empathy
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/feeling-the-city-an-investigation-in-urban-empathy?instance_id=1182

92, Urban History

Urban history is the branch of history dedicated to the study of cities. Its focus is on the ways cities originated and how the process of urbanization developed from the time of the first human settlements to the present. Urban history is of great importance to discussions about the future of cities. No city can know its future without first analyzing, understanding, and accepting its past.

Cold War Center: Checkpoint Charlie sought to observe and analyze the history of one of Berlin's most iconic historic locations. The panel of experts discussed the future of Checkpoint Charlie and the need for a Cold War museum in its location, as well as the benefits or disservices that the theme-park effect can have on collective urban memory.

Cold War Center: Checkpoint Charlie
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/cold-war-center-checkpoint-charlie?instance_id=1306

93,

Urban Intervention

Urban intervention refers to activities that disrupt the habitual functioning of a city. Interventions are typically performed by artists or activists. Ranging from street art and design challenges to ephemeral gatherings, flash mobs, and celebrations, this type of activity achieves a temporary social cohesiveness and surprise factor that urban dwellers crave.

Mirko Zardini, Director of the Canadian Centre for Architecture (CCA), described the CCA's Actions project in which they documented and catalogued practical and poetic urban interventions and actions carried out throughout the world.

Joe Hatchiban runs a notorious weekly Karaoke event in Prenzlauer Berg's Mauerpark that brings thousands of strangers together. Similarly, Music on the Move transformed urban space through a mobile karaoke unit.

Actions: What You Can Do with the City
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/actions-what-you-can-do-with-the-city?instance_id=657

Music on the Move
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/music-on-the-move?instance_id=1220

94,

Urban Livability

Urban livability is a contemporary term for quality of life—a level of well-being based on various measurable criteria. Mercer's Quality of Living index measures the political and social environment; economic environment; medical and health considerations; socio-cultural environment; schools; natural environment; public services and transport; recreation; and housing. Recently, the term "livability" has become more widely used to define the same set of criteria.

Colin Ellard, research psychologist and professor at the University of Waterloo, talked about environmental design as it relates to health and described how our minds and bodies respond to the design of the urban environment that surrounds us.

Colin Ellard: Environmental Design and Human Health
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/colin-ellard?instance_id=1174

95,

Urban Microhistories

Urban microhistories are individual or collective stories that often go unnoticed in large cities. Microhistories distance themselves from the official narrative of a city and focus instead on the importance of smaller, valuable experiences that create the true fabric of city narratives. Urban microhistories offer a powerful portrait of the city that preserves cultural difference and personal voices.

The Lab placed a high value on the exploration of Berlin microhistories. Two programs in particular explored hidden narratives that took visitors on unusual city explorations: Field Trips took visitors on biking excursions to meet individuals from different backgrounds and professions as they told their own personal Berlin stories. Another program organized a visit to the home and studio of Ekkehard Maaß, German Democratic Republic (GDR) civil rights activist and musician. Maaß gave an introduction to his art salon where—behind the Iron Curtain—GDR artists and dissidents secretly met.

Field Trips
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/field-trips-?instance_id=770

Ekkehard Maaß
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/ekkehard-maass-?instance_id=1335

96,

Urban Mobility

Urban mobility refers to the ability to get oneself from point A to point B in an urban environment. The options for city transport are varied, and include walking, biking, and other forms of privately or publicly operated transportation. Expanding populations, urban sprawl, and the dangerous effects of carbon dioxide are all issues to consider when addressing the challenges and opportunities related to urban mobility. Encouraging multi-mobility systems that incorporate walking, car sharing, bike sharing, public transportation networks, and new city design that reduces commuting are examples of strategies designed to improve urban mobility.

Lab Team member Rachel Smith's Dynamic Connections Map, developed for the Berlin Lab, is the world's first interactive biking map to explore urban mobility through biking. The Dynamic Connections Map rates different Berlin streets on their amenability for cycling, based on traffic volume, topography, and safety considerations. Users can identify which streets should have future biking infrastructure, creating a crowdsourced map of the potential future biking network in Berlin.

Rachel Smith's Dynamic Connections Map
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-city-projects/237dynamicconnections.de/

Related term
Electric Car

97,

Urban Psychology

Urban psychology is part of the study of environmental psychology, that is, the study of our environment and how it affects us. Urban psychology studies the effects of cities and urban living on people's mental health and well-being by addressing a variety of areas such as urban fatigue, stress, overstimulation, fear, anxiety, happiness, and our relationship to space.

At the Lab, most of the programs organized by Lab Team member Corinne Rose were connected to the larger topic of urban psychology. Notable among these was a talk by renowned psychologist Gerd Gigerenzer about the power of intuition and Tom Stafford's lecture on the psychological perception of cities.

The Power of Intuition
bmwguggenheimlab.org/where-is-the-lab/berlin-lab/berlin-lab-events/event/the-power-of-intuition-?instance_id=1274

Lenses and Filters: the Mind and the City
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Urban Sound

Urban sound refers to the vast range of sounds that the city produces. From the rhythm of the steam engine to the drone of the automobile, the sound of our cities has always been a defining characteristic of urban life. While these sounds have served as creative inspiration for various artists, from the Futurists to John Cage, they also contribute to overstimulation. Through recent developments in technology, sound can also be harnessed as a valuable tool for measuring various datasets in the city.

Shintaro Miyazaki led a workshop that made audible the invisible waves through which information travels. We learned that sound can be a valuable tool in visualizing information, especially ephemeral data networks.

Infoscape Listening
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Urban Ugliness

Like urban beauty, urban ugliness is the subjective assessment of the aesthetic values of a city. Some argue that allowing layers of history and urban decay to be revealed produces the ultimate urban aesthetic. Others prefer new, pristine developments that are clean, orderly, and employ the newest technology or building techniques.

As a part of the What is Beautiful? Panel, Jürgen Krusche, Institut für Gegenwartskunst, Zürcher Hochschule der Künste, gave a presentation where he analyzed the locally well-known statement, "Berlin is ugly and it is good." Krusche described the value of the ugly in the discourse about urban development and the need for complexity in cities to make them more functional.

What is Beautiful?
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Related term
Urban Beauty

100

Vacant Space

Vacant space is land that has temporarily fallen out of use. In cities, vacant lots provide opportunities for spontaneous urban interventions, public gathering, and leisure, but can also become determining factors in the city's economic well-being. If not managed correctly by city governments, an abundance of empty lots can lead to urban speculation and safety issues.

At the Marathon of Transformation, Gap Filler presented a variety of urban projects that made temporary use of vacant spaces in New Zealand after the Christchurch earthquake. They explained how short urban experiments provide an opportunity for citizens to test long-term solutions.

Marathon of Transformation
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Related term
Liegenschaftsfond politik