SUMMARY OF ARCHITECTURE GUIDE
to the UN 17 Sustainable Development Goals
January 2019

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Summarized Book by Kazuo IWAMURA (Member, UIA Commission on SDGs & JIA Editing Committee of SDGs)
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PREFACE

The Sustainable Development Goals are a call for action by all countries – poor, rich and middle-income – to promote prosperity while protecting the planet.

Architects can provide basic ideas and proposals for regulations that make it possible for us to have sustainable cities and communities in the future. Architects can facilitate the open dialogue and work in partnerships to give us good solutions and can encourage authorities to make the regulations necessary to move forward.

Mogens Lykketoft

Former Danish Minister of Finance and of Foreign Affairs, President of the United Nation’s General Assembly from September 2015 to September 2016.

November, 2018
INTRO

The 17 UN Sustainable Development Goals represent the aspiration of the people of the United Nations for a more sustainable future.

The Goals define the challenges we need to address to achieve a better and more sustainable future for all. They address the global problems we face together, including those related to poverty, inequality, climate, environmental degradation, prosperity, peace and justice. The Goals are deeply interconnected, and to leave no one behind, the world must move significantly towards achieving each Goal by 2030.

The built environment, planning, architecture and design, interact with every goal. And most crucially: not just on an aspirational level or as future potential, but through realized buildings, settlements and cities all over the world. Architectural solutions are already there, everywhere, contributing to sustainable communities and quality of life. However, the built environment is also a part of the current challenges a major consumer of energy and natural resources, and producer of waste. Furthermore, how we build can exacerbate inequalities and affect health.

That is why the Institute of Architecture and Technology at The Royal Danish Academy of Fine Arts Schools of Architecture, Design and Conservation, the Danish Association of Architects and the UIA Commission on the UN Sustainable Development Goals have created this architecture guide to the Goals. With this guide book we hope to make it tangible how the built environment interacts with the goals and to inspire architects and stakeholders involved in the built environment to engage with the challenges. It is for each and every one of us to contribute to the realization of the goals.

The intention of this book is to provide an architecture guide to the Goals. The 17 chapters present how each Goal is defined by the UN, outlines how it interacts with the built environment and gives examples of realized projects that illustrate architectural contributions.

Many of the cases address more than one goal, but the aim here is not to explore sustainable projects in their full complexity, but to understand the Goals as they relate to architecture. All cases are realized architectural projects, planning initiatives and structures. Our hope is that the cases will form a basis on which to start a conversation about how the built environment can contribute to each Goal.

In this first edition of the guide we have 2-3 cases to illustrate each goal, many from Denmark. In future editions we would like to expand the range of projects, and we welcome suggestions of cases to be included in the second edition, planned for 2020. Cases should be realized projects that illustrate how architects and architecture can contribute to the realization of the Goals.

Each case in this guide is inspiring and noteworthy, but they are not the final answer to how the built environment can contribute to the realization of the Goals. There is no one answer to that. To move towards the realization of the Goals, we need many new solutions, adapted to local climate, culture and challenges, and we need them not as ideas, but on the ground, implemented and in use. It is through realized buildings, settlements and planning the effect is achieved; environmentally and on our quality of life.

This publication is dedicated to the architecture students who will shape the future of architecture, planning and design; to the politicians who will aid them by understanding the intersections between architecture and the Goals; and to all citizens, professionals and institutions who join in the collective challenge ahead – to address social needs while protecting the planet.

On behalf of the Editorial Committee

Natalie Mossin
Chief Editor
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| #01 | NO POVERTY  
End poverty in all its forms everywhere | Architecture cannot lift people out of poverty, but the built environment can affect the impact of poverty on people’s life through access to housing and institutions that are affordable. | 1) Support to provide housing as a policy against poverty  
2) Improve the living through social housing, co-op, and urban improvement  
3) Affordable housing technology and supply system  
4) Relationship with the local community during the building process  
5) Secure available funds and resources as well as effective use of them | Volontaria Home for homeless children  
Pondicherry, India  
Photo: Sonja Winkler  
No. 01-1 | ①Homes for homeless children and their foster parents  
②Experimental affordable house  
③Mud-brick house burnt on-site  
④Use of local natural materials & techniques  
⑤Ceramic materials produced using the house as a kiln  
⑥Upcycling waste materials | PD, AD, BM, AD, BE, AD, ME |
| #02 | ZERO HUNGER  
End hunger, achieve food security and improved nutrition and promote sustainable agriculture | The built environment contributes to the securing of food supplies through planning, landscape design and building complexes that protect existing ecosystems and prioritize the preservation and expansion of areas for food production. | 1) Supportive development & land use for sustainable agriculture  
2) Urban farming, co-operative production activities, and regenerative landscaping design  
3) Secure the grarest reflecting the regional conditions  
4) Design to cope with the climate change  
5) Relationship between agriculture & building materials  
6) End-users’ participation into the process | Impact Farm  
Radonia, Denmark  
Photo: Abdellah Ihadian  
No. 02-1 | ①Economizing resources & time by using local agriculture  
②New hydroponic system of high resource efficiency  
③Significant freshwater saving  
④Structure for lease & mobility  
⑤Local and/or on-site production & consumption to be shared by the community  
⑥Incorporated social facilities for events of mind-setting | PD, TP, LD, AD, LD, AD, CD |
| | | | | ⑦Improvement of poor food metrics by using vacant areas  
⑧Innovative forefront of sustainable urban agriculture  
⑨Farmland: 1/3, Interactive agriculture: 1/3, Hardscape: 1/3  
⑩NPO of all volunteers  
⑪Correction of social imbalance & strengthening urban community  
⑫Sustainable urban agrihood by mixed-use development | PD, TP, LD, TP, CD, CD |
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| #03 | GOOD HEALTH AND WELL-BEING  
*Ensure healthy lives and promote well-being for all at all ages* | Most people spend the majority of their life indoors, making indoor climate an influential factor of health.  
1) Healthy indoor environment is a fundamental issue of architectural design.  
2) This should be primarily considered if the users are vulnerable in the hospital for instance.  
3) Use of environmentally hazardous materials & substances should be avoided.  
4) In addition to AD, CD & TP are also crucial to curb the spreading of diseases & exposure to bacteria.  
5) Built-environment design must include the promotion of citizen’s activities.  
6) Also, the layout of districts & city itself should be elaborated to reduce risk of any accidents. | No. | Name/Photo | Place | Type | |
| 03-1 | The Magoda Project | Magoda, Tanzania | Housing | 1) House improvement to protect residents from epidemics  
2) Affordable building methods for health, hygiene & comfort, to be understood by the residents  
3) Integration of traditional techniques of natural ventilation & building methods in Asia & Africa  
4) Cooperation of the local technicians, handworkers, doctors & sociologists  
5) Use of local woods & equipped with sanitary facilities  
6) Experimental house to be investigated as a research tool  
7) Involving the leaders of local communities, who promote to accept & understand the house | PD, AD, AD, CD, AD, BM, AD, PS, BE, BM, ED, AD, PD, CD, PS |
| 03-2 | Konditaget Lüders - the fitness roof | Lüders, Denmark | Car Parking | 1) Secure exercise space in urban area for the citizens’ health & well-being  
2) Space for recreation & exercise added to infrastructural facility (car parking)  
3) Car parking + Green facade + Roof-top playground (2,400 m²) = “Park & Play”, creating a new urban skyline | AD, AD, LD, AD, LD, CD |
| 03-3 | Maggie’s at the Robert Parfett Building | Manchester, UK | Refuge | 1) Maggie’s Centre socially supporting cancer patients & their families  
2) Architectural roles of contribution for healing by silence & clean air  
3) Curing effects promoted by space, color, sound, safety & comfort  
4) “Home away from home” with daylighting, greenery & vista  
5) Central kitchen & common table surrounded by a variety of spaces such as personal niche, library, exercise & meeting room  
6) Devices in- and out-side of greenhouse to enjoy curing effects | PD, CD, AD, AD, AD, AD, AD, LD |
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<td>Typical Solutions</td>
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<td>#04</td>
<td><img src="image" alt="Logo" /></td>
<td>QUALITY EDUCATION</td>
<td>Schools and educational spaces are a crucial part of our investment in the future.</td>
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<td>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</td>
<td>1) In whatever situations, access to school for receiving education determines the future of children.</td>
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<td>2) Affordable &amp; productive learning environment, therefore, should be provided as an architectural design.</td>
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<td>3) As examples, independent energy supply system and moveable classroom for seasonal immigrant workers are found.</td>
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<td>4) These can be good opportunities to learn the significance for users &amp; craftsmen of buildings, settlements &amp; urban areas.</td>
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<td>5) The collaboration with the community at design &amp; usage stages can promote sustainable local culture.</td>
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<td>6) Especially, at the primary education level, the key is to focus on developing the knowledge of sustainable design.</td>
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<td>#05</td>
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<td>GENDER EQUALITY</td>
<td>To support a movement towards gender equality, the design of buildings, settlements and urban areas must be inclusive to all citizens regardless of gender.</td>
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<td>#06</td>
<td><img src="image" alt="Logo" /></td>
<td>CLEAN WATER AND SANITATION&lt;br&gt;Ensure availability and sustainable management of water and sanitation for all</td>
<td>To take advantage of rainfall where clean water is scarce, buildings and urban areas must be designed so that rainwater can be collected, purified and used as drinking water.</td>
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<td>#07</td>
<td>AFFORDABLE AND CLEAN ENERGY</td>
<td>Ensure access to affordable, reliable, sustainable and modern energy for all</td>
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<td>The built environment is a major source of energy consumption and a potentially crucial energy producer.</td>
<td>07-1 Powerhouse Kjørbo Oslo, Norway Retrofit of existing building + Power Station① Energy consumption can be largely reduced by effective retrofitting the existing building. ② This project in Norway has succeeded to produce more renewable energy than it uses by refurbishing an office building of 80s'. ③ Renewable energy system has been employed by means of collaboration with the experts of related areas. ④ Energy load is reduced by the effective use of well water, solar panels and simple zoning. ⑤ Consequently, the lifecycle embedded energy is considerably reduced.</td>
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<td>1) Reduction of energy consumption through optimal building layout and BE selection to minimize the excessive heating. 2) Energy recycling system by storing excessive heat during the day and employing it at night. 3) The key of the above is to analyze the given geographical, climatic and cultural conditions, and to design the built-environment accordingly. 4) Examples include the use of day-lighting &amp; natural ventilation, as well as BMs that support heating &amp; cooling the building. 5) Building industry should contribute to the reduction of total energy consumption from the BM extraction, through the construction phase, to the use and disassembly.</td>
<td>07-2 Øvre Forsland Hydropower Plant Forsland, Norway Hydro-power Station① Alternative energy resources, in the place of fossil fuels, can improve the air potation and reduce greenhouse gas emission. ② This project in northern Norway attained high efficiency by retrofitting the existing hydraulic power station, which became a tourist destinations. ③ By visualizing the power plant process, corresponding to the surrounding environment, it gives the visitors specific &amp; effective experiences of power production for 1,600 households. ④ A variety of passive solutions are employed for environment.</td>
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<td>①</td>
<td>PD, AD</td>
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| #08 | ![Logo](image) | **DECENT WORK AND ECONOMIC GROWTH**  
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all | The built environment interacts with decent work and economic growth on both a planning level and on a building level.  
1) Safe public spaces & affordable transit routes are crucial for finding employment.  
2) Transit system is above all key factor for the access to a work-place from home.  
3) The work-place should be designed as a healthy & productive space for employees.  
4) Investing in good working environments back to a company’s economic growth through higher productivity & fewer sick days.  
5) In the building industry, focus is needed on decent working conditions and safety for workers.  
6) Consequently, by emphasizing investment in human resources, the industry can develop towards more sustainable economic growth by using raised skills and knowledge to reduce the amount of raw materials and energy needed while raising productivity. | **08-1** Atelier Gando  
Burkina Faso  
Photo: Kere Architecture | ① The population’s literacy in Burkina Faso is only 20%, which calls for increased educational support to create local at grows & employment.  
② Atelier Gando is a center for sustainable building technology, aiming to exchange between local craftsmen, architects, students, visitors to study and innovate building methods.  
③ The building process itself was an opportunity for the creative exchange of tradition and contemporary building techniques.  
④ The students visiting the atelier will be able to work with site specific challenges & the dynamic collaboration across nationality and culture. | PD, AD, PS |
| | | | **08-2** SiteCover  
Denmark  
Photo: Dragor Luftfoto ApS | Site house | ① Construction sites are exposed to the vagaries of weather, which calls for provision of simple solutions for the safety of building workers as well as keeping the building quality and period.  
② SiteCover is a combined cover and crane for construction that allows an indoor building activity.  
③ It provides safe & comfortable working environment, and can minimize the construction period. | AD, PD, ED, AD |
| | | | **08-3** Moving Schools  
Goa, India  
Photo: Mette Lange | Classroom | ① The seasonal migrant labor population of India is estimated as high as 100 million, and their children face a crucial lack of education.  
② Moving School is a series of mobile classrooms that are designed to float, roll and unfold.  
③ The 4th school in Goa opened in 2005 on a floating platform in the river for the children of labor groups moving on the river to extract the sand.  
④ Semi-permanent structures & a hostel also opened in 2012. | PD, AD, AD |
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<td>#09</td>
<td>INDUSTRY, INNOVATION AND INFRASTRUCTURE</td>
<td>Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</td>
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<td>The building industry is producing massive amounts of waste and is consuming large amounts of natural resources and energy.</td>
<td>1) To advance the building environment sustainability, it is needed to develop innovative process of production and assembly as well as the related industrial infrastructure. 2) It includes also transportation and services related to the production. 3) The building industry is by nature site-specific, and we must aim at utilizing local industries and developing sustainable products locally in all countries. 4) This requires the development of both physical and digital infrastructure to promote more sustainable trade. 5) For example, the focus must be shifted from no waste in production to a lifecycle perspective. 6) And a prototype should be needed to be able to promote training &amp; developing the new capacity at all levels as well as test the possibility.</td>
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<td>09-2</td>
<td>Plastic: recycled and hand-crafted</td>
<td>Building Material</td>
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<td>REDUCED INEQUALITIES</td>
<td>The built environment can act as an amplifier and enforcer of inequalities.</td>
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<td>Reduce inequality within and among countries</td>
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<td>SUSTAINABLE CITIES AND COMMUNITIES</td>
<td>Make cities and human settlements inclusive, safe, resilient and sustainable</td>
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<td>Typical Solutions</td>
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<td>#11</td>
<td>The built environment is crucial to the development of sustainable cities and communities.</td>
<td>1) Architecture, design &amp; planning contribute in multiple ways to make cities and settlements inclusive, safe, robust, resilient and environmentally sustainable.</td>
<td>11-1</td>
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<td>2) Among them, most important challenge is to provide affordable and healthy living environment as well as urban traffic systems enabling walking, biking and commuting by public transport.</td>
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<td>3) Participation of all the stakeholders into the design process makes it possible to create inclusive and less risky urban design.</td>
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<td>4) This should also help reduce and counteract the environmental impacts of overuse, traffic, waste, noise and light pollution in urban areas.</td>
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<td>5) Also it includes vegetation and green areas to help counteract the loss of biodiversity.</td>
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<td>6) Examples can be found in housing renewal, climate change adaptation, collective reuse station etc.</td>
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<td>RESPONSIBLE CONSUMPTION AND PRODUCTION</td>
<td>Ensure sustainable consumption and production patterns</td>
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<td>The building industry is a major contributor to waste.</td>
<td>1) When buildings are renovated or demolished most of the value of existing materials and components are lost, and huge amount of diverse wastes are produced including from cut-off bits, over discarded formwork and the wrapping. 2) Therefore, long-life design, continuous maintenance and careful renovation are the keys of sustainable consumption of the built-environment. 3) Although the initial use changes and become obsolete, building design allows them to transform into different uses over time, so that the BMs retain their value. 4) And respective BM can be recycled or up-cycled through the design and the application. 5) New construction as well as renovation should put the priority on reducing the amount of BM used and wastes produced.</td>
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<td>DESI Training Center</td>
<td>Rudrapur, Bangladesh</td>
<td>School</td>
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<td>Upcycle Studios</td>
<td>Chongqing, China</td>
<td>Studio</td>
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<td>Mjøstårnet</td>
<td>Brumunddal, Norway</td>
<td>Office building</td>
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| #13  | CLIMATE ACTION  
      *Take urgent action to combat climate change and its impacts* | The CO₂ footprint of the built environment must be reduced, and buildings and settlements must be adapted to the changing climate.  
1) The CO₂ impact of built environment must be reduced through energy renovation by integrating renewable energy production, expanding sustainable transportation systems, reducing transport of BMs and emphasizing the use if local & renewable BMs.  
2) By applying region specific building design, energy consumption for air-conditioning & lighting can be minimized, while maximizing the comfort of indoor environment.  
3) And existing built environment must be adapted to the climatic changing conditions, including extreme rainfall, floods, hurricanes, drought and heat waves.  
4) Those solutions should be based on the minute considerations about the local culture, geo- and topography and climate.  
5) An example is a park for recreation as well as for storing heavy rainwater, which is co-benefit. | | 

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| 13-1 | Qunli Stormwater Park | Harbin, China | Park | ① Chinese president Xi said “A city should be like a sponge,” supporting a new movement Chinese urban planning against floods called “Sponge City,” which reintroduced traditional methods into the rapid urbanization in China.  
② This example in Harbin is a landscape design, following the policy to renew the former wetland to a huge park.  
③ This park stores and purifies the storm water coming from developed areas and provides wonderful green landscape. | PD, LD, TP |
| 13-2 | Lindevangs Park | Frederiksberg, Denmark | Park | ① Global warming will result in more extreme weather phenomena such as heavy rains during summer & autumn, which requires sustainable urban sewage solutions.  
② This example is a green urban space in Denmark integrating meeting space for citizens and a solution for climate change.  
③ Water and its flow are the key aspects of the integral landscape with a variety of plants. | PD, CD |
| 13-3 | Portland Green Streets Programme | Portland, USA | Green walkway | ① Extreme precipitation events have produced more rain in the world, which became a crucial risk for the sewage system in urban area.  
② City of Portland is a leader of vitalizing the neighborhood and strengthening its local economy by controlling the storm rain.  
③ This Green Street that is designed to reduce the above-mentioned risk using natural systems has been built in more than 2,000 places within the city to date. | PD, CD, PS |
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<tr>
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<tr>
<td>#14</td>
<td><img src="image" alt="Logo" /></td>
<td><strong>LIFE BELOW WATER</strong>&lt;br&gt;Conserve and use the oceans, seas and marine resources for sustainable development</td>
<td>Most of the built environment is situated on land, but its activities affect the oceans&lt;br&gt;&lt;br&gt;1) Building industry affects the oceans through transport of BMs at sea, while existing settlements and cities discharge waste-water and other wastes to the oceans as huge impacts.&lt;br&gt;2) To help preserve life under water, we must reduce transport of BMs over long distances by sea through the development of local industries, and abolish plastic wrapping of BMs to reduce the source of non-degradable waste that ends up in the ocean.&lt;br&gt;3) By means of LD &amp; TP, pollutants must be handled on-site so that they do not reach the groundwater or the ocean.&lt;br&gt;4) AD and TP may able to reduce the cost and also build the water treatment infrastructure with co-benefits, while LD can regenerate the polluted land facing the ocean.&lt;br&gt;5) In addition, through such built environment for coastal eco-system, new knowledges can be created, which help increase public awareness.</td>
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| 15  | ![Logo](image) | LIFE ON LAND  
Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss | The amount of buildings, settlements and cities taking up land is rapidly growing.  
1) To protect, restore, and support ecosystems & biodiversity, buildings and settlements must include habitats for plants, insects and animals.  
2) This means that greenfield developments should be kept to a minimum and that planning and development of all new settlements must ensure sustainable conditions for local eco-system, and the natural networks that allow plant life to attain the symbiotic relations with the built environment.  
3) Building industry can avoid excessive harvest of forests through the use of BMs from the sustainable and renewable resources.  
4) AD & LD must consider the local flora & fauna as its basic elements to help support and chain with the local ecosystems.  
5) By minutely laying out the buildings in vulnerable and ecosystems or wildlife parks, it can add to their preservation through sustainable tourism and raised public awareness. | **Red Rib bon Park**  
Qinhuangdao, China  
Photo: Kongjian Yu, Turenscape |
| 15-1 | ![Photo](image) | Park  
① Supporting natural wild life while creating access to green and lush areas in densely populated regions is a balance between intervention and preservation.  
② This example is a landscape architecture for recreation, which responds to the above purpose.  
③ The impressive ribbon-like red object curves along the river bank, and invites the users to the open space associated with a variety of elements.  
④ The boardwalks are the access for the citizens toward the river and wetlands. | **Novo Nordisk Nature Park**  
Frederiksberg, Denmark  
Photos: Torben Petersen & SLA Architects |
| 15-2 | ![Photo](image) | Office building landscaping  
① Wide-spread modernist urban-planning made vast surfaces asphalted, which deprived habitat from wild life due to this mono-functional property.  
② This example is a landscape of a headquarters building, which strengthens the sustainable biodiversity according to the local forest and the characteristic geography.  
③ A variety of biotope methods are applied to provide the employees, visitors and citizens with a recreational destination. | **The Norwegian Wild Reindeer Centre Pavilion**  
Hjerkinn, Norway  
Photo: Diephoto designer.de |
| 15-3 | ![Photo](image) | Pavilion  
① Urbanization to date made stresses on the natural environment rapidly growing, and consequently our future generations will lose the possibilities to enjoy the realm of benefits from the basic ecosystem.  
② This example is an observation & research center of wild reindeer, and both researchers and visitors can access by a hiking trail through the surrounding areas with rich indigenous plants.  
③ The design team gave efforts to focus on BM quality and their durability with a unique beauty. | **Red Rib bon Park**  
Qinhuangdao, China  
Photo: Kongjian Yu, Turenscape |
| 15-1 | ![Photo](image) | Park  
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Qinhuangdao, China  
Photo: Kongjian Yu, Turenscape |
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<tr>
<td>#16</td>
<td><img src="image1.png" alt="Logo" /></td>
<td>PEACE, JUSTICE AND STRONG INSTITUTIONS</td>
<td>Parliaments, courthouses and public libraries are cornerstones in a just and peaceful society, while local community centers, places of worship and safe houses can represent citizens’ commitment to an inclusive and compassionate society.</td>
<td>1) Architecture does not make an institution just, but the effort and values put into a building can represent society’s commitment to justice, democracy and inclusiveness. 2) Examples of this span from prestigious building for ministries or town halls to the establishment of UN emergency architecture in disaster zones. 3) To support society’s expression of its values through buildings and public space, architecture and planning must ensure that public spaces and institutions are inclusive, welcoming, secure, and non-discriminatory. 4) The building industry itself must pay close attention to procurement and construction processes in order to discourage all forms of organized crime, as well as ensure not to rely on abuse, exploitation, human trafficking or child labor.</td>
<td><strong>16-1</strong> The International Criminal Court (ICC) in Hague</td>
<td>Hague, Nether-lands</td>
<td>Court-house</td>
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<td><strong>16-2</strong> Bogotá – policies of change</td>
<td>Bogotá, Colombia</td>
<td>Town development</td>
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<td><strong>16-3</strong> Tingbjerg Library and Culture House</td>
<td>Copenhagen, Denmark</td>
<td>Public culture center</td>
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<td>#17</td>
<td>PARTNERSHIPS FOR THE GOALS</td>
<td>Every city is built by many hands, and similarly we need to work together to reach the 17 sustainable development goals, as no single stakeholder can reach them alone.</td>
<td>1) The challenge of achieving the goals requires the involvement of all; from governments and institutional actors to researchers, businesses and citizens.  2) Architects, planners and designers can contribute by sharing knowledge, promoting sustainable solutions and engage in collaboration with research and institutional partners for the implementation.  3) Examples span from non-profit partnerships to provide homes for homeless to commercial partnerships to develop new sustainable products and services to the building industry.  4) Key to the partnership is a willingness to include new knowledge, test new practices, engage with local climate, culture &amp; resources and work with end-users in a life-cycle perspective.  5) The global issues of SDGs require us to work together across professional fields and national borders.</td>
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<td>No.</td>
<td>Name/Photo</td>
<td>Place</td>
<td>Specific Solutions</td>
</tr>
<tr>
<td>17-1</td>
<td>TECHO – a youth led non-profit organization</td>
<td>Latin America</td>
<td>① 104 million people live in slums in Latin America, lacking a proper home and access to basic services.  ② To cope with those problems, a NPO TECHO was established, led by youth.  ③ The strategic objectives : I : Promotion of community development in slums  II : Fostering social awareness and action  III : Political advocacy  ④ TECHO is engaged in corporate partnerships with major international businesses who bring funding, knowledge and manpower.</td>
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<tr>
<td>17-2</td>
<td>Climate Tile</td>
<td>Frederiksberg, Denmark</td>
<td>① Climate adaptation is a big challenge to overcome today, but also an opportunity to innovate and collaborate across fields and interests.  ② This is a new scalable tile system with water treatment capabilities, developed by a cross disciplinary partnership and collaboration.  ③ It can catch and redirect 30% of the projected extra rainwater falling due to climate change.</td>
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<td>17-3</td>
<td>Architecture without borders, Magburaka Education and Computer Center</td>
<td>Magburaka, Sierra Leone</td>
<td>① Many of the world’s problems relating to inequality are embedded in the built environment, and to be able to combat this inequality we have to collaborate across borders, while preserving the historical heritage of people.  ② SF-Int. is one of the most representative NPOs, promoting such capacity building activities in the five continents as those in Sierra Leone</td>
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Special thanks go to Rector Lene Dammand Lund, for committing the Royal Danish Academy of Fine Arts Schools of Architecture, Design and Conservation (KADK) to the Goals; to President Thomas Vonier, International Union of Architects (UIA) for raising an agenda of sustainability and establishing a Commission on the 17 UN Sustainable Development Goals within the UIA; and to President Johnny Svendborg and CEO Lars Autrup for the Danish Association of Architects’ strong engagement in sustainability in architecture.

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REFERENCES

1. The Royal Danish Academy of Fine Arts Schools of Architecture, Design and Conservation (KADK), is an architecture school in Copenhagen dating back to 1754. In 2015 KADK committed to working with the UNs 17 Sustainable Development Goals, making it mandatory for all graduates to engage with the goals in their thesis.

For more information visit www.kadk.dk

2. The UIA Commission on the 17 UN Sustainable Development Goals was established in 2017 by the International Union of Architects. The commission brings together architects from all over the world with the purpose of collecting, analyzing and disseminating knowledge of how architecture and architects can and will contribute to the fulfilment of the Goals.

For more information: www.uia-architectes.org/webApi/en/working-bodies/sdg

3. The Danish Association of Architects was founded in 1879 in order to support and promote the conditions of architects whilst ensuring architectural quality in our cities, buildings, landscape and environment. The associations of architects in the Nordic countries which form the Nordic Section in the UIA will host the UIA World Congress in Copenhagen in 2023 with the theme “Sustainable Futures”. The Congress will focus on the 17 UN Sustainable Development Goals.

For more information: www.arkitektforeningen.dk
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ORIGINAL BOOK OF ARCHITECTURE GUIDE
to the UN17 Sustainable Development Goals

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