LIVING 2060

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HOUSING MODELS OF THE FUTURE

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Preface

The publication you are holding in your hands presents a small selection of the numerous works that were created as part of the interdisciplinary architecture project LIVING 2060 and is intended to give you an insight into the various project activities.

This transnational project was submitted in 2018 by the Viennese association "X-CHANGE culture-science" as part of the EU programme CREATIVE EUROPE. There were several co-organisers: from Austria, the TU Wien; from Italy, Università Iuav di Venezia and University of Ferrara; and from Romania, Association Frontal. In addition to the European co-organisers, institutions from Indonesia and Thailand were also significantly involved in the project.

What were the goals of the project?
1. Audience engagement with a special focus on children and adolescents
2. Transnational mobility: the promotion of cultural exchange across national borders.

LIVING 2060 started in October 2019 and was supposed to be completed in September 2021. However, the Corona pandemic thwarted this plan; "transnational mobility" simply was not possible during those times, and neither was the planned implementation of workshops at schools and universities. As a result, the project's timetable was thrown into disarray and its duration was extended from two years to a total of four years. In the first instance, all planned events had to be cancelled or postponed. Subsequently, some project components – such as the design workshops and expert forums – could be remodelled and carried out as online events. However, it was important to us that the creative workshops for children and young people were held in person, even though we had to postpone them repeatedly. Another crucial impact of the pandemic concerned the mode of exchange: meetings and working groups had to take place online instead of in-person. However, the online solution had the advantage that additional experts from all over the world could be invited to the presentations and contribute their expertise, which, for financial reasons, would not have been possible at face-to-face events.

The above-mentioned project goals were achieved through the following activities:

In order to sensitise children and young people to the topic of housing, creative workshops were held with the participation of about 400 pupils aged nine to seventeen. Architectural mediators and artists worked with the pupils on topics such as "What does housing mean in general?", "What does housing mean to you?", "How will we live in 2060?" etc. These topics were addressed partly in the form of discussions and input sessions, and partly in a creative form. You can see some examples of these discussions in this publication.

In order to achieve the second goal, design workshops were held, in which over 230 participants from Austria, Italy, Romania, Germany, Indonesia, Spain and several other countries took part. These were accompanied by input presentations from subject matter experts. As mentioned above, the original scheme was reworked into an online programme, and mixed intercultural groups were formed that met online almost weekly. The major overarching theme was "Affordable Housing" and this was accompanied by a different sub-theme for participants to work on each year. The two real-world planning areas on which the tasks were based were located in Vienna/Austria and in Yogyakarta/Indonesia. The planning area in Vienna is a very important social housing building project from the post-war period with over 1,700 housing units, namely the SIEMENSSTRASSE housing estate. It is by now somewhat outdated and tired and was to be given an "upgrade" by the students. The planning area in Yogyakarta was an undeveloped oil storage area in a special urban location.

These tasks resulted in some very special design work – some examples are presented in this publication.

Fortunately, in 2023, it was again possible to hold a "live" series of exhibitions, in which selected works were shown to a wider public in the project countries. These exhibitions made for a very gratifying and inspiring conclusion to the project; after the many virtual encounters there was now an opportunity for "real" exchange between experts, students and a public audience, and the way was paved for further joint projects on the topic of "housing".

I hope the reader will find the selected works stimulating and will be inspired to engage further with the project topics. The project website https://living2060.x-change.at provides a useful additional review of everything that happened during the course of the project.

Finally, I would like to thank all the project participants.

Daniela Mansouri
Chairlady
X-CHANGE culture-science

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Gianluca Frediani

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Reflections on the theme

The issue of affordable housing is part of the broader and more historical "housing question" and fully encompasses the political-economic theme of "a house for everyone". This social problem is typically urban; it was born, and then grew and developed alongside the parallel rise of the industrial society, and we can follow and study it up to the current phase that could well be defined as that of the "city of consumption". We all consume freely, and we consume everything today, as if things will never end. We consume water, air, soil, energy … we even consume houses as if they were trivial consumer goods that can be replaced as and when new requirements arise. If a Martian suddenly landed on Earth, caught in a mysterious space-time vortex, he would be astonished by the number of houses, houses and more houses that we have built – especially over the course of the past few decades. So many houses, in fact, that by now the border between the city and nature has become so blurred that it is no longer clearly visible. This is the problem of the metropolises that are growing like wildfire, but it is also the central issue that we must all tackle together, and not just architects, if we want to aim for a better and more affordable future.

In other words, we have to radically rethink our approach to the city and to housing – perhaps starting with social housing. In its Charter of Fundamental Rights, the EU has left fairly limited room for manoeuvre on the right to housing, encouraging European countries to develop forms of housing assistance especially for socio-economically weaker groups. In the European Charter, the issue of housing is closely linked with that of social and political integration. This fact alone should make us realise how important it is to develop and design houses that have a close connection with their environment, in the broader perspective of an inclusive city available to all, the young, women and the elderly. It is not enough, in short, to design good social housing, well-proportioned and organised, but we must, from the outset, think of all that surrounds the buildings, of the large voids that – like invisible cords – tie them to the city and the environment.

The affordable housing concept is not only a social issue, but also an ecological and economic one. Our society is strongly dominated by economics and increasingly supports strategies that appear to be cheap in the short term, but which certainly cannot be considered sustainable in the medium- or long term. In our consumerist society, what costs little is given little consideration. Social housing is cheap and therefore little considered, from a social, cultural and even real-estate point of view. But why, then, do we only build cheap houses and do not try to design and build better ones?

Our social housing buildings are designed to last for a maximum of 25–30 years. At the end of this lifecycle, for "economic" reasons they can be destroyed and possibly rebuilt, perhaps in other forms to better suit any new needs. This continuous cycle of destruction and reconstruction is apparently "economical" and profitable in the short term, but in the long run it leads to an enormous dissipation of land, materials, energy and resources as well as producing large quantities of waste, which is becoming increasingly difficult to treat. By imposing rules, time-scales and processes, economics commands and drives urban transformation. In order to genuinely change things, we must therefore also change our economic strategies and begin to channel public funding and aid in more effective directions. In short, instead of

building a lot and badly, we must begin to think about intervening with large numbers of projects of high quality and higher cost, which, instead of using new virgin land, focus on the recovery and transformation of pre-existing buildings. Yes, higher costs – it is not heresy to say so. On the contrary, I am convinced that we need to invest more – indeed, massively more – in our urban and affordable living culture.

There have been positive examples of excellent urban redevelopment in the literature for some time now. One such example is the decade-long work by the well-known firm Lacaton & Vassal, the 2021 winners of the Priztker Architecture Prize. Their projects on social housing, both new construction and building rehabilitation, provide an exemplary model of how social and affordable housing can be done correctly. One only has to look, for example, at the transformation of the Quartier du Grand Parc in Bordeaux (2017), a 1970s development, where the French architects succeeded – by demolishing the old façades and adding new volumes – in significantly improving the interior quality of the dwellings and also radically transforming the exterior image of the housing complex, giving it a modern and effective architectural dignity that it did not previously possess. This example is particularly interesting because the rehabilitation made it possible to conserve large parts of the existing structures, while ultimately obtaining a building that looks entirely new and different. The skeleton structure allows this "re-functionalisation", which, following similar strategies, could easily be extended to our entire immense post-war housing stock.

The concept applied by the French architects is ultimately very simple: they conserve the existing dwellings by "packing" them, so to speak, between two new structures that include, on the one hand, the sections that contain the stairs and lifts, and, on the other, a large glazed space that not only acts as a loggia but also allows other uses. The beauty and interest of these flexible spaces, suspended between the inside and the outside, lies precisely in their ability to offer unforeseen possibilities of use and interaction, and therefore of life, to the people who inhabit them. Moreover, the opening up to the outside allows a different relationship with the urban landscape, significantly increasing the overall quality of the dwellings, which thus not only become sustainable buildings but also homes where it is pleasant to live, despite their suburban location.

We all know very well that in the design of social housing – supported, as they are, in whole or in part by public funds – the "economic" rules of financing are what force architects to chose one type of design over another. In some cases, the buildings reflect these stringent economic guidelines so closely that one could almost say that it is the regulations themselves – and not the architects – who define the housing interventions. It is also the public regulations that decide the shape, size, distances and often, by exclusion, the materials to be used. Only the façades partly escape these limitations. But this is not all – in addition, there is a labyrinth of technical and town-planning regulations that continually overlap, complement and sometimes even contradicting each other. In short, it is necessary to completely revise these procedures, granting architects the sort of room for manoeuvre and experimentation that currently does not exist, except for perhaps in some isolated experimental interventions.

Buildings that are better constructed and made to last longer with better quality housing are the necessary conditions to change the urban conditions of our cities and to simultaneously create affordable, available, accessible and welcoming accommodation. Housing accompanied by ample collective facilities, in which everyone can find their own space and cultivate and express their personality. For the function of living is structurally accompanied by that of living together and sharing one's space and needs with others. Therefore, the problem of affordable living is not confined only to the quality of the interior spaces of dwellings but rather it assigns equal importance to outdoor spaces and public and semi-public elements. Technical regulations traditionally deal almost exclusively with the "house" and its rooms, relegating to a secondary role everything that exists around it, such as entrances, staircases, corridors, balconies, courtyards, gardens, roofs, terraces etc. All these spaces of transition between dwelling and the city are instead rich in often unexpressed and undervalued potential, both for collective use and for the quality of the architecture itself. The housing typologies themselves are by now fairly well defined by decades of debate and typological research, but the transition spaces towards the outdoors (including façades) are still open to and available for experimentation. It is here that one can effectively intervene in the near future, and on these issues we have developed the student design workshops within this European project.

Distribution spaces, for example, can easily lend themselves to accommodating places for resting and meeting. Going up and down stairs, rather than being a mere physical function of connection, should fulfil broader and more complex collective functions, opening up possibilities for resting and meeting, for play and recreation, even for culture. Going up and down a balcony or corridor, in short, should not evoke the crossing of a dangerous no-man's-land, but instead should provide a rich personal and social experience, in the gradual approach to the protection offered by one's domestic shelter. Even parking areas, if imagined not as an isolated function but as part of the whole housing project, can be integrated into a broader vision of living and offer opportunities for integration and sport. The mixing of functions and elements appears to be, even in this case, an effective strategy.

There are many components involved in defining the quality of affordable design. One of these is certainly the need to respond in novel ways to the ecological and natural needs that have arisen over the course of the last decade. The theme of "green" is one of fascinating potential, very much felt and topical today. But what I would like to emphasise is how "green" has freed itself from the merely decorative character to which it was relegated for a long time, to achieve the status of a true "building material". Like other fields, architecture uses many very different materials, visible and invisible, because it involves the entire environmental context and the complexity of human perception.

In many contemporary housing projects, it is easy to observe how greenery is climbing up façades, occupying forgotten spaces and spreading, especially on roofs, which have finally been transformed from being mere impermeable coverings into terraces open to the city, where stimulating collective life is possible. It is precisely there, between the roofs and the distributive elements of

for an affordable culture of living

the dwelling – perhaps the most neglected of all those that make up a building – that we can find precious spaces to open up new potential for hospitality and affordable social life. Because, whatever the place and whatever the budget, the main purpose of our work always remains to build in order to give birth to small, stable and well-integrated democratic communities, and not simply to produce low-quality and durable homes.

Obviously, this is a huge and difficult task, but it is imperative that we start tackling it soon – perhaps starting with small things, trying to include gradual and progressive interventions that will slowly lead to an improvement in the living culture of our cities; because the quality of housing directly reflects on the quality of life and the social and democratic integration of those who live there. All those who contest public intervention in the housing sector must therefore be shown that – contrary to the doctrines of economic austerity and the domination of the "free" market – social intervention in affordable housing is the best form of economic investment that public authorities, in collaboration with private individuals, can plan and implement for the future of the next generations.

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Saving the "house of the living" in the Anthropocene

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Substantive considerations

Premise

About 70 years after the hopeful message "Building man's home", with which Ernesto Nathan Rogers inaugurated his editorship of the magazine *Casabella* in 1954, and 50 years after the United Nations Conference on the Human Environment (Stockholm, 1972) which was held under the motto "Only One Earth", the UN proposes a reflection on the 50 years that have passed since this last event, in order to address the question of the precarious outlook for collective survival in the Anthropocene.

This question can be summarized with the dramatic plea "let's save the house of the living". At the heart of the question is the intertwining of particular interests, which – in ignoring the interdependencies between all living beings – obstruct the urgent need for collaborative policies to save our endangered planet.

This is a theme that was already dramatically addressed in 1972 in the general report "Only One Earth" (edited by Barbara Ward and René Dubos[1]) – a real agenda for collective survival. The report is a Darwinian investigation of Earth-transformative actions instigated by mankind, which have resulted in the menace of nuclear weapons as well as the breakdown of the balance between the technosphere and the biosphere. The result is an agenda – supported by the scientific transition from Descartes' "singularity" to the interdependence of the nuclear age, and based on the global co-operation between nations – to control the "extreme madness of nuclear weapons" and to overcome the huge imbalances between poor and rich countries, in order not to compromise the remaining reserves of the biosphere.

Barbara Ward suggests that the key to saving the "house of the living" will be to stimulate deep repulsion against the aggressiveness, pride and rapacity of human systems, because, as the great ethical systems teach us: you must live in moderation and with compassion and justice, or else you will die through aggression, pride, rapacity and greed.

"Only One Earth"

"Only One Earth" is based on a series of environmental scenarios, supported by:

- the role of energy, interpreted through the mythological figure of Prometheus, in its malevolent path from fire to the atom;
- the exhaustion of the scientific approach based on linearity and the emergence of the complexity paradigm;
- awareness of the negative impact of the industrial / mercantile process: the depletion of resources due to mining practices and climate change induced by the altered relationship between the sun and the Earth's oceans due to emissions;
- the unequal exchange between "developed" and "underdeveloped" countries;
- the unequal distribution of wealth.

These scenarios inspire geopolitics whose common threads recall T.S. Eliot's words in his poem "The Hollow Men" (1925)[2]: "This is the

1 B. Ward, R. Dubos, "*Only One Earth: The Care And Maintenance of a Small Planet*", Pelican Books, 1972.

2 T.S. Eliot, "*The Hollow Men*" in: Poems 1909–1925, Faber & Faber, 1925.

way the world ends / Not with a bang but with a whimper".

On the one hand, the "bang" – brought about by the madness of military power, in line with what Lewis Mumford wrote in "*Gentlemen: You are mad*", (1946)[3]: "The mad are planning the end of the world. What they call continuous progress in nuclear warfare means universal extermination, and what they call national security is organized suicide."

On the other hand, the "whimper" – the unceasing attacks the "developed" countries inflict on Earth's resources, until their ultimate degradation. The survival of the environment – already in 1972 – seemed to depend on the resolution of the difficult dilemma created by the relationship between the load capacity of the Earth and the pressure of an economic model based on consumption and nuclear "defence".

To reduce these pressures, the idea of "Only One Earth" was based on man's ability to:

- recognise the interdependencies between the technosphere and the biosphere,
- limit the exploitation of resources;
- develop a strong feedback between all social partners;
- achieve greater equity in the distribution of resources;
- avoid nuclear war;
- launch a development agenda shared by all countries, because the environment has no borders.

Stockholm + 50[4]

On December 2, 2020, UN Secretary-General António Guterres, in his important speech "The State of the Planet"[5], declared the state of the planet to be deeply compromised; moreover, as highlighted in the United Nations 2020 Report on Human Development, "the carbon and material footprint of people who have more is stifling the opportunities of people who have less". Today, the greenhouse gas emissions of the richest 1% in the world are more than double those of the world's poorest 50%. However, it is the poorest who have contributed least to the accumulation of carbon dioxide in the atmosphere that is causing the rapid warming of the world.

There is a significant disconnect between the urgency of the environmental challenges facing humanity and the willingness to take the radical action needed to collectively move to more sustainable forms of consumption. Most of the proposals of the world's largest emitters, "the environmentalism of the rich", are rooted in obsolete models of perpetual growth, energy production from non-renewable sources and the belief that human survival will be secured through technological innovation.

The renewal of knowledge

Nevertheless, there has been huge investment in knowledge over the past 50 years[6]. Starting with the innovative global vision of the environment of 1972, a primary infrastructure of knowledge was formulated in "Our Common Future" (1987), which established a systematic link between the environmental and development issues raised by "Only One Earth". The result of this integration was the evolution from the historical dimension of the concept of the environment to that of "sustainable development". This was followed by the establishment of two intergovernmental platforms, namely the IPCC (1988), for the scientific assessment of climate change, and the IPBES (2012), for the study of biodiversity and ecosystem services.

These "primary infrastructures" are today connected with a series of important "regional" platforms (e.g. Stockholm Environmental Institute, Sweden; the Potsdam Institute for Climate Impact, Germany; VTT Finland; etc.) working according to the logic of convergence.

An integrated scientific structure was thus formed for the promotion and implementation of international conventions on the environment, through the instrument of the "Agenda" (inaugurated in Stockholm in 1972). Unfortunately, the commitment to research and organisation was not followed up with sufficient operational (and therefore financial) commitment by the developed nations. Thus the number of points contained in the "Agenda for Sustainable Development" has been drastically reduced from the 43 points initially laid out in "Agenda 21" in Rio de Janeiro (1992): first to the 17 points included in the SDGs (2015), and then further reduced to the six points that are the only ones currently recommended in the "Sustainable Development Report 2022", namely education and skills, health and wellbeing, clean energy and industry, land use, sustainable cities, and digital technologies.

Over the past 50 years, the renewal of knowledge infrastructures should have been followed by the renewal of governance systems; but these have remained inexorably linear. As a result, as Jay Forrester claims, their actions are comparable to "throwing handfuls of sand into the gears of a complex clock mechanism".

In a world of complexity, characterised by scarcity, errors and uncertainty, governance requires sequential co-ordination of decisions based on feedback between all elements of the technosphere and the biosphere. Thus, the key factors may not be the short-term economic conveniences or the abstract administrative capacity of a centralised omniscient state. According to the economist A. Hirshmann, the key factors are the "bonding agents", that is to say, the subjects that are able to develop connections between asymmetric, dispersed or missing elements, to trigger social learning in a world of natural imbalance.

3 Lewis Mumford, "*Gentlemen: You are mad*", The Saturday Review, June 1, 1946.

4 E. Lövbrand, M. Mobjörk (Editors), "*Anthropocene (In)securities: Reflections on Collective Survival 50 Years After the Stockholm Conference*", SIPRI Research Report No. 26, Oxford University Press, 2021. SEI & CEEW, "*Stockholm+50: Unlocking a Better Future*", Stockholm Environment Institute, 2022 DOI: 10.51414/sei2022.011.

5 A. Guterres, "*The State of the planet*", December 2, 2020, in: https://www.un.org/sg/en/content/sg/statement/2020-12-02/secretary-generals-address-columbia-university-the-state-of-the-planet-scroll-down-for-language-versions.

6 https://www.unep.org/environmental-moments-unep50-timeline

New alphabets and exponential growth of cognitive asymmetries

The scientific structure that in 1972 matured through the transition from linearity to complexity borrowed from the structure of the atom, has undergone an exponential and disruptive development thanks to the sequencing of the human genome (Human Genome Project, 1990-2000). Thus, the alphabet of man has evolved from the centuries-old skill of combining letters, numbers and images on a sheet of paper; via the development of a binary code (the alphabet of the computer era), starting in the post-war period; to the development – a mere 30 years later – of a neural code, following the deciphering of the human genome, the biological alphabet of the cybernetic era.

The "seven sisters" of the age of oil were replaced by the "five sisters" of the cybernetic era: Google, Amazon, Apple, Microsoft, IBM. The "electro-slaves" at the service of man in the industrial era have been replaced in the present era by robots powered by artificial intelligence intended to replace human labour. Thus a small technocratic elite has been added to the 1% share of the richest, while the bourgeoisie is going to swell the ranks of the unemployed, and the percentage of the poor (the Neolithic men mentioned by Ward) has increased steadily. The problem of elites has certainly not been an increase in social learning and sharing, but – as Shoshana Zuboff[7] writes – the building of a surveillance society, of which the smart city with its engineering of the "city brain" it is the ultimate expression.

Thus, as in T.S. Eliot's poem, the vast numbers of men deprived of work and social learning tools give rise today to the "whimper" of "stuffed men", leaning against each other, with no eyes to see, no voice to communicate, no strength to act; their words meaningless murmurs, "as wind in dry grass or rats' feet over broken glass".

The "whimper" of the "stuffed men" is contrasted by the loud laughter of the commander of the NATO forces engaged against the Afghans, who in front of the map of the complexity of that war exclaims: "When we understand these slides we will have already won the war!"[8]. We know how it ended, but defeat comes from elsewhere: from the arrogance of Western elites towards the cognitive asymmetries generated by new technologies and the lack of respect for native cultures. This led them to insist with linear logic based on the logic of fire, ignoring the power of understanding and tolerance, indispensable in the age of complexity. So suddenly, but not casually, we have to face Mumford's prediction, "Fools are planning the end of the world …"

We have entered a new era: the Anthropocene

The term Anthropocene[9] was coined at the beginning of the current millennium to describe the increasingly deep human footprint on the global environment. The Anthropocene, in contrast to the relative climatic stability of the 12,000 years of the Holocene, presents itself as a dangerous and unpredictable era, in which lifestyles fuelled by the accelerated extraction of raw materials and the use of fossil fuels permanently undermine the life-support systems of the planet on which humanity depends.

Facing this new reality requires new ways of thinking about humanity's relationship with nature, ourselves and our collective existence: the formulation of the Anthropocene points directly to the future by posing the question of the overall model of development, radically redesigning previous concepts of environmental protection or sustainable development; it is a matter of designing the future and deciding what will be done to shape the global systems in the coming decades. However, it will be necessary to start with an awareness of the required urgency, to avoid potential disruptions of key ecological systems, and to achieve a peaceful transition to a world that does away with fossil fuels.

The complexity that guides the design of the future is traced back by Eva Lövbrand, Malin Mobjörk and Rickard Soder to a "discursive cartography", split into three scenarios: 1) "*the world in danger*"; 2) "*the intricate world*"; 3) "*the extractivist world*" (in "*The Anthropocene and the geo-political imagination: Re-writing Earth as political space*"[10]).

1. In the scenario "*world in danger*", the entire life support system of the planet is threatened, and the role of politics is to bring the planet back to a safe state similar to that of the Holocene.

In this endangered world, integrated scientific assessments and co-ordination of international policies are the tools for responsible management and governance of the global systems. In order to gain control over the crisis of sustainability and thus to ensure the survival of civilisation, this scenario requires strong global institutions that can balance competing national interests and facilitate co-ordinated policy responses.

2. In the "*intricate world*" scenario, we must overcome the idea that we can effectively govern the Anthropocene and therefore that humanity can be protected from external threats.

In this scenario, the traditional modes of division of the world into nature and culture, subject and object, inside and outside, are replaced by intricate networks for the management of much more contingent, fragile and unpredictable interrelations. In order to ensure peaceful co-existence in a multi-species world, the "*intricate world*" aims at policies that extend beyond the centrality and domination of man.

Here, the Anthropocene becomes an invitation to rethink our institutions, commitments and rules and to forge new forms of co-operation based truly on the human: therefore on participation, solidarity and justice, beyond the state.

3. The "*extractivist world*" scenario of the Anthropocene focuses on the capitalist system

7 S. Zuboff, "*Il capitalismo della sorveglianza*", LUISS University Press, 2019.

8 E. Bumiller, "*We have met the enemy and he is PowerPoint*", New York Times, April 2010.

9 P.J. Crutzen, "*Geology of mankind*", Nature 415/2002. J. Rockström, W. Steffen et al, "*Planetary Boundaries: Exploring the Safe Operating Space for Humanity*", Ecology & Society 14/2009. W. Steffen, J. Rockström et al, "*Trajectories of the Earth System in the Anthropocene*", PNAS, August 2018.

10 E. Lövbrand, M. Mobjörk, R. Soder, "*The Anthropocene and the geo-political imagination: Re-writing Earth as political space*", Earth System Space 4/2020.

and on the damage and injustice caused by its incessant need for expansion, accumulation and extraction of raw materials. In the *"extractive world"* scenario, the degraded lands, polluted waters, the destruction of livelihoods and the massive extinction of species are the ominous blemishes of a political economy powered by fossil fuels, guaranteeing unlimited access to resources and goods to the rich, at the expense of the rest of humanity and vulnerable environments. In order to deal with the damage inflicted and thus ensure socio-ecological justice, this discourse requires transformative policies, seeking political renewal in the social movements that operate beyond the circuits of capital.

These scenarios call into question the "rules of the game" that underlie usual international relations. In today's highly interconnected and perilous world, neither the state-centric representations of global space nor traditional security thinking make any analytical or political sense. Traditional geopolitical categories, such as "inside and outside", "domestic and foreign", "friends and enemies", as well as the concepts of the state, security and sovereignty, must be thoroughly challenged.

In spite of the geopolitical arguments that we live every day, which forewarn us of the nightmare scenario of war, the goal of the elites is to maintain economic and political control, while climate change accelerates along the path towards a "greenhouse earth".

The only chance to save the "house of the living" in the Anthropocene lies in the initial recommendation made in "Only One Earth": you must live in moderation and with compassion and justice or else you will die through aggression, pride, rapacity and greed.

Saving the "house of living" in the Anthropocene

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Last, but not least An interpretation of affordable housing design and the research of its coding

Jacopo Gresleri

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Housing, a fundamental right

Introduction

The issue of affordable housing requires a particularly pragmatic and conscious approach, since the dynamics to be managed are multiple and complex. The architect's technical, scientific and humanistic training seems to be particularly suited to managing the entire process, from the conception of the design idea to its realisation. The vastness of the implications linked to this topic and the difficulty one encounters in framing its contents and specificity make it necessary to equip oneself with analytical operational tools, in order to allow the formulation of references and operational methods that will help achieve the best possible results.

It may be useful, therefore, to introduce a key to interpretation, an image that usefully sums up and prefigures the intrinsic meaning of the affordable housing project. The image chosen for this purpose is the famous fresco painted by Ambrogio Lorenzetti[1] in 1338 for the Sala del Consiglio dei Nove (also known as the Sala della Pace) in Siena's Palazzo Pubblico, entitled "*Effects of Good Government in the City*". The image immortalises the moment of flourishing everyday life, a busy and festive day whose almost surreal balance is captured within the walls of a 14th century Italian city. Arches, portals, towers and crenelated walls define the pictorial perimeter within which the scene unfolds, but it represents also the physical boundary of the city, the place where cultural and economic activities mingle, an environment in which commerce thrives according to an apparently redistributive logic of wealth: in fact, no one is shown asking for hand-outs; no people in need, such as those we pass by every day with careless habit, are shown. In a *well-governed city*, to recall the message conveyed by the medieval painter, there is no trace of marginalisation: it welcomes everyone, and gives everyone *room* (and therefore also *a room*); a house, but also a home. Thus the aim of affordable housing has already been explained to us – visually and iconically summarised by Lorenzetti some seven centuries ago – but it is nevertheless necessary and topical to ask ourselves how we can achieve such results today.

What is poverty?

Architects are trained to solve problems, particularly spatial problems. We do this by using different expressive languages and following precise, almost investigative operational logics: we collect data, process information, listen to experts and those directly involved as if they were witnesses to the fact, and then relate them to each other, formulating the possible solutions to a puzzle that requires both competence and sensitivity (one without the other, in fact, gives sterile design results, almost never traceable to architecture, in the sense of cultured knowledge). But what data do we have?

First of all, in order to deal with the theme of affordable housing – i.e. low-cost housing for poor or disadvantaged people – it is necessary to

1 The fresco is part of the cycle of the "Allegories" and also includes the "Effects of Bad Government". Using a comparative method, these pictorial representations were intended to serve as a warning to the citizens gathered in the Council, and to inspire their actions in the administrative acts of the city of Siena.

relate to the concept of poverty and, consequently, to outline a satisfactory profile of the end user of the undertaken project efforts. In this endeavour, statistical data and graphs can be used, thus framing the dimension and specificity of the phenomenon. Looking at the diagrams summarising this information[2], initial reflection on the distribution of poverty in the world can be formulated. Poverty appears to be concentrated in the tropical belt of the planet and in all of the southern hemisphere (particularly South Africa and South America) with the unique exception of the Australian continent, and it extends to almost all of Asia and part of Southeast Asia and, further to the west, to the Balkan borders of Europe. It is a phenomenon that affects an enormous number of people: about 1.3 billion people live in conditions of so-called multidimensional poverty: malnutrition, lack of housing, drinking water, etc. (UNPD 2018). Strictly going by these figures and their most immediate interpretation, their synthesis could be exaggerated by arguing that the global north is rich and the south is poor, thus affirming the futility of dealing with affordable housing in European and North American contexts. While there may be some truth in this conclusion, it is likewise easy to challenge it by looking at the reality of life in our cities, especially in the suburbs[3], where the most deprived classes of Western society are concentrated.

Not to fall into the trap of stereotypes, we must therefore pay attention to the multi-dimensional term of "poverty", a word that conceals a less immediate and comprehensible concept than is commonly understood. When we speak of a poor person, we are not only describing someone who lives on his wits in a makeshift place, wearing ragged clothes; we are instead referring to a more widespread and sometimes invisible living condition (Kangas, Ritakallio 1998; Fusco 2007). In order to understand the meaning and to better frame the phenomenon in question, some definitions derived from economic and social disciplines are generally adopted, which can be traced back to the semantic, numerical and legislative macro-categories. In short, the factors and probable causes that determine the state of indigence of individuals can be recognised in the impossibility of accessing the so-called *primary needs* (for example, the inability to obtain the food necessary for one's sustenance), or they can be determined from a *utilitarian* point of view, not being able to use social services (health, schooling, etc.) or, finally, they can be defined by the opposition of "capable vs. able", i.e. the disparity between the ability to perform certain actions or carry out precise activities (*capabilities*) and the opportunities to put these skills into practice (*abilities*), as expressed in the theory formulated by Sen (1979)[4]. The three interpretations, only hinted at here, suggest different operational perspectives, making it difficult to identify universal design solutions to the problem of low-cost housing.

An important contribution to the attempts to define the terms of the question is provided by the European Commission (EEC 1975), which defines poverty as "*a lack of command of resources (including cash incomes, material assets and privately organised services such as housing or education) so extreme that individuals, families and categories of persons concerned are excluded from minimum acceptable ordinary living patterns, customs and activities*". The same concept – more extended – is reworked a decade later by the same Commission: "[...] 'the poor' shall be taken to mean persons, families and group of persons whose resources (material, cultural and social) are so limited as to exclude them from the minimum acceptable way of life *in the Member State in which they live*[5]" (EEC 1985 art. 1.2). The introduction of the geographical element, with respect to the no-longer so generic concept of poverty, opens the reasoning to a fundamental question for understanding the theme, namely its relativity: there is no unequivocal definition, because poverty itself is not always equal, nor does it present itself in the same way in different social contexts and physical places (Mack, Lansley 1985, Halleröd 1998, Dickes, Fusco, Marlier 2010). This is what Adam Smith expressed, anticipating by about 200 years Townsend's (1970) concept of *relative poverty*: "by necessaries I understand not only the commodities which are indispensably necessary for the support of life, but whatever the custom of the country renders it indecent for creditable people, even of the lowest order, to be without [...]" (Cannan 1904: 354).

Linguistic definitions have now been joined by algebraic formulas, as frequently adopted in statistical and economic survey contexts. Although mathematical objectivity makes the quantitative assessment of the issue more certain, the concept of destitution still remains complex to describe because of numerical parameters that modify the "access threshold", thus further multiplying the points of view: absolute poverty, relative poverty, headcount index, income gap ratio, poverty gap index, line of poverty etc. are all indicators that complicate the description of a profile of the state of destitution. A "shifting boundary", therefore, which precisely because of its "elasticity" moves the discourse onto different levels, making the identity of those for whom affordable housing is intended yet more complex.

Despite the difficulties outlined so far, it is clear that the phenomenon is wide-ranging and by no means geographically confined, as shown initially, and that the possibility of access to housing – or to what is more generally defined as "decent accommodation" – is a decisively

2 https://commons.wikimedia.org/wiki/File:Poverty_headcount_ratio_at_1.90_a_day.png. More data and insights can be found at https://data.worldbank.org/, at https://ec.europa.eu/eurostat/web/income-and-living-conditions, and at https://www.cia.gov/the-world-factbook/field/population-below-poverty-line/

3 This is particularly true in the European context. In the USA, on the contrary, suburbs are often the chosen place for a richer section of the population who prefer detached houses and private property, while downtown areas and some peripheral neighbourhood are densely populated with migrants and people living in poverty.

4 Amartya Sen is an Indian philosopher and economist known for his critical approach to the so-called "welfare economy" and forerunner of the "capability approach" for which he was awarded the Nobel Prize in 1998. In addition to a vast literature on the subject, Sen's books are considered of particular importance, including, by way of example, "*Collective Choice and Social Welfare*" (1970), "*On Economic Inequality*" (1973), "*Commodities and Capabilities*" (1985), and "*Inequality Re-Examined*" (1992). For a more general introduction to the subject we recommend https://plato.stanford.edu/entries/capability-approach/

5 Italics added by the author.

discriminating factor[6]. Even in Western and economically advanced countries, owning a house, being able to use or enjoy it as an economic asset, or – conversely – not having one, is one of the most obvious criteria for recognising the living conditions of citizens and determining their level of wealth. Since the post-war period, in fact, in Europe (and particularly in Italy) housing has been considered a primary asset, in some contexts even indispensable and, as such, by extension, a right to be recognised to everyone.

In 1947, the Italian constitution enshrined the right to housing in Article 47, promoting "the access of the popular savings for home ownership". The following year, Article 25.1 of the Universal Declaration of Human Rights (UDHR), states that "everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, *housing*[7] and medical care and necessary social service [...]" (United Nation General Assembly 1948). In 2010, it was again the European Commission that introduced a fundamental concept, an absolute priority in social policies to protect the citizens of the member states, arguing that "access to affordable housing is a fundamental need and right" (EC 2010: 10).

What is affordable?

Legitimising the right to housing implies recognising its necessity for everybody. Beyond any necessary definition, refugees, migrants, homeless people, "slum dwellers", earthquake victims, and other categories of deprived people (such as the growing phenomenon of poverty among single fathers or those who have lost everything due to Covid restrictions), the poor – however they are defined – represent the category of people that most need an adequate and effective housing solution. But what solution?

In fact, we speak of affordable housing when we refer to users in a condition of both temporary and permanent indigence, and this temporal difference implies design choices that will have to guarantee functional and functional housing for short or long periods. Refugee camps, for example, built by arranging thousands of tents and makeshift shelters as if along a *cardo* and *decumanus maximus* roughly traced on the ground, respond to a need for temporality that is ill-suited to accommodate the functions necessary for the life of a community in a lasting "colony". These improvised settlements are often found in border areas, often in undefined territories with no services, as a result of war, famine, political persecution, genocide etc., and represent the extreme condition of low-cost housing for a desperate community, and, demonstrating survival instinct, transforms tents, shacks and temporary solutions into permanent dwellings, temporary settlements into permanent ones, emergency solutions into institutional ones[8].

On the contrary, we are used to making precise distinctions between the two solutions, we put them on different levels, we label them with adjectives that denote different uses, lifespans and users, we pay attention to the duration of the intervention and we use construction techniques that we would like to demonstrate distinct identities and specific purposes of use. For example, our concept of permanent residence (albeit affordable housing) is usually expressed with "traditional" solutions: masonry buildings with an ordinary appearance, often multi-storeyed to reduce construction costs, equipped with adequate sanitary facilities that comply with local regulatory standards, set in urban, albeit peripheral, contexts. The facets of affordable housing, on the other hand, create confusion, disorientation, and make operating prospects uncertain and fragile because, once again, they are ambiguous and difficult to define. Affordable housing can be anything and, at the same time, its opposite: it is low-cost, temporary and emergency housing but also, on the other hand, permanent and planned housing. The only common element would seem to be the economic value, in terms of low construction costs, well below market averages.

How, then, can one codify the operating methods concerning this residential solution? How can these notions be transformed into a design process capable of responding to housing needs and the fulfilment of those rights repeatedly sanctioned by international institutions, yet systematically disregarded by the policies of national governments and the silence in which these "uncomfortable" topics are relegated? From a design point of view, what do the experiences of Balkrishna Doshi's Aranya Housing Project[9] and Shigeru Ban's Paper Log House[10] have in common?

It is evident that, since it is impossible to give form to something that appears fluid even in its definition, there are no strict design elements that can be universally traced back to concrete experiences, or rather there are no common constructive, technological or typological characteristics that would allow the formulation of a univocal category of the "affordable product". The area to be addressed is not so much the constructional, normative or formal one, but rather that of the meanings and values derived from the principles that determine design choices, which can be summarised in four themes, four "tools" to be used with awareness and diligence.

6 Today, 24% of the world's urban population live in slums, and by 2030, about 3 billion people will be in need of proper housing (source: https://feature.undp.org/multidimensional-poverty/). This is also why the "2030 Agenda for Sustainable Development" written by United Nations Department of Economic and Social Affairs at Goal 11 "*Make cities and human settlements inclusive, safe, resilient and sustainable*" aims to "by 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums" (UN General Assembly 2015).

7 Italics added by the author.

8 One of them is the Zaatari camp in Jordan. Set up in July 2012 to accommodate Syrian refugees fleeing the war, it has gradually expanded to become one of the largest Jordanian "cities" (in 2013 the UNHCR estimated a presence of over 130,000 people), self-determined and constantly expanding, with "shops" and place names, but entirely dependent on international and Jordanian humanitarian aid. A circumstance that was supposed to be limited in *time* has turned into an *indefinite* living arrangement, resulting in a condition where the absence of a social structure and government, absolute misery and lack of any resources, makes even a minimally dignified life impossible.

9 https://www.sangath.org/projects/aranya-low-cost-housing-indore/

10 http://www.shigerubanarchitects.com/works/1995_paper-log-house-kobe/index.html

Four "tools" for coding affordable housing design

The first theme-tool is probably the most ignored: *dignity*. In architectural terms, it can be understood by revealing the ever-elusive meaning of "*Existenzminimum*", one of the most misunderstood terms in the Modern Movement's vocabulary. The term, in fact, did not interpret the desire to reduce living spaces to the smallest possible size for use (as commonly understood), but the commitment to guarantee everyone the minimum size of living – and with its functions and services – necessary to allow a dignified life. Minimum dimensions below which it was not even conceivable to imagine housing solutions, because they were considered unsuitable for human habitation and insufficient to promote the social relations that characterise it. These are the teachings of Gropius, Teige, Klein and many other masters of a technical-artistic movement in which research into the dimensions, types and functions of living focused for the first time on people, the new protagonists of architectural design. Since then, as professionals of living space, architects have been called upon to ensure the "indispensable minimum", to guarantee that the outcome of their work never falls below precise standards of dignity in order to respond to economic, speculative or functional interests.

In design terms, dignity also means ensuring that affordable housing is not a building that is recognisable for its function or the cheapness of its product, i.e. that it cannot be "labelled" as a low-cost solution for poor people. In accordance with the first operational tool (the principle of dignity), affordable housing – more than any other housing solution – must be a building in which people can feel at home, but at the same time be part of a wider community in which they can participate spontaneously, without feeling "accepted" or rejected.

Avoiding a priori forms of recognisability also makes it possible to develop a more complete design method, taking into account not only the building but also its context. This is the second operational tool: *urban integration*. Affordable housing, unfortunately, is generally conceived as an intervention in a peripheral area, carried out economically and often limited to the mere construction of housing. The experience of INA-Casa (1949-63), a product of the Marshall Plan's investments in post-war reconstruction in Italy, showed an exemplary operating method (Di Biagi 2001). The buildings, constructed to provide housing for low-income workers, were the result of commissions given to the best designers of the time; common guidelines for all projects provided the tools to measure up to; new design languages synthesised the characteristics of existing ones; simple materials and technologies guaranteed cost containment, allowing complex solutions in urban contexts capable of uniting the different scales of the project. It was not a single dwelling or a single house project, but entire neighbourhoods, integrated with their surroundings and equipped with services and public spaces, an expedient aimed at avoiding forms of segregation or exclusion from the rest of the city. Even today, housing, services and public spaces (the protagonists of contemporary social housing projects) must be conceived as the inseparable triad for creating economic housing, a complex score in which each element contributes to supporting and enhancing the other two.

However, a good housing solution is also the result of the set of relationships that the inhabitants manage to establish among themselves, with the place and with the building that houses them[11]. The numerous experiments launched in the late 1960s and early 1970s introduced and tested the themes of *participation* and *sharing*, which have recently returned to widespread use at an international level. Involving residents not only in the investigation and design stage, but also in the construction and management of housing and common spaces, is one of the factors that have proved to be most decisive for the success of low-cost housing projects. In this context, in particular, it is important to build not only a building – the physical environment – but also a community or, at least, to foster the development of a sense of community and active participation in the use of the common facilities which, indirectly, also strengthens the bond between people and the place where they live. It is a relationship of identity as well as a utilitarian one in which, by encouraging a virtuous attitude and supporting residents to take part in public affairs, the contribution of each person to the wellbeing of everyone is valued.

The concept introduced by Habraken (1972) with the solution known as "Support and Infill" expresses well, even today, an approach that seems to be particularly effective in certain contexts, first and foremost that of low-cost housing. The imposition of housing models developed in the abstract and at a distance (i.e. without the involvement of the future community of residents in either the creative or management phases) is unlikely to meet the needs of users, especially if they are numerous, as is usually the case in collective housing. The recent award-winning experiences of Taller de Chile at Quinta Monroy attest to this, following in the footsteps of the not-so-utopian visions of Dutch Structuralism some 50 years ago.

Last but not least, *sustainability*, both in terms of environmental impact and feasibility of the work. In recent years, sustainability has proved to be a central theme in the field of design, which increasingly requires sensitivity to environmental issues, a characteristic that, until a few years ago, was the prerogative of a few visionary designers.

Sustainability is also an ambiguous term, often associated with ecological actions or economic choices that seem to strongly constrain the architect's freedom of expression. In reality, in the context of affordable housing, sustainability should be understood above all as research into, and in-depth knowledge of, local construction techniques, allowing the use of unskilled labour (which is therefore cheaper) and the use of raw materials readily available *in loco*, so as to reduce transport and construction costs. This last operational "tool", therefore, implies not only an increasingly desirable attention to the impact of building on the environment, but also a careful pre-planning to identify the most appropriate solutions for the context in which one intends to

11 The theme has been widely investigated on many occasions, in particular within the Dutch Constructivism movement (e.g. the experiences of Van Eyck and Bakema) and Team X. As far as the Italian experience is concerned, we must not forget the contribution of De Carlo. In any case, it is worth remembering Hertzberger's text (1973), a true guide for addressing these studies.

work, taking into strong consideration the aspects of technical, economic and social feasibility of the intervention: once again, the management of this tool depends largely on the sensitivity of the designer, today increasingly called upon to respond not only to aesthetic and formal issues.

In this scenario, it would be desirable for interventions to take the form of integrated residential projects that are connected to the surrounding urban fabric, comprising services and workspaces in which residents can carry out activities that result in their partial or total economic autonomy, which in turn would facilitate their integration with the host community. Theatres, restaurants, vegetable gardens, workshops, study centres, etc. are just some of the options that can be designed *for* – but also *with* – the residents in order to generate micro-communities open to the rest of the neighbourhood (or the city), in which the prospect of self-sufficiency and participation in public life, including through the development of a local micro-economy, can give dignity to the actors in these initiatives.

The synthesis of affordable housing therefore requires an extremely complex, delicate and sensitive approach. It is not enough to have design skills, it is necessary to know how to deal with the various issues of the creation – not only technical – of this form of housing, broadening professional knowledge in order to promote the best possible quality of life for the not-yet-known residents. When designing this type of housing, it is not enough for the buildings to be made of adobe, brick, reinforced concrete, cardboard tubes or bamboo, or for the courtyard-, in-line- or tower type to be adopted, it is necessary to bear in mind that what is being designed is not just a *house* or a shelter, but an environment where the inhabitants can truly feel at *home*; an environment that is not limited to one's own dwelling, but extends to all the social relationships between the residents of the entire neighbourhood.

A certain presumptuousness is common among many of us architects: we sometimes think that our skillset extends far beyond the field of the built environment. However, our real strength lies in the fact that we have in-depth training in the culture of living, that we have the essential tools to meet the needs of users – all users, and that we can imagine spaces in which the desired relationships can come to life, an articulated and complex environment, full of subjective and collective meanings, manifesting itself preferably in the participation of residents in public and collective life.

It is our task to pursue this objective, imagining *civitas* and designing *urbs*, creating a city in which "no one is left behind", reflecting the imagery proposed by Lorenzetti's fresco, an "*imago urbis*" that does not only materialise in the buildings and squares of which it is composed, but also in the actions and relationships that just the spaces we design can welcome and encourage.

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The Future of Architecture as a Weather Report

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An outlook

We live in terrible times. If you walk over the asphalt in the full sun in summer, the temperature will be at least 68°C – and it can get much higher, up to the temperature required to fry an egg. As dangerous as this may be, billions of people are doing it every single day, and the future looks like many more of us will be walking on frying pans this century. Joking aside, the hot cities of today are the birthplace of our current civilisation, the cradle of major inventions and the places where human life and activities are bursting. Many of them are huge metropolises surrounded by vast squatter settlements and are situated in the tropical and subtropical zones. And yet, strangely enough, our current image of an ideal city is firmly oriented towards a middle-class, middle-size, middle-height, moderate-traffic urban structure situated in a disaster-free, moderate-climate environment. The ideal city of today is a kind of *aurea mediocritas*, or the golden mean, or the ideal middle way as the ancient Romans would have put it; an *ideal typus* of a human-scale sustainable green city that is shared now by a trans-ideological global middle class in search of a less meaningless and stressful life for themselves, and for a safe future for their children.

Nonetheless, our cities are not just scarily hot, but, depending on the place and season, might also be freezing, wet, dry, noisy, burning, rioting, polluted and fraught with any number of apocalypses in the making, which, for now, we experience only in short episodes, but which everybody imagines as a general dystopian future. The climate has gone wild not just in the news, but in the design studios as well. Near-zero-energy buildings, carbon neutrality, green buildings, recycling, upcycling, resilience and many more other concepts are firmly taking their place in policy documents, norms and general legislation. It is not anymore a cultural choice, but it rather constitutes a set of legal norms that we all have to follow. But are we actually building for a future climate, and if so, does the nature of our designs change in the same way the weather does?

A weather report appears not to be a project – or is it? I will try to elaborate on the linguistic *décalque* that created the two nouns with complementary meanings: project and projection. We can easily see that a weather forecast certainly is a prediction, but the weather report is not just that; rather it is the manifestation of a complete scientific exercise that also happens to have a cultural form. In this respect, many aspects of the planned environment that are represented on our architectural plans and in our urban design projects are, to various degrees, projections of the future. We sometimes focus more on the future on purpose, like in our current projects, or we just incorporate these aspects mechanically as we recirculate standard visions of the future.

But not all of them, and not all of their parts, since architectural design is one of the most conservative professions in the world, with predominantly dull responses to various constraints. A project is usually a short-term answer to some pressing demands, a projection of things that follow from the current state. So is the weather report, an equally technical exercise based on solid scientific knowledge, an exercise that analyses the immediate past in order to determine the immediate future. It looks a lot more deterministic than planning, stripped of the unpredictability of human agency and governed by the laws of nature. Few people know that the most powerful computers in the world and the most sophisticated mathematical research are involved

in the prediction of the weather. We all assume by default that NASA is the pinnacle of scientific knowledge, but if you are a Ninja-level mathematician you are more likely to work for a meteorological organisation. Nonetheless, what we usually see in weather reports are not the sophisticated data collection equipment and the small army of geniuses involved in the complex and bizarre science of cloud and wind choreography, but the nice people on the news who point to geographically unfamiliar places with kindergarten-style labels attached to them. They also show us the cyclones and anti-cyclones as if they were animated by Van Gogh, but the actual thing they are working on is not a map, but a spatial model.

Meteorologists have to represent the immediate past and then a projection of the immediate future, with their entire activity being a struggle to illustrate complex architectures of clouds moving alongside wind boulevards. In this respect, it seems to me that this is quite close to what architectural projects do, especially the ones that have an explicit engagement with the future. There is a lot of science in weather prediction, but then there is also the art of wrapping the results up for the public, a public dialogue and an aesthetic of the weather report that makes it recognisable, meaningful for all ages, and equally beloved in every country. We should expect that in the future we will not only have live images of wet reporters on the ground, but live transmissions from the clouds, and not just maps, but three-dimensional models of the "atmospheric fronts" sweeping over our cities. What about architects then, and what about their struggle to illustrate the future? What are we able to provide for the general public when we engage in reflections about the future of housing, or the future of cities? Are our predictions accurate enough?

At first glance it appears to be a radically different exercise. While the weather is a natural phenomenon that we can barely influence, planning is the expression of political will, of values and explicit goals. Instead of water steam we deal with urban actors with agency; instead of Saharan heat waves we are faced with crowds of mortgage payers; and instead of precipitation we encounter people who are forced to live on the streets after a major housing crisis. Provided that all data collection machines work perfectly and that the scientific model is flawless, the business of forecasting the weather appears to be approaching a stage where it is entirely predictable, at least in the short term. Meanwhile, the evolution of a possible model of "living tomorrow" appears to be condemned to be less accurate, due to frequent unpredictable, dramatic, and random political interventions, social catastrophes – such as wars, laws for demographic control, pandemics and cultural changes. Actually, the entire evolution of planning could be framed as an answer to unpredictable social challenges, a response to history – a reaction rather than a prediction. At a first analytical glance, architecture is not a far-sighted method. Its visionary dimension is limited to its artistic aspects, forever waiting for technological advancement and the mountains of gold that would allow architects to build whatever they draw on their boards (or whatever Catia lets Frank Gehry do to her). Despite that, architecture's ambition to foresee the future is as valid as that of other areas, provided that we are ready to consider planning a discipline, and not just a trade or a skill.

The vision of the political (or, in wider terms, the social agency) side on the one hand, and the vision of the artistic side on the other, which are separating design and planning from science, take into account two major dimensions that have to do with the delicate relationship between architecture and the future. The first is a function of the highly conservative nature of design and planning that are a result of the significant constrains of the basic functions that must be taken into account, namely basic human needs and the spatial expression of rather traditional social institutions. We mostly plan for sleeping and eating. No matter how hard we try to avoid them, we always end up sleeping and eating. Planning in these domains often claims to be innovative, but as long as we take pride in our kitchen paraphernalia we are just reproducing the lifestyle of Pompeii. Some colleagues plan for praying, but there is no room for the future in praying, just an illustration of a teleology of space. Tribunals also appear to be immune to the future. Then you have other unavoidable and anti-historical constraints related to the stubborn materiality of the laws of physics, of the materials, and those of the economy. Nobody wants to move the mountains as long as their sheep are grazing on them. I purposely left aside the cultural constrains because, since we are reflecting on the relationship between architecture and the future, and on the similarities between weather prediction and architectural prediction, I propose that we should treat all the constraints that shape the design activity as if they would be forces of nature, or given parameters of various extractions that can be interpreted through a scientific grid in order to allow for an accurate prediction.

A second dimension that should prevent us from equating planning with will, vision and power – and therefore impossible to predict – is the inherent characteristic of architecture to be innovative and irrational. This is not the opposite of the first dimension, but the complementary part of the argument, for it is obvious that if it was a purely rational thing we could have left it to the masons. As a current practice, innovation is left to engineers and dictators, but they always need architects to introduce innovation (which is political and technical) and irrationality (which ends up as aesthetic and symbolic) in a disciplinary manner. Radical urban planning, large-scale interventions and weirdly shaped monumental buildings are part of the permacrisis, and it is not hard to predict that there is never enough money for what an architect wants to build, or that architects are just artists mocking rational behaviour.

The design is in itself a clime

This is another beautiful idea that comes out of language itself, since *clime* is a term used in English for a place, a region or a zone with a particular climate. "The sunnier climes of the Mediterranean" are where we architects live. We inhabit a realm in which we can afford to make cosy predictions about the future, while still acknowledging its current dystopian state. Current meteorological predictions are indeed a scientific way to look into the future, to forecast an event about which we can say that it is not entirely different from the now obsolete idea of scientific planning, in which we can define and measure the present needs, determine trends, and then give a perfectly calibrated answer about future needs. This was abandoned by central governments and handed to free-market local administrations, places from where second-tier politicians are buying design services for their (political) family visions. But the future of housing is about happiness, and this should be precisely deter-

The Future of Architecture as Weather Report

mined; no need to argue how little we have and how easy is for the clumsy and the greedy to cut down all the trees and replace them with high-tech green buildings and parking places for electric vehicles. We acknowledge that we can foresee a lot of things that will happen in the immediate future. But is this enough to take the right decisions?

The weather forecast on Romanian TV often offers a tension with our concept of an "ideal climate". Virtually all news anchors are obsessed with pointing out that the weather "is not normal for this time of the year"; it is either too hot or too cold or too windy – like it has never been before. "Not normal" is also the "*weird architecture*" criticized by the communist party establishment in China, which is the result of their own efforts to modernise the country by opening design activities to foreign architects. But what kind of wisdom do you need to predict the traffic jams in Beijing and Los Angeles? The dramatic change in the local architectural climate is much more visible than climate change. But both the climate and the built environment are closely interrelated and are currently accelerating their transformation and challenging the current cultural and technical norms. Perhaps not fast enough, as we can observe that the series of crises that dominated the past few years have not sufficiently penetrated into the practices of the architectural design world. The current dramatic convergence of several crises – sanitary, military, economic, etc. – does not yield spectacular ideas, and not even a consistent preoccupation with a more ethical approach to current practices. And this is because of the abandonment of long-term public policies, which would have been the way in which we could have tested some scientific hypotheses. Instead, we have short-term built environment forecasts in the form of investment plans, as changeable as the weather, raining down on us in the form of an urban sprawl which will catch fire because it is built quasi-illegally in the woods.

We see the weather as a short-term, unstable change of conditions, as a perpetual oscillation, while climate – the undisputed star of the current global disputes – as a more well-established set of characters that are constantly evolving towards an unpleasant final point, which is synonymous with the demise of human society, or at least with the end of our current lifestyles. This is what prompts us to reflect about the future of living. There is a division of labour in the production of the future: fear is good for informing texts, while hope produces nice drawings. But we also slowly move alongside the lines of innovation that should connect us with our grandchildren, even though nobody seems to have in mind houses for their grandchildren, since our current housing is more like a set of interchanging possibilities, rather than a permanent solution for a family that lives in a tribe on ancestral land. How should we forecast architecture in such conditions? As a short-term weather report, or as a climate change policy paper?

The climate forecast is obviously a scientific item that is much more hotly disputed than the weather report; not because of the people that are contesting the science behind climate change but because nobody is fast enough to review a forecast that is constantly being revised. Architecture is much slower; this should allow us to observe our errors in predicting its behaviour. However, this does not yet work well enough, since the essential scientific activity of critically observing the results of experiments is delegated to the dull, glossy architectural magazines of today. Accurate architectural predictions can only follow a methodology that dissects with equal precision our current architectural practice.

Despite the fact that meteorology lacks the political and economical dimensions of architecture and urbanism, it has a much stronger explanatory power. It is a dimension we should try to achieve. We may not yet be able to predict the future with the accuracy of meteorology, mainly because we have to accept the fact that, as in the case of the climate, we do not control many of the outputs, that is to say, our buildings do not belong to us, they are like the clouds, they will change their shape and aggregation state relatively soon.

The future will arrive too late for us to see it. I am not going to advise architects to start designing weather reports instead of buildings, nor to consider using the same software as meteorologists, but I would argue that by following the comparison we might be able to demolish some of the illusions of the future.

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SIEMENS-STRASSE/ VIENNA

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Location
Vienna

The Siemensstraße planning area is located in Floridsdorf, the 21st district of Vienna, and was built between 1950 and 1954. The architect Franz Schuster planned about 1700 flats as part of a fast-track building programme to compensate for the housing shortage after the Second World War.

With a view to later consolidation, small so-called duplex flats were built. The design of the individual buildings is correspondingly simple, yet the settlement makes a very independent, self-contained impression. Streets and paths run between the simple apartment buildings, and the green spaces are equipped with several playgrounds.

However, the flats are very small and therefore not well suited for large families or flat-sharing communities. The green spaces do not seem very lively either, so the settlement is in danger of slowly dying out. The task of the design project within the framework of "LIVING 2060" is to revitalise the settlement.

SIEMENS-STRASSE/ VIENNA


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A new neighbourhood – the *Siemensstraße* municipal housing complex

Wolfgang Fichna | Georg Vasold

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Georg Vasold
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To the location

By the end of the Second World War, more than 86,000 homes in Vienna had been destroyed or deemed uninhabitable, leaving around 270,000 people homeless or forced to live in ruins. Floridsdorf, the city's 21st district, located north of the river Danube, was particularly badly affected, especially by aircraft attacks: of around 10,000 houses, more than 3,000 had been destroyed or severely damaged. The reason for the heavy bombardment had been Floridsdorf's many industrial facilities, the presence of which had also resulted in a strong working-class tradition in that district since the late 19th century. In 1945, Vienna's inhabitants could only survive through international aid that was mainly provided by the Allied forces of the Soviet Union, Great Britain, the USA and France, as well as other European countries, especially Switzerland and Sweden. Five years later, reconstruction was underway and construction of the *Siemensstraße* complex, designed by architect Franz Schuster, had begun.

Red Vienna (1919–1934)

To understand Franz Schuster's work, we have to go back in time to the era of Red Vienna. While other European cities and states had barely managed to elect Social Democratic leaderships and then only for short periods after the First World War, the Social Democratic Workers' Party (SDAP) in Vienna held constant control of the city between gaining an absolute majority in the municipal election of May 1919 and the start of the Austrian Civil War in 1934.

As a result, Red Vienna was able to start a leftist project, which aimed at the creation of a "New Human" and a sustainable change in the city's culture, welfare system, economy and urban space itself. One of the most significant outcomes was the city government's municipal housing programme. This was a reaction to the miserable housing situation of the working classes since the beginning of the Industrial Revolution, which culminated in a severe housing shortage after the Great War and the subsequent collapse of the Austro-Hungarian Empire. Vienna, the former imperial capital, a European metropolis with more than 2 million inhabitants, suddenly had become the capital of a small republic of only around 6.5 million citizens. Hyperinflation and a short supply of goods further exacerbated the situation.

The city government's building programme responded to these problems, and at the same time tried to work towards a better future. This resulted in two areas of impact: on the periphery, settlements with terraced houses were built; a scheme that implemented ideas of co-operative ownership, shared infrastructure and self-administration and provided the possibility of growing fruit and vegetables as well as raising small livestock. On the other hand, huge communally managed residential blocks were constructed in the city centre, which included many community buildings, such as laundry facilities, kindergartens, schools, public baths, sport facilities, health clinics, libraries, artist studios etc. In doing so, the need for practical housing was brought in line with the demands of a new Social Democratic society. This was accomplished by providing modern and functional living spaces that adopted proven architectural concepts, such as terraces, courtyards or arcades. Well-ventilated and well-lit rooms, running water in all units, and club- and meeting rooms aimed at the promotion of social activities were intended to lead to, in Sigfried Giedion's words,

A new neighbourhood: the Siemensstraße municipal housing complex

the "humanisation of the city"[1]. Red Vienna's housing programme resulted in the construction of around 65,000 housing units, many of which still shape the city space today.

The architect Franz Schuster

Franz Schuster occupies a highly significant position in the history of 20th century Austrian architecture. However, unlike his contemporaries, such as Margarete Schütte-Lihotzky or Clemens Holzmeister, he is hardly known today. This has nothing to do with a lack of quality of his work. On the contrary, Schuster was highly innovative, and his buildings continue to impress to this day through their thorough functionality. Rather, the reason for his modest reputation lies in his vacillating ideological stance. The architect, who was already respected at a young age, apparently had no reservations about politics. He initially worked in Vienna for the Social Democrats and then worked in Frankfurt/Main under a left-liberal city government. Later Schuster earned great acclaim during *Austro-Fascism*, serving the National Socialists after the so-called *Anschluss* (the annexation of Austria).

Schuster's involvement with the Nazi regime, however, did not damage his further career. After the war, he was engaged as a powerful consultant for the reconstruction of Vienna, and in 1951 he was even awarded the *Architecture Prize of the City of Vienna* in recognition of his life's work. It is thus not surprising that he was subsequently given the prestigious job to erect the *Siemensstraße* housing complex.

A graduate of the *Vienna School of Applied Arts*, where he studied under Heinrich Tessenow, Schuster encountered the challenges of social housing at an early age. After finishing his studies, he began his professional career in 1916, first as an assistant to and later collaborator with his teacher in Hellerau near Dresden. There he was confronted with life-reforming ideas and learned to implement the principles of the so-called garden city movement. The aim of this movement was to improve the poor housing and living conditions of low-income groups by building spacious housing estates on the outskirts or in the surrounding areas of urban centres.

In 1923, Schuster returned from Dresden to Vienna and initially worked as chief architect for the *Austrian Union of Settlements and Allotment Gardens* (*Österreichischer Verband für Siedlungs- und Kleingartenwesen*). This was a highly formative time for him. On the one hand, he became acquainted with the most progressive forces of the domestic architectural scene, including Adolf Loos, Margarete (Schütte-) Lihotzky and Josef Frank. On the other hand, he made his first mark as an architect of large housing estates. Together with his long-time companion Franz Schacherl, he built, among other projects, the *Siedlung am Wasserturm* in Vienna's 10th district (Favoriten), which in many respects foreshadowed the *Siemensstraße* project.

In 1927, Schuster again left Vienna and returned to Germany, this time to Frankfurt/Main, then a centre of European modernism. As an employee of Ernst May, the spirited rector of the housing development programme *New Frankfurt*, Schuster was involved in the planning of the Westhausen settlement. This settlement in particular was relevant to Schuster's further development as an architect, because in the course of its planning there were long discussions about the minimum size of housing units. In light of the economic crisis of the late 1920s and the resulting housing shortage, Ernst May decided to henceforth build so-called *"Übergangskleinstwohnungen" (transitional micro-apartments)* of only 40m² (430ft²) each, which – according to May's intentions – would later be merged to form apartments of ordinary size once the economic situation had improved. Here, in these discussions, lies the origin of the duplex system, which later also was applied in the *Siemensstraße* housing complex.

The 1920s and early 1930s show Schuster, however, not only as an architect of housing estates and large housing complexes. He was also the co-editor of the influential magazine *"Der Aufbau"*; he taught at the Frankfurt School of Arts and Crafts *("Städelschule")* and from 1936 onwards at the Vienna School of Applied Arts (today: University of Applied Arts). Additionally, he worked as a designer and developed the so-called *"Aufbaumöbel"* (modular furniture that allowed the assembly of more than 100 different pieces by combining only four basic elements), he was active as a planner of numerous cultural and recreational facilities, and, last but not least, he increasingly focused his work on the area of kindergarten and school construction.

During the dark years of Austro-Fascism and National Socialism, Schuster's main activity was teaching. Until 1945, he taught about 100 students in Vienna, among them a strikingly large number of women.

After the war, in the days of Vienna's reconstruction, Schuster's active support was very welcome to the authorities. From 1947 to 1951 and again from 1954 to 1955 he built, together with Friedrich Pongratz, Stefan Simony and Eugen Wörle, the *Per Albin Hansson* housing estate in the south of Vienna. This project was highly ambitious, both in terms of its construction (the challenge was to make do with scarce or only poor-quality building materials) and in terms of its size and facilities (the settlement comprised a grocery store, a doctor's surgery, an elementary school, a kindergarten, and an old people's home). The *Per Albin Hansson* housing estate was so successful that it was repeated: while it was still under construction, the municipality decided to respond to the large-scale project in the south of Vienna with a similar one in the north of the city. In May 1950, Schuster presented the first drafts of his new housing estate at *Siemensstraße* to the public. In June of the same year, the excavation works began and by August 4th, 1950 the foundation had been laid.

The post-war Rapid Building Programme

After the collapse of the Third Reich, Vienna's administration became Social Democratic once again. It immediately established a building programme, which, however, only slowly gained momentum. As a response, a so-called "Rapid Building Program" was launched by the end of the 1940s, which led to the construction of 4,000 new homes by 1954. The initiator of this programme was city councillor Franz Jonas (1899–1974, Mayor of Vienna since 1951,

1 Sigfried Giedion, *Architektur und Gemeinschaft* (Hamburg: Rowohlt, 1956), p. 70.

A new neighbourhood: the Siemensstraße municipal housing complex

President of Austria since 1965). Franz Schuster was one of the driving forces behind the programme, although he had to remain behind the scenes, because of his prior involvement with National Socialism. Nevertheless, Schuster became the leading architect during the period of the reconstruction in the 1940s and 1950s. The year 1950 marked the beginning of the realisation of Schuster's main project within the "Rapid Building Programme": the *Siemensstraße* housing estate with more than 1,700 accommodation units. This project ranks among the pioneering achievements of the era of reconstruction and attracted international attention when it was presented as an example of high-quality and affordable housing at an exhibition in New Delhi, India.

Schuster's ideas were deeply rooted in Red Vienna's architecture. But his new concept, the "New Neighbourhood", followed British and Swedish concepts of urban development and aimed at a new form of metropolitan communal life. The utopian and ideological concept of Red Vienna's "New Human" was no longer relevant. In addition, National Socialism's concept of a racial collective that had led directly to the Holocaust had poisoned any form of community in the German-speaking world. The "New Neighbourhood" was intended to step into the breach, taking into account the needs of a traumatised post-war society. In other words, Schuster's concept, although following on from pre-war visions, had to be much more pragmatic, since not only was the contemporary society ageing, but many of the surviving soldiers were still held as prisoners of war, and there were huge numbers of war invalids, orphans and widows. The "New Neighbourhood" also had to organise the co-existence of victims and offenders of National Socialism and at the same time reshape the spaces of post-war Vienna.

The structure of the estate and the so-called Duplex system

According to Schuster's conviction that architecture must develop organically, the *Siemensstraße* estate was integrated into Floridsdorf's structure, opening up green spaces and creating connections to historic village centres and the surrounding agricultural and industrial areas. Nature was Schuster's teacher throughout his life, which explains the generous green space planning: of the total 174,000m² (17.4 hectares) of the development, just 36,000m² (3.6 hectares) are built up. The remaining area consists of dense planting, such as trees, hedges, tree-lined avenues and meadows.

Just as in the *Per Albin Hansson* housing estate, great importance was placed on infrastructure. For example, there were numerous shopping facilities in the settlement (a baker, a butcher, a shoemaker, etc.), but also a *Volksheim* (a venue for events, lectures and adult education), a doctor's surgery, public baths *("Tröpferlbad")*, a home for the elderly *("Heimstätte für alte Menschen")*, a children's outdoor swimming pool, a kindergarten and several restaurants.

Perhaps the most important element of the settlement, however, was the realisation of the so-called duplex system. It consists of two small dwellings (around 30m²/323ft² each) that were arranged in such a way that they could be combined into one "normal-sized" apartment with minimal effort. This was supposed to happen once the housing shortage in Vienna had been overcome. In reality, though, relatively few of the apartments in the *Siemensstraße* estate were ever combined, not least because in each case one party would have had to move out. Each small dwelling originally had a kitchen/diner, a bedroom and a toilet. Essentially, at the time there was no alternative to the construction of such small and micro apartments. If the decision had not been made to build what critics at the time derided as "midget apartments" (*Liliputwohnungen*), huge numbers of people looking for housing would have been forced to live in hastily assembled barracks. This was not only avoided for reasons of safety, but especially for reasons of public hygiene.

The *Siemensstraße* housing estate is without doubt one of the outstanding achievements of post-war architecture in Vienna. Certainly there were numerous challenges for Schuster to overcome; the lack of high-quality building materials, for example, posed an enormous problem. And the residents – mainly young families – also had to make many compromises: the modest size of the living space and above all the lack of a private bathroom were perceived as a burden. Nevertheless, after the traumatic war years, the settlement offered thousands of residents of Vienna a modern home. The curating process for the exhibition "Terra Nova – The *Siemensstraße* Housing Complex" (2020) included interviews with a group of contemporary witnesses who had grown up in the settlement, some of whom still live there today. Their recollections of their youth and of their general living conditions at the time are predominantly positive.

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Social housing in Vienna

Markus Tomaselli

Social housing in Vienna

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History of site's housing tradition

Markus Tomaselli
Born in 1962 in Innsbruck, Austria. Vienna-based self-employed architect since 1996, with a focus on architectural and urban design and urban redevelopment strategies. Since 1996, he has been teaching urban design at the Vienna University of Technology, and in 2013 he was appointed Head of the Institute for Urban Planning, Landscape Architecture and Design at the TU Vienna. Several visiting professorships in Europe and Latin America.

The city of Vienna has been famous around the globe for its housing programme for more than a hundred years, and today is also known for the fact that a large part of the population lives in apartments whose rent levels are subject to rent control by the City of Vienna.

This circumstance has its origin in the great hardship experienced by large parts of the urban population, starting with the late industrialisation in the Austro-Hungarian Empire, but above all as a consequence of the collapse of the monarchy and the ensuing migration to the former capital.

"A housing census conducted in 1917 revealed that 92% of all apartments that existed at that time did not have a toilet and 95% of all apartments were without plumbing. Workers' apartments in Vienna had an average size of 20 m², and as a result 58% of people in working-class families did not have their own bed. The surrounding area was also cramped, as 85% of the area was built up with residential blocks of four to five storeys. Those who did not have to live in one of the many "corridor kitchen houses", which had neither windows nor direct ventilation, could consider themselves lucky."[1]

In the 1920s, and indeed as early as May 1919, a few months after the end of the dual monarchy, the Social Democrats became the strongest political force in Vienna. This marked the beginning of the construction of social housing for the countless workers who had come to the capital from the former crown lands. The Social Democrat government of the First Republic (1918-1934) saw the urgent need to improve the quality of life of the working classes and constructed large housing complexes that would offer their residents significantly improved living conditions and were affordable. The social buildings worked as nearly independent urban quarters in the city and were mostly planned in the form of "perimeter developments". The reason for this was, on the one hand, the semi-public communication zone in the large courtyards, from where the social facilities were accessible; but also a certain class-related unity found expression through this: a large architectural gesture (archway) leads into the mostly green inner courtyard, from which the individual stairwells could be accessed. Children's swimming pools, union-affiliated grocery stores ("*Konsum*"), launderettes, communal bathrooms and communal kitchens, or kindergartens were also built in the community buildings. Many of the architects were students of Otto Wagner at the Academy of Fine Arts. Karl Ehn, one of those students, planned the famous Karl-Marx-Hof containing ca. 1,300 apartments. Beside the Sandleitenhof with its 1,500 apartments, the Karl Marx Hof is the flagship of housing in "Red Vienna" of the interwar period. Located in the Karl-Marx-Hof is the museum "*Im Waschsalon*" ("*At the launderette*"), which documents the communal housing of that era very well. The site where the museum is now located used to be the communal bathrooms of the housing complex, before the infrastructure of the complex was renewed by installing bathrooms and lifts and merging flats.

Between 1923 and 1934, this housing programme resulted in the construction of over 60,000 apartments in apartment blocks and over 5,000 apartments in terraced housing estates.

1 https://de.wikipedia.org/wiki/Karl-Marx-Hof

Social housing in Vienna

These settlements, the second pillar of the Social Democrat housing programme of the interwar period, began as informal settlements on the periphery of the city and these self-initiatives were formalised and structured through guided processes. The Vienna "*Werkbundsiedlung*", a building project resulting in the construction of a total of 70 simple low-cost houses for "Siedler" (residents who settled in self-constructed simple dwellings on the city periphery), had been initiated by Josef Frank and ran from 1929 to 1932, involving renowned architects such as Josef Hoffmann, Gerrit Rietveld and Adolf Loos, among others. Loos also served as architect to the Viennese "Siedler" movement (cf. his legendary "*Haus mit einer Mauer*").[2]

The stock of 220,000 municipal apartments – which is a quarter of Vienna's total housing stock – therefore today can look back on a history of almost a century. Many of these buildings, containing these rented apartments owned by the City of Vienna, are now listed as historic monuments, especially the so-called "superblocks" that still define the urban landscape of entire neighbourhoods. After Austro-Fascism and the Second World War, the housing programme was resumed. Initially, due to the post-war poverty, with smaller reconstruction projects, but starting from the 1960s and up to the 1980s also with the construction of larger housing estates, which allowed the distribution of social housing throughout the city.

In total, there are more than 900,000 apartments in Vienna, and 60% of Vienna's population lives in affordable or subsidised housing. In addition to municipal housing, the rental housing market in Vienna is further supported by some 200,000 additional affordable housing units built by non-profit housing developers. These have been and are being built with subsidies.

However, housing subsidies are also used for the refurbishment of "*Gründerzeit*" buildings as part of the "*Sanfte Wiener Stadterneuerung*" (Gentle Viennese Urban Renewal), a UN-awarded subsidy programme for the refurbishment of historic city districts. The rent collected in such subsidised renovated residential buildings is used exclusively to refinance the renovation costs for a number of years. This approach has made it possible to upgrade many "*Gründerzeit*" neighbourhoods without displacing the resident population.

The high number of affordable housing units in Vienna is generally viewed positively, but the high-income threshold for eligibility for these units is often criticised. The trade-off between social targeting and social mix undoubtedly exists in Vienna as well, but the frequent demand to open up social housing exclusively to very low-income households makes social mixing difficult and causes social segregation in the city The negative effects of such socially-uniform housing developments have been widely known since Pruitt-Igoe.[3] In Vienna, the policy of social inclusion has so far succeeded in largely avoiding subsidised housing with the potential for social problems.

In order to make social housing possible, not only suitable legal and financial framework conditions are required, but also land. In the City of Vienna, there has been a non-profit fund for this purpose since the 1980s, the "*Wohnfonds Wien*" (Vienna Housing Fund).[4] This fund is responsible for providing the necessary land for social housing in Vienna. Increasing land costs make this stockpiling of land for future development and growth of the city more and more difficult.

The quality assurance of social housing in Vienna could be ensured by developer competitions and the land advisory board. In recent years, these procedures have made it possible to achieve higher quality standards in social housing than in many privately financed projects. (For more information, see footnote 4.) Currently, the Housing Fund in Vienna owns approximately 200 hectares of land reserves. The allocation of subsidies for residential construction in Vienna is carried out by the "Land Advisory Board". This board covers the assessment areas of architecture, landscape planning, building ecology, urban planning, social sustainability and economy. It assesses projects with fewer than 300 apartments that are built by developers on their own land and also serves as a jury for developer competitions. These developer competitions are designed to provide the highest possible quality of housing while maintaining affordable rents and are handled by project teams of developers and architects and submitted in the form of architectural design with construction cost calculations. The assessment of the projects is carried out by the property advisory board on the basis of the four-pillar model, (social sustainability, architecture, economy and ecology). The evaluation criteria have been continuously updated. Whereas economic aspects of cost limitation were originally the main focus of the competitions, architecture and urban design have gained in importance in the meantime. In recent months, the high-cost pressure in the construction industry and the volatility of construction prices have increasingly led to a discrepancy between desired quality and financial viability, or made cost calculations impossible.

A further development of the Viennese model of social housing, taking into account the social and economic framework conditions, therefore remains indispensable for the future.

2 Burkhardt Rukschcio / Roland Schachel: "*Adolf Loos. Leben und Werk.*" Salzburg: Residenz Verlag 1987, p. 539 ff.

3 http://www.pruitt-igoe.com

4 https://www.wohnfonds.wien.at

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GREEN REVIVAL

2/1

Project drafts Vienna

STUDENTS
Vanessa Bik
Ivana Vulkanic

1	2	3	4	5	6
Central area • park • kindergarten • shared apartments	Community centre • Greenhouse Café • Pedestrian zone	Coworking space • Single apartements • Mobiltiy hub	Duplex apartments with wooden balconies	Assisted living with pharmacies and post office	Sports Centre and mobility hub

The concept allows conversion through minimal intervention in the listed buildings. In this way, new forms of housing and larger flats are created. New community buildings and the upgrading of green spaces enliven the settlement.

Firstly, the project envisages the restructuring of the centre. Here, the old kindergarten will be replaced with a larger one and supplemented by a playground and park. Next to the kindergarten is the Greenhouse Café, which replaces the cubature of the old building. The residential buildings adjacent to the square will be converted into a community centre with a library, youth centre and transitional housing. The square is directly accessible from the new pedestrian zone. Alongside it there are several small shops and restaurants that will be preserved and upgraded. In the northeast, a co-working area with individual flats is being created using the existing low-rise residential buildings.

In a further step, the existing residential buildings will be restructured. The low-rise buildings close to the centre will be raised to three storeys. This will make it possible to create larger residential communities with up to 6 people. The floor plans of the maisonettes will also be restructured and extended with balconies.

Ultimately, assisted living will be created in the old residential structure to the east of the kindergarten. A sports centre with a second mobility hub is planned on the existing green space next to the university. By converting obsolete housing and upgrading the green spaces, new life can be created without having to demolish the existing structure. All additions and extensions are clearly distinguished from the existing buildings using timber construction.

GREEN REVIVAL

2/1 ■

SIEMENS-STRASSE 1000+

2/2

Project drafts Vienna

STUDENTS
Behnam Akbarzadehghorbani
Lutfia Nuri
Mario Volenszki

The “Siemensstraße 1000+” project aims to revise the original settlement planned by Franz Schuster in the 1950s. In order to increase density, all existing 2/3-storey buildings will be upgraded and extended with prefabricated roof structures to raise the standard of living. Combined with new structures instead of the single-storey terraced houses, over 1000 new flats and rooms could be created. The buildings can be used for housing or as workplaces and public spaces. With such diversity of use, the settlement becomes a more lively place. The new structures should be built from sustainable materials, while preserving the original structures and rural flair. In addition, the landscape will be transformed into a more usable space for the residents.

The terraced houses in the original Siemensstraße settlement play a major role, but, as the city grows, are no longer up-to-date. To increase density, they are being replaced by 13 wooden houses. To create the original flair and sense of togetherness, each building will comprise four full storeys with gable roofs and attic flats. The upper floors are flats, while the ground floor has a variety of uses. Such mixed-use areas are essential, as the original structures do not include such spaces. A column grid is used for the buildings, which allows for easy modification of the floor plans as well as allowing for changes in function. The four buildings in the middle of the settlement area are part of the new residential development, which are planned in a different typology. Together with the park, these buildings symbolise the new community centre, which will house public functions, a health centre for older residents and a large canteen. The timber grid system with an inner core allows a view in all directions, reinforcing the open and inviting character.

In general, the area’s road network will not be altered as part of the development, but the kerbs are to be levelled and a shared speed-reduced area created for pedestrians, cyclists and motorists. Car sharing schemes and charging stations for various vehicles, organized via mobility points, as well as a self-driving shuttle bus along the main road are to keep the overall traffic volume as low as possible.

SIEMENS-STRASSE 100+

2/2 ■

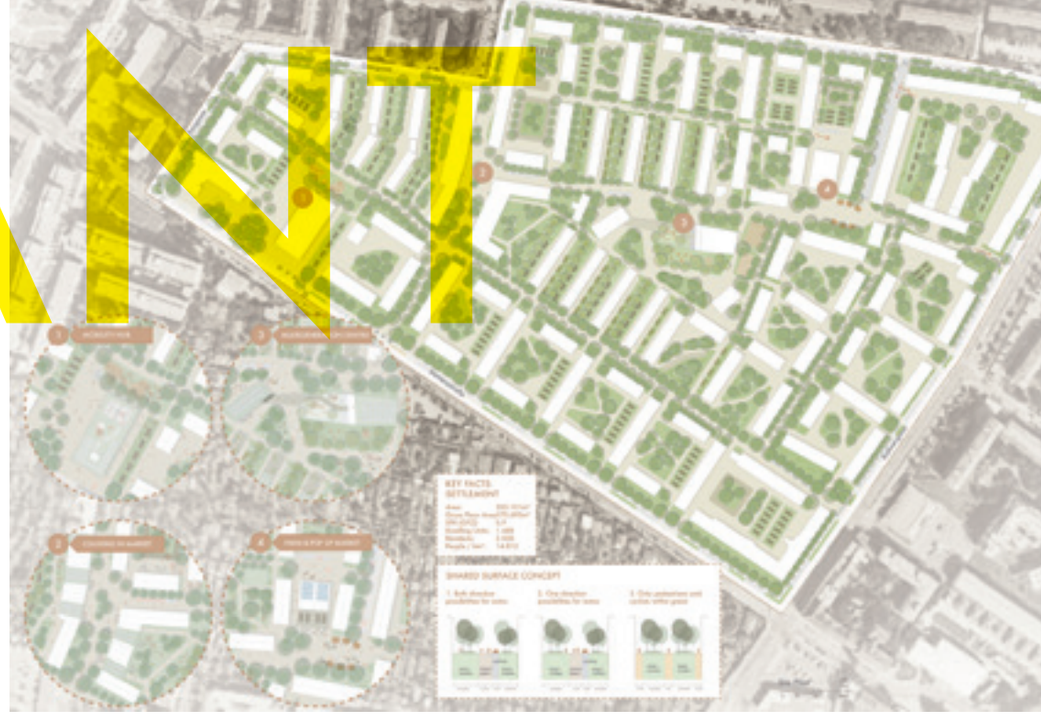
VERDANT ALLEY

CONNECTING DIVERSITY AND EMPOWERING COMMUNITIES

2/3

Project drafts Vienna

STUDENTS
Alif Faricha Almadina
Natana Char
Anna-Marie Krauss
Natascha Nepp



In order to enhance the area's dynamic, one of the project's key strategies is to create a diagonal main connection from west to northeast. It connects people, the planned multifunctional buildings, the shared street with public programmes and outdoor activities.

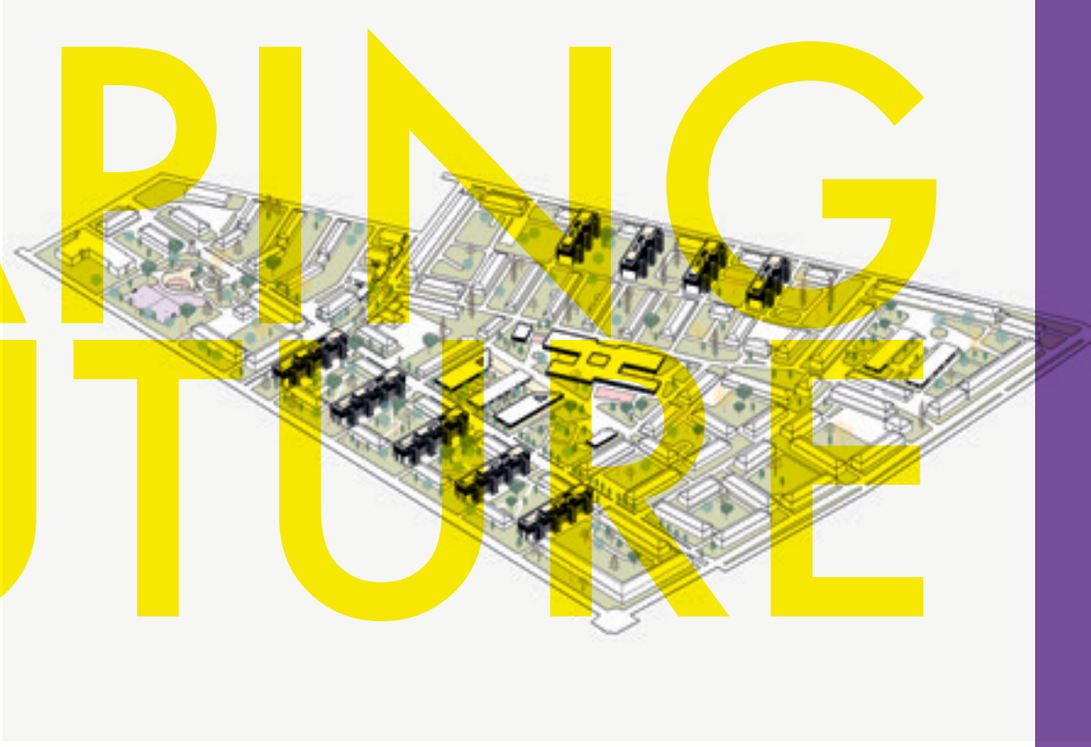
1. The MOBILITY CENTRE currently provides vertical parking, a supermarket, a mub point for e-bike and scooter rental, a co-working space and a rooftop solar array. It provides compensation for the removal of parking spaces within the site, connects to the adult education centre and playground, and provides spaces for members of the public to visit.
2. The CO-LIVING IN MARKET provides a link between flats and parts of the local market. The flats can be occupied by single parents, small groups of students or couples of any age. On the ground floor there are communal spaces (for studying, yoga or cooking together), while upstairs is the living level. CO-LIVING IN MARKET aims to stimulate a casual and vibrant flow in the area as well as strengthen the local market by bringing together local residents with new or nomadic workers. In the vicinity is also the Terra Nova Area History Museum, which is currently connected to a cultural courtyard where open-air exhibitions or film screenings may take place in the future.
3. The MULTIGENERATIONAL HOUSE offers various connections to the area and opens up new possibilities for encounters. The main objective is to extend the school by the creation of a café and a grocery shop on the ground floor. On the first floor there are connecting areas, health care facilities, activity rooms and learning spaces, including a library. The aim is to integrate the elderly directly and indirectly (visually) into the outdoor activities and the lively atmosphere of children playing and learning and to provide them with access to healthcare facilities.
4. The FARM & POP-UP MARKET also aims not only to connect people within the neighbourhood but also to run programmes with the school and residents of the area to learn how to farm in the city or participate in local production. The farmers' market also has space for shops on its ground floor, becoming the neighbourhood's "snack market". Pop-up markets can be held in front of the building from time to time, strengthening the space, the community and local businesses.

VERDANT ALLEY

2/3 ■

RESHAPING THE FUTURE

RESHAPING THE FUTURE



2/4 ◢ Project drafts Vienna

STUDENTS
Rinor Ahmetaj
Elma Mahfuzhoh
Gazmend Rashiti

The main objective of the project was to create a residential "ensemble" that encourages tree growth and neighbourly relations. Three main strategies were developed, namely the concept of sustainable architecture, accessibility and, above all, the planning of larger flats.

Car traffic is to be reduced and an autonomous e-mobility system is to be established. Green and open spaces are to be improved and the kindergarten and recreational areas expanded. To make life more pleasant for the elderly, the senior housing complex will be relocated near the kindergarten and the municipal day care centre. The former retail area will be revitalised.

Efforts have been made to preserve the authenticity of the buildings that are to be modernised. The original floor plans of the first three floors were retained while accessibility was improved. Flats on the two additional floors have been merged to create three-bedroom flats for larger families. The proposed communal spaces are located on the roof and are accessible to all residents of the building. The façades of the two additional floors are made of wood to distinguish them from the historic sections of the building. On the west side, new balconies will be created to incorporate the Fora and contribute to the vibrancy of the neighbourhood.

Mobility within a neighbourhood is a key indicator of residential quality. Our concept aims to integrate e-mobility into the centre of the settlement and thus reduce car traffic and thus pollutant emissions. E-mobility facilitates efficient movement through the use of renewable energy sources, such as solar energy. Sufficient underground parking spaces will be created in zones that are easily accessible from the main road and directly connected to e-mobility stations for transport within the settlement. The centre of the settlement will be kept car-free, transforming it into a shared place for people, e-mobility and bicycles.

RESHAPING THE FUTURE

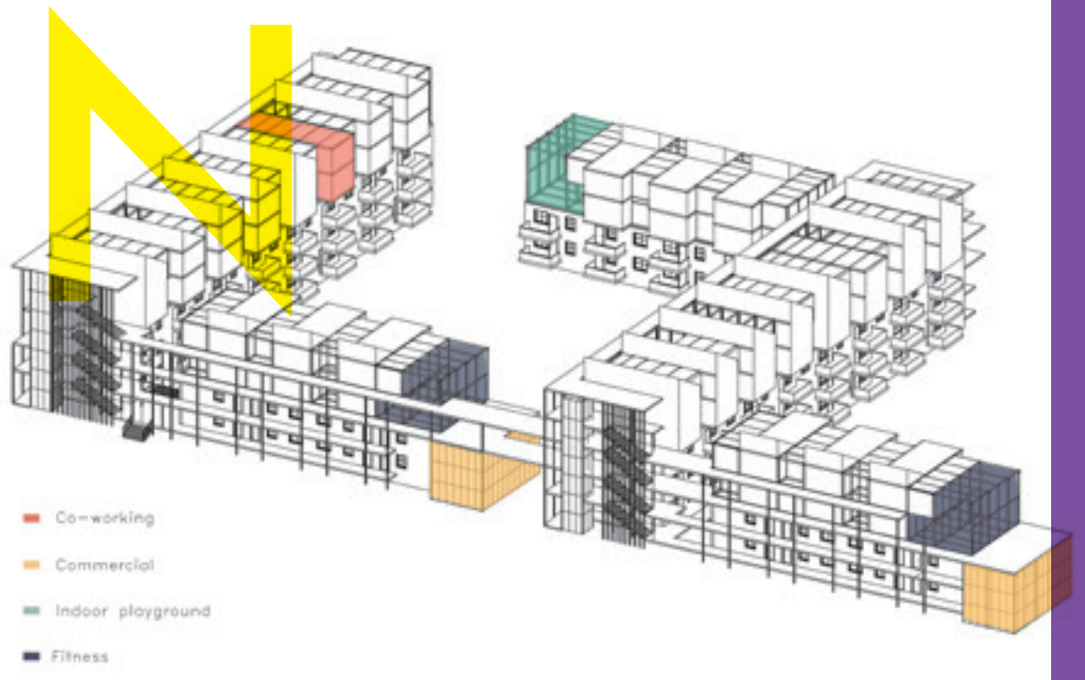
2/4 ■

PLUG IN
FROM THE EXISTING TO THE NEW

2/5

Project drafts Vienna

STUDENTS
Dina Shafira Irawan
Miriam Bellido Palau
Angelica Pedrotti

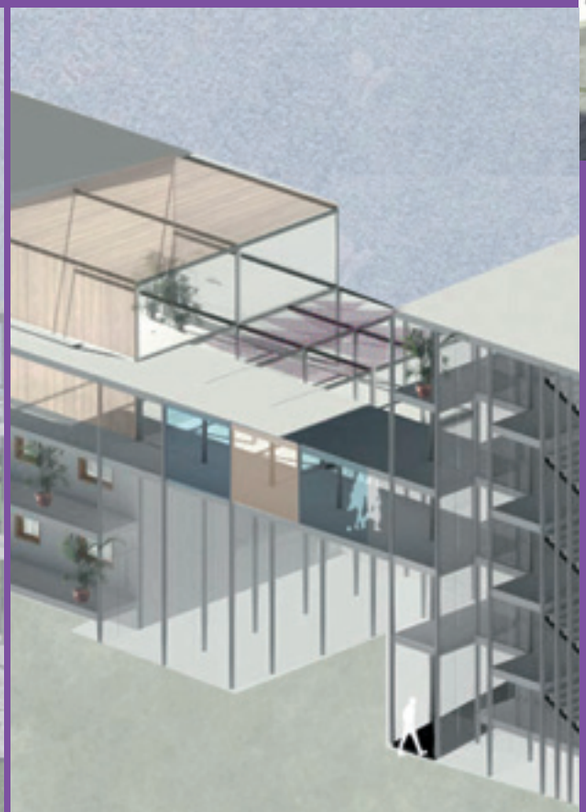


Nowadays we are confronted with the expansion of large cities – Vienna is one of them – with the resulting increase in demand for affordable housing. This leads to question of the density of already existing housing complexes. The Siemensstraße complex is used as an example to tackle this problem. The PLUG IN project aims to find a solution that is intended to be sustainable in many respects. The goals of the project can be summarised in six key points: increasing density, using sustainable building solutions, re-using existing facilities, water harvesting, renewable energy supply and accessibility. Regarding the first point, one of the goals is to create inclusive and intergenerational housing for families, students, the elderly and other groups. This is directly related to the second objective, which concerns sustainable construction. The idea is to find a creative, flexible and environmentally friendly solution for the new houses, using natural materials and including processes to reuse grey water and supply renewable energy. The plug-in concept helps to create new spaces by adding to the existing building. Materials such as wood and glass are used to give a new shape to the existing buildings and to develop solutions that create a higher quality of space. The solution of using light materials distinguishes the new and the existing structures.

By removing the existing staircase and relocating the entrance, the flats gain more space and will have an area of 74 m2 (excluding the balcony). All existing flats are converted into duplex flats. The communal rooms face the outside corridor, which is more exposed to noise or passing neighbours, while the private rooms face the garden and have their own balcony.

In the 1950s, when the Siemensstraße complex was first designed, a flat was supposed to be a private place to live, a retreat from the workplace. Today, however, this separation is no longer so clear, as technological advances make it easier to work from home. This leads to a change in the design of private spaces, as more activities can be done together. With this in mind, communal facilities have been created in all complexes, providing residents with more infrastructures for the activities of daily life.

PLUG IN



2/5 ■

DREAMING IN GREEN

2/6

Project drafts Vienna

STUDENTS
Bardelli Irene
Franchin Irene

This concept aims to improve the quality of apartments, increase the availability of public services and improve the accessibility of the apartments. It also aims to facilitate the differentiated use of green areas and common spaces, adapt the consistency and quality of the buildings and to better organise various modes of transport, such as bicycle, walking and driving.

In this way, new forms of housing will be created, through densifying the existing structure by increasing the square footage of the houses. In addition, additional storeys will be added to houses and elevators will be installed; alternating terraces will be created on the sides of the houses and new spaces for shared use (co-housing and co-working at the ends of a building typology) will be created, overlooking the central area of the development. Special attention will be paid to the redesign of the green spaces. The core idea of the project: the importance of the neighbourhood centre is that it serves the community as a place to meet and live together.

The residential buildings studied are divided into three types. The first type, single-storey terraced houses arranged on both sides of the park, will be converted into two-storey houses, in order to increase the number of available apartments and to create more space. Previously, these buildings had private front gardens, which in our model will be replaced by alternating green spaces that lead to the communal central green area. This creates a connection between the semi-private and the public green areas, characterised by pedestrian paths that lead to the centre of the neighbourhood. To promote social co-existence and interaction between residents, at the far ends of the buildings community spaces will be located (library, learning space for children, yoga and gymnastics spaces, an area for senior residents, medical facility, places of worship). The second type is a courtyard house with a central enclosure; courtyards with private green spaces and pathways to each house. The third type is a terraced house with private green spaces. The latter two types are expanded to four stories. The routes are divided into main streets that criss-cross the entire neighbourhood and can be used by cars and buses, flanked by bike lanes and pedestrian side streets. A shopping centre, cinema, schools and other services are also planned for the western area. By converting out-dated residential buildings and redesigning green spaces, it is possible to breathe new life into the Siemensstraße area.

DREAMING IN GREEN

2/6 ■

INTERZONE A PLACE IN-BETWEEN

2/7

Project drafts Vienna

STUDENTS
Ignacio Giménez Fitte
Giada Formentin
Federica Fregapane

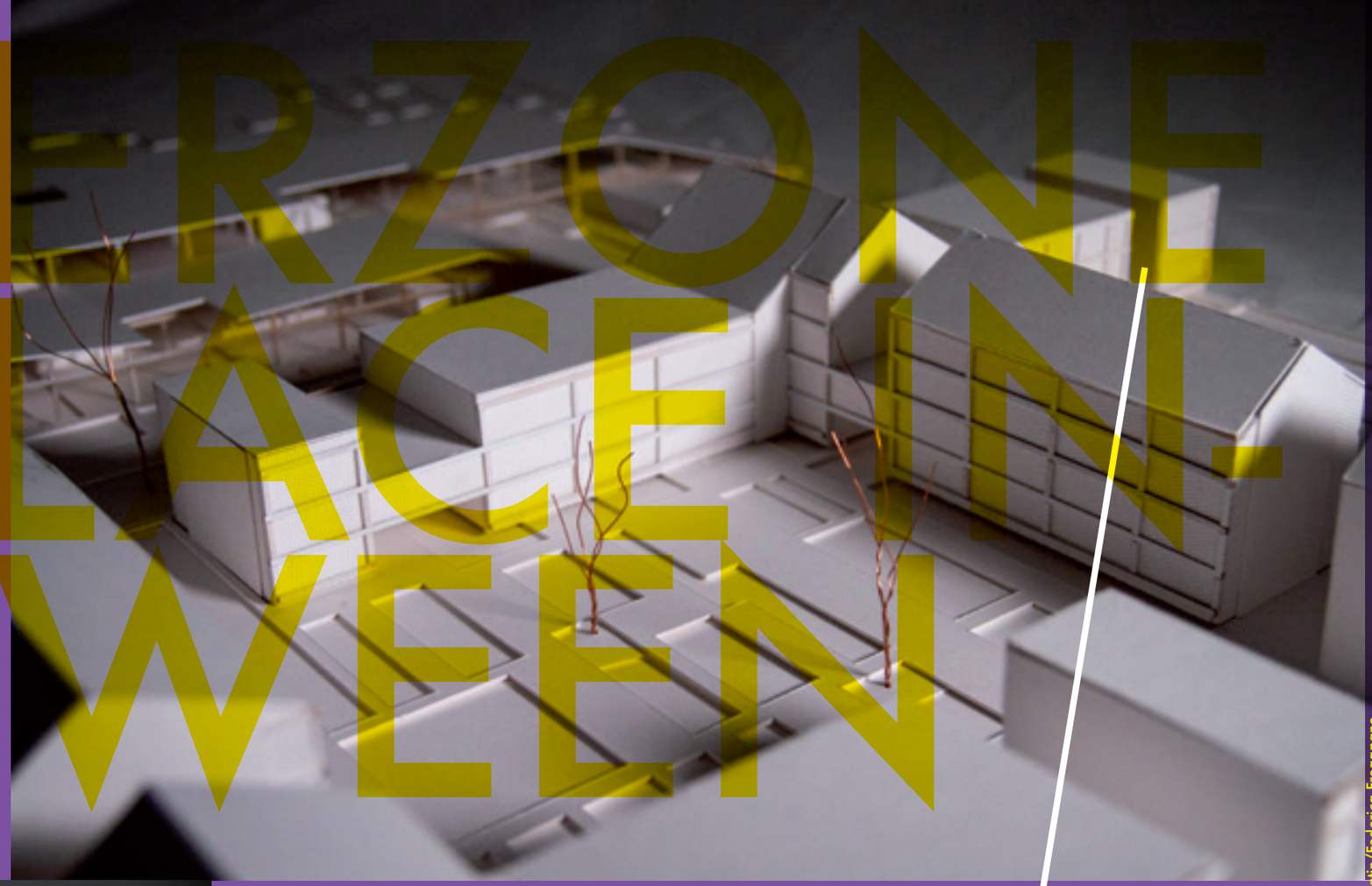
The main objective of the project is to find architectural solutions that preserve the overall historical and urban assets of the neighbourhood while creating new social housing to increase the quality of life and flexibility. Regarding traffic flow, the model of the "Barcelona Superblock" is applied: no traffic and better pedestrian connections. The existing streets are maintained and the streets within the area are only used for residents' traffic, so there is no possibility of parking in front of the houses.

The project takes existing elements and combines them into a new architectural ensemble that is at the same time contemporary, inviting and community-building, but also recognisable and compatible with the existing context. By juxtaposing existing apartment blocks and adding spaces that connect them, a special space can be realised: the "interzone". It is both a connecting area between the buildings and a distribution space. In both cases it is dedicated to the community; some roofs retain their existing slope, while others are converted into flat roofs.

The spatial layout of the floor plan is simple and flexible, as there are vacant spaces on each floor that can be used in different ways depending on the occasion. In this way, adaptable spaces are created: modular environments that can become a single room, a veranda or a study, thanks to flexible sliding walls that can also be tilted. The arrangement of the rooms, the services and the views are always arranged according to a certain logic: there are longitudinal sections dedicated only to services (such as bathroom, kitchen, hallway), while others house only rooms; in the middle there are vacant spaces. The quality of the existing houses has been enhanced by the addition of balconies and private green spaces. The buildings extend over four floors, with the ground floor in each case twice as wide as the upper floors. Single-storey flats are provided on the ground floor, while the three upper floors accommodate stacked flats. In cross-section, a greater impulse to open up to the outside is evident.

The multifunctional centre is a space divided on two levels that enclose the four blocks of the existing buildings; a longitudinal section covered by a roof that is divided on several levels to allow a variety of heights, thanks to the modulation of the inclination of the roof slopes. The centre serves various communal purposes. With the help of mobile, pivoting walls, the rooms can become a marketplace as well as a conference hall, concert hall or exhibition space.

INTERZONE
A PLACE IN-
BETWEEN



2/7 ■

ALTER vERDE

2/8

Project drafts Vienna

STUDENTS
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Andreina Romanelli
Rebecca Ruggerini

This project, of the green old “Alter vErde”, attempts to preserve the expressive character of the neighbourhood. The focus was on a respectful treatment of the existing buildings and the history of the area. Starting with a general analysis of the neighbourhood, inconsistencies were identified, as well as places that had received too little attention. The study of these spaces led to the development of a strategy that focuses on organically reorganising all the small attempts that have been made previously and independently by residents to improve the neighbourhood, thereby making these changes effective. The project was born out of a desire to give residents what they had indirectly asked for. A real sense of seclusion on the part of the residents was also identified: windows covered by heavy curtains; cigarettes smoked indoors instead of in the garden; concrete walls obscuring the view of the other buildings. All of this gives rise to a feeling of isolation, of being “closed in”.

Based on what is possible in the current context, the project tries to create a traditional architecture that stimulates social life. The main theme is the gallery, a distributive element, but also a meeting point for the residents. The buildings, equipped with lifts, are accessible via platforms and stairs connected to platforms on the public grounds of the park. In this way, both public and private areas are created, allowing residents to access their flats and citizens in general to stay and to access the communal areas on the first floor (workrooms, kitchens). On the typological level, the project envisages selective lateral extensions.

ALTER vERDE

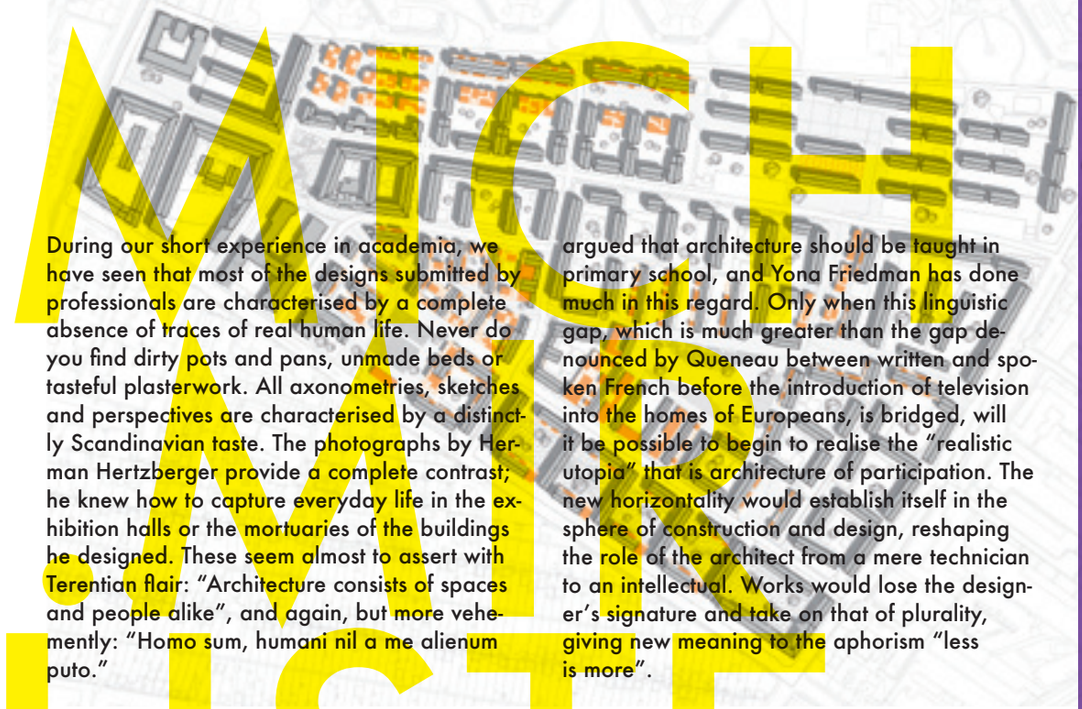
2/8 ■

RETTE MICH NACH MIR DIE WÜSTE

2/9

Project drafts Vienna

STUDENTS
Caterina Mondaini
Stefano Romagnoli
Stanislao Satta



During our short experience in academia, we have seen that most of the designs submitted by professionals are characterised by a complete absence of traces of real human life. Never do you find dirty pots and pans, unmade beds or tasteful plasterwork. All axonometries, sketches and perspectives are characterised by a distinctly Scandinavian taste. The photographs by Herman Hertzberger provide a complete contrast; he knew how to capture everyday life in the exhibition halls or the mortuaries of the buildings he designed. These seem almost to assert with Terentian flair: "Architecture consists of spaces and people alike", and again, but more vehemently: "Homo sum, humani nil a me alienum puto."

But where does the exclusion of human life in designed architecture originate? Could it be, at least in part, a general but widespread fear of "conflict"? A conflict that arises from the constant effort by architects to create order, trying to eradicate the disorder of the existing city, but only achieving the birth of another chaos that results from stratification and is capable of metabolizing every planning measure?

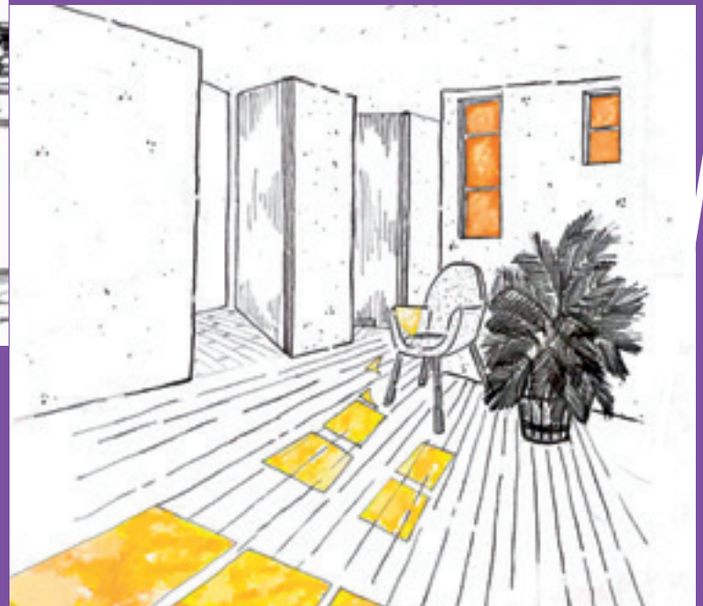
Is it not the case that the greater the internal entropy of a physical system, the greater its vitality? Could this also apply to the city? If we answer the questions posed here in the affirmative, we should infer that the lack of amenities, and thus the low visitor numbers, of recent urban expansions is due to the absence of the plural disorder created by human activity.

But then the question arises, how can it be reversed? In our view, the first obstacle is a linguistic stumbling block. Each of us is equipped with the necessary skills to perceive space, but only a small proportion can represent and communicate it according to the norms that make technical drawing a universal but poorly understood language. It is no coincidence that Derrida argued that architecture should be taught in primary school, and Yona Friedman has done much in this regard. Only when this linguistic gap, which is much greater than the gap denounced by Queneau between written and spoken French before the introduction of television into the homes of Europeans, is bridged, will it be possible to begin to realise the "realistic utopia" that is architecture of participation. The new horizontality would establish itself in the sphere of construction and design, reshaping the role of the architect from a mere technician to an intellectual. Works would lose the designer's signature and take on that of plurality, giving new meaning to the aphorism "less is more".

And if Giancarlo De Carlo argued that the design of space is the responsibility of the inhabitants, while the architectural language remains the prerogative of the architect, let us instead affirm that this is also the right of those who experience spaces. The architect is responsible for providing appropriate tools for building, tools chosen according to his or her own moral principles. Our goal, then, is to ensure that disorder can return to expression.

In view of these observations, we wanted to conduct a little experiment. We flew to Vienna, and roamed aimlessly through the outskirts of the city. And everyone we met – whether they were homeless persons, passers-by or office workers – we asked to draw how they would like their house to look. The starting points were the wire templates of elevation- and floor plans made by Schuster, with coloured pencils as travelling companions, as a stimulus for their creativity. The result – which far exceeded our expectations – is a collection of a hundred postcards that capture the needs, the germs of the genius loci and the passions of those who live, love, study and work in the Austrian capital on a daily basis.

RETTE MICH NACH MIR DIE WÜSTE



2/9 ■

OSMOSIS

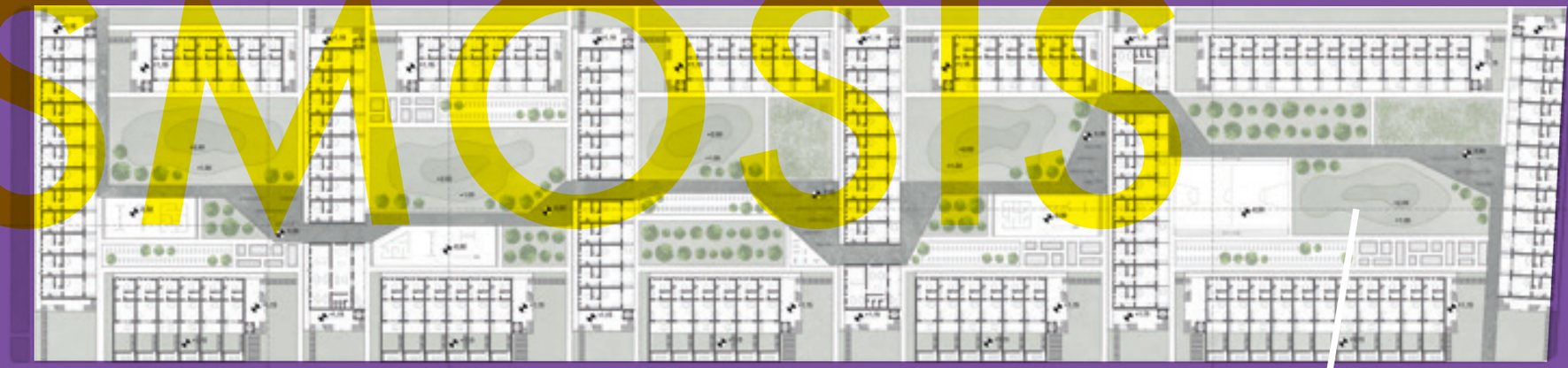
2/10

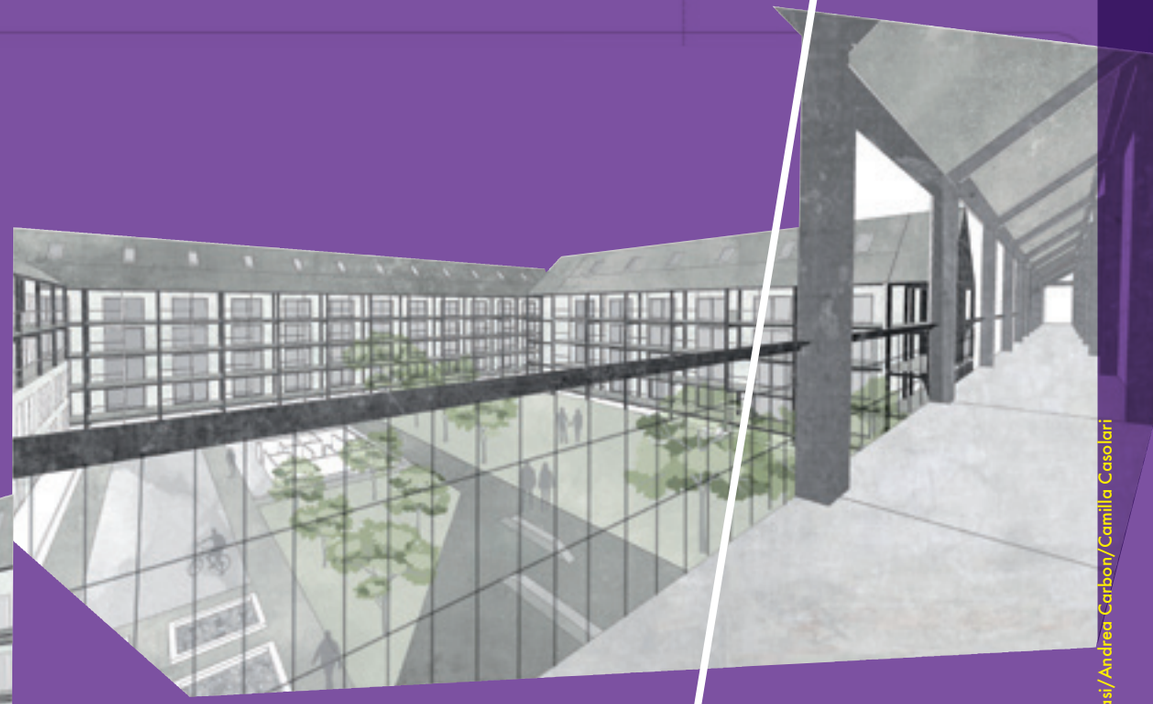
Project drafts Vienna

STUDENTS
Letizia Bittasi
Andrea Carbon
Camilla Casolari

Osmosis is a chemical process known as the spontaneous passage of water or other solvents through a semi-permeable membrane. This project seeks to make existing buildings semi-permeable so that the flow of people can pass through them and not remain in a single courtyard. The street system was designed based on the concept of superblocks in Barcelona; the aim was to remove cars from the residential area to reduce noise and smog pollution and improve comfort. An attempt was made to demolish as little of the existing building as possible and to make the extensions mainly in lightweight construction.

OSMOSIS





2/10 ■

FORMER FUEL DEPOT/ YOGYAKARTA

3

0/1*

Location
Yogyakarta

The walled and now derelict area of land that used to accommodate a fuel depot belonging to the state-run oil company Pertamina is situated in a central location not far from the railway station Lempuyangan in Yogyakarta (Java/Indonesia). The fuel tanks have long been dismantled; now a petrol station in the northeast of the site is the only clue to its former use.

The immediate surroundings of the plot are formed to the north by Jalan Argolubang (Jalan = street), with its small flower shops and the railway tracks and railway premises beyond; to the east by a small brook and an embankment that separate the plot from Kampung Pengok Kidul (an informal housing area); to the south by the directly adjacent Kampung Pengok Kidul; and to the west by the shops, restaurants and old single-family homes along the busy Jalan Dr Sutomo.

The task was to critically examine traditional residential buildings and typologies to develop concepts and visions for affordable housing for the planning area. On the one hand, a variety of housing types should be offered and, on the other hand, the special features of the planning area should be taken into account.


FORMER
FUEL DEPOT
YOGYAKARTA


SERVIS :
+ MESIN CUCI 2 TABUNG
TOP LOADING
GANTI DIGITAL/MANUAL
+ KOMPOR GAS
+ MAGICOM
+ KIPAS ANGIN
+ DISPENSER
+ BLENDER
+ SETRIKA
+ LAMPU EMERGENCY
+ DLL


3
165


Dua
SINAR
Sabar


3/0/1

Yogyakarta: exposing the living culture

An introduction to the context

Dyah Titisari Widyastuti

Dyah Titisari Widyastuti
Born in Semarang, 1971. Graduated from Universitas Gadjah Mada (Bachelor and PhD in Architecture) and University of NSW (Master of Urban Development and Design). Since 1997 she has lectured and researched architecture and urban design at Gadjah Mada University, and since 2012 has worked part-time as an urban designer at the Centre for Urban Design and Disabilities. She is involved in various research projects on the history and theory of architecture and urban areas of expertise and several other teamwork projects for urban design.

3/0/2 ◢

To the location

Culture is a complex whole that includes knowledge, beliefs, arts, morals, customs and other capabilities and habits acquired by humans as a part of society. Focusing on the beliefs and behaviours that individuals acquire not through biological descent but by growing up in a particular society where they are exposed to certain cultural traditions and activities, culture determines how we see the world around us, incorporating the conventions we acquire and pass on to the next generation. Living culture refers to beliefs, values and behaviours that shape the way of life.

Over time, the city of Yogyakarta has earned many attributes, such as the "city of culture", the "city of art", the "city of education", and the "city for tourism". These various aspects reflect the diversity of daily activities and culture that shape the way of life of its people.

Yogyakarta as the "City of Art and Culture"

Yogyakarta has a strong culture and many traditions that have been passed down from the ancestors of the Javanese and are still maintained and preserved today. There are 1,340 ethnic groups recognized in Indonesia, with the largest ethnic group in Indonesia being Javanese (40%). The majority of the population in Yogyakarta province is also Javanese (96.53%), with a total of 3,882,288 people. The character of Javanese life, in all its various social classes, puts great emphasis on social human values, such as respect for each other's position, respect for personal matters, avoiding being rude to others, sometimes expressing things indirectly, but commonly taking an active part in contributing positively to all issues, problems, and people's needs in society. The embodiment of Javanese culture in the daily lives of the people of Yogyakarta can be found in every corner of the city, from various folk arts to various types of special food. The existence of the Yogyakarta Palace and the position of the Sultan as the King of Yogyakarta as well as the Governor of the Special Region of Yogyakarta, strengthens its identity as a city of culture.

On the other hand, Yogyakarta also is home to many artists who produce traditional and contemporary works of art that continue to live and develop. Batik is a craft that has high artistic value and has been a part of Indonesian (especially Javanese) culture for a long time. In the past, Javanese women used their expertise in batik as a means of making a living, so that in the past batik work was only done by women, until the discovery of "Batik Cap" which allowed men to enter this field. Apart from batik, Yogyakarta is also famous for its silver craft. Kotagede silver is part of the traditional culture – originally in the form of gold-, silver- and copper handicrafts. However, it was silver-smithing that flourished most.

In addition, several annual arts- and cultural events, both traditional and contemporary, are regularly held in Yogyakarta. This of course further strengthens the image that art and culture have become part of the life of the people of Yogyakarta.

Yogyakarta as the "City of Education"

Yogyakarta is home to a large student population; there are many schools and univer-

Yogyakarta exposing living culture

sities, around 120 colleges and universities with a total of around 320,000 enrolled students, of which 90,000 (or around 30%) are students from outside the local area. Yogyakarta is a city that has various educational institutions of the highest quality in Indonesia. On the other hand, economically, Yogyakarta is also the place of choice for many students from all across Indonesia because the cost of living, food and housing is more affordable than in other places in Indonesia. As the main destination for students in Indonesia, with many people coming from outside the city, Yogyakarta is a very dynamic city with various ethnicities and cultures. The diversity of people makes Yogyakarta into a multicultural city because they bring their own traditions and culture to Yogyakarta from their hometowns.

Yogyakarta as the "City of Tourism"

The title of Yogyakarta as a "tourist city" illustrates the potential of this city in the sector of tourism in the country. After Bali, Yogyakarta is the second largest tourist destination in Indonesia. Many objects and attractions in Yogyakarta have become a magnet for tourist, both foreign and domestic. The various tourist destinations in the Special Region of Yogyakarta cater for cultural tourism, art tourism and nature tourism. The Kraton (Palace) and its surroundings are famous cultural and historical tourist destinations. There are also many natural tourist attractions in Yogyakarta, from the beaches in the South to Mount Merapi in the North. Yogyakarta's cultural traditions that are still strong, various tourist attractions, culinary delights and the friendliness of the people become a magnet that will attract anyone who visits the city. This is Yogyakarta's strength with which it is able to compete as a tourist destination with other cities in Indonesia. Moreover, hotels, restaurants, public transportation, and good security are reinforcing factors why many tourists come to Yogyakarta.

Yogyakarta Living Culture: Where Traditional Meet Contemporary

Living-scape

Most of the residents of Yogyakarta live in the kampung area, while some prefer to live in modern housing. Kampung is a traditional Indonesian living environment, with a strong response to the characteristics of a life that are closely connected to kinship ties. Kampung is a unique form of settlement; it cannot be equated with "slum" and "squatter" or necessarily a lower-middle class population. It can be seen here that the density of the kampung is usually quite high, with narrow streets or alleys with simple and diverse building shapes. In the kampung, the boundaries of land ownership are not always clear; open spaces can be utilised for various functions, as required. However, as a response to limited urban land and a solution for a healthier environment, flats can be commonly found in kampung areas or on riverbanks. On the other hand, besides the housing in the kampung area, there are also well-organised modern forms of housing that are generally only available to the upper middle classes.

Food-scape

In everyday life, apart from cooking their own food at home, people also often enjoy food

at food stalls or angkringan. Angkringan is a wheelbarrow for selling various kinds of food and drinks by the side of the road, to be eaten in situ. The food sold commonly comprises small portions of rice, fried foods, etc. There are also various kinds of drinks, such as tea, coffee, and ginger drinks. Cheaper prices compared to restaurants, as well as a more informal atmosphere make food stalls and angkringan the people's favourite places to eat, especially students who live far from their hometowns. Another unique aspect of Yogyakarta's food-scape is the way people eat. One popular habit is to eat while sitting on the floor (lesehan). Lesehan is a form of food trading culture where people sit on a mat or on the ground. On the other hand, there are also many restaurants and cafes that are modern places to eat, although what is sold can also be traditional food.

Shopping-scape

Traditional markets are places characterised by direct seller-buyer transactions that usually involve a bargaining process. Apart from traditional markets as a place for people to shop for their daily needs, warung is also an alternative place to shop that is very close to home. Most of them sell daily necessities such as groceries. Warung is a very small shop that is generally easily accessible by the local community, usually a part of a house as a way of developing a small business. Warung are often found in densely populated urban locations, still traditional and conventional, where buyers cannot pick their own goods, because store shelves are not yet modernised and would become a barrier between sellers and buyers. On the other hand, there are also convenience stores, convenience shops, or corner stores – small retail businesses that stock a range


Yogyakarta:
exposing the
living culture

Yogyakarta: exposing the living culture

Moving-scape

In general, the people of Yogyakarta use private modes of transportation for daily mobility, with motorcycles being the most common. Motorcycles are very popular for both short and long journeys within Yogyakarta. However, one can still find Yogyakarta's traditional modes of transportation, namely becak and andong. Becak is a

of everyday items. In addition, shopping centres commonly contain one or several department stores as an attraction for small retail shops and dining places.

three-wheeled, human-powered mode of transportation commonly found in Indonesia and also in other parts of Asia, while andong is a traditional four-wheeled means of transportation that does not use an engine but instead a horse. In recent times, both becak and andong have mainly become tourist attractions. On the other hand,

Yogyakarta also has the Trans Jogja public transportation service system, which is a bus rapid transit (BRT) system that operates in Yogyakarta and its surroundings. For commuter mobility that connects Yogyakarta and nearby cities, it is currently served by electric rail, trains and buses.

Social-scape

In interacting with the social environment, several special community activities are often carried out for the common good, especially in the kampung environment. Apart from being a place for monitoring the safety of the kampung, the security posts for neighbourhood night watch are also places that are widely used for interactions between residents, both at day and during the night. Shared public spaces are often places for interaction between neighbours. Various open public spaces in the kampung, including street spaces, are also widely used for various activities that encourage human interaction. On the other hand, as part of Yogyakarta's modern life, many young people use the city's open spaces as well as several places to eat, such as cafes, as places to socialise.

Takeaway notes: What is interesting about Yogyakarta's Living Culture?

Yogyakarta's living culture is basically the same as the daily life of other cities, but the cultural values that underlie the Yogyakarta people's way of thinking and way of life transforms something ordinary about daily life into something extraordinary. The uniqueness of this living culture that has survived to this day has proven to be able to co-exist with the modernisation of lifestyles in line with the rapid changes in the city.

The Project Site: Towards an Affordable Neighbourhood

The site is located in the centre area of Yogyakarta, around 3km from the Yogyakarta Palace and 2km from the Malioboro commercial district. In the past (ca. 1925), the site was

utilised for Dutch Oil Company (BPM) activities. Currently, it is empty land, surrounded by a small river that separates it from the urban kampung, the Kampung Pengok Kidul. There are also rows of small-scale premises for commercial activities, as well as some old housing in the western part of

Yogyakarta: exposing the living culture

the site, along the arterial road with an overpass in the middle of the road. This site is around 400m from the Lempuyangan Rail Station, that is to say, within walking distance, and around 1km from the historic district of Kotabaru.

The project site is directly adjacent to Kampung Pengok Kidul, but is not connected to it by direct access. The kampung people still treat the river as the back of their houses, and some still throw garbage in the river. The sewage system is still not properly modernised, so a lot of sewage still ends up in the river. However, some parts of the kampung are more organised, with good garbage disposal systems and some green spaces. In 2018, the KOTAKU (Kota Tanpa Kumuh – City without Slums) programme that is implemented through the Directorate General of Human Settlements of the Ministry of PUPR in synergy with local governments and community groups to improve the quality of urban slum areas, carried out some improvements of local streets and the drainage of the kampung.

One of the issues that can be identified in the context of the site is a lack of integration between the public transport system and the land use system. The development of public transportation services at Lempuyangan station is currently not connected to the development of the surrounding area (whereas in the past Lempuyangan station was strongly integrated with the functions of the area around it). The growth of the Kotabaru neighbourhood (which is very rapid compared to that of its surroundings) threatens the existence of the heritage of the garden city. Many large areas of land on the eastern side are not properly utilised. Taken together, these issues can generate and frame ideas for developing the site, and how to integrate the function of the site into the function of the whole district and the city through design ideas.

3/0/2 ■

Affordable living

Ikaputra

3/0/3

To the location

Ikaputra
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Some Cases of Diversity in Indonesia

Affordability is defined as the ability to get "something" for a certain "cost". The "something" in question is a "must-have" feature or an essential thing/good/product. To obtain this essential feature either requires a certain amount of money, or it requires effort, sacrifice, or even a loss that a person must bear as a "cost".

If the essential feature in question is a home to live in, then a person must try to cover the "cost" of owning a home. Affordability is usually measured by the ability of a person or a family to cover the "cost" of housing. Wealthy families have different abilities compared to low-income families. The affordability of housing poses a problem when the "living culture" that must be accommodated does not match the "cost" that must be covered. Therefore, the concept of affordability is always discussed in the context of people who are at the lowest status in the social hierarchy, belong to low-income groups, and have limited resources. The ideal condition is *"affordable housing for low-income communities"* (Harelimana, 2017; 21; Afshar et.al., 2012; 89), but in reality communities face problems such as *"affordable housing but low supply (shortage)"* (Yahya, 1997; Harelimana, 2017; 21). Therefore, low-income communities have to go to great lengths to own their housing units. This may involve sacrificing location for housing quality, or sacrificing housing quality for location (Wainer et. al., 2016; 5). This forces us to rethink whether we need an "adequate living culture" or "affordable housing".

Components of affordability

The minimum needs for affordable housing in Indonesia are currently referred to in a programme called *"Rumah Sederhana Sehat"*, which covers houses that meet the building safety location, and the minimum requirements in terms of inhabitants' health. There are at least four

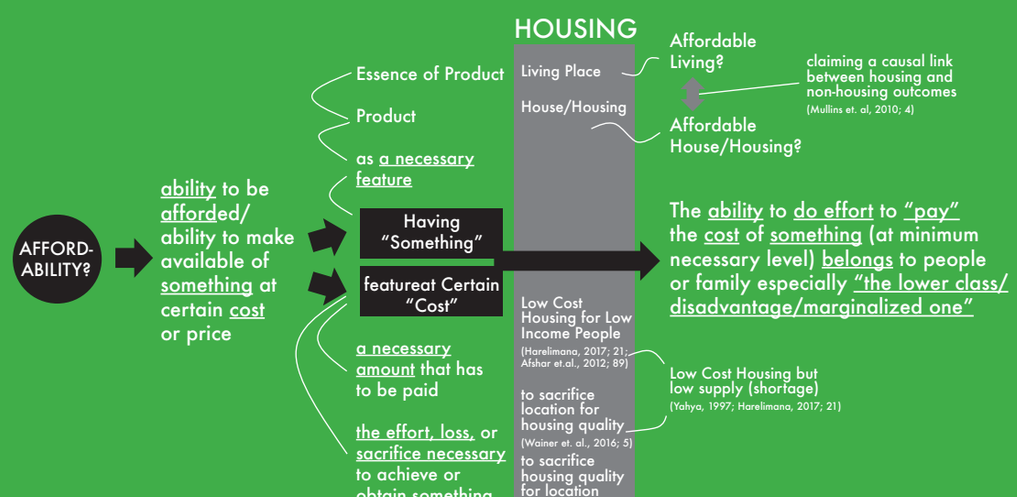


Fig. 1: The Concept of Affordability

Affordable living

requirements, the minimum adequacy of the components to affordability (i.e. families' ability to afford housing), namely *"land"*, *"home and environment"*, *"design"* and *"structure"*.

The component of *"land"* is a requirement for any residence. An important factor of the *"land"* component is whether the land has the necessary legal status to be used as a location for housing. Land is a major consideration in building a house. This is influenced by the "status of land ownership", and there are various forms of tenure systems (Mullins et al., 2010; 13). The various forms of tenure systems will be the basis for decision-making for someone who has the right to build a house on a certain piece of land, or, alternatively, the holder of the land rights gives permission to someone to build a house. If the two conditions relating to *"land"* are not met and the house is still standing on the land, then it is suspected that there are other considerations, other types of land access, or conditions that violate the legality of the land.

The second component of affordability is *"home and environment"*. Issues relating to the home and its environment include the quality standards of the home and its suitability for the socio-cultural aspects of community life. It is important to consider the dimensions of the space required by the family inside the home and the dimensions of the social space outside the house so as to achieve "habitable living" settlements (Dan Soen, 1979; Sultan Sidi, 2010; 4-5). The dimensions of residential spaces or houses required for family activities can be evaluated by understanding the extent to which the occupied housing units fulfil the minimum quality required. Meanwhile, the dimension of social space provided (Sultan Sidi, 2010; 4-5; Rapoport, A., 1969; Sidawi, 2008) will contribute to whether a house and its neighbourhood are sufficiently "livable" (Dan Soen, 1979; Sultan Sidi, 2010; 4-5). The main problem is that the "livable standard" of a house or settlement in a cultural context and the standards required by government are not necessarily always the same. Efforts need to be made to harmonise these various standards.

The third component of affordability is *"design"*. Housing design lies somewhere between the subjective and objective viewpoints. Different communities require different forms of housing (Mullins et. al, 2010; 9; Harelimana, 2017; 26). The concept of minimum living standards usually relates to whether the standards are able to functionally accommodate the activities of the householder. This functional minimum standard is more objective and does not only apply to certain communities. However, the criteria for "minimum

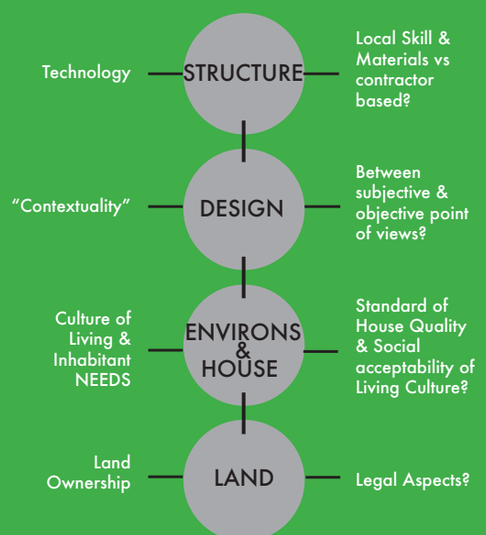


Fig. 2: The Components of the Affordability for Living

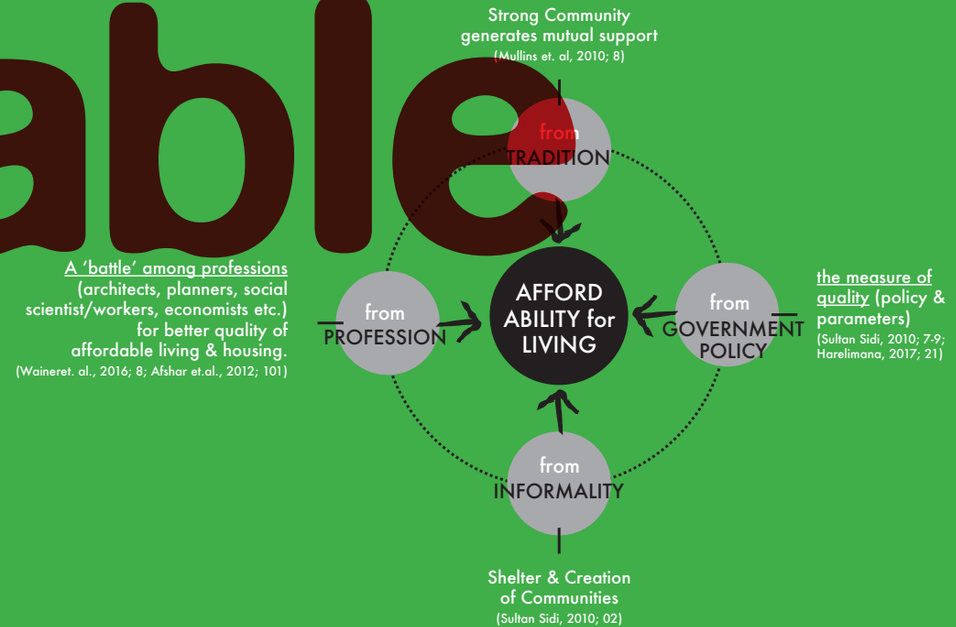


Fig. 3: Point of Views towards the Affordability for Living

standards" often depend on the requirements of the cultural aspects of the community, i.e. standards that are subjectively determined by the socio-cultural aspects of the community (Sultan Sidi, 2010; 4). Therefore, the discussion of the design of a "livable" house will include the assessment of "minimum standards" based on functional aspects as well as socio-cultural aspects.

The fourth component of affordability is the *"structure"* of the building, which will be discussed in relation to building technology. Building technology relates to the use of materials, construction methods, and the ability of construction workers (either local or supplied by contractors). These structural components will later be converted into costs that must be borne by prospective homeowners. Structural costs must be minimised to be affordable. Strategies to make housing affordable in terms of structure include using local materials, using appropriate technology, utilising incremental construction, providing "fit-for-purpose" funds, using household savings, and empowering collaborative work (*"gotong-royong"*) (Harelimana, 2017; 23; Ikaputra, 2009; Afshar et al., 2012; 97; Sultan Sidi, 2010; 6).

Perspectives on affordability

The four components of affordability (*"land"*, *"home and environment"*, *"design"* and *"structure"*) can be viewed from several perspectives that will illustrate the motivations, priorities and principles in realising affordable housing. There are four perspectives that will be presented, namely the perspectives of *tradition*, *informality*, *government policy* and *professionals/experts*.

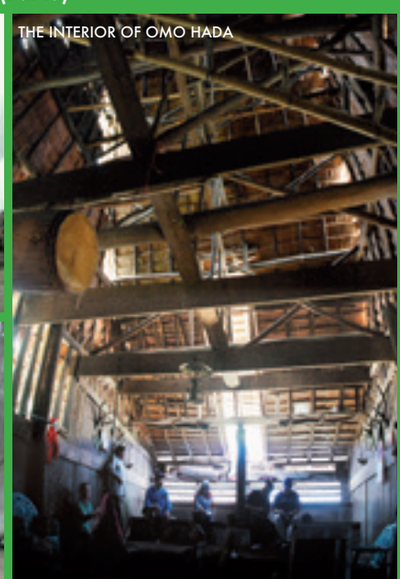
The *tradition* perspective represents the strength of the community in maintaining tradition, with a strong community generating mutual support (Mullins et. al, 2010; 8). The viewpoint of informality relates people who do not want to be bound by standard rules in fulfilling their need for housing even if it is not otherwise feasible. This perspective relates not only to the building of very simple shelters, but also to informal community bond between people facing the same housing situation (Sultan Sidi, 2010; 02). From the government's point of view, this is contained in affordable housing policies and quality standards that must be met. There is a government interest in the "quality measure" of affordable housing through its policies and parameters (Sultan Sidi, 2010; 7-9; Harelimana, 2017; 21). Among professionals or experts – such as architects, planners, scientists/social workers, economists, etc. – there is a wide range of views as to how to best help people to improve the quality of their lives and to provide more affordable housing (Wainer et al., 2016; 8; Afshar et al., 2012: 101). The diverse views of different experts certainly require discussion and compromise among experts to formulate appropriate strategies for affordable and applicable housing programmes.

For most indigenous communities, "land" is not an relevant issue in the provision of housing. Their land status is village-owned (known as "*adat*" or "*ulayat*"). The village head determines land use, and the architecture of the house is designed and built based on passed-down traditions. The architectural design of the house is usually differentiated based on the types of strata, and customary activities, as well as family life activities that must be accommodated by the occupants of the house. Houses of traditional houses designed according to hierarchy, social architecture that have been preserved and are still lived in by the community are today seen as "luxurious" or "unaffordable" by most people. "Affordable living" of traditional houses can illustrate the strength of the community in preserving traditional architecture that is of a standard that is more than the minimum affordable standard set by the current government. While for traditional communities vernacular architecture, construction methods and identity are crucially important factors (Afshar et.al., 2012; 101), building norms and environmental norms also apply to their settlements (Sultan Sidi, 2010; 7-9). Traditional settlements also have norms to form dwelling units and form social environmental spaces that must be applied as part of a strong tradition to accommodate the living culture of the community.

Bawomataluo Village, located on Nias Island, Indonesia, is a traditional village that has a rare megalithic heritage. This settlement has a main road axis in the form of a straight line that is flanked by traditional houses along the sides. The axis of the main linear road is intersected by a secondary linear road so as to form a settlement of a linear "T" shape (Pramaresti 2029, 51-53). The village currently comprises 125 community houses that are still of the traditional form ("*Omo Hada*"), one unit of "*Omo Sebua*" (a large traditional house / king's house in the middle of the village), and a meeting hall ("*Omo Bale*") (Loi, 2020; 164). Seen in a historical context, the three-centuries-old Bawomataluo Village, demonstrates how a traditional village leader played a very important role in providing traditional houses for all his "followers" in the form of "*Omo hada*", which is of a very adequate size, a very strong structure, and very unique and beautiful architecture. What we can learn from this village is that traditionally the "ruler" (village leader) has tried to provide "affordable housing" with the "maximum" (highest) quality for his followers, while the

Fig. 4: Bawomataluo Village:
A traditional settlement in Nias Island (sketched by Ikaputra)

SETTLEMENT OF BAWOMATALUO (NIAS)



Sketches & photos by Ikaputra (2005)

Fig. 5: Bawomataluo Village: Stronger community with high quality of houses

current manifestation of "affordable housing" is that the "ruler" (= government) tries to provide for its people only the "minimum" standard of quality.

Affordability from the perspectives of tradition and government standards

"Silimo" is the smallest traditional settlement model in the Baliem valley, Papua (Numbery et.al., 2018; 463). Each *"silimo"* is inhabited by an extended family, consisting of one husband with several wives, children, and the husband's and wife's siblings (Salipu, 2020; 101). *"Silimo"* settlement patterns and architecture were formed in response to the surrounding natural environment, which is cold and often hit by storms or strong winds (Melalatoa, 1997 in Salipu, 2020; 25). In addition, like most traditional communities, the architectural forms and structures of houses are influenced by materials that are commonly found on site, for example stones for foundations, wood for structural elements, and reeds used as roofing material. The people's belief system also influences the structure of the houses, with four important pillars at the core of the house, in the centre of which there is a fireplace that also functions as a heating system for the house.

Within the perimeter fence of the *"silimo"* settlement two types of architecture can be found, namely round and square houses. Round houses are called *"honai"*. The *"honai"* for men is called *"honai Pilamo"*, usually inhabited by the head of the family, his brothers, and some other adult men. The *"Honai"* for women, where the wives and children live, is called *"honai Ebe-ai"* (Numbery et.al., 2018; 463; Salipu, 2020; 174-182). The rectangular houses are called *"hunila"* and serve as kitchens. Their dimensions vary according to the number of wives that live in the *"silimo"*.

It has been found that the death rate of *"honai"* dwellers due to acute respiratory infections (ARI) is unusually high, which is due to the smoke produced by the fireplace being trapped in the house and inhaled by residents over many years. In 2006, the "Ministry of Public Works and Housing" commissioned the "Universitas Gadjah Mada" to adapt the *"honai"* architecture in order to meet health standards, especially in relation to the threat of Acute Respiratory Infection. Therefore, a new prototype of *"honai"* was developed by retrofitting a ventilation system in the form of a chimney to dispose of the smoke from the fireplace and to thereby improve the air quality inside the *"honai"* (Suryabrata, et.al., 2007; 70).

Affordability from the perspectives of tradition and informality

Informality, in its various aspects, usually refers to somehow being "outside" of government rules or control. Meanwhile, while traditional architecture may also not always follow government rules, it usually does not violate these rules, because it has grown out of traditional customs and belief systems from generation to generation. Informal housing or informal settlements can be shelters, houses or settlements built outside the legal system of the state. Aspects of housing that often do not follow the rules include illegal land use, living standards that do not meet the necessary minimum requirements, inadequate environmental and infrastructural conditions, and the widespread use of makeshift materials and construction methods. "Shelter" and "creation of communities" become two key concepts that denote simple and practical approaches for solving the complex problems of urban life (Sultan Sidi, 2010; 02). They are able to survive, with some limitations, because they are embedded in a strong community tradition of working together (called *"gotong-royong"* in Indonesian).

An example of a typical informal urban settlement in Indonesia is the *"kampung"*. Many of the *"kampung"* that develop along rivers are prone to flooding, and land ownership is often outside government control. Most *"kampung"* communities are happy with the culture of "togetherness" of their rural origin, but some families have only very limited resources – to the extent that they live in accommodation that can be considered "uninhabitable" or "substandard".

Some *"kampung"* have developed organically because they are adjacent to historical "artefacts" that have collapsed following earthquakes, while other traditional *"kampung"* have developed into low-cost tourist accommodation because they are situated close to a city's commercial centre.

Affordability from the perspectives of profession, government and informality

The government usually has a measuring tool for quality standards that must be met by an urban informal settlement. Therefore, when some *"kampung"* still had problems with housing units that were not fit for habitation, a programme to retrofit existing houses called *"bedah rumah"* (literally *"house surgery"*) was implemented.

Fig. 7: The New Honai Prototype:
A retrofitted honai to compliant with healthy house standard

Affordable living

For "*kampung*" that are still not habitable from an environmental viewpoint, a more comprehensive government programme called "*Kampung Improvement Project*" (KIP) was developed in Indonesia from 1966, with a programme initiative called "*rumah sederhana*" ("*simple house*") in operation between 1969 and 1974. As part of a renewal strategy for slum settlements, a "*rumah susun*" ("vertical housing") programme was developed from 1978. The determination of strategies for dealing with the problems to meet affordable living standards involves various professions, including social experts, architects, engineers, planners, economists, etc., all of whom aim to improve the quality of affordable housing.

Lessons learned

We have learned that achieving "affordable housing" and "affordable living" requires an understanding of the four important components discussed above, namely (1) "land ownership"; (2) "neighbourhood and home"; (3) design; and (4) structure. We must carefully question the condition of all four components. What is the legal status of ownership of the land where the residence and its environment are built? What kind of house and environment is desired? Does it meet (minimum) quality standards or does it have to satisfy social acceptance of a certain living culture? How should we understand the "design" of a house that is often measured both by subjective views (aesthetics) and objective views (functions)? Is it necessary to understand the context why architectural designs are suitable or not? And, lastly, the issue of the "structure" of the house is an important component that affects "affordability". The structural components of a house are heavily influenced by technology, materials and building methods.

Fig. 8: Kampung life and some of "unhabitable houses"


3/0/3

Learning from the city, new urban habitats

Simone Gobbo

Learning from the city, new urban habitats

Simone Gobbo
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3/0/4 ◢

To the location

This academic year's experience is based on the theme of contemporary living within a complex and difficult climate context such as that of Indonesia, a challenge that stems from the international collaboration between different institutions that have come together thanks to the LIVING 2060 research project.

The objective of the workshops was to develop, in a synergic dialogue between teachers and students, a redevelopment project for an urban area in the city of Yogyakarta. The central theme is living as an opportunity, to renew a place in harmony with the climatic qualities of the specific habitat.

In particular, the reflection was guided to design houses and living spaces for the economically weaker sections of the population and for the realities that will become the human communities of the future.

All the projects devised theoretical solutions for the construction of an innovative functional programme, ideas that go beyond the simple functional organisation of the past; living is a problem that implies the possibility of performing many actions with our bodies, activating space and defining new forms of use.

Each working group thought of new actions and new spaces; houses were designed starting from public areas, connections and community gathering places. This theoretical approach produced a great variety of spaces, places to play, to pray, to play sports, to think, to listen to music, to write, to learn arts and crafts – places that can stimulate life within the architecture.

It is about looking to the future of the city by learning from its history of relationships, always aiming to involve contact with multiple generations, exchanging experiences and knowledge, creating a space of mediation and transmission of local values.

A lot of work was done to create proposals with intelligent low-cost building technologies; each participant realising that our future depends on how we use the planet's energy resources, and that therefore our role as architects is to take responsibility for how we transform space on a daily basis. In particular, we have to engage with high-intensity urban areas, and the city of Yogyakarta is an extraordinary laboratory that can teach us how to define intervention methodologies and new tools to be applied in contexts with similar climatic conditions or housing dynamics and density.

Climate change suggested that we address the design theme according to a site-specific approach capable of integrating construction techniques with quality of life, with each proposal considering fundamental issues such as water use and runoff, natural and artificial lighting management, sun exposure, natural ventilation of spaces, the lifecycle of materials, durability and flexibility of architecture.

Each of these design constraints allowed us to exploit limitations and problems as resources. For example, the roofing theme became not a simple formal solution but a great device to characterise the space and offer performance and adequate responses by interpreting traditional local buildings in an innovative and creative way.

learning from the city, new urban habitats

Climate, architecture and context constituted three great lines of work for the participants, to be interwoven and synthesised in order to create welcoming and stimulating living places. Thinking about living therefore means building architecture according to many related skills, it means learning from the city through observation and overcoming the current condition with courage and planning future dynamics.

I am sure that the difficult pandemic period that saw us working remotely, locked in our personal rooms, forced us all to think deeply about the meaning of living today, and to ask ourselves questions. What spaces do we really need today? How can we improve our habitats by creating attractive and environmentally friendly places? How can we satisfy collective and individual needs? It is impossible to answer this question unequivocally, but we must find the courage to propose new habitats, inventing not functions but hybrid and flexible forms of use for our homes, considering space not as an immobile sphere, but as a place of transformation in synergy with nature. Many of the projects experimented with new atmospheres, made innovative uses of ancient materials, thought about renewable energies and the lifecycle of houses without preconceptions or limitations, and it is in this sense that our role as researchers, teachers and students within a local and international community takes on a profound and important meaning.

The work on the design of the soil, its permeability, was one of the strategies applied to consolidate processes of re-naturalisation and environmental reclamation in a spontaneous way; many projects worked on biodiversity in an innovative way, aiming at a coexistence between humans, plants, and animals. A city re-thought according to the idea of integrated biodiversity will provide us with new natural resources; materials such as bamboo or wood can be regenerated in areas designed within the residential site, so as to provide a place for birds to nest, shaded areas, and building material for possible repairs or replacement of parts of buildings.

The student teams tried to design with Yogyakarta in mind, studying its building tradition – and despite the distance and the pandemic situation they came up with many ideas that take into account the limitations and problems of the real condition. Students learnt from the city, from the pandemic itself, and from their condition as young architectural scholars in geographical isolation.

All of this was possible through technology, and so we learnt to use new tools together; video and digital culture entered fully into our way of designing. With digital three-dimensional models and physical models we reproduced the environmental conditions and tried to immerse ourselves deeply in the context, discussing and interacting with other universities such as the TU Vienna Faculty of Architecture, in dialogue with international experts who had been invited in a courageous and spontaneous way. In short, each place represents a habitat, a complex context that overlaps many levels of research and many necessary skills. We can only succeed in tackling this great complexity and this climate crisis by learning from the city, by networking, by linking researchers with students and lecturers, by becoming a community capable of courageously imagining the habitats of the future.

3/0/4 ■

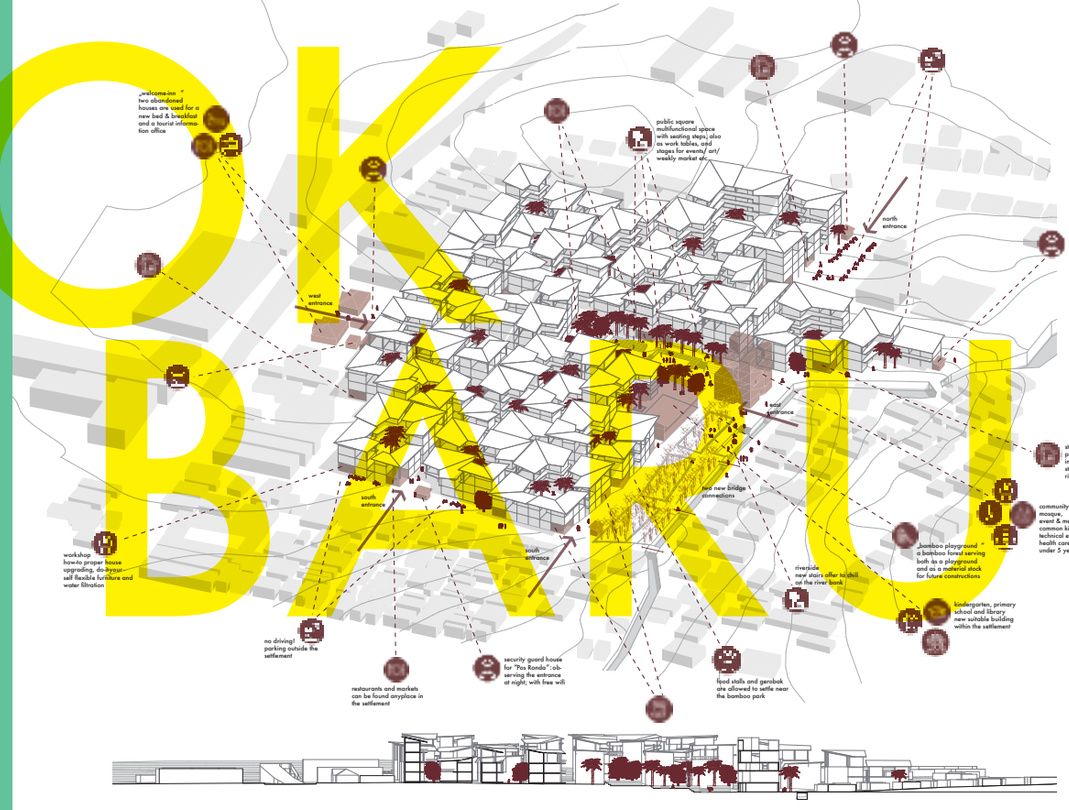
PENGOK KIDUL BARU

THE GROWING KAMPUNG

3/1

Project drafts Yogyakarta

STUDENTS
Nugrainna Malinda Husna
Tina Hutterer
Pegah Sadeghtaleghani
Günther Wimmer



The design provides for inclusion on a physical and social level. The structure blends into its surroundings and is designed to serve members of all walks of life. The location in the heart of Yogyakarta near a kampung, a traditional Indonesian settlement structure, and important transport links such as a railway station and a main road with numerous shops and businesses, as well as the proximity to the city centre and public transport, make the site very attractive.

The concept ultimately follows the guiding principle of providing affordable, attractive and flexible housing in an appropriate location for the people who need it. Affordability and floor plan flexibility and the idea of creating generous public and communal spaces are central. While the flats are kept to a minimum to keep rents down, the public areas gain in importance, as do the terraces of the building. They are circulation space, recreation space as well as an extension of the living room.

The buildings are arranged in blocks of three to four houses around a central courtyard to strengthen the neighbourhood. The public space is used for recreation, work, and the keeping of livestock. In the vertical gardens hanging from the terraces, people can grow vegetables or harvest the fruits growing on the trees in the centre of the courtyards. On a larger scale, the different districts of the site are arranged around a central square created by extending the axes of the surrounding areas. At the eastern edge of the new public centre is a community building, and to the south of this is a community bamboo park, which provides a recreational space for residents and also easily accessible building materials. The community centre, which is identity-forming for the whole neighbourhood, the school and the kindergarten provide the neighbourhood with all necessary public facilities.

PENGOK KIDUL BARU

3/1 ■

SHARED SPACES YOGYA-KARTA

wayang kulit – shadow play | market | concert | meeting point

3/2 ◢

Project drafts Yogyakarta

STUDENTS

Ajeng Kusumadewi
Auliya Rohmah
Kiana Sadari
Magdalena Schäppi

The urban design is determined by the use of the river as a forecourt with the public area in the east and the more private area in the west, which are connected by the semi-public area in the middle. An important design principle is the combination of living and working in one area, as in the kampungs. The project also envisages common spaces for residents and people in the surrounding area.

The envisaged functions include a riverside market with street food, co-working spaces, community kitchens, urban gardening, etc. In addition, the area is mainly for pedestrians and cyclists, while motorbikes and cars have to park at the edge of the area. This way, people can safely stroll through the market and relax by the riverside.

Another aspect is the creation of more green spaces on the site, which will provide a better climate and cooling shade. The green spaces are divided into private green spaces between the residential buildings in the form of large courtyards and public green spaces in the form of a large park and some green spaces along the riverbank. The centre is formed by a ramp and some seating areas. Some flexible pavilions that can be used as market stalls or for a traditional shadow play at night shape the landscape.

The flats are based on a modular system of 35 m^2, in which between two and four people can live together. Moving the modules to the front/back and skipping some modules in between creates additional shared outdoor spaces to the corridors, which can be used as urban gardening spaces or communal kitchens and lounges for the whole community.

The buildings consist of three to four modules, which have two to four floors, to fit in with the surrounding buildings. All corridors and common spaces of the buildings face a large courtyard that is planted and shaded with wooden slats to provide a cool meeting space.

SHARED SPACES YOGYAKARTA

3/2 ■

MODULAR ECOCITY

3/3

Project drafts Yogyakarta

STUDENTS
Hayati Demir
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Ristka Sarimukti
Ekin Türk

Houses in shipping containers are much cheaper to build than normal houses. They are very resource-efficient and can be built to look like normal houses. The container houses are used in the project for the construction of the building. Then they are clad with bamboo. The bamboo cladding is used as sun protection and the bamboo panels are placed on the roof.

Why shipping containers for housing?
There are more than 14 million "retired" containers worldwide and many are available. Today, many potential homeowners around the world are looking for lower construction and maintenance costs. Transporting containers is also easy.

MODULAR ECOCITY

3/3 ■

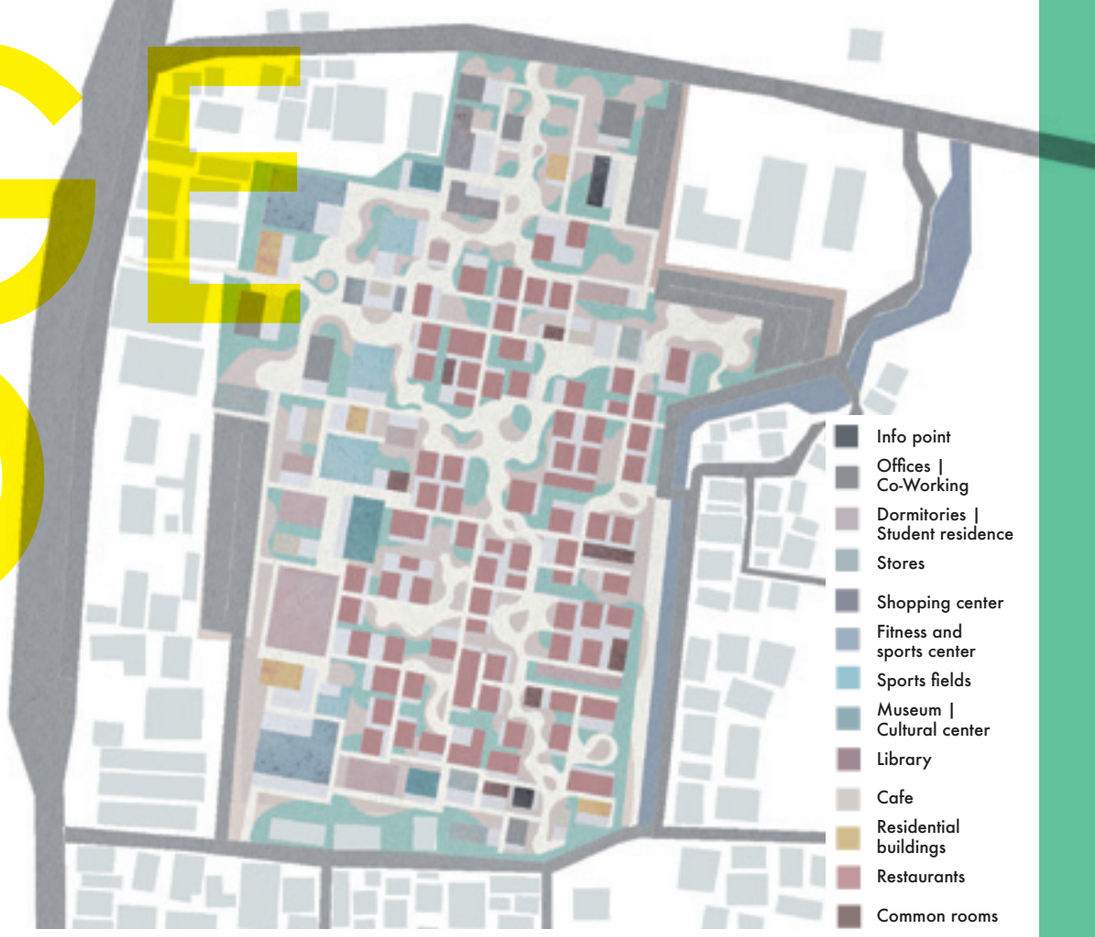
VILLAGE I-LAND

VILLAGE I-LAND

3/4

Project drafts Yogyakarta

STUDENTS
Anna Koller
Evgeniia Korkeshko
Elsa Primschitz



The “Village I-land” creates a place in Yogyakarta where everyone can find their own place, whether a large family or a student who has come there just for a semester. It is a place with many green spaces, living spaces and community facilities. The “Village I-land” offers both multi-story houses for families, small houses for couples, shared apartments for students and a dormitory for short-term housing. Common areas with different functions, such as the laundry rooms traditionally used in Indonesia, are available for each resident. The floor plans are also based on traditional Indonesian living arrangements. There are many green spaces and small parks, which not only serve as meeting places, but are also part of the sustainable concept.

Residents have their own open spaces as well as shared terraces.

As the entire facility is planned as a car-free zone, three large parking areas are provided on the edges of the area, and visitors have the possibility to rent a bicycle at the entrances. In addition to the housing options on the north side, the “Village I-land” offers a public area that serves as a connection to the train station. The west side of the property is also planned as a public area with some outdoor sports areas, a library, stores, co-working spaces and even a gym. In the centre of the site is a central plaza that connects the residential to the public portions of the planning area.

VILLAGE I-LAND

3/4 ■

KAMPUNG DYNAMICUS

3/5

Project drafts Yogyakarta

STUDENTS
Michael Gasser
Damla Subas
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The project area is located close to the centre of Yogyakarta, an Indonesian city with numerous cultural and tourist attractions and various educational institutions. Due to complex ownership models and diverse cultural influences, cities like Yogyakarta develop differently than typical western cities. This project seeks to understand and connect these differences.

In order to counteract uncontrolled growth in the kampungs – the neighbourhoods of socially disadvantaged groups – a building system strategy was developed that primarily addresses the following questions: how can local conditions be taken into account and raw materials integrated into the project; how can a high population density be achieved while maintaining attractive public open spaces; how could such a structure be further densified in the future; and how does the project fit into its surroundings to ensure a harmonious relationship with the neighbourhood.

The chosen design methodology is relatively simple and can therefore be easily implemented locally through strict adherence to regular centre distances, spans, storey heights and repetitive component dimensions. These measures make the structures less prone to failure and make economic sense. At the same time, building structures can be created at different scales, with tension essentially generated by the composition of the individual building elements. The composition results in a double orientation of each residential unit, on the one hand to the green space and on the other hand to the (semi-) public space. According to the requirements, workspaces are created either in highly frequented locations or in deliberate seclusion. The exact spatial differentiation between living and working is fluid and cannot be pre-planned in such social structures; it is unpredictable and part of the development over time. The project in its present form is not to be understood as a final stage, but rather as a possible future scenario that can constantly adapt to emerging requirements and develop dynamically. The necessary framework is in place.

KAMPUNG DYNAMICUS

3/5 ■

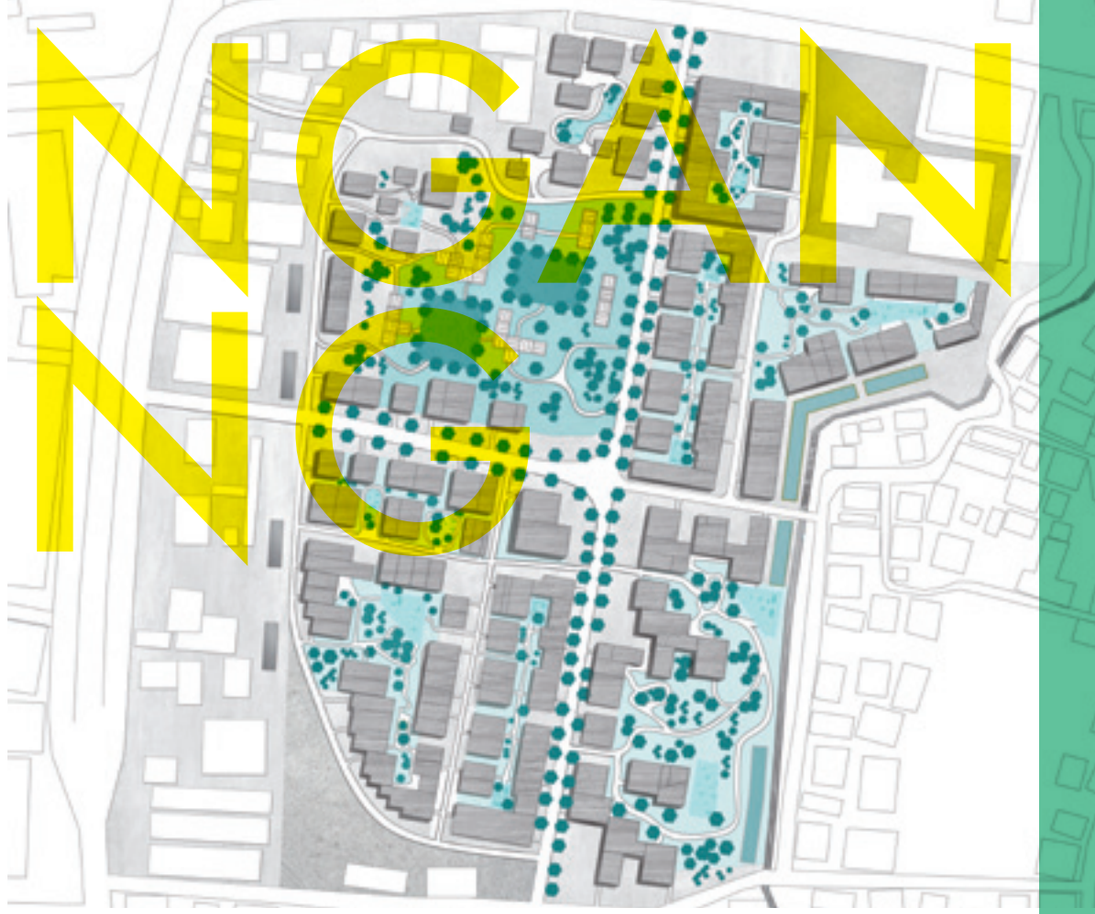
BEBAREN-GAN KAM-PUNG

BEBAREN-GAN KAM-PUNG

3/6

Project drafts Yogyakarta

STUDENTS
Sabrina Pöchleitner
Dilay Türe
Wiliam

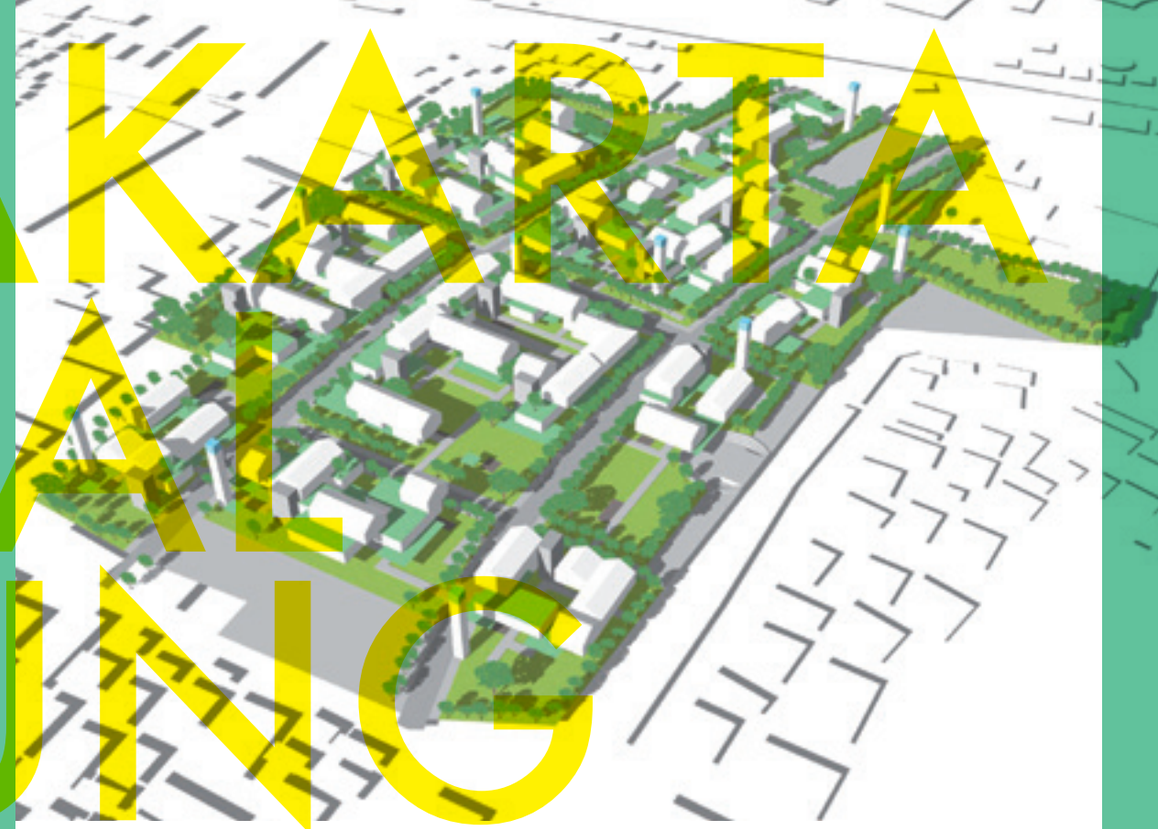


In this project, the focus was on bringing people together and bringing traditional things into focus. The area was divided by two intersecting streets. These streets were planned as public spaces, where the first floor zones are used as public areas. In these zones there are local markets, restaurants, cafés, hairdressers, etc. The second floor is the residential level. These areas are used for living or are also rented out as office space. In order to provide the residents with an area to relax, a large green area has been planned. It is designed as a public park, which has a multifunctional area where various events can be held. There are also passage elements made of bamboo and built in the style of a slatted façade that create semi-shaded areas. The seating is also made of bamboo. All green elements were taken from vegetation typical to the site and each serves one of four categories: rainwater collection, shade adaptation, shade control, and population control. Rainwater is collected in water tanks. These tanks are installed inside the buildings. The water is treated so that people can use it for their basic needs such as cooking, drinking, cleaning or bathing. From these uses, three categories are derived: black water, organic waste and grey water. Black water goes to the public sewer, organic waste is treated in biopores and later used in agricultural applications, while grey water is processed through bioremediation. The roof system is adapted to tropical weather conditions, with air flow under the roof. The roof is connected to a solar system, whose battery and water tank are also located under the roof.

BEBARENGAN KAMPUNG

3/6 ■

YOGYA-KARTA VERTICAL KAM-PUNG



3/7

Project drafts Yogyakarta

STUDENTS

Ruhulhaq Albarqi
Su Bilgen
Vanja Kecman
Dwi Ratna Poespaningrum

The northern entrance was designed as the main entrance from the city, while the southern one is intended as a secondary entrance. The building forms are based on the local traditional forms, square, rectangular or L-shaped. Access to the buildings is from the inside to promote social cohesion. The orientation of the buildings is designed outward to improve awareness of contemporary urban settlement conditions. The streets that run through the site each connect different uses and are constructed using a variety of materials.

The buildings are divided into different areas to limit sun exposure and promote airflow. The upper floors protect the lower areas from sunlight and rain. Some of the building masses are not directly connected to the lower or upper floors, allowing people to interact with those on the upper or lower floors. The public space is flexible. This can be used as a community gathering space, a commercial space, a community garden, or a playground/fitness space. The maximum height is three floors, so access is still possible by stairs. Each unit has two to three staircases for vertical access that are shared. Each floor also has public spaces and common green areas to encourage activity and social interaction. The public space on the upper floor can be used as a lounge, as a drying room, or for social interaction or other informal activities.

The project aims to transform informal settlements into independent sites with an autonomous water and electricity supply system. Another problem of informal settlements is waste disposal. By forming on-site waste collections, the project aims to make the waste recycling system independent of state-owned companies.

YOGYAKARTA VERTICAL KAMPUNG

3/7 ■

MODULAR WAVE YOGYA-KARTA

MODULAR WAVE YOGYAKARTA

3/8

Project drafts Yogyakarta

STUDENTS
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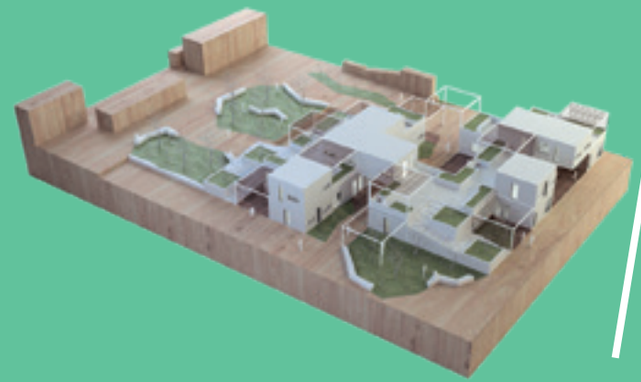
Giha Vega Juan Jose
Sartori Lorenzo

Yogyakarta is an Indonesian city located in the centre of the island of Java. With a population of nearly half a million, it is considered an important centre of Javanese art and culture and is known as the centre of Indonesian education, housing a large number of students and dozens of schools and universities. This project plans to build a residential area for low- to middle-income families and students on a site measuring approximately 35,000m^2, with a variety of housing solutions to suit the needs of the residents. Restaurants, cafés, laundries, mini-markets and clubhouses will be created to provide incentives for group activities and a better sense of community. Using a 6m × 6m grid, large building masses will be placed, bounded by the two main walkways. Subsequently, modules are removed to create secondary paths, green spaces and small open spaces throughout the site. Most of the buildings are connected to each other, creating small to medium openings in between, thus creating pathways through the buildings.

The main and secondary entrances have been distributed throughout the neighbourhood to make the urban and green areas functional and accessible not only for residents but also for pedestrians, creating shortcuts and parks for all. The density on the first floor is reduced to create terraces that connect different sections and create open areas that serve not only as meeting places with benches and tables, but also as a kind of public botanical garden with large plants and thus as a barrier. To access these terraces and the houses on the first floor, large staircases are planned that follow the 6m × 6m grid throughout the site. The green spaces interrupt the strict orthogonal geometry of the grid and serve as a connection between the urban concept and the city. This creates a counterpoint to the rectangular green spaces inside the buildings and the irregular shapes on the ground floor.

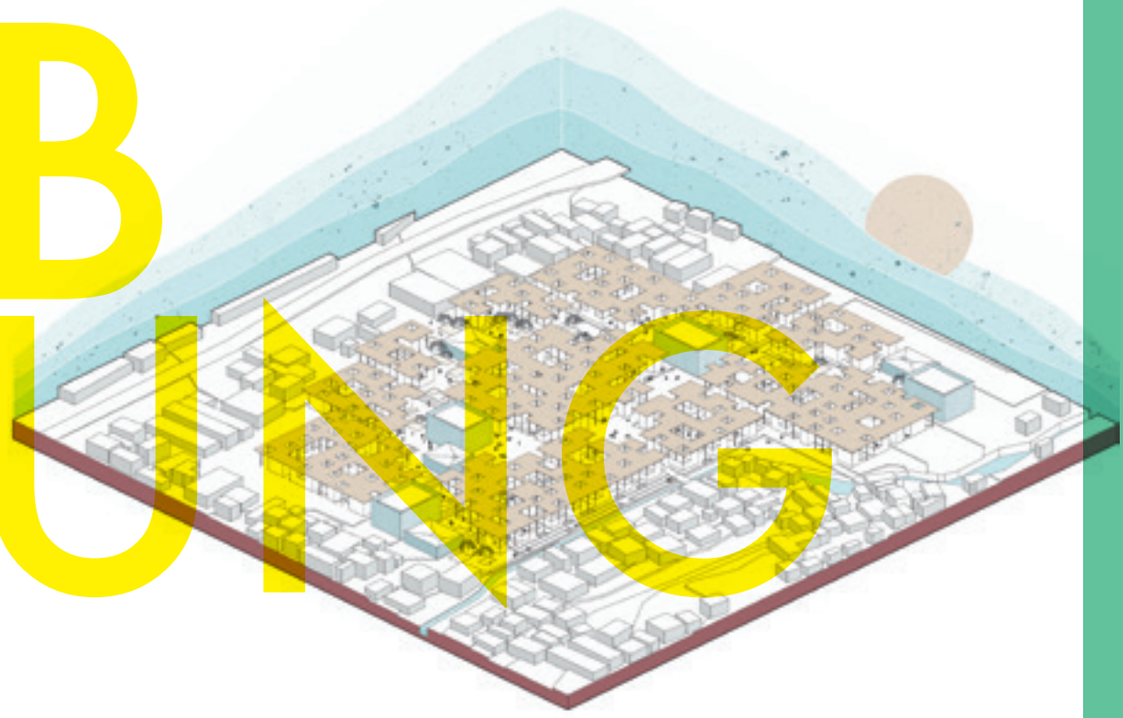
MODULAR WAVE YOGYAKARTA



3/8 ■

GUYUB KAMPUNG

A NEW WAY OF LIVING THE TRADITIONAL KAMPUNG



3/9

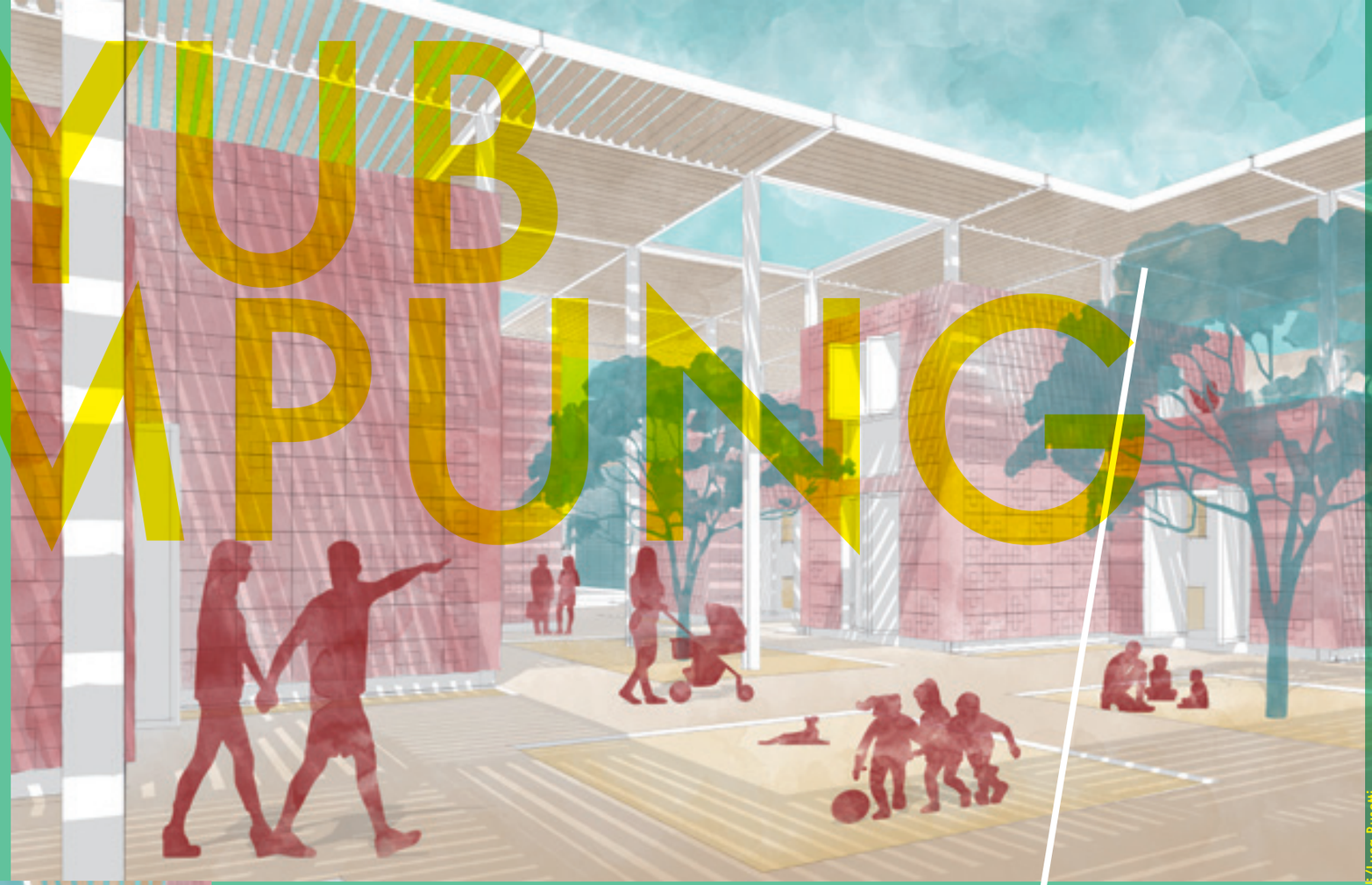
Project drafts
Yogyakarta

STUDENTS
Alessandro Amadio
Giacomo Bertelli
Luca Busetti

Guyub is an ancient concept in Javanese philosophy that leads the individual to live in harmony with those around them. It is difficult to translate this concept into a single English word, but it can be thought of as the individual's desire to be part of the community.

For this reason, the project aims to bring into existence a new way of experiencing the traditional Kampung. People are therefore not only brought together under one roof, but also on wide open squares that alternate private and public spaces. Here, nature coexists and proliferates in direct contact with the surrounding architecture. Despite the new lifestyle, tradition is respected in the architectural appearance, with the use of traditional cladding materials and geometric patterns that are part of Yogyakarta's culture.

GUYUB KAMPUNG



3/9 ■

EXPERIMENTAL WATER LIVING IN YOGYAKARTA

3/10

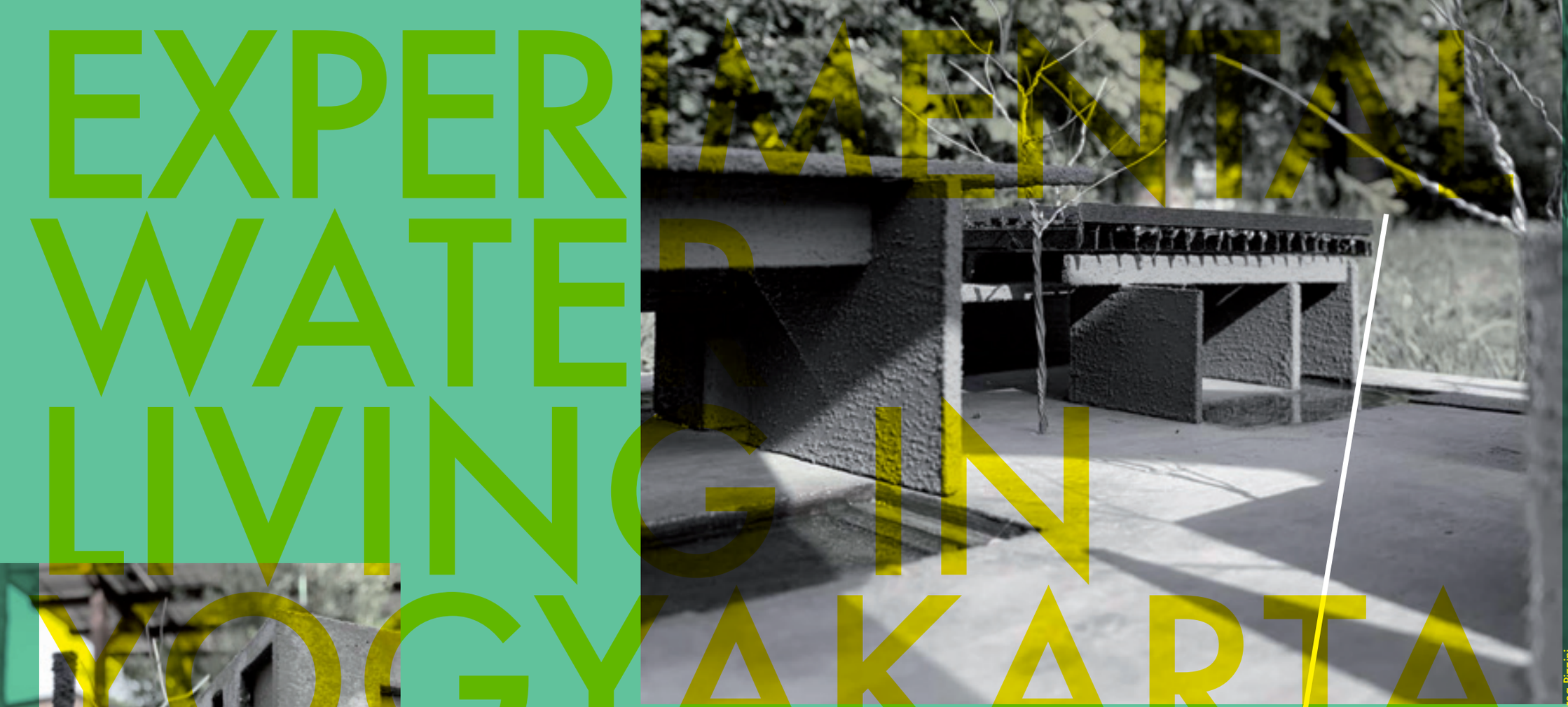
Project drafts Yogyakarta

STUDENTS
Sofia Macchia
Sofia Occhialini
Andrea Pizzini

It is easy to see how in Yogyakarta a natural element like water takes on a temporal dimension. Over the course of a year, periods of drought alternate with periods of water abundance due to the monsoon. Therefore, this project focuses on water. Watercourses and water basins are taken over or created above ground. A water catchment system stores excess water during the monsoon season in underground tanks for periods of drought. A modular grid forms the basis for the development. The exterior walls serve to maintain the privacy of the residents on the one hand and create views and insights on the other. The residential buildings have a double envelope. The green façade allows for constant filtration of the air, which is made even fresher through the use of water tanks. Privacy is ensured not only by the outer walls but also by sliding curtains attached to the windows. The premise was to create flats that could adapt to different social situations and at the same time are easily expandable. The open space is made available to the community, as is customary in Indonesian culture, in order to promote social exchange among residents. Through various measures, the neighbourhood is to become an interesting place for neighbouring areas as well, despite its peripheral location. Seating is arranged on the main square, which is illuminated at night. The main reservoir is a symbol of the transience of water; it is fed by rainwater during the monsoon and becomes a multifunctional terrace during the dry months.

The public space is designed to create an open and flowing space that can accommodate sporting events and other socio-cultural activities. Partially covered spaces allow light and water to flow inside, which therefore never lose touch with the natural dimension. For this reason, the buildings have been modified by removing partition walls that only hide the essentials. The roofing of the bar area is inspired by the Nordic Pavilion in Venice, a work by architect Sverre Fehn. This creates a play of light and shadows that reflects off the water and hits the interior walls.

EXPERIMENTAL WATER LIVING IN YOGYAKARTA



3/10 ■

GUYUB – HUMAN BOND-ING

GUYUB HUMAN BONDING

3/11

Project drafts Yogyakarta

STUDENTS
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Federica Lombardi
Chiara Menegazzi

The plot in a central location is predestined as a residential complex. Through its concept, this project seeks to support the Indonesian way of life, which is based on sharing values and common moments. Therefore, some areas also interact with the neighbouring properties. The project structure is based on the urban concept of Venice, especially the small courtyards and the calli (typical Venetian streets). This structure is intended to strengthen the sense of community, creating a network of relationships both in the neighbourhood and within the blocks. The network of paths is reinforced by grooves in the ground and pools of water running through the properties. These not only provide orientation, but also drain the rainwater. These grooves run not only on the ground and the roofs, but also on the outer walls.

Public spaces form meeting places for residents, neighbours and visitors from the riverbank. Customers can also enjoy the roof terrace with its view, take a rest or have a meal in a casual atmosphere. The public spaces created around the water basins are used for social exchange. The washhouse is a homage to Indonesian tradition and a public space with various functions. It is still possible to do laundry, but people can also draw water or cool off, and it also serves as a water reservoir for rainwater. The covered area created by the roof also makes this space a place where different activities can take place (children can play, traders can sell their goods or people can simply meet).

The interior design of the residential buildings is quite free and open: only the bathrooms have partitions, which gives the users the possibility to change their interiors and create more sociable spaces. The buildings are not modular, but their uniform dimensions allow analogous arrangement by varying some elements, such as lofts, terraces or mezzanines according to height.

GUYUB HUMAN BONDING

3/11 ■

A PLACE FOR DIVERSITY

3/12

Project drafts Yogyakarta

STUDENTS
Alessio Iacob
Satoru Okada

This project consists of a place of worship, two houses/workshops and a public building connected by a square. The place of worship is not designed for a specific religion, but rather a multicultural space intended for daily prayer. This is to respond to the desire to create a heterogeneous cluster where people from different cultural backgrounds can live together. The houses have no clear boundary to the square, creating a close relationship between residents and the wider community. At the same time, privacy is maintained because the houses have different degrees of permeability. The communal area is equipped with a shop for daily groceries and offers a covered space immersed in nature where people can rest sheltered from rain and sun.

The buildings consist of walls embedded between two horizontal elements. The rooms are boxes, of which only the necessary partitions have been retained to define a space. The cavities between the rooms are also part of the house, both as a connection and as a public extension of the house. Workshops are located in most public areas so that people can watch craftsmen at work while preserving local traditions. Curtains, fitted both inside and along the exterior contour, delineate the spaces, provide a visual screen from the square, and protect from wind and rain. The curtains are anchored on two rails to keep them under tension. Some changes are made to the flooring to make the different spaces perceptible. To enhance the feeling of lightness created by the absence of external walls, there is a join between the floor and the walls.

The place of worship is distinguished from the houses by its mass, which is heavy and austere. Water – a sacred element common to all religions – is used to denote the building as a religious space without the use of religious symbols. Light is used to divide the space into two parts; one is completely accessible, while the other is physically inaccessible. These two areas are connected by an opening that leads visitors on a path from darkness to light.

A PLACE FOR DIVERSITY

3/12 ■

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PORO-CITY: THINNING OUT THE KAM-PUNG

3/13

Project drafts Yogyakarta

STUDENTS
Filippo Presentati
Mattia Primiano
Alessandro Zamprogna

The high population density of Yogyakarta (9,200 inhabitants per km^2) was the starting point for the development of this project, which is based on the concept of porosity. The porous rock of Mount Merapi itself conjures up an informal space that resembles the cavities of volcanic rock. Behind every corner and street of this project hides an unexpected activity, each built volume defines a relational space. Empty spaces define public spaces.

This master plan concentrates most of the residential density along a central axis that promotes urban mobility. This introverted design moves the buildings from the axis to the edge of the area, protecting the core from traffic and noise from outside. In addition, the axis helps to distribute the buildings to the right, thinning them out from the central axis. Public staircases lead to the watercourse and the public part of the area.

The residential buildings follow a concrete structure to encourage self-building. The clusters consist of a modular distribution and service system and an incremental space that is structurally defined and divided into two levels. This approach resulted in a simple design: the different flats consist of standard and individual modules. The presence of terraces and slabs creates an outdoor space covered by a wooden roof. The Indonesian climate is characterised by high temperatures, high humidity and heavy rainfall; thus the buildings follow a bioclimatic approach to adapt to these weather conditions. Passive ventilation through tight windows, porous walls and an empty layer under the floor slab, as well as the raised, overhanging roof, promote ventilation and protect against sunlight.

PORO-CITY: THINKING OUT THE KAMPUNG

3/13 ■

CREATIVE WORKSHOPS

CREATIVE WORKSHOPS

4

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Supporting programme

"Of all the arts, architecture has the most direct impact on people's everyday lives. (...) Day and night we are surrounded by architecture, which envelops us like a third skin (...). Given the extent to which architecture or the built environment determines our lives, it seems surprising how little it ultimately interests us. There is an amazing discrepancy between the objective meaning of architecture and its subjective insignificance in the perception of most people."[1]

1 Budde Christina, Architekturmuseum macht Schule – Bildung und Vermittlung im Deutschen Architekturmuseum, in: Budde Christinna and Winkelmann Arne (ed.), *Von Häusern und Menschen - Architekturvermittlung im Museum*, München 2010, p. 31.

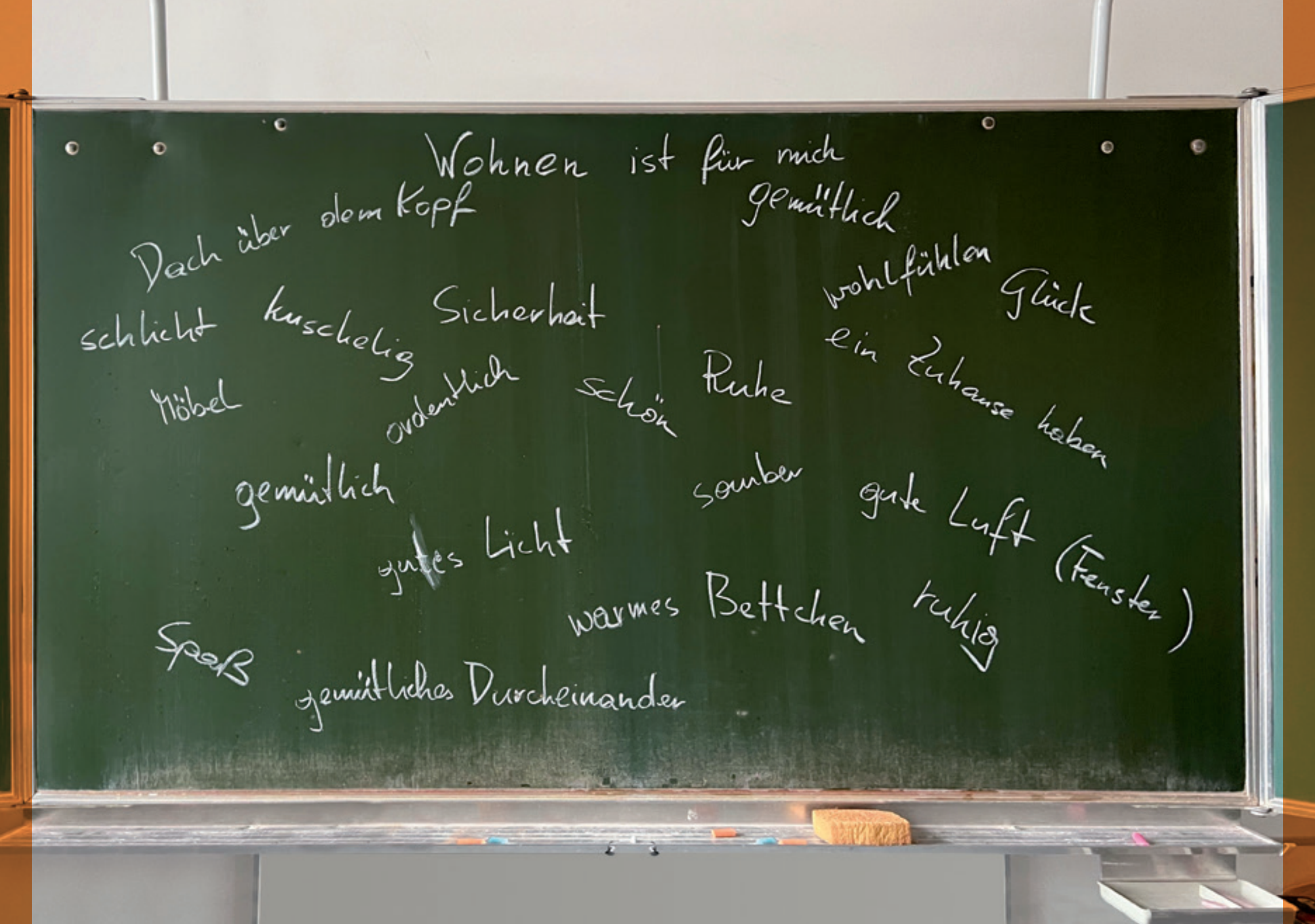
CREATIVE WORKSHOPS

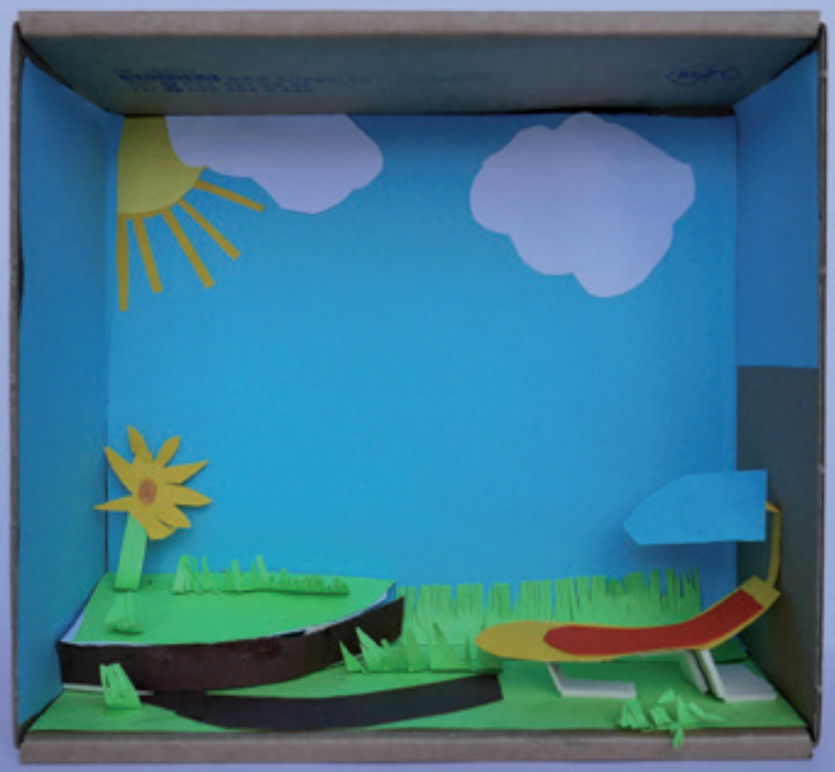
While the discipline of architectural mediation is still in its infancy, the spatial experience of children is well documented. It progressively advances during childrens' development until adolescence and is strongly influenced by the respective socio-cultural context. For this reason, the LIVING 2060 project was particularly aimed at children and young people (target group)[2]. An essential goal of the project was to support this target group in perceiving their everyday environment more consciously, to experience spatial qualities and to recognise the formability of our environment.

Today's children and young people are tomorrow's users and decision-makers. Above all, this means sharpening children's and young people's awareness of their living space, researching and questioning it together, and ultimately developing the sensitivity that enables them to make decisions. The ability to recognise high-quality architecture is the most important prerequisite for achieving a qualitative improvement in our structural-spatial environment and for attracting responsible users and recipients.

For this purpose and with the target group in mind, creative workshops were planned and implemented, enabling children and young people to approach the complex topic of "living/housing" in a playful and experimental way. In target-group-oriented workshops and in co-operation with their class teachers, children and adolescents were introduced to the topic under the guidance of artists and architecture mediators and thus sensitized to the requirements of architecture and urban planning as well as to their own wishes in this regard.

2 See also.: *Milieu, Urbanität und Raum: Soziale Prägung und Wirkung städtebaulicher Leitbilder und gebauter Räume*, by Katharina Manderscheid, VS Verlag für Sozialwissenschaften 2004, pp. 143ff; as well as Budde Christina, (see footnote 1).


Wohnen ist für mich
Dach über dem Kopf
gemütlich
wohlfühlen
Glück
schlicht
kuschelig
Sicherheit
ein Zuhause haben
Möbel
ordentlich
schön
Ruhe
gemütlich
sauber
gute Luft (Fenster)
gutes Licht
warmes Bettchen
ruhig
Spaß
gemütliches Durcheinander




Hier machst Du etwas Kleines
und Wertvolles
Hier willst Du mit Freunden
Party machen

4/0 ■

Living the change / Change the teaching

Riccardo Miselli

Living the change / Change the teaching

4/1 About teaching

Riccardo Miselli
Born in 1976. Architect since 2002, PhD in 2007. He has been teaching composition as adjunct professor at the Department of Architecture in Ferrara since 2014. He has published widely on the role of architectural design, including Genoa A/R. A City-Laboratory for Social Housing (ed. Letteraventidue, 2013), Around the Void, Italian reflections on the theme (ed. ListLab, 2015). His office Neostudio has been published several times in architectural journals and has received several awards, including the City Scape Award 2023 – Landscape Redevelopment of Urban Spaces (special award, 2023).

It is undeniable that over several years the climate has been changing and that this change is largely attributable to the construction industry. It is equally obvious that the pandemic has led to an increased reflection on the way we live and that this issue today leads to an increased reflection on typology. Furthermore, such issues will become ever more urgent in the light of the major migratory flows that are expected due to global warming.

Faced with these questions, the discipline of architecture can react in different ways. It can close in on itself, denying or minimising its role in society with a certain short-sightedness; it can abruptly deviate into new unexplored territories, dissolving past experiences; or it can seize this change as an opportunity, expanding and making elastic its disciplinary boundaries without denying them, moving forward with a constructive spirit and envisaging greater operational margins.

Given this scenario, we are currently faced with a period of permanent crisis, in which the teaching of architecture is undoubtedly the best tool to take care of the future, by bringing the next generation closer to the notion of architecture as a central player in the endeavour to achieve a sustainable balance between environmental, economic and social factors, in which beauty is not an achievement to be admired, but a condition to be maintained through continuous, small adaptations.

These concrete issues underlie the "New European Bauhaus", that is, the principle that directs the development and management of the resources of the member countries of the European Union, and the idea of urban regeneration that we hope will be increasingly widespread and understood. Teaching design – today more than ever – cannot be exclusively about transmitting pre-constructed models to be applied to answer a given question, but must also be an articulated moment of individual growth that organically involves culture, research and practical experience.

These three spheres – which are in constant tension with each other and over the past century have related to each other in various ways (in some periods even with substantial indifference) – today must find a new balance if architects are to play a role in building the near future.

The experiences gained during the course of the workshop on the Indonesian theme of Yogyakarta – which took place precisely during the time of the pandemic – actually forced a significant change of register, a radical departure from the ordinary canons, on part of students, staff and the entire faculty.

Addressing a somewhat familiar theme – such as collective residence – but applied in a radically different cultural and environmental context, required a considerable effort in shifting points of view and breaking out of established ordinary beliefs.

In fact, every architect should force herself/himself to make such an effort every time s/he has to deal with a new project. In this specific case making the effort allowed us to anticipate some issues that represent a real change and that soon will influence our work as architects.

The first issue concerned the core of the discipline. In addition to well-established themes (such as the composition of forms, the quality of

Living the change / Change the teaching

space, the control of light and the sense of measure) from the outset we rediscovered some aspects that in the recent past have remained marginal to the discipline of composition. The quality of the void and public space, the relevance of climatic and environmental aspects, the social and cultural dimensions of the community of reference, the cost and the availability of materials and the techniques with which they are assembled are themes that today have a significantly impact on the academic discourse.

The second issue concerned the tools of the trade, which, over the course of very few years, have changed profoundly. Drawing by hand (an indispensable tool in the appreciation of measurement and proportion) and its digital alternative in the form of CAD, have been joined by increasingly advanced three-dimensional and parametric modelling tools. Profound control skills are required if these very powerful tools are to be used effectively and with maturity.

The third aspect concerned the design process as a whole and the co-operation between the various actors in the architectural process. Architectural projects are the result of collective and increasingly multidisciplinary work – a balanced synthesis of different points of view and often conflicting interests. The physical tables around which we used to gather have been replaced by digital platforms and interactive whiteboards, dissolving the collective and social experience of traditional design workshops, which through the practice of listening, debate and sharing had gained a unique cultural position.

The fourth and final aspect concerns the ability to find information. Architecture has always used models that it reinterprets, translates, reworks and adapts to specific cases. Historically, information was jealously guarded, carefully selected, and creatively used. Today we have essentially unlimited resources and information, and modern technology allows anyone to find information by simply using a smartphone.

In recent years, technology has evolved at an unexpected pace, bringing us unconsciously into a kind of post-media era. Like radio, the Internet, and YouTube in the past, artificial intelligence now represents a new frontier, especially in the humanities (in the fields of law, linguistics, and journalism, where the reliability of the cited sources is a fundamental element). The same is true for architecture, which also has a deep and latent humanistic dimension that needs to be rediscovered and enhanced in order to be able to see challenges as opportunities rather than threats, essentially by interrogating the computer with the most appropriate variables, while managing to stay on course towards the desired goal despite a very rough sea.

The new tools will certainly change the way we work, and architecture will certainly change and endure, but will architects be able to do the same?

4/1 ■

WISH LIST "SPATIAL PROGRAMME"

5

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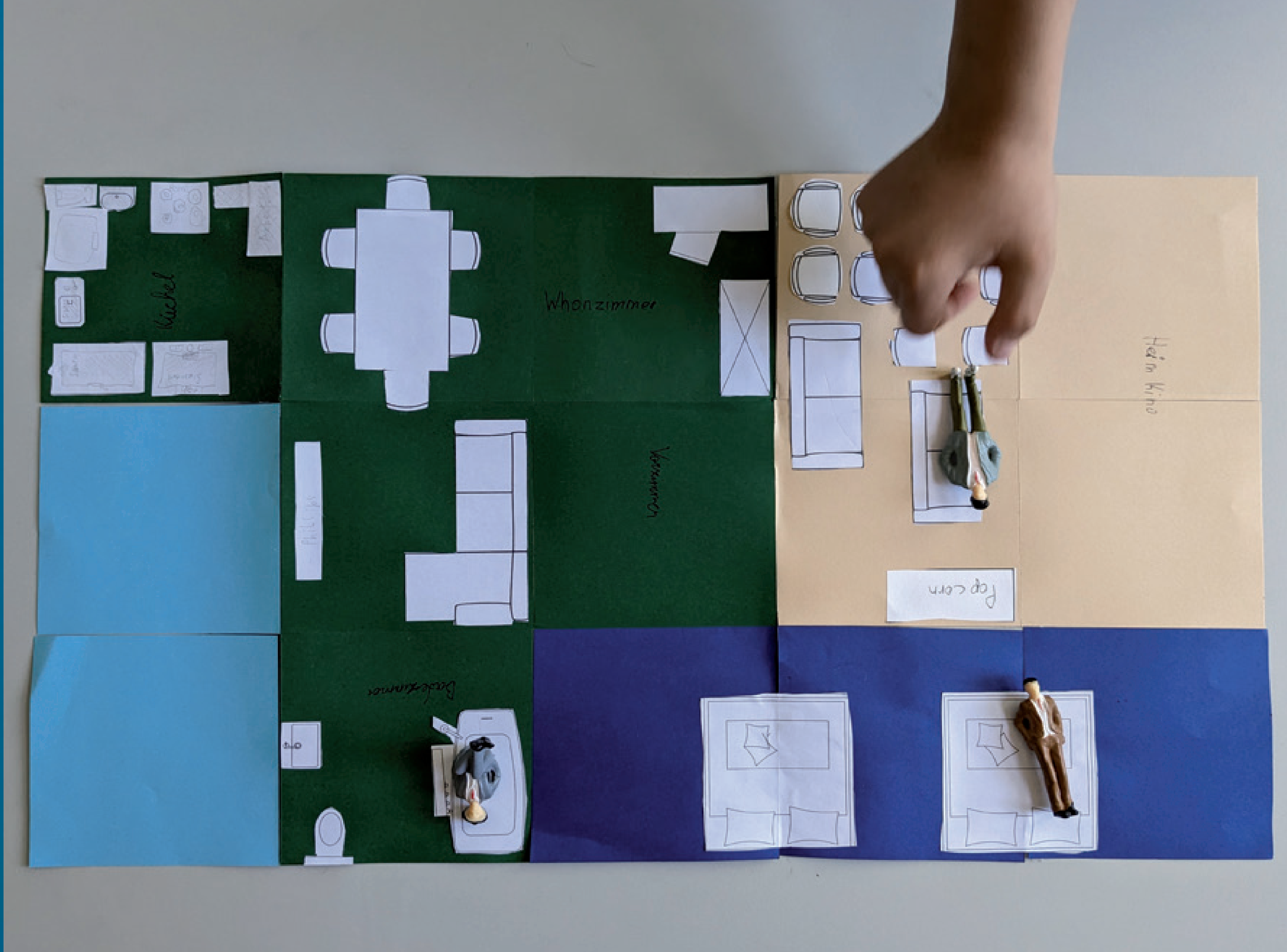
Supporting programme

For each building to be constructed, a room plan is drawn up, specifying to the architect which rooms must be accommodated in his or her design. The spatial plan is the starting point for a building plan and is compiled by the client ("the contractor") as part of the project development. It represents a first detailed overview of the building task and the subsequent construction, including a description of the rooms and their function. On the basis of this spatial plan, the architects define in their plans not only the extent, type and distribution of the rooms, but also the connections between and openings of the rooms. The way in which the rooms are connected and their location and the size are the factors that determine the function of the rooms and their spatial hierarchies. Every building has main rooms that are used frequently, and secondary rooms that are used less often.

In the "Wish List" workshop, students were introduced to the topic of spatial programmes. As an introduction, photos brought by students of their favourite places in their own living environment were presented and discussed. What activity do I carry out here? How much space do I need for it? In small groups, wishes for a possible spatial programme were defined and then implemented in collages. Prefabricated room squares on a scale of 1:25 were used as a guide to compare the areas with the activities envisaged. A similar room square on a scale of 1:1 was taped to the floor in order to be able to physically and repeatedly check ideas.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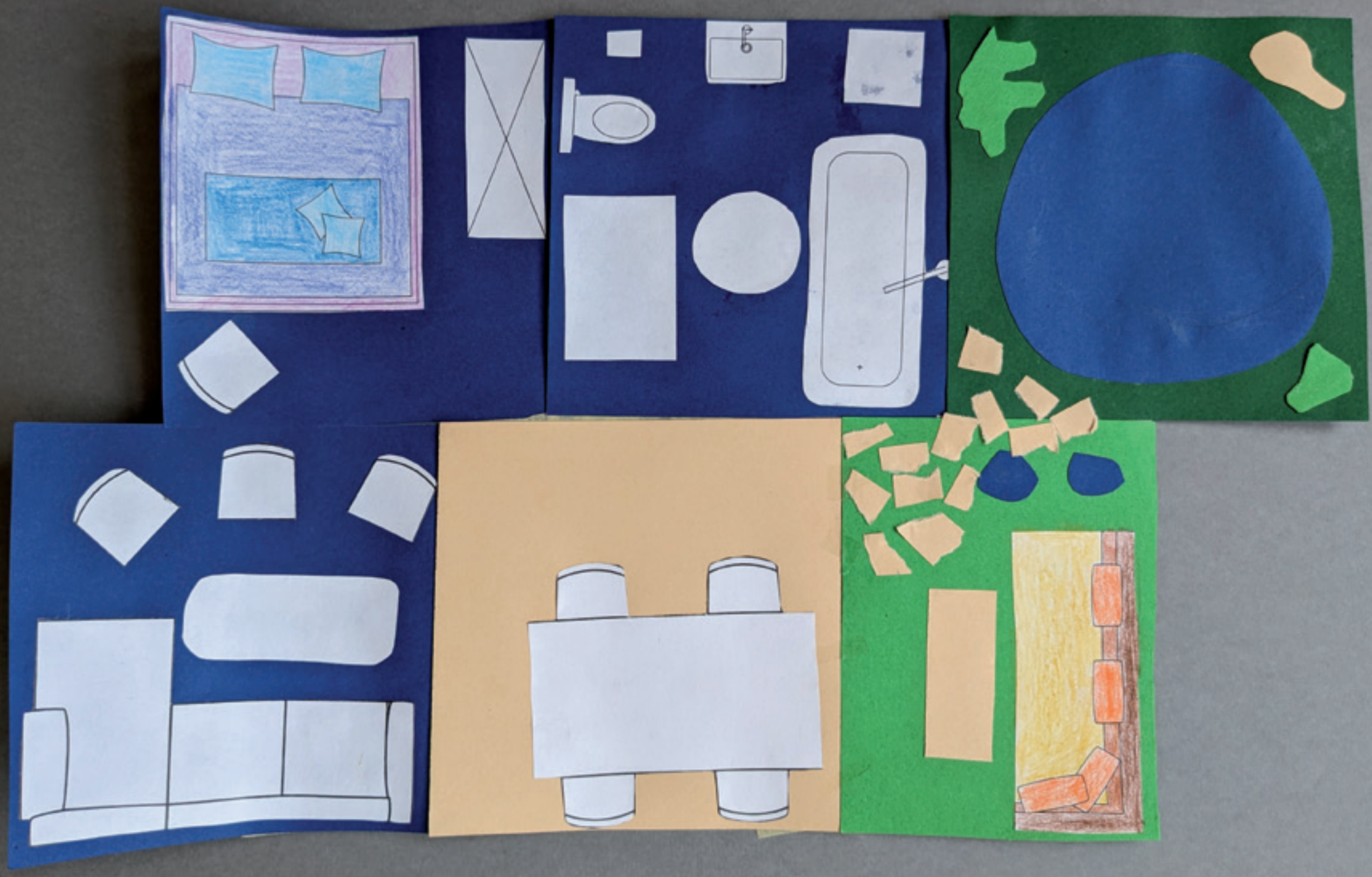

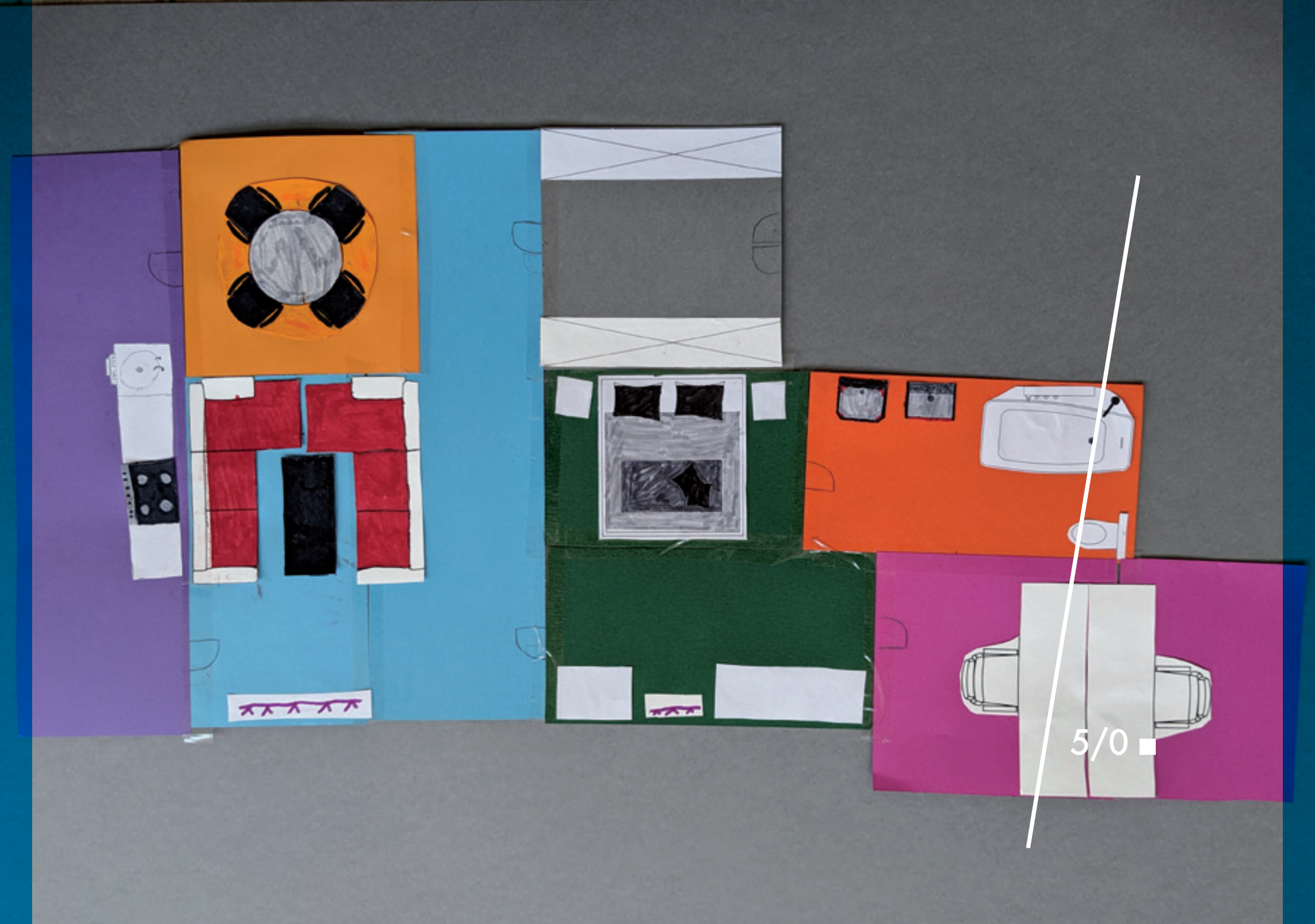
5/0

ROAMING CLASS-ROOM BANGKOK

0/1*

Location
Bangkok

Alternative dwellings in the informal settlement of Klong Toey, Bangkok

The Klong Toey is an informal housing area formed in 1939 by dock labourers working for the Port Authority of Thailand (PAT). Thanks to low-cost housing and job opportunities, the area attracted immigrants from many ethnic backgrounds, including Thais, Laotians, Khmers, Vietnamese and Burmese. At present, there are 43 communities in total, including 17 communities that live inside the PAT land and 26 communities that are located outside of that area. Housing in Klong Toey can be categorised into four groups, namely "informal settlements", "walk-up flats", "co-operative housing", and the new "habitation improvement".

Most of the Klong Toey dwellings have combined live-and-work arrangements and characteristics, meaning that the residents, who are mainly on low incomes, live and work in one place. Therefore the housing spaces play double or multiple roles in order to support or accommodate living, working and other activities. This project attempts to understand how live-and-work arrangements interact with the informal settlement, and seeks to propose alternative dwellings for the people of Klong Toey and to design such architecture, including the configuration of new settlement structures that could respond to and embody such live-and-work arrangements.


ชุมชนรักษาศีล


6/0/1

Housing Alternatives for Low-Income People in Bangkok

Housing Alternatives for Low-Income People in Bangkok

Supreeya Wungpacharapon | Soranart Sinuraibhan

Supreeya Wungpacharapon
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6/0/2 ◢

To the location

The rapid growth of cities in Thailand has resulted in congestion, environmental degradation, and the formation of slum communities that are scattered across various urbanised cities, especially Bangkok and its vicinity. As a result, land and housing management, particularly for low-income and vulnerable residents of the city, has become a government priority. Following the "Right to Housing for All" outlined in Habitat III and the "Sustainable Development Goals", the Thai government has tasked the Community Organizations Development Institute (Public Organisation) or CODI with implementing a social welfare programme ("Baan Mankong" or "Secure Housing Programme") to address the housing needs of low-income communities at a nationwide scale. The "Baan Mankong" programme employs a vital operational strategy, placing emphasis on empowering the community through ownership of the project, thus enabling members of the community to manage and tackle challenges. To achieve this goal, the programme implements a comprehensive set of plans that encompasses housing and community development initiatives, as well as budget management. Additionally, the project focuses on fostering community potential in diverse areas – such as savings, organisational management, construction supervision and land management. However, in order to address urban mass housing for all groups of people – especially for marginalised sectors of the population, such as urban poor or older people – a specific action plan is still required.

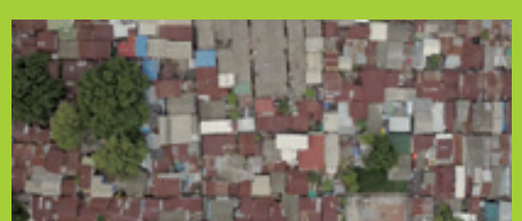


Fig. 1: Aerial view of the Klong Toey community

Klong Toey is the largest low-income neighbourhood in Bangkok; in the vicinity of the port it houses approximately 6,000 families on land owned by the port authority. This settlement dates back to 1939, when several poor families, attracted by employment opportunities as casual dock labourers, squatted in the marshy area. Despite several attempts over the years to evict the residents to allow for the expansion of the port facilities, the population kept growing, and a strong community organisation, supported by voluntary agencies, has been opposing eviction attempts since 1973. The "National Housing Authority (NHA)" became involved and, in 1981/82, across a six-hectare area, built 1,512 units of five-storey walk-up flats to be rented by slum dwellers who had been evicted as a result of a first port expansion plan. Other low-income families have lived informally in the area, with insecure tenures and unhealthy conditions within the built environment. However, as the Thai government has recently decided to develop Klong Toey as part of a "master plan", pressure from the port authority has increased. The port authority sees Klong Toey as a prime location for real estate development and a new urban centre. The "master plan" was proposed to public without informing the residents in Klong Toey community, who under the plans would have to be displaced. The imminent plans to develop the area have become the driving force to evict the current residents of Klong Toey, which would have negative repercussions for the entire community.

The future of the residents is thus uncertain, as they are under threat of being evicted with-

Housing Alternatives for Low-Income People in Bangkok

out a means of maintaining their livelihood and adequate support for family members. The port authority is proposing three alternative solutions to the families to be evicted, namely relocation, compensation and rehousing. The first, relocation of the affected families, would be through the provision of land on the outskirts of Bangkok, without any further financial assistance. The second option is a cash compensation scheme, to help affected families purchase an accommodation of their choice anywhere in the country. The third option is the rehousing of the families in newly constructed 24-storey residential buildings at an abandoned Tannery factory owned by the Ministry of Defence, which is supposed to be more convenient and located in an area comparable to that of their previous accommodation. However, each of the proposed solution is fraught with several problems. For example, those that accepted relocation to the outskirts of the city have found their livelihood taken away, because their previous location also served as their means of subsistence, a lifestyle they could not maintain in the new environment. Those that received cash compensation have found they were not given enough to purchase affordable homes in an area where they could sustain their economic activities and maintain social contacts. Furthermore, families that accepted rehousing in the newly built residential housing complex have come to realise that living in such an environment comes with high maintenance costs and expensive public services, which are not affordable for low-income older residents and to which they were not previously accustomed. There are concerns among the affected families that these modern residential buildings will turn out to fail to meet their needs and expectations.

People have also found that living in a multi-storey building can be very different compared to their lives in their previous neighbourhood, where they could use their flat for business activities during the day and as a home at night. In addition, rehousing people in flats and high-rise buildings creates other social problems, as people are pushed into isolation and loneliness. Uncertainties around housing and livelihood, and inadequate and/or inaccessible infrastructure have negative impacts on low-income and older people's health and wellbeing (Tangkoblarb, 2005; Ronnakarint, 2002). A number of studies have explored the situation at Klong Toey, with regards to housing provision for the poor families living in inadequate built environment (Duang Prateep Foundation, 2018). While there are studies that have focused on the living conditions of the Klong Toey communities, not a single one has explored living conditions in relation to the Klong Toey built environment and its infrastructure (Duang Prateep Foundation, 2011). Most of the proposed solutions have not been effective, mainly because they failed to take into consideration the fact that informal structure, such as familial relationships, social networks and community connectivity, are crucial for the maintenance of the well-being of people in Klong Toey.

Most studies dealing with the housing situation in Klong Toey propose forced eviction and/or relocation of residents as a panacea to solve the complex living and livelihood problems of the area (Ferrero et al., 2018; Morales Castillo et al., 2018), but not many studies have explored people's living conditions in relation to the nuances around their livelihoods. However, it is undeniable that the combination of uncertainties around housing and livelihood and inadequate or inaccessible infrastructures has negative impacts on the health and wellbeing of low-income people.

Therefore, in order to help devise a mechanism to fulfil the housing and livelihood needs of low-income communities, it is necessary to fully understand their specific needs, particularly because such communities are sustained on limited resources. Affordable housing concepts for urban households should go beyond reducing the size of living spaces, and instead put more emphasis on residents' needs through participatory design approaches that enable more efficient, flexible and personalised spatial utilisation (Piirinen & Tervo, 2020). Most housing in Klong Toey can be categorised as "live-work housing", as defined by Dolan (2012). This is usually a single flexible space that can be used for both living and working purposes, allowing the user to adapt it to many different configurations, resulting in mixed use and benefiting from great flexibility. Additionally, this makes an important contribution to the vitality of the neighbourhood and to the creation of lifelong communities. Academics researching the situation in Klong Toey should ask whether they fully understand the "live-work" housing needs of Klong Toey residents and what can be done to support and maintain their livelihood.

The project devised by architectural students at Kasetsart University recognises the need for the affected low-income people to leave their existing housing; however, any proposed solution must take a holistic approach to ensure the resolution of housing problems does not impact negatively on low-income people's livelihood in the Klong Toey community. The students suggest alternative dwellings for Klong Toey inhabitants in order to address complicated issues that arise in real life, and they employ a method that involves low-income stakeholders in the conceptualisation and design process of the project. The study will use a holistic approach to examine how the urban infrastructure already present in the Klong Toey area influences the living and working situations of low-income people and how this affects low-income people's quality of life. The findings of this study could be useful for other Bangkok communities with similar demographics. The three projects that were selected show how architecture serves as both shelter and a place of livelihood, and take into account essential human necessities, social practices, and everyday discourse. The lessons learned from the students' project could contribute to a range of solutions for redevelopment and relocation and support the provision of affordable and adequate "live-work" housing options for vulnerable residents through bottom-up advocacy.

Fig. 2: Sketches of the interior space of a house in Klong Toey, showing how the working and living spaces overlap.

Housing Alternatives for Low-Income People in Bangkok

Fig. 3: Interior space of house in Klong Toey where living and working spaces are combined.

Fig. 4: "A house for everyone in Klong Toey", designed by Gabriel Remy Plumel

Fig. 5: "One-metre house in Klong Toey", designed by Kanchanit Jantrucanont

Fig. 6: "Liveable, moveable and workable architecture", designed by Kavipat Akkabuth

The above text is taken from a research paper entitled '"AgeingHood: Protecting the livelihoods of vulnerable residents in Bangkok", which was funded by the UK Arts and Humanities Research Council under the Global Challenges Research Fund Urgency Grants pilot. The research was a collaborative project between the University of Sheffield, UK and Kasetsart University, Thailand, with support from Promjai Development Foundation and Klong Toey Community Organisation Council.

6/0/2 ■

SPACES FOR KHLONG TOEY

6/1

Project drafts Bangkok

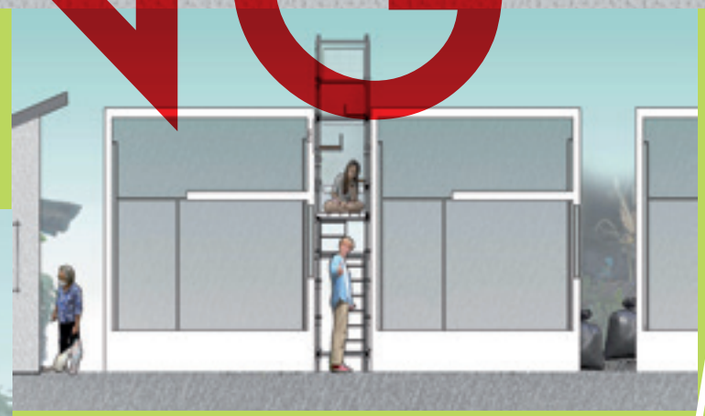
STUDENTS
Kanchanit Jantrucanont

Klong Toey is a crowded area and it is a "slum" – so there is little available space. Yet many people who live there are forced to expand their living space. Since space is so
limited, they have to use every nook as a space to live.

People live everywhere, even in places that most Europeans would consider unfit for human habitation. People in Kling Toey live under the motorway, in spaces that that are only 0.9m high. They dig down into the ground and thus create a sort of living space.

However, there is still useless space in Klong Toey, full of rubbish, which could be turned into useful space. This project uses these "in-between" spaces, which are mostly only one metre wide, to create space for several people to live on several floors.

SPACES FOR KHLONG TOEY



6/1 ■

HOUSING FOR EVERY-ONE

HOUSING FOR EVERY ONE

6/2

Project drafts Bangkok

STUDENT
Gabriel Remy Plumel

Klong Toey is an informal settlement of more than 100,000 residents located in the dockland area of Bangkok. At first glance, the housing units appear to be disorganised, but they are in fact self-organised through a network of proximity and confinement that conditions community resilience; a spatial result of a particular way of life that has evolved over more than 50 years. At present, following the government's decision to turn the harbour area into a real estate development area, the slum dwellers have to prepare for eviction from their homes. Therefore the issue is to find solutions both to the temporary problem of emergency housing in case of eviction and to the possible slow transformation of the slum into a healthier living space that nevertheless retains the lifestyle in the self-built slum.

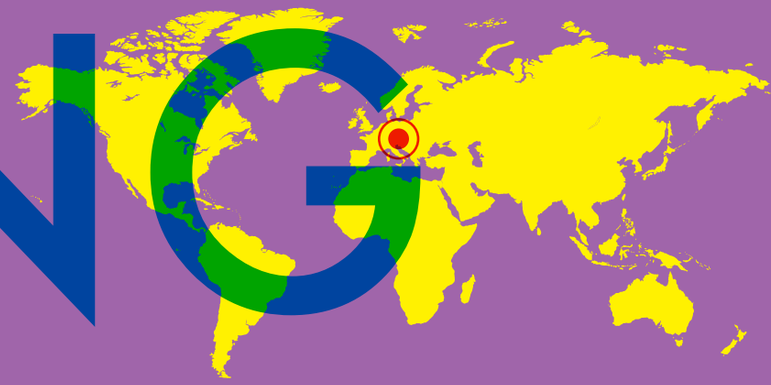
The local way of life is based on the proximity of the residents and thus on the narrowness of the urban fabric, which conditions the trust, resilience and, in effect, family self-management characteristic of Klong Toei. The way of life developed by the residents is based on an evolving and changing use of space (as families develop), so the architecture must be available and free to be used for uses whose boundaries are constantly evolving. The only real physical boundaries are the walls that separate the family units with their own uses from the remaining shared space between them.

An "urban vernacular" architecture in Klong Toey built by and for the residents from the immediate surroundings with recycled local materials, scaffolding structures, building materials, cardboard, scrap wood, aluminium cladding, etc. The project thus focuses on three different prototypical situations. Three architectures, from the most ephemeral to the most durable, but all three offering the possibility to evolve over time, are implanted in different spatial contexts. These three homes/workplaces/meeting places serve as examples of the possibilities for adaptation, evolution and accessibility of better architecture to meet the needs of the residents of Klong Toey. These three spatial situations scattered throughout the slum represent the first step of a slow transformation into a denser and healthier living space, functioning on a completely provisional basis under the current threat of possible eviction.

HOUSING FOR EVERYONE

6/2 ■

ROAMING CLASS-ROOM/ VIENNA



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Location Vienna

The planning area “Stadlauer Lände” is situated on the river Danube between the underground station “Donaumarina” (to the west), the railway station “Praterkai” (to the east) and the freight depot “Donaukai” and the railway line “Donauuferbahn” (to the south).

It is the aim of the Design Workshop to develop plans for multi-functional modular residential structures of a re-usable design, which can be re-used quickly and cost-effectively in different locations.


7/0/1

BETWEEN THE LINES

CONNECTING NEW AND OLD WITH FREE SPACES

7/1

Project drafts Vienna

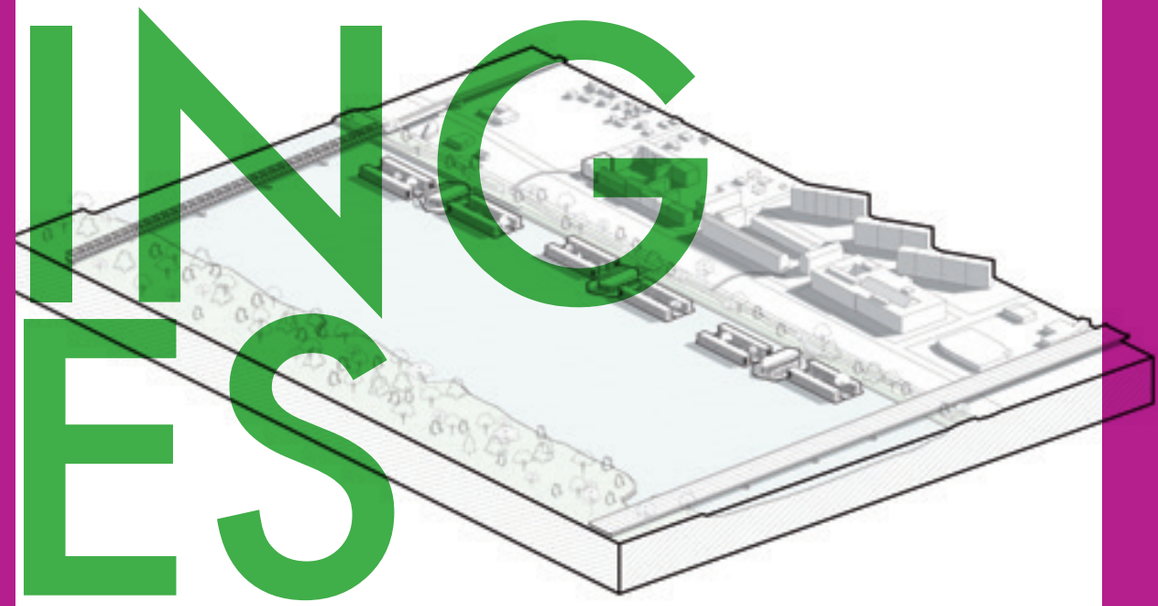
STUDENTS
Antonia Moza
Valeria Tosa

The construction site is located between the Reichsbrücke and the motorway bridge. The building site is accessible from the north-west (U2 Donaumarina) or from the south-east (access via the tracks). A development was planned that interacts sympathetically with the neighbourhood opposite and does not disturb its visual axes, but instead takes them up and expands them. The newly created modules are located on the Danube bank at the waterfront and along the Danube promenade. What is currently missing in the area is a connection to the city for all pedestrians, bicycles and cars, as there is only one thoroughfare. To better integrate the newly created district into the town, a bridge is being built from west to east. The bridge is accessible on both sides via a ramp and is temporarily shaded on the west side by the lamella construction (through natural planting). The newly created spatial modules and open spaces are made up of communal zones and private areas.

BETWEEN THE LINES

7/1 ■

FLOATING SHELVES



7/2

Project drafts Vienna

STUDENTS
Jan Koppers
Michael Haidinger

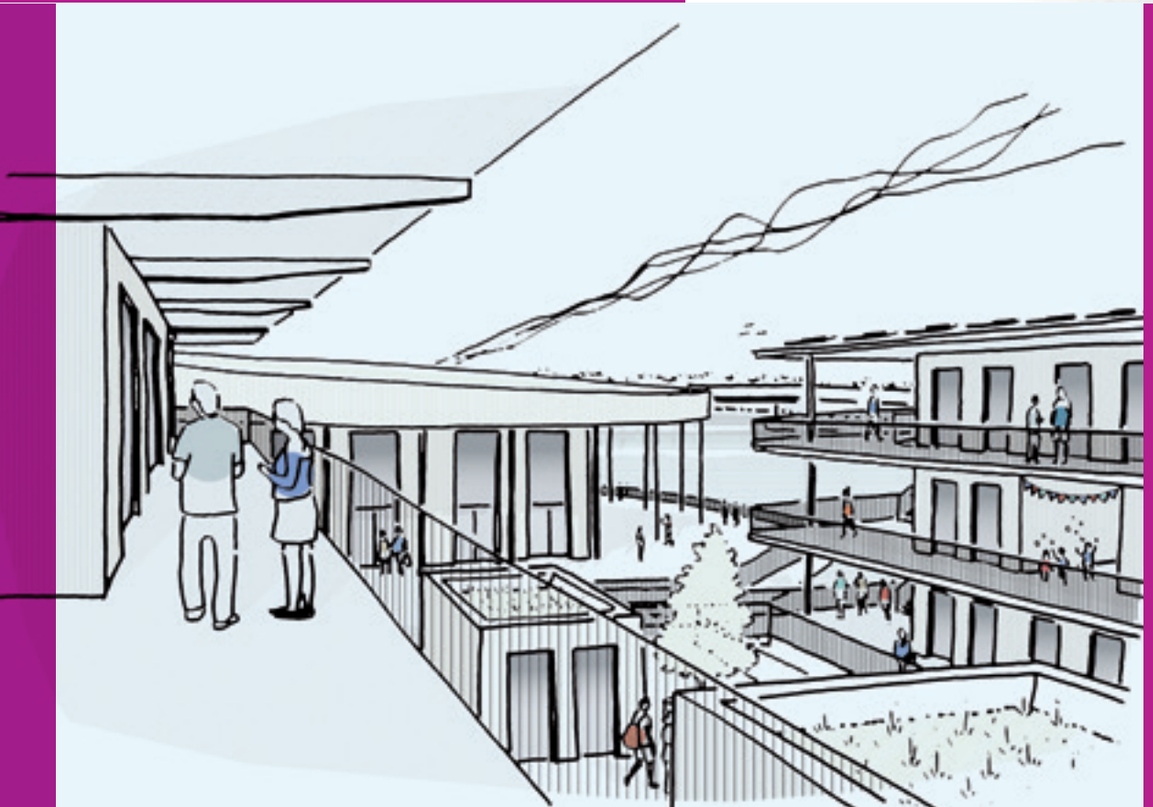
In view of the growing number of refugees worldwide, there is an increasing need for suitable accommodation for those seeking protection. The approach of this project is to create a modular system that is independent of time and place. The strategy pursued goes one step further and aims to offer the future residents more than just a roof over their heads. Future prospects, self-sufficiency, social participation, education and community are central aspects.

This is to be achieved through a system that is as flexible as possible and can be adapted to any new needs that may arise. This includes a high degree of individual freedom. Individual modules can be made into permanent residences by the residents; it makes sense for the respective resident to make their new accommodation their new home and to design it according to their own ideas. Above all, the refugee home should be a place of community and support, both formally and in terms of personal perspectives and health.

To this end, various public spaces, such as a workshop, a school and a medical centre, are being added to meet these needs. Despite the refugee crisis, sustainability in construction must not be neglected. In this project, different strategies are followed to keep CO_2 emissions as low as possible and to prepare for the expected climatic conditions. Especially when wood is chosen as the main component of the building mass, the sequestration of CO_2 has a positive effect on the overall balance. In addition, more trees are planted.

Recyclability through a predominantly mechanical construction method is also a given. In order to be able to react adequately to the radical change between heavy rainfall events and dry periods, the sealing of areas is completely avoided and an extensive system of retention, water storage and infiltration is provided. Due to the increasing soil sealing and urban sprawl, only the water area will be used for the project. The floor area ratio could therefore be specified as 0.0. This also has the advantage that old transport vessels can be reused and the entire structure is easy to transport. Thus, in the event of a change of location, no structural remains would remain at the site as building encumbrances. However, it is conceivable that individual components could remain on site and be reused. The system is therefore maximally flexible.

FLOATING SHELVES



7/2 ■

HARBOUR OF PEACE

7/3

Project drafts Vienna

STUDENTS
Aust Joel
Bucur Dan
Klisanin Marija

The need for temporary accommodation for refugees and the modular construction method are the decisive factors for the architectural concept of the “Harbour of Peace”. The design is based on a modular construction system that allows the buildings to be easily expanded as needed to adapt to future uses or a different location.

Two main ideas were considered in the concept. First, the need to create modest but welcoming homes where residents feel safe. Here, the designs vary from small to large flats that can accommodate up to six people. The second main idea was to create an environment that is educational, caring and protective. To achieve this, public spaces such as a kindergarten and a school, as well as communal spaces, are included in the system in addition to the flats.

The former are located on ships, which not only ensures the safety of the children but also changes the function after school. For example, adults can take language lessons here. In terms of construction, it is important to ensure that the building is not only easy to erect, but also just as easy to dismantle if it needs to be relocated at short notice in the future. From the point of view of “demountability”, it made much sense with the materials chosen to work on an uncomplicated and versatile construction detail with as few fixings as possible in order to maintain structural stability and aesthetic quality.

HARBOUR OF PEACE

7/3 ■

INDEPENDENT CITY

7/4 ◢

Project drafts Vienna

STUDENTS
Dominik Seyser
Sara Vejnovic

What challenges will the future bring? As architects, we strive to create flexible and sustainable housing to meet the increasing demand for housing. Especially in times of crisis, housing needs to be provided as quickly and for as many inhabitants as possible.

With this premise in mind, "Independent City" strives to meet the demands for flexible, economical, and self-sustaining housing. The buildings are made of wooden modules that can be quickly disassembled and transported to where they are needed. Solar panels and garden areas allow residents to be more self-sufficient. All parts are made of sustainable materials and are manufactured to be flexibly arranged. Each module can be easily reconfigured to meet residents' needs and change function. Some modules are designed to be particularly fast and easy to transport to quickly meet the needs of an area.

On a larger scale, the "Independent City" has an urban design concept that focuses on creating communication spaces and proximity between residents. Necessary functions are arranged around a central plaza, which also shortens the routes through the "Independent City". Public spaces with modular functions, such as skate parks, sports or urban farming, are also part of the concept.

Modular architecture is designed to maximize quality for residents while addressing the critical technical aspect of ease of transportation and fixed module sizes. Balconies, terraces, large shared rooftop spaces with urban gardening or gathering spaces, and a strong emphasis on light in the interior spaces define the structure. The open and multi-level corridor areas invite neighbours to get to know each other and provide a space to enjoy a nice breakfast, for example. All in all, "Independent City" aims to create a high-quality and flexible living space that brings people together while being practical and self-sustainable.

INDEPEN-DENTCITY

7/4 ■

URBAN NOMAD

7/5

Project drafts Vienna

STUDENTS
Selen Hacizekeriyaoglu
Tobias Schöffmann

The first considerations were in the direction of extending the site to the railroad tracks, which would have meant changing the existing site. Since the project on this site in Vienna is of a temporary nature, the next approach was to design a structure that requires almost no change to the site and leaves the site untouched after deconstruction. Therefore, the final form stands on columns that can also adapt to the sloping landscape.

The purpose of "Urban Nomad" is to create quickly erectable housing units and high quality housing for refugees. The construction system of "Urban Nomad" is reusable and adaptable to any type of construction site. The project area in Vienna is of an elongated shape and offers almost nothing to pedestrians/bicyclists. The landscape concept of urban nomad aims to take advantage of the elongated shape of the site and create scene changes as passengers pass by. This concept can be continued on the site even after "Urban Nomad" is deconstructed.

The policy of "Urban Nomad" is to support its residents after living in an extreme or refuge situation by maximizing areas for community. To establish this type of social aspect in the design, corridors were created that are located outdoors. These corridors function as both access areas and generous outdoor balconies.

"Urban Nomad" has a cross-laminated timber construction that is rebuildable, transportable and reusable. The construction details are achieved with stainless steel angle profiles that can be screwed together. The main structural elements are designed to be reusable.

URBAN NOMAD

7/5 ■

IMPRINT

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Imprint

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LIVING 2060

HOUSING MODELS OF THE FUTURE