Architecture
and Freedom

Searching for agency
in a changing World

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Guest-edited by
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King Hong Ho and Chananthorn Vinitwatanakhun, Documenting the Steiner House, Vienna (1910), 'Stealing Spaces: The Digital Reconstruction of Modernism', Centre for Documentary Architecture, Bauhaus-Universität Weimar, Germany, 2017

Anupama Kundoo Architects, Unbound: Library of Lost Books, Barcelona, Spain, 2014

Zaha Hadid Architects, Sberbank Technopark, Skolkovo Innovation Centre, Moscow, due for completion in 2019

Umbrellium, Open Burble, Singapore Biennale, 2006

SEEDS OF LEGACY

HYBRID AND FLEXIBLE SPACES

C+S Architects,
Law-Court Offices,
Venice,
Italy,
2013

The building is the entrance gate of the redesigned former tobacco factory which will house the city's law-court offices. It is a hybrid building with a commercial future public space on the ground floor.

Public space is being eroded all over the world. Given a lack of political will to tackle the issue, might architects play their part in rectifying it? **Carlo Cappai and Maria Alessandra Segantini**, co-directors of C+S Architects, based in Venice and London, believe so. They advocate designing public buildings with a consideration of communal uses beyond those of the main brief. This, coupled with flexibility to endure changing occupation needs, can make them an asset to the community for generations.

An innovative reconsideration of public buildings and their role within cities and communities can provoke different ways of inventing the present and of planting seeds for a better future. From this perspective, structures such as schools can be considered a great political medium.

Schools were benchmarks of new residential developments in the early 20th century, playing the significant role of secular parallels to churches, as in Willem Marinus Dudok's Geraniumschool (1918), Rembrandtschool (1920) and Bavinckschool (1922) at Hilversum in the Netherlands. Similarly, the open-air school in Amsterdam (1930) by Jan Duiker and Bernard Bijvoet, the one in Suresnes, France (1935) by Eugène Beaudouin and Marcel Lods, and the Karl Marx School in Villejuif, Paris (1933) by André Lurçat – whose form followed new pedagogical principles – became political tools to represent a new democratic world, with open areas and glazed facades turned into symbols of new hygienic spaces where everybody was welcome.

In the expanding suburbs of the postwar period, schools consolidated their role as local public spaces, as famously modelled by the Prestolee Primary School in Manchester, UK under the progressive leadership of Francis O'Neil (headmaster 1918–53), or in the teaching approach established in the northern Italian city of Reggio Emilia from 1950 by educational psychologist Loris Malaguzzi. Their methods were child-centred, putting the main emphasis on experimental learning with reference to the environment and external stimuli, with space being a fundamental tool.[1] More recent examples are found in the architecture of Herman Hertzberger, such as the Montessori School in Delft (1966) and the Willemspark School in Amsterdam (1983), where the boundaries between playgrounds and urban public spaces are erased by the removal of fences and barriers.

But what is the role of these small buildings today? To seek an answer to this question, C+S Architects – based in Venice and London – have produced a body of research and design work under the title 'eduCARE', which the practice was invited to exhibit at the 15th Venice Architecture Biennale in 2016 with the installation *Aequilibrium*. It investigates the potential of space in school typologies, which could essentially become generous spaces activated by people and communities, and can be considered a backbone for discussion on the broader topic of the erosion of public space, which confronts people on a daily basis.

A consistent dramatic erosion of the public domain is not only happening in the physical sphere, but through the silent consent of politicians, the diminished role of political responsibility in the transformation of cities and the complacent undoubting position of the profession in questions such as growth and speed. Symptomatic of this are the facts that market economies are pushing the efficient tech industry to brand a new product, smart cities, which are promoted as solutions to the urgency of ecological questions, security concerns, smart mobility, food and water scarcities; and that free open public space is being constantly reduced in new developments in European contexts, in the name of neatness and security. As for the field of architecture, having changed its scope in the past 30 years and moved from the good intentions of serving welfare policies to slowly supporting and feeding the market economy, it is losing its ambition of autonomy and freedom, and so facing an increasingly marginalised role.

Far from any nostalgic rhetoric of a return to the past, C+S are interested in discovering domains in architecture which can keep some distance from uninspired global markets. As the firm's co-directors, we oscillate between research and practice in a discipline positioned on the threshold between the interests of the private client and a presence in shaping cities and landscapes. We consider ourselves expert travellers, developing progressive insights through recognising and embracing the contradictions and complexity of the contemporary, but still remaining zealous guardians of the public good. This attitude probably has much to do with the particular local context where the practice has grown: Venice.

Venice is a city erected on artificial pieces of land. Since the land itself was the first structure to be created and is the most important to maintain, the city's chief architects – titled Proto della Serenissima – had to be at the same time experts in construction, hydraulics and water supply in order to be able to preserve the equilibrium between the lagoon and its inhabitation. It was exactly this search for balance which generated the magical interior and outdoor spaces that constitute Venice: a series of synthetic solutions to tackle complex problems. The *campo* is a public square as well as a water reservoir for the community living around it; and the *salone* is an adaptable empty space for both the private and public life of a merchant. Aspiring to act as a sort of Proto for contemporary times, the C+S team believes that – whether engaged on public or private commissions – one of the powers of the practice's work is to give back a certain amount of generous, free, adaptable, open and beautifully designed public space to communities.

Aequilibrium investigates the potential of space in school typologies, which could essentially become generous spaces activated by people and communities, and can be considered a backbone for discussion on the broader topic of the erosion of public space

Potentials of Space in School Design

Due to their monofunctional character and very specific programmes, safety regulations and compulsory uses, 'public' buildings such as schools, law courts and administration buildings are often less public than those that are privately owned. This commonly creates a misunderstanding about the potentials that could be generated inside them. By refusing to adopt a purely functional approach and working to hybridise their layout and spatial model, public buildings can not only fulfil the requested brief but also become rich opportunities to generate different scopes: a possibility which is crucial in a moment of economic crisis. The hybridisation of spaces can be turned into a long-term economic and human resource for individuals and communities, incorporating new economic concepts that involve time and knowledge and not only GDP.

To enhance school buildings' potential, C+S Architects looked at them also from the point of view of technical innovation. The open-air school in Amsterdam designed by Duiker and Bijvoet, and Hunstanton School in Norfolk (1954) by Peter and Alison Smithson, are only two of a series of examples where architecture and experimentation with innovative technologies became a provocative political tool, proposing different ways of living and educating. When the classroom became a space open to the outside, the need for lighter desks and chairs that could be easily moved to the open air pushed designers to experiment with new materials and forms to inhabit those spaces. From the single chairs designed by Mart Stam (S33, 1926) or Marcel Breuer (Wassily Chair, 1926) using then newly invented tubular steel, to the research of Jean Prouvé who in the 1940s provocatively worked on a model of a whole school building for series production, quick and easy to assemble and disassemble, the history of school furniture follows the paths of building manipulations and experimentation.

What is happening in the contemporary digital and multicultural world of networks? Could schools be reinvented as new hybrid tools shared by the communities around them? Could they be imagined as manifestoes to educate new generations in a more sustainable and economically fair perspective? Could they be reimagined as a network to reduce pollution or fight inequalities?

Considering their compulsory use, and their being part of an existing network where a multicultural experience happens naturally, schools are new powerful hubs within cities. Working to enhance school buildings' potential, C+S Architects have questioned design processes – from the business plan, to design and construction, to the reinvention of codes (projects by C+S have been used to inform the new codes for school buildings in Italy), to the use of cutting-edge technologies, to civic engagement. Like Elzéard Bouffier, the main character in Jean Giono's allegorical tale *The Man Who Planted Trees* (1953), planting an oak forest acorn by acorn,[2] C+S felt that their task was to plant one school after another.

C+S School Manifesto

When C+S Architects' work was selected for an exhibition at the 2017 Milan Triennale, the firm were asked to synthesise the findings of their investigations in a manifesto on the role of schools in cities and communities.

A first point in the resulting manifesto is that C+S consider schools to be open public spaces rather than correlating them to their programme. In the practice's design approach, functional boxes have been turned into porous vessels by questioning the conventional layout of rows of classrooms along a corridor and instead enhancing the use of the public areas outside school hours. C+S reinvented the model of the school, turning it into a hybrid between a school and a civic centre.

Secondly, the practice uses schools to investigate space potentials rather than delivering a product. Condensing the more public activities around a courtyard – the square – and designing the spaces with glazed walls, the aim is to generate a melting pot of possible experiences. Intervisibility is a key word in C+S's work, where children are exposed to multiple activities that can happen in parallel, during and after school hours. In a similar way, transparency between different spaces guarantees security without a need for digital control, instead pushing children to learn to take care of each other and so fighting phenomena like bullying. All of the practice's school projects have some undefined spaces which can be transformed by the community: a courtyard with a soft floor at Ponzano Primary School (2009); oversized corridors in the nursery school in Covolo, Pederobba (2006); and a roof terrace to be turned into a botanical garden or an art space, plus a central space which can become the community children's library or a place for weekend parties, at Chiarano Primary School (2013). All of these perform a specific task within the school programme, but each allows different exploitation of its potentials and interpretations by the community outside school hours.

C+S Architects,
Nursery School,
Covolo,
Pederobba,
Veneto,
Italy,
2006

Colour is a code to allow the small children to move independently around the space. The central plazza becomes a community centre during the weekends.

C+S Architects,
The Kite,
Fontaniva,
Veneto,
Italy,
2014

The correct orientation and thickness of the concrete walls has obtained planning permission without the use of insulation. The school generates a circular economy involving resources from the community.

C+S Architects,
Ponzano Primary School,
Ponzano, Veneto,
Italy,
2009

The layout and transparency of the walls allows intervisibility from all sides of the building.

The posters which illustrated the story of Ponzano Primary School's construction to the children, and which were part of the community-participation workshop.

Thirdly, C+S engages with communities through very special participation workshops. To quote the major example, putting on a theatre play for Chiarano Primary School, the children together with the architects acted out the process of designing their new school and presented it to their parents. During the design process for Ponzano Primary School, C+S wrote and illustrated a story about the new school's design and organised an after-school club for storytelling on the theme. Architecture was the topic of discussion with communities while designing schools, playing with light and structure. The simplest words were sought to play a game of architecture with the children and the communities around them, involving them in theatre plays not only so that they could participate in the design process but also to share with them the magic of space-making.

In order to involve the community in the process of financing, planning, designing and building, as well as encouraging the reconsideration of policies and codes and engaging with all the potential stakeholders, C+S instituted 'working tables'. These workshops aim to spread the concepts which drive the firm's ecological approach, as most of its schools are testers of reduced energy consumption and so become manifestoes of environmental sustainability. A combination of cutting-edge technologies with the basic principles of vernacular architecture enables the creation of buildings which can function effectively without insulation. The mechanisms for air cooling and ventilation are made into obvious physical objects, to attract the children's attention and develop their awareness of these topics.

Fourthly, as budgets are often limited, C+S's schools are turned into economic models to fight inequality. On the private market, the Kite school complex in Fontaniva (2013) was designed in collaboration with the owner as an adaptable, low-cost structure together with a business plan to circulate human resources, time-sharing and people skills: it has generated a circular economy for education and fun in the area.[1]

A combination of cutting-edge technologies with the basic principles of vernacular architecture enables the creation of buildings which can function effectively without insulation.

C+S Architects, Chiarano Primary School, Chiarano, Veneto, Italy, 2013

The school's layout is designed to avoid any corridors. The central piazza is turned into the children's public library after school hours. A rooftop botanical garden in the form of a suspended lantern reduces the need for artificial lighting.

Putting on a theatre play for Chiarano Primary School, the children together with the architects acted out the process of designing their new school and presented it to their parents.

A theatre play was written by the architects and acted by the children of Chiarano to tell their parents the story of their future school.
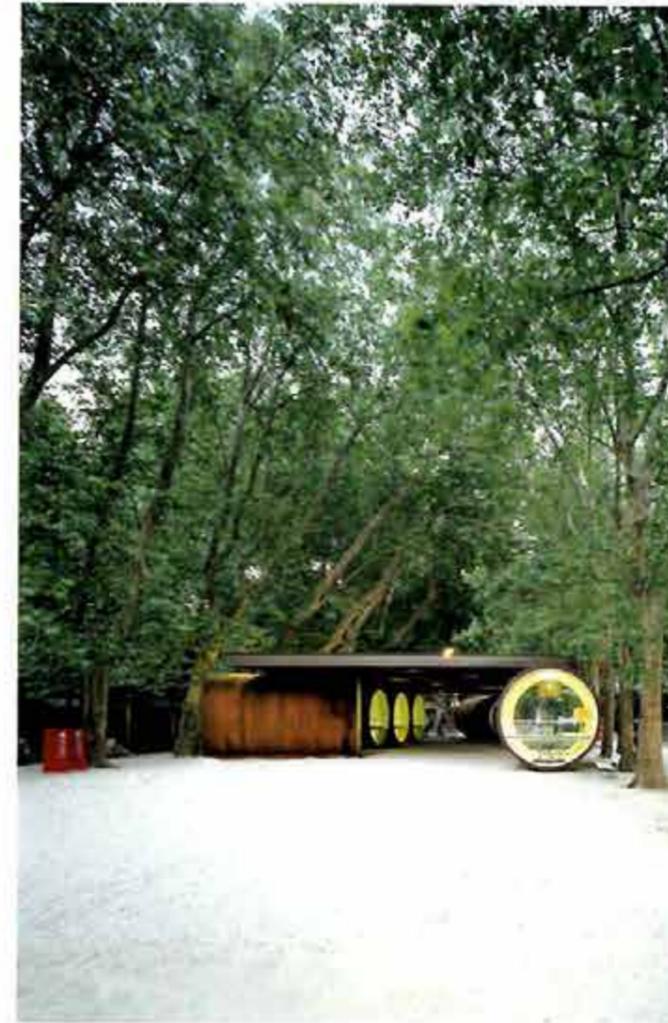
C+S Architects,
Law-Court Offices,
Venice,
Italy,
2013

The interior of the law-court offices is a seven-storey-high top-lit space, recalling typical historic Venetian factories. This 'covered piazza' acts as an entrance space for the former tobacco factory, which has been given back to the citizens after a period in disuse.

C+S Architects,
Water Filtration Plant,
Sant'Erasmo,
Venice,
Italy,
2009

Though programmatically very defined, the building is simply designed with a series of thick walls. The durability of this 1-metre (3-foot) thick structure and the simplicity of its layout will possibly allow different uses in the future.

Architecture is a discipline with a memory which is still relevant now and will remain so in the future.

C+S Architects,
The Cord,
Venice Art Biennale,
Venice,
Italy,
2003

The Cord, designed as a commission for the entrance of the 50th Venice Biennale (2003), aimed to force arriving visitors to have the experience of entering a rounded space. The installation was replicated in 15 Italian historic squares to interfere with the conventional setting and activate the public space. One of them was positioned in Venice's Piazza San Marco.

Another key point in the manifesto is that C+S schools are nodes of a network to share resources and fight pollution. The masterplan for the school network of the city of Treviso will allow the municipality to make a series of 'acupuncture' interventions, with the aim of reinforcing the network of public spaces, increasing cycling and pedestrian mobility, and thus reducing pollution and expanding the sense of community around these public open spaces. C+S's strategies have also included the redesign of a series of pedestrian areas and bicycle routes – micro urban interventions to reduce pollution, at the same time as engaging communities to participate in the process. With the introduction of a network of slow-speed lanes, people are able to look after each other, improving security and control through the community rather than building walls or grafting digital technologies. C+S's emphasis on sharing – whether of objects, time or space, from book-sharing to the shared vegetable garden – leads to a new openness of some portions of the school network, which can turn into ethnographic, cooking or sewing labs where people share their skills and resources. The concentration of extracurricular activities reduces children's movement from place to place, fighting pollution and increasing their independence.

Moulding Future Heritage
Architecture is a discipline with a memory which is still relevant now and will remain so in the future. Today, Roman cathedrals are used as retail spaces, and Gothic churches as museums, thanks to the power of potentials implicit in their structures. The focus on spatial potentials is as key to C+S Architects' work in all fields – from law-court offices to infrastructures to housing schemes – as it is in the firm's school projects. This is reflected in the practice's slogan, which summarises an approach to the profession of architecture: 'We mould future heritage, and this is a fundamental freedom and responsibility of our work.' [3]

Notes
1. See Carolyn Pope Edwards, Lella Gandini and George E Forman, *The Hundred Languages of Children: The Reggio Emilia Approach – Advanced Reflections*, Greenwood Publishing Group (Westport, CT), 1998.
2. Jean Giono, *The Man Who Planted Trees*, Harvill Press (London), 1995 (first published in French in 1953).
3. A video of the design concept of The Kite is at https://vimeo.com/82457365