

RENATA MIKIELEWICZ*

PERFECTION OF THE ORDINARY – CONCRETE IN SOCIALLY ENGAGED ARCHITECTURE

DOSKONAŁOŚĆ POSPOLITOŚCI – BETON W ARCHITEKTURZE SPOŁECZNIE ZAANGAŻOWANEJ

A b s t r a c t

The transmutation of concrete includes the existence of the material as an element of ordinariness and, at the same time, its dematerialization as a noble spatial form. Contemporary architecture seeks answers for the role of the architect in the future society. Also looking for a new form of expression in social engagement of the designers. Such attempts were recognized in the awarding of Pritzker Prize 2016 to Alejandro Aravena. It also shows the possibilities of the transformation of such a traditional architectural material as the concrete, not only through the pursuit of ideal proportions of an architectural object, but through the emotional involvement in the solving of social problems.

Keywords: concrete, social problems, social engagement, architectural object

S t r e s z c z e n i e

Problem transmutacji betonu zakłada istnienie tego materiału jako elementu codzienności, a jednocześnie możliwość jego odmaterializowania jako szlachetnej formy przestrzennej. Współczesna architektura poszukuje odpowiedzi na rolę architekta w społeczeństwie przyszłości. Także poszukując nowych form wypowiedzi przez społeczne zaangażowanie twórców. Działania te uhonorowane przez przyznanie w 2016 roku Nagrody Pritzkera Alejandro Aravenie pokazują możliwości przemianowania tradycyjnego tworzywa architektonicznego, jakim jest beton, nie tyle przez szukanie idealnych proporcji obiektu architektonicznego, co emocjonalne zaangażowanie w rozwiązywanie problemów społecznych.

Słowa kluczowe: beton, problemy społeczne, zaangażowanie społeczne, obiekt architektoniczny

* Ph.D. Arch. Renata Mikielewicz, Institute of Architecture and Urban Planning, Faculty of Civil Engineering, Architecture and Environmental Engineering, Technical University of Lodz.

*'nothing special
boards paint
nails paste
paper string*

*mr artist
build a world
not from atoms
but from remnants
(...)'¹*

1. The material

‘Concrete – a mixture of sand, aggregate, cement and water, often including admixtures, which set to form a hard, versatile building material, mainly used for its structural properties’². The list of the types of concrete in the ‘Dictionary of Architecture and Building Construction’ has 97 entries, starting with aerated and ending with wood-cement concrete, which shows the variety of possibilities for the use of concrete as a building material, but also a mean of aesthetic expression³. Even if concrete was used since ancient times, the use of reinforced concrete makes it ‘the most important material for the development of modern architecture’⁴. And the pure, blank beauty of the walls of Maison La Roche (1921–25) and Villa Savoye (1930), the forceful cubes in the hall of Maison La Roche (see illustration) show the power of the concrete elevated to an emotional statement. ‘In the highly abstracted façades of such early buildings as the Maisons La Roche Jeanneret door handle gives scale and humanity to the whole’⁵. The material has given architects the possibility for a forceful creation where even small, interconnected, integrated or added, elements played a key role. The symbolic language of the architecture emphasized the new understanding of the society and its workings. And in the perception of the buildings, emotion took a significant role. In the eyes of Le Corbusier, ‘poetic emotion’⁶ was indispensable to create something that could be called architecture at all. This feature seems to characterize quite many buildings built with the use of concrete. The plasticity of the material proves to be especially adaptable for strong, meaningful works. It also gives the possibility to achieve powerful and clean-cut image for simple

¹ Z. Herbert, *Nothing special*, English translation: Peter Dale Scott, *Zbigniew Herbert Poems*, <https://www.poemhunter.com/poem/nothing-special> [Accessed: 5.06.2017].

² N. Davies, E. Jokiniemi, *Dictionary of Architecture and Building Construction*, Architectural Press, Elsevier, Oxford 2008, p. 89.

³ F. ex. *Architecture & Materials*, Paredes Benítez C., ed., FKG, LOFT Publications, Barcelona 2011, Chapter *Concrete* p. 130–177; H. Baurmann, J. Dilling, C. Euler, J. Niederwöhrmeier, *Support and Materialise: Columns, Walls, Floors*, ed. A. Reichel, K. Schultz. Birkhäuser, Basel 2014, p. 31, 150–153.

⁴ H. Baurmann, J. Dilling, C. Euler, J. Niederwöhrmeier, *Support and Materialise...*, op.cit., p. 64.

⁵ F. Samuel, *Le Corbusier in Detail*, Elsevier, Oxford 2008, p. 48.

⁶ As in A. Flint, *Le Corbusier. Architekt jutra*, tlum. D. Cieśla-Szymańska, Grupa Wydawnicza Foksal, Warszawa 2017, p. 91.

works and buildings of not extraordinary but only ‘ordinary’ purposes. Many architects see and use this possibility in their works. For some, the main element is the architectural ‘statement’, where for others concrete is only the opportunity for something more or else. For the modernist architects, the social aspect of their work played a key role⁷. Their work concentrated on defining not only the use of building materials, but also the role an architect should play in the society, which should organize a new, better functioning world⁸. Such dreams, often unrealistic, were based on a belief that the professional knows the right solutions and is obliged to create a new space without the interference of the future user. Le Corbusier’s answer for the social needs were vertical cities and vertical multistory buildings as Unité d’Habitation (1947–52) or the building in Algiers (1939–42). With the forceful use of the purity of the concrete forms, which build their one, specific ornamentation coming from the repetitive use of the single elements. For Alejandro Aravena, the 2016 Pritzker Prize laureate, whom the jury prized especially for his social engagement and who himself interprets the role of a designer as someone engaged in the whole building and planning process on many levels, the main aim was to build social houses, which will be ‘low-rise, sufficiently dense (...) without overcrowding and with the possibility to grow’⁹. His answer to the problem was a ‘porous’ building which allows expansion of the used space. He uses concrete but its aesthetic expression is restricted, somehow withdrawing, as the architect consciously takes himself back and allow the residents to add to his creation. It is a complete opposition to the modernist attitude. Aravena stresses that ‘a multistory building did not allow for individual growth except on the ground and top floor. The ground floor could grow horizontally on the land around it and the top floor vertically into the air’¹⁰. Such a concept results in a ‘Parallel Building’ with open spaces, ‘pores’ which allow expansion and this spatial concept has its roots in the traditional structure of the old colonial housing with two doors facing the street. Especially significant for this approach is Elemental first project, the estate of Quinta Monroy in Iquique, Chile (2003–2004)¹¹. The buildings (25 units each) are organized around 4 courtyards. Partially completed concrete shell-and-core structures allowed the residents to fill and expand the building on their own (at the speed, which their financial means allowed).

Plain and simple architecture, and a conscious decision to withdraw and allow the house to grow at the will of the occupants, can be seen as an act of enormous humility – completely different, reverent attitude even as the architectural language remains the same, as in Modern Movement architecture, in the use of form and designing rules. But the lack of ornaments and simplicity comes from economic and social reasons. It is not a style statement but social awareness. The designer withdraws himself because he wishes to create an environment

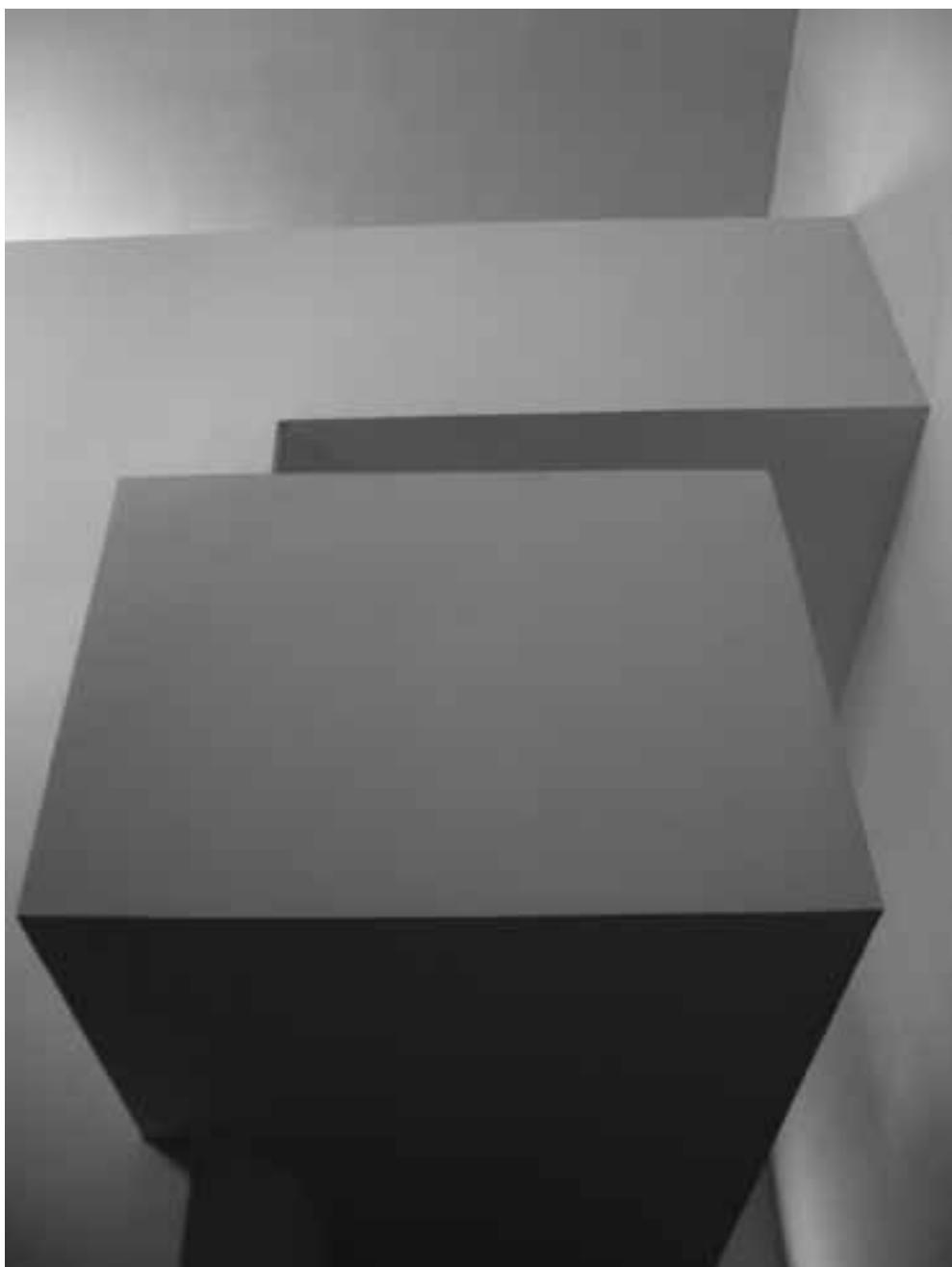
⁷ A. Flint, *Le Corbusier...*, op.cit.; Jencks Ch., *Le Corbusier – tragizm współczesnej architektury*, tłum. M. Biegańska, WAiF, Warszawa 1982.

⁸ Ch. Jencks, *Le Corbusier – tragizm współczesnej architektury*, tłum. M. Biegańska, WAiF, Warszawa 1982.

⁹ A. Aravena, A. Iacobelli, *Elemental. Incremental Housing and Participatory Design Manual*, Hatje Cantz Verlag, Ostfildern 2016, p. 21.

¹⁰ *Ibidem*, p. 37.

¹¹ A. Aravena, A. Iacobelli, *Elemental....*, op.cit., p. 82–193; Arch+, Journal for Architecture and Urbanism, 211/212, Summer 2013 , p. 132–135; *Small Scale, Big Change: New Architectures of Social Engagement*, 2010, materials from an exhibition in Museum of Modern Art in New York, <http://www.moma.org/interactives/exhibitions/2010/smallscalebigchange/> [Accessed: 15.06.2014].



III. 1. The perfection of concrete architecture. A fragment of the hall of Le Corbusier's Maison La Roche (Paris, Auteil), 1923–1925. A powerful play of seemingly abstract elements of the main staircase showing also the use of architects own color palette so called 'polychromie'. Photo: R. Mikielewicz, 2010

based on equality principles, where incompleteness is ‘a way to include programmatic diversity and personal expressiveness in a niche that otherwise for reasons of cost was historically destined to monotony’¹².

2. The possibilities

In their considerations about structure – the support abilities and the chances to materialize a building – practicing architects stress the role of ecological properties of materials in contemporary thinking about design. They write even about ecological efficiency¹³. ‘In view of the threat of global destruction of the natural world, the increasing threat to the foundations of our lifestyle and with a view to the context of nature, mankind and the environment, the performance profiles of materials and construction systems should be increasingly considered from the point of view of sustainability’¹⁴. But when examples of best materials are described it is not concrete which is mentioned as the first choice. Wood, clay and steel are mentioned as the most sustainable solutions¹⁵. And these materials, especially wood and clay are usually used in architectural projects connected with socially engaged design¹⁶. Concrete has very good durability, but also consumes a lot of primary energy and has nearly the biggest greenhouse gases emission¹⁷. Michael Braungart, a chemist and an architect William McDonough wrote in 2002 a book, which become a sustainable design and environmental statement showing different perspective for the approach toward development and the way things should be designed¹⁸. The phrase used in the book’s title become the essence of a whole notion of reconceptualized design as a ‘cradle-to-cradle design’ (a rewording of the saying ‘from cradle to grave’), where exists ‘a virtuous cycle of perpetual renewal, in which a terminal endpoint never be encountered, where inertia is overcome and waste abolished’¹⁹. The lifetime performance of materials and their unforeseen future use build a core of such a concept in design thinking. The revolutionary aspect in this way of thinking, even in the environmental thinking, could be found in a radical change in the logic of the use of design as a mean for the change of resource use, production and consumption²⁰. The linear life of materials and products in the industrialized society (‘cradle-to-grave’ approach) contradicts the life cycle in nature, where waste is changed in new life, as ‘nature operates according to a system of

¹² A. Aravena, A. Iacobelli, *Elemental...., op.cit.*, p. 87.

¹³ H. Baurmann, J. Dilling, C. Euler, J. Niederwöhrmeier, *Support and Materialise..., op.cit.*, p. 44–47.

¹⁴ *Ibidem*, p. 44.

¹⁵ *Ibidem*, p. 44–46.

¹⁶ Arch+, *op.cit.*; *Expanding Architecture: Design as Activism*. B. Bell, K. Wakeford, ed., Metropolis Books, New York 2008; *Small Scale, Big Change: New Architectures of Social Engagement*, 2010, materials from an exhibition in Museum of Modern Art in New York, <http://www.moma.org/interactivities/exhibitions/2010/smallscalebigchange/> [Accessed: 15.06.2014].

¹⁷ H. Baurmann, J. Dilling, C. Euler, J. Niederwöhrmeier, *Support and Materialise..., op.cit.*, p. 46.

¹⁸ W. McDonough, M. Braungart, *Cradle to Cradle: Remaking the Way We Make Things*, CD-unabridged, read by S. Hoye. Tantor Media Inc. 2008; Cairns S., Jacobs J. M., *Buildings Must Die: A Perverse View of Architecture*. The MIT Press, Cambridge, Massachusetts 2014, p. 221–232.

¹⁹ S. Cairns, J. M. Jacobs, *Buildings Must Die..., op.cit.*, p. 221.

²⁰ W. McDonough, M. Braungart, *Cradle to Cradle..., op.cit.*; S. Cairns, J. M. Jacobs, *Buildings Must Die..., op.cit.*, p. 221–222.

nutrients and metabolisms in which there is no such a thing as waste²¹. So the materials and things, once their utility is spent, as ‘technical nutrients’²² (the materials are recycled not only because of function and form, but also because of their chemical composition – to avoid dangers of unknown side-effects) could be cycled back into the techno- or biosphere²³. The authors of the ‘Cradle to Cradle: Remaking the Way We Make Things’ book assume that architectural universal solutions represented mostly in modernist and International Style, but also contemporary buildings are locked into the cradle-to-grave design as they represent a one-size-fits-all design. Such a point of view is based on the understanding of the necessity of not only to integrate the solutions into urban context, but also of the overall energy flow as it is defined in the definitions of ecology in its basic biological notion. ‘A cradle-to cradle building should behave like a tree, (...), and be connected to the flow of natural energies around it (sun, wind, water), so that it is able to, for example, change with seasons, produce more energy than it consumes, and purify its own water’²⁴. ‘In such a biomimetic architecture, innovation is designed in from the start. Capacities of redundancy, convertibility, and adaptability are planned for on the drawing board, such the built end product can endlessly be redesigned in its material, ecological, and social realization. This is an architecture of perpetual beginnings’²⁵. The Elemental project, especially in the social aspects, but also in the aesthetic concept and the adaptability and convertibility, seem to be an example of a such kind of cradle-to-cradle solution. Its strength is not only in the combination of the users and the build space, (interconnected through the family life-cycle and needs), but also in the use of the incremental philosophy of the design. At the same moment, it is a perfect example of a design immune to aesthetic fashion. As Cairns and Jacobs remark ‘architecture may well imagine itself as resisting the vagaries of fashion by accessing a design truth that might rest upon tectonic and material fidelity, precision of utilitarian fit, or formal decorum. But it is not so robust once built and living out its second life as real estate; real-estate architecture is subject to cycles of investment and disinvestment, the churn of creative destruction. Sometimes its cycles are slow, but at other times, they are shockingly quick. Even buildings can be subject to the kind of fast-paced obsolescence we nowadays normally associate with electrical products or fashion’²⁶. At least at the moment, such a project seems immune to such development, mostly because of the difference in the approach, again it is this specific kind of social awareness. ‘The architects of the modern movement (...) had a contradictory relationship to fashion. On the one hand they were in the vanguard of rapid stylistic change, yet they contrasted their interest in architectural purity – in part expressed in the white and non-ornamented surfaces of their forms – to the stylistic vagaries of fashion-led changes in taste’²⁷.

The fashion of socially engaged architecture seem to lay in the everyday utility. American philosopher Yuriko Saito, who investigates the usually ignored aspects of the impact of

²¹ W. McDonough, M. Braungart, *Cradle to Cradle...*, op.cit., loc.1153, as in S. Cairns, J. M. Jacobs, *Buildings Must Die...*, op.cit., p. 223.

²² W. McDonough, M. Braungart, *Cradle to Cradle...*, op.cit., loc. 1312.

²³ S. Cairns, J. M. Jacobs, *Buildings Must Die...*, op.cit., p. 223.

²⁴ *Ibidem*, p. 224.

²⁵ *Ibidem*, p. 223.

²⁶ *Ibidem*, p. 104.

²⁷ *Ibidem*, p. 104.

everyday aesthetic experiences, stresses that ‘what is often overlooked is the fact that moral attributes are frequently experienced through aesthetic manifestations’²⁸. She acknowledged that ‘(...), perhaps the most challenging aspect of everyday aesthetic is to negotiate between the direction toward the normative mode of aestheticization facilitated by de-contextualizing the experience and the direction toward grounding our aesthetic reaction in the everyday practical concerns. (...) one of the projects of everyday aesthetics is to discern when we should render the ordinary extraordinary so that we can derive the maximum aesthetic value and when we should rather preserve and focus on the ordinary, seemingly non-aesthetic, reaction’²⁹.

3. Finished solutions or only other possibilities?

Socially engaged architecture builds a part of the sustainable art of making of the urban environment and in this way, it can be described as green design even when the chosen solutions are not ‘green’ as in an often falsely described as such designs which use greenery as a mean of expression. Sustainability needs a complex understanding of the interactions between holistic approach and the understanding of multifaceted processes and relations. It is not a simple equation of the use of even most ‘greenest’ technologies.

When Pritzker Prize Jury awarded in 2016 Alejandro Aravena in the citation the members wrote that ‘(...) he understands materials and construction, but also the importance of poetry and the power of architecture to communicate on many levels’ and ‘(...) gives the profession of architect a new dimension, which is necessary to respond to present demands and meet future challenges of the field’³⁰. ‘This inventive approach enlarges the traditional scope of the architect and transforms the professional into a universal figure with the aim of finding a truly collective solution for the built environment’ so in that way as someone who ‘(...) epitomizes the revival of a more socially engaged architect (...) has a deep understanding of both architecture and civil society’ and ‘(...) is leading a new generation of architects that has a holistic understanding of the built environment and has clearly demonstrated the ability to connect social responsibility, economic demands, design of human habitat and the city’³¹. The social housing projects by Aravena and his Elemental team base on the principle of incrementality and the use of self-construction that coordinated and controlled ‘following common sense and the ‘minimum effort law’ (...) allow a family to achieve a middle class standard’³². Here it does not mean ‘to leave the construction unfinished and wait for each individual to complete it. Incrementality has to be designed, the initial form ‘has to anticipate’³³ how the self-construction process will complete the structure. Aravena describes his social houses as “Parallel Buildings” because due to its structural properties the houses had taken

²⁸ Saito Y., *Everyday Aesthetics*, Oxford University Press, Oxford 2007, p. 95.

²⁹ *Ibidem*, p. 245.

³⁰ *Jury Citation for Alejandro Aravena*, www.pritzkerprize.com/2016/jury-citation [Accessed: 24.04.2017].

³¹ *Ibidem*.

³² Aravena A., Iacobelli A., *Elemental...., op.cit.*, p.18.

³³ *Ibidem*, p.18.

from old colonial houses of Latin America³⁴. The so-called “pores” which allow the house to grow are essential for the design because they make the design flexible and adaptable to changing needs of the occupants. And this is an essential feature of this housing concept as it allows the building to expand to almost double their initial size³⁵. As the architects found within workshops with future residents this final size was the most important issue to them.

‘Green design can also be considered as a counterpart to the all-too-common grandstanding among designers and architects toward individual “statement”-making, irrespective of the effects on the people and the environment. Instead, when successful, green design can be appreciated for embodying a humble, respectful stand toward the environment, material, and the users/occupants’³⁶. So Elemental projects by Alejandro Aravena Do Tank (as a counterpart to conventionally Think Tank) could be considered as a green design especially because of the social aspect of the design. But also the choice of the used building material – concrete – shows this ‘humble aspect’ of the design.

Aravena’s projects entertain the idea of incremental housing used as a possibility for the improvement of human circumstances. He is also involved in the process of financing and overall development of housing estate projects. Such approach is consistent with the SEED (Social, Economic and Environmental Design Network) definition of design as a transdisciplinary and collaborative process where the desired outcome should improve human circumstances³⁷. Such a way of thinking in the times of special awareness towards inequality³⁸ guides to solutions, which base especially on the collectivity meant as the participation of the users/consumers or on the collectivity in design³⁹. The used material is enormously important because of the aspects and issues of the sustainability but its aesthetic value, so important before, is meaningless in regard to the desired social objectives. And the social inequality builds one of most forgotten objectives of sustainability what is as well a part of the Brundtland Report⁴⁰ as the Pope Francis ‘Laudate Si!’ Encyclical. In the times of social and economic change also notions of culture and tradition change, especially as our understanding of International Style is as about something contemporary not as the past, especially as we still live in and use the buildings which have the roots in the notions of this style.

Even as Le Corbusier’s Modulor symbolized the design with a human in mind, the resulted housing estates built from concrete plates and frames are regarded as inhuman in scale and particular solutions. So that the title of Charles Jencks book speaks about the tragic view of architecture⁴¹. The monotonous, repeatable façades of the tenement housing estates seem to be beyond the limits of the discussion of ugliness and beauty because of the utilitarian uses and their necessity of existence to house the poorer part of the society.

³⁴ *Ibidem*, p. 37.

³⁵ *Ibidem*, p. 37, 104.

³⁶ W. McDonough, M. Braungart, *Cradle to Cradle...*, op.cit., p. 95–96.

³⁷ *Expanding Architecture: Design as Activism*, op.cit., p. 31.

³⁸ *The Art of Inequality: Architecture, Housing, And Real Estate. A Provisional Report*, ed. R. Martin, J. Moore, S. Schindler, The Temple Hoyne Buell Center for the Study of American Architecture, New York 2015; M. Davies, *Planeta slumsów*, Instytut Wydawniczy Książka i Prasa, Warszawa 2009.

³⁹ A. Flint, *Le Corbusier...*, op.cit., p. 291.

⁴⁰ *Expanding Architecture: Design as Activism*, op.cit., p. 31.

⁴¹ *Jury Citation for Alejandro Aravena*, www.pritzkerprize.com/2016/jury-citation [Accessed: 24.04.2017].

Today, many critics and architects favour sustainable cities and cheap housing seen as the perfect solution to social problems. Architecture design seen as activism is also seen as the only way to achieve the real, creative design in too restricted, technological and certified designs (also the result of the use of sustainability). At the moment, the discussion is more about principles than about materials. So also concrete as a building material waits for its new redefinition.

R e f e r e n c e s

- [1] Aravena A., Iacobelli A., *Elemental. Incremental Housing and Participatory Design Manual*, Hatje Cantz Verlag, Ostfildern 2016.
- [2] Arch+, Journal for Architecture and Urbanism, 211/212, Summer 2013.
- [3] *Architecture & Materials*, Paredes Benítez C., ed., FKG, LOFT Publications, Barcelona 2011, Chapter *Concrete*, p. 130–177.
- [4] *The Art of Inequality: Architecture, Housing, And Real Estate. A Provisional Report*, ed. Martin R., Moore J., Schindler S., The Temple Hoyne Buell Center for the Study of American Architecture, New York 2015.
- [5] Baurmann H., Dilling J., Euler C., Niederwöhrmeier J., *Support and Materialise: Columns, Walls, Floors*, ed. A. Reichel, K. Schultz. Birkhäuser, Basel 2014.
- [6] Cairns S., Jacobs J. M., *Buildings Must Die: A Perverse View of Architecture*. The MIT Press, Cambridge, Massachusetts 2014.
- [7] Davies M., *Planeta slumsów*, Instytut Wydawniczy Książka i Prasa, Warszawa 2009.
- [8] Davies N., Jokiniemi E., *Dictionary of Architecture and Building Construction*, Architectural Press, Elsevier, Oxford 2008.
- [9] *Expanding Architecture: Design as Activism*. Bell B., Wakeford K., ed., Metropolis Books, New York 2008.
- [10] Flint A., *Le Corbusier. Architekt jutra*, tłum. D. Cieśla-Szymańska, Grupa Wydawnicza Foksal, Warszawa 2017.
- [11] Herbert Z., *Nic ładnego w:* Herbert Z., *Studium przedmiotu*, Wydawnictwo Dolnośląskie, Wrocław 1996, p. 11–12; *Nothing special* English translation: Peter Dale Scott, *Zbigniew Herbert Poems*, <https://www.poemhunter.com/poem/nothing-special> [Accessed: 5.06.2017].
- [12] Jencks Ch., *Le Corbusier – tragizm współczesnej architektury*, tłum. M. Biegańska, WAAf, Warszawa 1982.
- [13] Jury Citation for Alejandro Aravena, www.pritzkerprize.com/2016/jury-citation [Accessed: 24.04.2017].
- [14] McDonough W., Braungart M.. *Cradle to Cradle: Remaking the Way We Make Things*, CD-unabridged, read by S. Hoye. Tantor Media Inc. 2008.
- [15] Saito Y., *Everyday Aesthetics*, Oxford University Press, Oxford 2007.
- [16] Samuel F., *Le Corbusier in Detail*, Elsevier, Oxford 2008.
- [17] *Small Scale, Big Change: New Architectures of Social Engagement*, 2010, materials from an exhibition in Museum of Modern Art in New York, <http://www.moma.org/interactives/exhibitions/2010/smallscalebigchange/> [Accessed: 15.06.2014].