Changing Space – Shaping Communities: The Challenges of Architecture

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"Architecture is not just a product but a living organism."[1]
(Balkrishna Doshi)

"In both urban and rural contexts, architecture can be a strong motivator for ecological change, allowing it to be experienced not as a loss, but as a gain for both individuals and society."[2]
"Planet Home," Bund Deutscher Architektinnen und Architekten (BDA, Association of German Architects, 2019)

The motto that introduces this article and informs both my work as a Zurich- and Berlin-based architect and my professorship at the Düsseldorf Peter Behrens School of Arts reflects on the role of architecture as a builder of community and culture. One of the underlying questions, which was also addressed at the 2021 Biennale, is: "How will we live together?" This question was directed

1 Lecture given at the 34th Coomaraswamy Memorial Lecture: "Architecture is a Living Organism" by Balkrishna V. Doshi, December 17, 2018: "When I was asked to do this lecture here, I thought I would show some slides, but more than that I would talk about architecture. Not just as a building product, not as a social work, not as a service element, but as a living organism" (http://archtalks.com/archtalks-home/2020/5/11/bv-doshi-architecture-is-a-living-organism-lecture.html (min 15:45) [10 Dec. 2021]).
2 BDA, 2019.

at architecture, which provides important answers and not only gives shape, but also assumes responsibility (Fig. 1).

Architecture consists of built spaces with individual identities. We spend time and reside in these spaces, and we react to them. By providing the framework and offering, initiating, sometimes also preventing or constricting options (Fig. 2), architecture co-shapes reality and can therefore also be regarded as a 'changemaker.' I would like to focus on various topics that are important to architecture and its future development. They concern relevant topics of our time, such as communal life, climate change, life with the pandemic, land tenure and economic efficiency, diversity, the role of education, the function of the building sector, and the changing professional image of architecture (Fig. 3–5).

As architects and planners, we need to integrate the latest developments, trends, schools of thought, and future research into every new project. This is because every new architectural and urban problem requires an individual, intelligent and site-sensitive approach which – in addition to integrating the existing building stock, taking into consideration aspects of aesthetics, and aiming for good architectural form – has to reflect on substantial societal, socio-political and cultural issues. As Alison Brooks points out: "A major shortcoming is the lack of a political dimension in architecture. Our profession shows a kind of complacent indifference toward the political and economic paradigms in society."*[3] The spirit of a place – the *genius loci* – must be fathomed in its complexity and must be palpable in the new or transformed architecture. The city of the 21st century draws its strength from the complexity of its functions as a living, working and mobility space and from the supposed incompatibilities of these functions (Fig. 6). Progress in architecture is always also induced by social and political change. Every project that deals with urbanity in the broadest sense must be seen as a lab test for future strategies and for possible solutions as to how society can design living and working space in a resource-efficient way and in harmony with the environment and nature (Fig. 7). The most pressing issue today is climate protection, which raises a number of fundamental questions: Is sustainable building even possible? Who will be able to afford sustainable apartments or houses in the future? Won't political particularism continually frustrate the dream of net zero? How to deal with these contradictions? Should compromises be negotiated?

3 Kullack, 2011, p. 112.

The pandemic shows that the unthinkable can suddenly become real. First and foremost, there is a desire for more work from home, more freedom in organizing working hours, and a reduction of workloads. At the same time, the radical separation of functions paralleled by maximum mobility – which defined the modern city in the 20th century, but was questioned in the increasingly complex early 21st-century life, and countered with new, inspiring proposals for solutions – was temporarily shelved during the lockdown due to the pandemic. Forward-looking architecture needs to urgently and fundamentally address contemporary contradictions. This includes a thorough analysis of changing ownership structures for future architecture and transformation projects. Many people still cherish the dream of owning their own home, but this dream will only come true for particular groups of society. The pandemic has increased the desire for housing with a private outdoor space or in natural surroundings. Municipalities need to cooperate with architects, urban planners and sociologists in addressing the question of how to deal with public space. Green spaces, parks, open areas, but also smaller, free-access structures are important spots for people to meet and linger.

A major change has taken place in the way we deal with the diversity of social groups. In order to achieve more diversity, we need to share knowledge and question established or unreflected behavior, but also to change structures and processes. Often a positive attitude is already in place, so a change in behavior must be driven by incentives, measures, or processes in tandem with role models if we are to achieve satisfactory results and a normality based on diversity. This also applies to gender equity, which still hasn't been tackled, particularly in the low-diversity building sector.

Higher education plays an important role in the development of diversity awareness, since it makes it easier for people to experiment and implement, which can lead to a new normality. In addition, in the context of constantly changing conditions, not least in architecture as a profession, the university reflects on its contents, processes and curricula, brings applied research up to date while taking into account the interests and needs of students, applies holistic methods and tests them in the process. Since 2017, in cooperation with the IBA Thuringia,[4] the City of Cologne and others, Tanja Kullack and I have been experimenting in 'curated studies'[5] at the Peter Behrens School of Arts,

4 Cf. https://iba-thueringen.de/ [09 Dec. 2021].
5 Cf. Curatorial Turn, e.g. O'Neill, 2007, pp. 13–28.

Department of Architecture, with the appropriation of multi-perspective design, which I will briefly discuss in the following.

One area that will have to undergo major transformation in the coming years from the perspective of architecture is the construction industry. Investors, architects and planners have a duty to ensure that construction is sustainable and resource-efficient. This raises the question of how the construction industry can cope with the complexity of change – e.g. when profit-oriented investment and high returns conflict with climate protection and the demands of future users.

As an office that deals with urban planning, architecture, exhibition design and design, we find ourselves in the midst of all these areas in transition and grapple with them in our daily work. The last 20 years have seen a radical shift in the approaches and work of architects. Where this journey is taking us, or should take us, and how architecture can foster a paradigm shift, remains unclear, but let us nevertheless take a look at some concrete approaches.

Ethical Standards of Modern Construction – Aspects of 'Change' in Attitude

Social demands on living and working environments have changed fundamentally. The focus is now on community, on communal life. Where do we come from, which cultural traits do we share, and what are our priorities? I am thinking of the diversification of social milieus, the cultural and social benefits in the immediate environment of each and every one of us, the variable use of space, and the affordability of housing, working and living spaces in the urban structure, to name just a few burning issues (Fig. 8). Various bottom-up projects have highlighted these issues and related movements in participatory processes.

One example is the Berlin "House of Statistics,"[6] an action space for a wide variety of actors. It houses various projects revolving around social integration and cooperation, aiming, for example, for refugee housing or the creation of craft rooms for an interested public, etc. The building is a transit space as well as a living, meeting and urban space. Appropriating a space as a diverse, divergent community, even if only temporarily, offers new opportunities to experiment and practice cohabitation. The public perception of such projects is

6 https://hausderstatistik.org/ [09 Dec. 2021].

crucial, because it enables us to 'challenge' social standards and, ideally, promote change toward a more diverse society.[7]

Today, interconnectivity, changeability and diversity are part of the DNA of any new stretch of a city. New urban building blocks must generate added value, both for their users and for their immediate neighborhoods. They should promote an integrative neighborhood life, generate far-reaching synergies between the most diverse uses, and create attractive open spaces that enable communication to balance out the high building density. Such complex urban building blocks or new urban morphologies should be considered independently of classic housing typologies.

At the higher level, in urban planning, experiments are being carried out with innovative formats: far fewer cars in city centers, more space for pedestrians, playgrounds and parks instead of parking spaces, additional paths for bicycles and electric scooters, new zone plans and regulations, more affordable rents and new investment models, combined uses of housing, work, business, production, services, sales, restaurants, etc. Central to all these aspects is the idea of sharing: nothing has a specific purpose or user; everything has multiple purposes and users. Cities and municipalities can (and must) be strong motivators in this rethinking process. An example of the 15-minute city, in which all daily needs can be met within a radius of 15 minutes, was developed by the mayor of Paris, Anne Hidalgo, in 2020 for the city center of Paris.[8] And this is exactly what characterizes the city of the future: compact urban centers with 24/7 structures, i.e. identity-building, future-oriented hubs with multiple benefits in terms of architecture and open space planning for all kinds of residents and requirements. The identity of the place is not only a result of its history, but one of multiple factors including diversity of use, social diversity, infrastructural connectivity, etc. The focus is on holistic sustainability and on the quality of public, semi-public and private spaces, as well as the combination and overlapping of multiple patterns of use.

One central factor in achieving these desired new housing and living concepts is participation (Fig. 9).[9] Large-scale construction projects nowadays in-

7 A different yet similar place is the "Palais de Tokyo" in Paris. The place is both public and private, offering overlapping uses: https://www.palaisdetokyo.com/en/who-we-are [09 Dec. 2021].

8 Cf. Chúláin & Davlashyan, 2021.

9 See also the debate on the Participatory Democracy Turn in Bherer, Dufour & Montambeault, 2018.

creasingly involve the population in urban development processes. For example, during the planning phase of general urban aspects for the RAW site in Berlin – which is one of the last industrial wastelands in the city that has not yet been modernized, and which, as a cultural hot spot, attracts Berlin's cultural and party scenes as well as tourists from all over the world – a dialog and citizen participation process was initiated to get on board all groups involved in the development of the site as quickly as possible.[10] Such civic involvement should ideally enable a continuous dialog using different formats and updates throughout the planning and implementation phases and should have a public character to ensure social acceptance. An exhibition and publication project launched by the architecture magazine ARCH+ and the *Institut für Auslandsbeziehungen* (ifa, an organization for international cultural relations), has taken another path: it aims to reclaim and redefine "the open and emancipatory space of 'us'" – after concepts of 'us' have been appropriated by online, sharing, and community platforms.[11] Here , the concept of "urban commons" involves the "creation and management of tangible and intangible collective resources and spaces as a basis for democratic participation."[12]

Change through the Pandemic

COVID-19 has radically changed our everyday way of life in terms of work, habitation and leisure. Lockdowns have forced us to work from home if this is compatible with our work patterns. As a first step, new work and workplace models had to be tried out as quickly as possible. Bedrooms, living rooms and dining rooms were converted into temporary workplaces, and home-schooling areas set up for children. Living, working and schooling were linked. Rooms were used for multiple purposes, and the dining table became the most contested zone in the apartment. Home office and home schooling fundamentally changed the requirements of living space.

The pandemic has acted like a burning glass and has unscrupulously laid bare the strengths and weaknesses of space design. One insight from the lockdown experience that has had a direct effect on plans for future housing is the need for flexible spatial concepts, such as adaptable, transformable, modulable buildings and spaces.

10 Holzer Kobler Architekturen co-designed the site of the former Reichsbahnausbesserungswerk Berlin (RAW) on direct commission from the owner.
11 Cf. Gatti & Gruber, 2018, p. 1.
12 Ibid.

Metabolist ideas[13] in architecture are resurging. In addition, we now see the significance of the polycentric city concept, where everything required for life is accessible at a short distance, including green recreational spaces and an ungraded neighborhood.[14]

The pandemic has changed our use of urban structures. For example, because of new demands on space, many office complexes were vacated. The pandemic has revealed a lack of collaborative/public and openly designed places. Many office spaces remain vacant even after the lockdowns. It requires some deep thought and the courage to experiment in order to make up our mind what can be done with these vacant spaces and buildings, which contain a great deal of 'grey energy,' and how they can be put to further use. Even before the pandemic, there had been some inventive thinking, as illustrated, for example, by greenhouse offices in a large hall – a concept developed by IBA Thuringia (Fig. 10). The urban exodus phenomenon has also intensified during the pandemic. And yet, the city as a cultural stratum has retained its indispensable advantages. Cities will lead the way in many processes, including issues such as mobility and sustainability. New functions will be found for vacant retail spaces. It is normal for a living organism like the city that individual places or areas should be temporarily abandoned. These are dynamic processes that need to be discussed and understood. Breaks and upheavals need to be seen as bases for and initiators of future structural developments.

Change of Property

Profit-oriented, high-density building still dominates the market, as can be seen from the Pandion project in Düsseldorf's Pempelfort district. Buildings are designed to house as much living space as possible in order to sell or rent out as many properties as possible. At the same time, people have called upon politicians to expropriate real estate. This is because rents are soaring, especially when apartment complexes are renovated, and affordable housing in cities is high in demand (Fig. 11). Examples include a renovation project in Berlin's Karl-Marx-Allee in 2019 and a Berlin petition for a referendum in the same year, where people collected signatures to expropriate large real estate corporations. Both events led to intense debates about the preservation of

13 Cf. Obrist, n. d.

14 The political dimension of the neighborhood in Dewey's sense, which shapes social coexistence in concrete terms, is definitely a motif here.

affordable housing in major German cities.[15] Cities and municipalities can influence and promote affordable and sustainable housing on land that they own. Housing needs protected spaces, but also cultural and communal space. Yet there is little public land available for new construction projects. Political restrictions have been put in place and investors and the building sector aim to maximize their profits. As long as these two positions are non-negotiable, change is improbable. However, every now and then interest groups such as building cooperatives break new ground, look for innovations, and come up with new solutions. Architects can raise awareness, embrace demands and translate them into sustainable concepts.[16]

Zurich is home to numerous urban projects that test new forms of housing. The Zurich housing cooperative *mehr als wohnen* (architecture by Arge Futurafrosch Duplex, Miroslav Šik, pool, Müller Sigrist, Müller Illien Landschaftsarchitektur) realized a neighborhood project with 395 apartments ranging from small studios to 12.5 room apartments, commercial spaces, common rooms, a restaurant, cultural life, and a guest house. The 41,000-square-meter Hunziker Areal, on which the complex was built, had been purchased by the city of Zurich and passed on to the cooperative. More and more cooperatives and investment groups are taking into account the need for variety and diversity in the housing sector and are responding to this demand with new housing concepts such as flexible floor plans, cluster apartments, or integrated 'joker rooms' to provide housing options for singles, couples, apartment sharing communities and patchwork families so as to 'house' as many generations, lifestyles and financial strata as possible. To achieve this, the basic structure of apartments must be planned in such a way that they can be transformed to meet changing needs and requirements. New forms of living require flexible spaces whose exact use need not be predefined. What is more, buildings

15 Cf. https://www.deutschlandfunk.de/wohnungsnotstand-enteignungsdebatte-polarisiert-die-100.html [10 Dec. 2021]; https://www.nytimes.com/2019/07/08/opinion/berlin-socialism-housing.html [10 Dec. 2021].

16 One approach is to look at so-called Sinus Milieus, which are used to regularly summarize a wide variety of – sometimes contradictory – sociocultural motives for individual lifestyles in society as a whole (cf. https://www.sinus-institut.de/ [10 Dec. 2021]). Groups of people are arranged in milieus with the same mindsets and interests, which shows how varied our society is (sensitivities, values, life goals, lifestyles and social backgrounds). Architecture must provide space for togetherness in diversity. The challenge is to find design solutions that take into account Sinus Milieus and offer ways to bring them together in collaborative action.

should offer the possibility of multiple uses, meaning that living areas can also be redesignated in the long term – to be used, for example, as variable living and working spaces (i.e. home-offices/office-homes). Flexibility and the diversity of use yield space for restructuring and change – especially in the context of the 2000-watt society.[17] New superstructures become urban hinges, as it were, linking and interconnecting urban building blocks with each other and with surrounding areas. They co-shape society through strong urbanistic concepts and identity-forming architecture.

In addition, Switzerland has regular plebiscites as an expression of civic participation and democratic identity. Many of these popular votes aim for socially acceptable and sustainable construction projects.

Change through Diversity

The terms diversity and inclusion are on everyone's lips (Fig. 12). Architecture, too, has the task and concern to pave the way for more diversity, integration, and equality. It is increasingly important – and should be a matter of course – in democratic societies to appreciate and give equal consideration to all members. Yet this requires special commitment, as the entrepreneur and author Tijen Onaran states in a pointed remark: "I would have a clause included in every CEO contract that the CEO will be judged by diversity goals."*[18] The CEO is male or, ideally and increasingly, female. Diversity and inclusion are aspects of society and the corporate culture, and they significantly affect the balanced relationship between men/women/diverse people. They reflect an appreciative attitude toward the fundamental social demand for justice and equality.

Furthermore, diversity guarantees a broad spectrum of perspectives, experiences and insights. Companies that practice diversity in the composition of their teams are more successful in the long term.[19] This is where politics and the industry come into the picture. Standardization – whether in terms of employees, industry specifications, materials, or know-how – leads to uniformity and thus narrows the view, which recoils on society. Architecture, in particular, is a field where many norms are not supposed to be questioned.

17 The concept of the 2000-watt society was developed by ETH Zurich with the goal of a significant reduction of climate-damaging greenhouse gas emissions (cf. Huebner, 2009).

18 Innovation Day 2021, cf. https://www.absatzwirtschaft.de/tijen-onaran-die-diversity-fluesterin-der-ceos-182551/ [10 Dec. 2021].

19 For potential success through diversity management, see Klaffke, 2009, p. 139–158.

Thorough political education, which should also be taught in schools and universities, needs to pursue the goal of social equality. Men/women/diverse people are affected by political and administrative decisions in many ways. The guiding principle of 'gender mainstreaming' is based on the notion that there is no such thing as a gender-neutral reality. This principle obliges policymakers to take decisions in such a way that they contribute to promoting real gender equality.[20] Role models must be strongly supported by the 'majority population,' whose positions are based on widely accepted values, traditions, lifestyles and social backgrounds. Conversely, role models need to be more self-confident and present in their role. We need far more role models in architecture!

Change through Higher Education

Academia must be a pioneer. It must develop tools and provide the space for shared reflection on current issues and social developments. Professors have a responsibility to sensitize students, to contemplate architecture in its given context, and to integrate societal values into their thinking and work. This contributes to change in the long term. In the creative, dynamic and open design process, new perspectives and unexpected connections reveal themselves from which innovation can emerge between the poles of the known and the unknown. This requires transdisciplinary, multidimensional thinking and impartiality towards others.

Architects share a responsibility for the shape of the built environment. The task of teachers is to accompany and coach students and to define a guiding system that enables the development and finding of appropriate contemporary urbanistic and architectural solutions in an open and unbiased discourse. Teachers are mediators within and beyond the discipline; they can open views, sharpen them and provide input that enables students to gain new, insights of their own.

The reality of the profession is increasingly determined by highly complex, interdisciplinary planning processes that cannot be managed entirely by indi-

20 Cf. https://www.coe.int/en/web/genderequality/what-is-gender-mainstreaming [10 Dec. 2021]. A study which examines the relationship between gender inequality and economic growth based on the World Bank's database of development indicators, shows that countries that promote women's education and participation in political posts are more successful from an economic perspective (cf. Altuzarra, Gálvez-Gálvez & González-Flores, 2021).

viduals, which requires a new way of teaching. Architecture is teamwork, also in education. Planning teamwork is a discursive process, involving all conditions, needs, and breaches that contribute to its creation. Teams must form, take shape, develop and pursue common goals, adopt and communicate an attitude, produce and evaluate results, while remaining flexible and open in the process. This requires a high level of commitment from students and teachers alike, as well as everyone's willingness to engage with context, content and form – and with each other. Innovative didactic methods that involve students in terms of content and design, horizontalize hierarchies and dissolve traditional teacher-student relationships enable team-based problem solving based on the definition of common goals and involving a wide range of expertise.

At PBSA Düsseldorf,[21] we (Tanja Kullack and Barbara Holzer) have offered for several years a so-called curated study program in the first semester of the master program "Architecture and Interior Design" (Fig. 13). Students and teachers meet external experts to deal with relevant problems in a concrete urban context. In a multi-perspective and multi-dimensional way, they generate solution strategies for practice-oriented projects and plan their implementation. The curated, interdisciplinary program offers students and teachers the opportunity to contribute significantly to heterogeneous projects, participate in them, or initiate their own projects, for example in the context of IBA Thuringia. In addition, established, widespread networks like that of the IBA can be used and expanded. During the program, various aspects come into focus that are essential for the future architect's mode of thinking and acting, but also for any other discipline: a multi-perspective mindset; recognition of the fundamental problem of climate change; awareness of environmentally and climate-friendly, socially acceptable and economic building based on ecological and economic architectures as well as on gender equality and diversity on all social levels. In a way, architects need to have a seismographic sense of trends and social issues and need to adapt them for their future projects. Taking an interest in contemporary waves and being open to them is something that can be learned. Universities have an important part in this. As teachers, we are both coaches and catalysts aiming to spark change processes in students.[22]

21 Cf. Hochschule Düsseldorf Peter Behrens School of Art, https://pbsa.hs-duesseldorf.de/personen/holzer/Seiten/default.aspx [10 Dec. 2021].
22 Cf. KAP Forum, https://www.kap-forum.de/wir-sind-ein-team [17 Nov. 2021].

Change in the Building Sector

Architecture is still often seen as something that is built 'for eternity,' and so buildings and their functions are mainly designed to last. For quite some time now this way of looking at things has contrasted with concepts that also regard architecture as adaptable, transformable, reconstructable, or recyclable. At the same time, the building sector is influenced by many external forces, above all the question of climate protection: re- and upcycling, transformation, climate neutrality, responsible use of raw materials, recycling management, and the 2000-watt society, to name just a few topics. The building industry needs to take a stand in this regard. According to the UN Environment Programme Annual Report 2021, the global greenhouse gas emissions in the construction and buildings sector are at a record level. In 2020, the sector accounted for 36 per cent of global energy consumption and 37 per cent of global, energy-related CO_2 emissions (38 per cent = 9.95 Gt CO_2 in 2019). The press release states:

> "While the level of emissions within the sector are 10 per cent lower than in 2015, reaching lows not seen since 2007, this was largely due to lockdowns, slowing of economies, difficulties [...] households and businesses faced in maintaining and affording energy access and a fall in construction activity. Efforts to decarbonize the sector played only a small role. With large growth projected in the buildings sector, emissions are set to rise if there is no effort to decarbonize buildings and improve their energy efficiency. In Asia and Africa, building stock is expected to double by 2050. Global material use is expected to more than double by 2060, with one-third of this rise attributable to construction materials."[23]

Despite positive developments, the report concludes that efforts are insufficient in terms of pace and scale. For example, building CO_2 emissions would have to be halved by 2030 in order for the building stock to be net zero carbon by 2050. In Switzerland, economy is often used as an excuse, like recently when a debate revolved around the political decision to ban combustion engines. Some maintain that the market will solve the problem, with the help of consumer behavior and subsidies – in the case of electric-powered vehicles, for example, this could be subsidies for photovoltaic-powered charging stations.[24] While many corporations and smaller companies do indeed show a more conscious approach to sustainability issues such as climate protection and resource consumption, this very fact is sometimes used as a decoy to enthuse

23 Cf. UN, 2021.
24 Cf. Hospe & Oroschakoff, 2021.

consumers with a mindset that then fails to be implemented. In the building industry, this is due in no small part to the dichotomy of climate protection and projected returns. For example, if construction costs should rise due to the current rapid increase in wood prices, then clay, brick, or recycled materials could be used from a sustainability perspective, but this requires the will and support of builders as well as a lot of commitment and perseverance on the part of architects and planners.

To build in a climate-friendly way, various measures must be taken. This applies to the production of building materials and to the construction and operation of buildings. Efficiency, consistency, and sufficiency are the three central concepts for a 2000-watt society (Fig. 14).[25] The first point is to increase material and energy efficiency while keeping the use of primary energy under 2000 watts. In construction projects, this can be achieved through suitable building materials and by raising the residents' awareness and offering them an architecture that helps them reduce CO_2 emissions. The second point is consistency. Climate neutrality is to be achieved by reducing climate-damaging greenhouse emissions (to net 0) and increasing renewable energy to 100 per cent. The third point is sufficiency. It raises questions of what we really need, how to limit ourselves, and what we can do without. Sustainably planned or transformed buildings can change a lot on many levels in this regard – think of shared spaces, for example, or plastic reduction (e.g. by buying in integrated or nearby stores for unpackaged goods), or the no-parking-space policy combined with the appeal to dispense with vehicles with combustion engines altogether. Path concepts for non-motorized traffic – on foot, on bicycles, e-scooters, etc. – are welcome.

It is vital for new building projects to use sustainable, renewable raw materials. Wood is an obvious choice, but recycled or upcycled building materials will also play an increasingly important role in the future. Solar panels on building facades and roofs cover basic energy needs; their use is regulated by law. Innovative approaches can only emerge where regulations come with a thorough engagement with the place in question during the planning phase. A factor that should not be underestimated is cost. Sustainable houses must be affordable. One prerequisite for this is the repeated use of building structures, which allows for standardized production processes. The greater the pressure from politicians and municipalities to get involved in the building

25 Cf. Behrendt, Göll & Korte, 2018; Spreng & Semadeni, 2001.

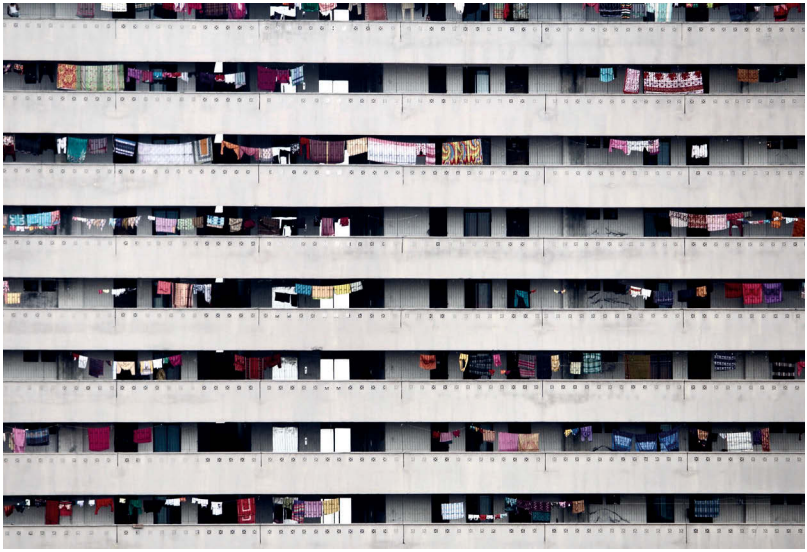
sector, the more likely it is that sustainable change will take place. Multi-layered measures can strengthen urban structures. To brace architecture for the future, we need to determine the right moment for change and how we want it to take place with regard to material and energy efficiency.

Change of Profession

A paradigm shift is taking place in architecture. Future architecture will no longer be just about flagship projects, starchitecture and authorship, but about answers to complex questions. This requires many perspectives, approaches, areas of experience and personality traits in multidisciplinary teams whose members complement but also challenge each other in competition. Collaborative project planning follows the principle of swarm intelligence[26] in order for new architectures to emerge from new urban concepts, new construction methods, new materials, new combinations, etc. Our professional field is widening in terms of processes, discourses, participation, and economics. Today, architects of large-scale projects are also moderators who structure, direct and reactivate the dialog; they are seismographs, as it were, who determine and analyze rupture lines. The integration of sharing economy structures into professional attitudes manifests itself in interpersonal exchange aiming to generate new structures that favor community-based thinking. Manfred Max-Neef has conditioned the emergence of creative potential on nine fundamental principles that have a significant influence on the design of architecture and should therefore always be taken into account in order for planning to be balanced: people need subsistence, security, attention, understanding, participation, idleness, creativity, identity, and freedom to develop in the best possible way in relation to their environment.[27] Future architecture needs to keep a balanced eye on all these issues in a parametric approach and to keep up its commitment and courage in contributing discursively and pragmatically to change.

26 Cf. Loffredo, 2018, p. 49.
27 Cf. Max-Neef, 1991.

Fig. 1



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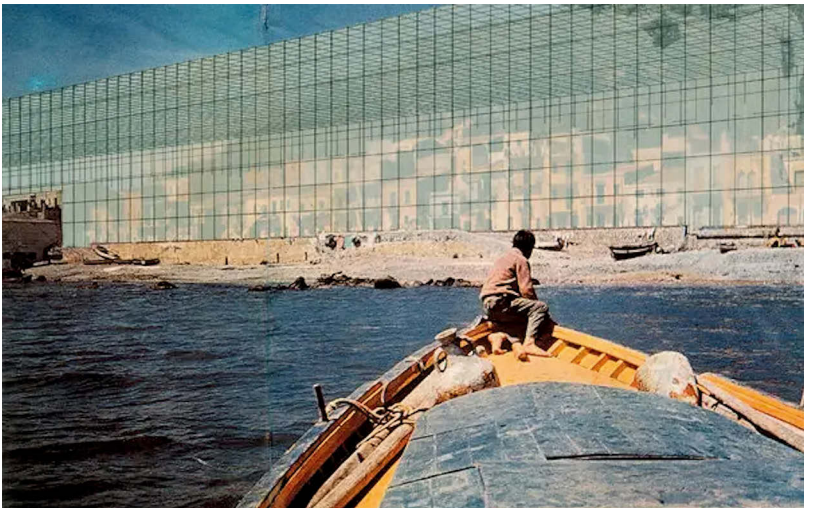

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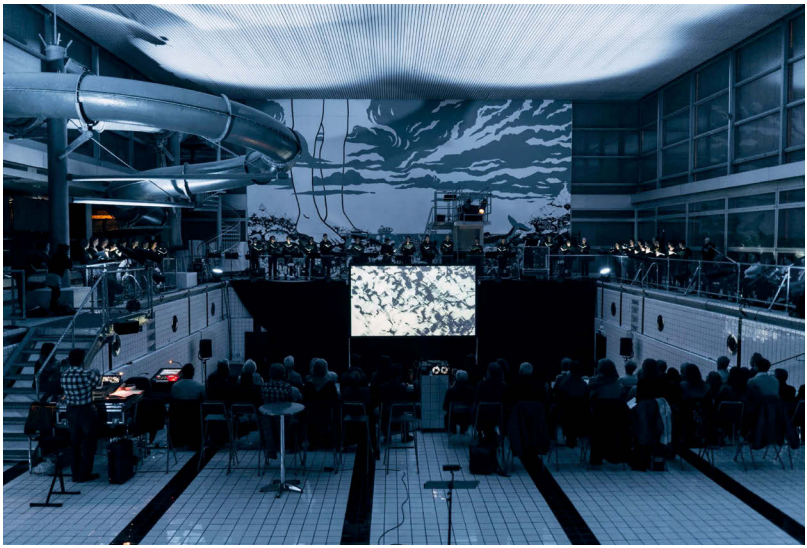

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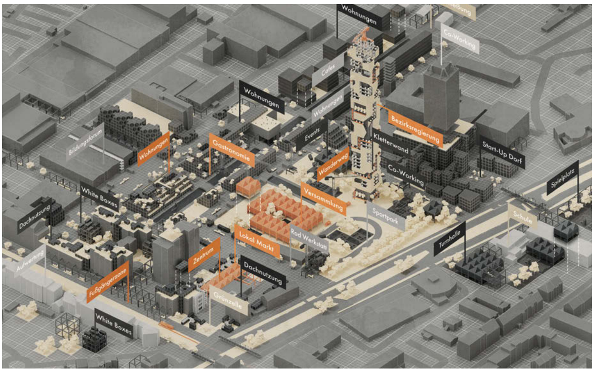

Fig. 13

Fig. 14

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