

Marcin Gierbienis  orcid.org/0000-0003-2822-2695
marcin.gierbienis@pk.edu.pl
Faculty of Architecture, Cracow University of Technology

SUSTAINABLE AND CREATIVE TEMPORARY ARCHITECTURE
– THE ACTIVITIES OF THE ASSEMBLE COLLECTIVE

ZRÓWNOWAŻONA I KREATYWNA ARCHITEKTURA TYMCZASOWA
– DZIAŁALNOŚĆ KOLEKTYWU ASSEMBLE

Abstract

Temporary architecture is not a new phenomenon in architecture, but over the years, both the objects arising as part of this idea as well as the attitude of the designer, the investor and the recipient to them have evolved. Apart from fulfilling a replacement function with regard to an existing building, objects which are created in accordance with the idea are unique in the field of aesthetics, technology and construction. Some of them become the architectural manifestos of the artist, presenting new materials, possibilities and propagating ideas related to ecological thinking.

In the paper, which outlines realizations presented by the Assemble collective, the possibilities of taking advantage of temporary architecture along with its theatrical function in the field of social impact, as well as shaping pro-ecological awareness have been emphasized.

Keywords: Assemble, temporary architecture, mobile architecture, theater, sustainable development

Streszczenie

Architektura tymczasowa nie jest zjawiskiem nowym w architekturze, ale na przestrzeni ewoluowały zarówno powstające w ramach tej idei obiekty, jak i stosunek do nich. Tak projektanta, inwestora, jak i odbiorcy. Obok pełnienia funkcji zastępczej dla istniejącego budynku powstają obiekty, które wyróżniają się na polu estetyki, technologii i konstrukcji. Niektóre z nich stają się architektonicznym manifestami twórcy, prezentując nowe materiały, możliwości techniczne i propagując idee związane z myśleniem proekologicznym.

W pracy poprzez realizacje multidyscyplinarnego kolektywu Assemble pokazano możliwości wykorzystania architektury tymczasowej o funkcji teatralnej na polu oddziaływania społecznego, a także w budowaniu świadomości proekologicznej.

Słowa kluczowe: Assemble, architektura tymczasowa, architektura mobilna, teatr, zrównoważony rozwój

1. Introduction

Architecture in its traditional form is associated with something constant and unchangeable. The urbanization process, even if it can be reversible, is not without impact on the existing landscape and environment. Apart from this, one can also observe continuous technological progress, which translates into specific socio-economic phenomena. Devaluation of what is permanent and unchanging also concerns urban space. In architecture, this is particularly visible in the structure of public buildings, which must constantly adapt to the changing reality, both in terms of their function and design.

Today, temporary architecture plays an increasingly important role in modern construction, gradually ceasing to be a marginal phenomenon. This marginalization resulted from the adopted approach most often focused on the replacement function of objects, i.e. creating objects, which are conceived as temporary, impermanent, existing for a limited time and then removed. Under such an assumption, the emphasis on the form and aesthetics of the object was of secondary importance, and indeed it was neglected. The most important factors to be considered in the implementation of the project were functionality and economic construction. Lack of concern for the aesthetics was often justified by a small budget, because objects devoid of durability were not treated as a so-called investment for years to come. Despite the fact that such objects are still being created, there are other, interesting, intriguing and qualitative objects implemented in line with the idea of a qualitative temporary architecture.

The promotion of qualitative temporary architecture is partly due to the nature of a rapidly changing world. At the turn of the 20th and 21st centuries, rapid civilization progress is noticeable. In the field of architecture, this translates directly into the technological advancement of buildings and the rapid devaluation of some of them in terms of both technology and function. In this field, the existence of a distinctive temporary architecture is gaining importance as it can act selectively to solve the problems of today's world. It can also become a pilot project that introduces technological innovations, constitutes a manifesto of its author, or it can initiate a dialogue with the viewer, posing significant questions concerning the future of architecture, man and the world. The temporary architecture creates great perspectives for creativity and decreases the risk of the creator, as he is aware that his work will not be evaluated in hindsight.

The issue of temporary architecture is particularly important in the area of culture and art. On the one hand, it can offer a substitute place of contact with recipients, while the permanent object is being rebuilt, and on the other hand by enabling the existence of art in a place where it has not been previously present, or for the purpose of organizing individual events. Their sensory reception is of great importance here, as the constructed buildings, in addition to performing their intended function, are to encourage the audience to visit their interiors and interact with them.

2. Mobility

Robert Kronenburg¹ claims that the most important feature of temporary architecture is its ability to be mobile. An example of this is the idea of building tents. Although today they are seen as being temporary; in traditional Native American culture, tent shelters called Tipi served as portable homes and constituted a permanent element of the nomadic life of the people. Tipi tents were supposed to meet the basic criteria specified in the definition of a temporary object, which still remain valid today. Continuing his research, Kronenburg does not treat temporary objects marginally and recognizes the variability of their locations as their advantage and distinguishes several of their groups. This division was made by specifying the method and time of assembly and transport possibilities of the facilities. The author also emphasizes the search for designers for an original and creative approach to the construction and use of new materials [1, p. 29–31].

The largest group consists of mobile objects, in which the ease of their relocation is considered a priority. Another advantage is their compact size. The modern trend in the design of mobile objects highly values their technological advancement, some of them even resemble driving machines. The second group consists of portable objects, created in accordance with the idea that emphasizes the importance of the easiness of folding and unfolding such objects, as well as the comfort of transporting them in parts. The third group are demountable objects, which usually relate to individual events, hence the method of assembly is the key objective here, they also remain the most flexible of all the objects belonging to the aforementioned groups [1, p. 7–8]. The fourth group has become popular in recent years and concerns objects that can be described as “pop-up”. In reference to their name, the idea is that such an object is able to be implemented instantly and here the range of the designer’s creativity possibilities is wide and the main emphasis is on an ingenious design, using either new technologies and materials or recycled and low-budget materials. Pop-up projects are popular at festivals, where they occasionally become artistic installations. The designs of the Assemble collective can be regarded as pop-up objects.

3. Flexibility

Architecture can be considered in accordance with the dictionary definition, as the art of creating order in a certain environment in order to adapt it to satisfy the multiple physical, material and cultural needs of people through a planned transformation of the natural environment and by creating certain forms and determining specific spaces intended for various purposes [2]. Today, the adaptation of architecture to human needs is called the concept of flexibility. The need for flexible design results from the transformation of civilization that has occurred in recent years. The transformation of

¹ Robert Kronenburg, architect and professor of the Chair of Architecture at the Liverpool School of Architecture. Author of many studies and publications dedicated to the issues of temporary architecture; His most important publications are: *Flexible: Architecture that Responds to Change* (2007), *Architecture in Motion* (2012).

civilization accompanied by technological progress, has influenced the character of human life, which has become much more consumerist. This is particularly visible when we look at how quickly utilitarian objects become devaluated, to what an extent our methods of communication, our organization of work or our eating habits are subject to change. Eventually the same applies to the use of buildings. In architectural terms, it may be defined as susceptibility to change, perceived not only at the functional level, but is also visible in the form of an individual object [3].

In the case of the function of a theater, flexibility is all the more important because the approach to the performance has also been changing over the years. In this field, taking advantage of temporary architecture seems appropriate, since it can offer the most contemporary, individualized and at the same time flexible and multifunctional solutions.

4. Sustainable development

Sustainable development can be defined as the sustainable socio-economic development of contemporary society, which satisfies the needs of the current generation in such a way so as not to reduce the possibility of satisfying the needs of future generations [4].

The idea of sustainable design in recent years is gaining more and more popularity as the negative impact of urbanization processes on the environment becomes noticeable. Often it is irreversible, hence each implementation of a new construction project should be a thought-out action that meets new criteria and fits to new standards. Such type of designs are easier to implement when the architect uses the opportunities offered by the idea of sustainable development, which assumes respect for nature and its diversity as well as for human's well-being and health. The idea should be realized at every stage of the implementation – from the conceptual phase, through to the detailed design, construction and exploitation of the object.

The theory of sustainable design pays special attention to:

- ▶ environmental and cultural conditions of the location,
- ▶ proper and environmentally friendly use of the area,
- ▶ effective use of materials and raw materials, including their recovery,
- ▶ energy efficiency and the use of unconventional energy sources,
- ▶ application of innovative technological solutions,
- ▶ increasing comfort and quality of use.

Temporary buildings designed in a sustainable way by functioning only periodically, may not leave such a negative footprint on the environment, as well as being regarded as an opportunity to promote pro-ecological solutions. Being implemented in degraded areas, they may be considered as the beginning of revitalization and ultimately the recovery of natural values.



Fig. 1. Assemble during the implementation of the Yardhouse project, photo by Assemble / Exhibition – How We Build at The Architekturzentrum Wien in Vienna, photo by L. Rastl
 (reference: <https://www.azw.at/en/event/assemble/>)

5. Temporary theater architecture of the Assemble collective

The issue of temporary architecture, which highly values positive social reception and the idea of sustainable development, was repeatedly addressed by the London – based Assemble collective². Their projects are a great example of searching for both a clear and inspiring design idea, an original approach to form and construction, as well as taking advantage of cooperative work and involvement of the local community. References to social initiatives, which are present in the Assemble projects have been visible in many fields since the beginning of their activity in 2010.

The basic assumption of the collective's philosophy is close cooperation between the creators and recipients of the building. The team of people who create the collective consists not only of architects and construction engineers, but also of people associated with theater, scenography, anthropology or philosophy. As early as the design stage, team members work closely with carpenters and other craftsmen who also have a creative contribution to the created work. The project implementation, on the other hand, enables the active participation of volunteers and future recipients of the facility.

The assemble chooses areas requiring architectural and urban intervention, and in their execution, materials which are recycled in a creative way, often widely regarded as useless, are applied. The main objective of this action is education – which means demonstrating that every place, even the most neglected, can be revived and that at the same time, low-budget solutions can be found. The primary premise of the collective philosophy is the proper and effective organization of space, which enables the existence of a community-integration event at the location in question. Many Assemble projects are temporary, but some implement the assumption of a multi-stage process closer to scientific research projects [5].

² Assemble – multidisciplinary collective of architects, founded in London in 2010, who work across the fields of art, architecture and design, in 2015 they won Turner prize.

For their activities in 2015, Assemble was awarded the Turner Prize³, a prize named after J.W. Turner, which is annually awarded to British artists. It was the first time in the history of the prize, that it was granted to people from outside the artistic community who have not created works of art in traditionally understood terms. This is confirmation that the objects implemented by the collective are not only dedicated to art, but in fact themselves create art. [6].

A significant subject of Assemble's activity is related to temporary architecture, because the collective considers it as the area which enables quick and effective introduction of its philosophy into life. Their opening project was the construction of a temporary scene at an abandoned gas station.



Fig. 2. Assemble, The Cineroleum, photo by Assemble [7]

5.1. The Cineroleum, 2010

The architectural transformation of the unused gas station in Clerkenwell into the entertainment hall was invented and implemented by Assemble in 2010. The name “Cineroleum” is an original combination of the words “cinema” and “petroleum”. The original name found its reflection in an equally creative design. The motivation of the creators was to draw attention to how many gas stations in the UK remain unused. The introduction of the entertainment function was to be an opportunity for a distinctive transformation of the place and an indication of an alternative to multiplexes. And that's exactly what was carried out and the object became popular among the community and even gained wider publicity in the industry.

The project assumed the use of the existing cubic building as a foyer, and the roofs of the station as roofs for the auditorium. The foyer was made using recycled furniture; a small bar with a traditional popcorn machine was included. The aesthetics aimed to refer to palace interiors full of glamor and refinement. Instead of expensive materials, however, cheap and industrial, often recycled, were used. Each piece of equipment was made on site using

³ Turner Prize – the prize in the field of visual arts awarded by Tate Britain (formerly Tate Gallery) since 1984. The winners are chosen from artists who are under 50 and live permanently in Great Britain. The prize is named after the English painter, William Turner, one of the greatest British artists, who had a significant influence on European art, and was considered controversial during the his lifetime. <https://www.tate.org.uk/art/turner-prize> (access: 23.10.2018).

a manual method by the Assemble collective in cooperation with volunteers, starting from scaffolding, through to folding seats constructed from boards to a curtain, which separated the auditorium area. The ruffled, cascaded drapery was created from “tyveka” type roofing and could be associated with the velvet curtains of old palaces, while also attracting the attention of passers-by with its silver glow. The curtain was also a symbolic element of the event taking place. The viewers were led behind the curtain, and after the show was over, the curtains were to be raised so that the viewers could be transferred back outside to the entourage of the so-called everyday street theater [7].



Fig. 3. Assemble, The Cineroleum (work in progress) photo by Assemble [7]

The popularity of the project encouraged its authors to consider another analogical implementation, using another type of unused space. This time it was the space under a viaduct that was selected.



Fig. 4. Assemble, Folly for a Flyover, photo by Assemble [8]

5.2. Folly for a Flyover, 2011

The “Folly” building constructed under a highway viaduct was commissioned by Create London, an organization whose main statutory objective is to offer support to artists. Assemble, apart from carrying out the designer’s function, also acted as curators of some



Fig. 5. Assemble, Folly for a Flyover (work in progress), photo by Assemble [8]

events. The public space they have created has become an active cultural site of London's Hackney Wick. Within 9 weeks, many artistic events, performances, cinema shows and workshops were organized there, and the place attracted not only local residents, but artists and guests from around the world. Furthermore, boat trips were organized, and the cafe was operating permanently.

From the very beginning, the creators assumed that on the one hand they would refer to the condition of the existing place, the industrial character of the viaduct, and on the other, they would introduce the element of foolery which would be in accordance with its name. To achieve the desired effect and grant the space a certain identity, the designers decided to introduce a house-like building in-between the construction of the viaduct. Thus, they aimed at creating the impression that this typical English house was enclosed by a viaduct, rather than the other way around. Eventually, the gable roof was located between the highway lanes, which gave the whole object a strange impression. The implementation of the project was carried out using a manual method through the participation and involvement of volunteers who were grouped according to the level of their skills. The authors of the project wanted to take advantage of the help of every person who offered them their support. The facade of the house was carried out according to an original conception referring to the stringing beads. Wooden brick-like elements were threaded onto ropes that went through pre-drilled holes into each formed part. At the end of the period intended for the operation of this temporary space, the object could be easily unfolded and its parts could be used in the playground of the local primary school instead [8].

The popularity of this idea also contributed to its further implementations in subsequent initiatives and has ultimately contributed to the improvement of infrastructure and new development of the entire area.



Fig. 6. Assemble, Theatre on the Fly, exterior and interior, photo by J. Stephenson [9]

5.3. Theatre on the Fly, 2011

The Theater on the Fly, carried out in 2011, was commissioned by the Chichester Festival Theater to serve during the celebration of the 50th anniversary of the theater and is an example that proves that even a small amount of funds is not an obstacle to the creation of an attractive building that will not only meet its proper function, but will also gain a positive reception by the local community. The idea of the designers was to take advantage of the active involvement of the local community, starting from the stage of collecting funds as a part of the promotional activities, through to participation in the conceptual process and the building of the facility with the participation of volunteers.

The facility was located in a derelict area near the existing Chichester Theater and it was supposed to refer, with regard to its function, by means of traditional and innovative elements, both to the latter as well as to history of the theater. A unique detail was, for example, wide double-leaf doors that open the stage to the meadow. The internal space was to reveal theatrical technology to the viewer, by exposing technical mechanisms that usually remain invisible, e.g. by exposing the machine room of the stage tower.



Fig. 7. Assemble, Theatre on the Fly, building at night and interior during the play, photo by J. Stephenson [9]

An important element of the idea of sustainable design was the use of recycled materials or the use of such materials that could be processed easily. Some of them were donated to the authors of the project for the purposes of construction. One example is of a material that covers the wooden frame of the construction. It turned out that the semi-transparent fabric, which is usually used in the construction of ponds or as a foundation for road surfaces, ensures great sound insulation, even in the case of the wind blowing [9].



Fig. 8. Assemble, The Big Slide, photo by Assemble [10]

5.4. The Big Slide, 2013

“The Big Slide” was a temporary structure built in 2013 as the central object of the Stratford Rising Festival. The leitmotif of the festival was the word “Play”, which Assemble interpreted in an architectural way, creating a variation on the subject of a typical slide for children.

A large wooden structure was established vis-à-vis the Theater Royal. The construction was two-sided. On one side there was a wide ramp of slides, and on the other, stairs were built, which apart from providing access to the slides, served as the auditorium for theatrical performances. The surface of the slide was covered with plywood with a laminate imitating marble, giving the whole piece a light-hearted effect [10].



Fig. 9. Assemble, The Playing Field, exterior and interior during the play, photo by J. Stephenson [11]

5.5. The Playing Field, 2014

The project “The Playing Field” was part of an art festival organized in 2014 by the Nuffield Theater. Assemble creatively used the fact that they were given free choice to decide on both the function and the form of the object. The temporary wooden structure was to combine the classic idea of the Tudor Theater⁴ and the sports arena. The creators depicted the analogy between theater performance and football matches. As far as the architecture is concerned, they selected a form which is typical of the stadium, with a two-sided arrangement of the auditorium, giving the feel of a stage placed on the platform. The stage they designed had an oblong shape, was established at the ground level and was marked out by lines that brought associations of the playing field. Such a field was not only intended for use during theatrical performances, but it was also designed to encourage people to be active after the artistic events ended. The facility was adapted to performances by applying professional electro-acoustic and lighting solutions managed from the position of a technical gallery. The construction, typical of Assemble projects, was made using wooden elements and classic carpentry joinery. While preparing the project documentation, the creators established a cooperation with engineers from the Structure Workshop⁵. Their goal was to display the structure of the object, but the additional objective was simple assembly, which made it possible to build the object without using heavy machinery [11].

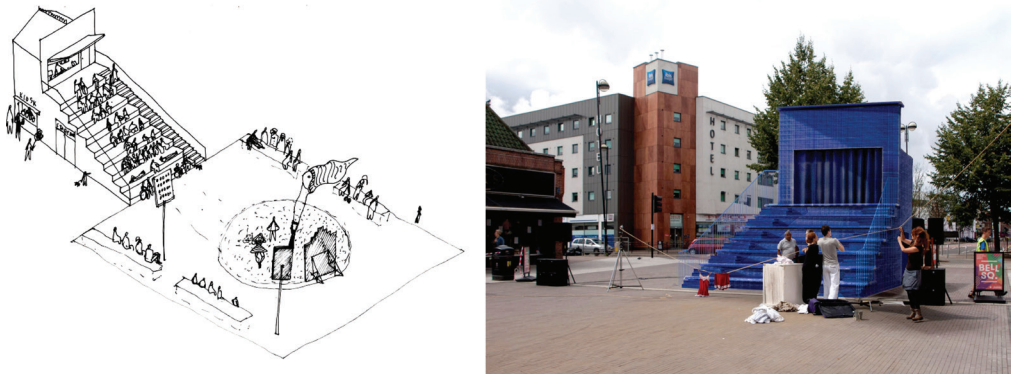


Fig. 10. Assemble, Bell Square Pavilion, sketch by Assemble, photo by Assemble [12]

⁴ The idea of the theater originated in the reign of Elizabeth I, when together with sport and entertainment, theaters provided employees with a certain form of rest from their work – objects that were created used to be open and accessible to everyone. <https://www.historylearningsite.co.uk/tudor-england/theatres-in-tudor-england/> (access: 23.10.2018).

⁵ Structure Workshop – consulting company dealing with engineering design, founded in 2004 in London. The scope of its activities applies both to constructions as well as to artistic installations and industrial design, carried out in Great Britain and other places in the world. <http://structureworkshop.co.uk/profile/> (access: 23.10.2018).

5.6. Bell Square Pavilion, 2014

The pavilion was designed by Assemble as an outdoor stage for cultural events that took place in 2014 at the Hounslow Town Center. The compact, two-story structure combined the technical functions, the base of the Watermans production company and the auditorium. The auditorium's levels fulfilled their function during the performances, and were also supposed to provide a functional extension of the public square, which the creators called the so-called theater of everyday life.

All structural elements were prepared earlier in order to enable easy assembly. For the architects, it was essential that the economical and at the same time durable – in terms of their use – materials were used in the construction of the building. The basic structure was made using acid-etched concrete technology, and the facade of the building was decorated with glazed, porcelain tiles with a characteristic ultramarine color [12].

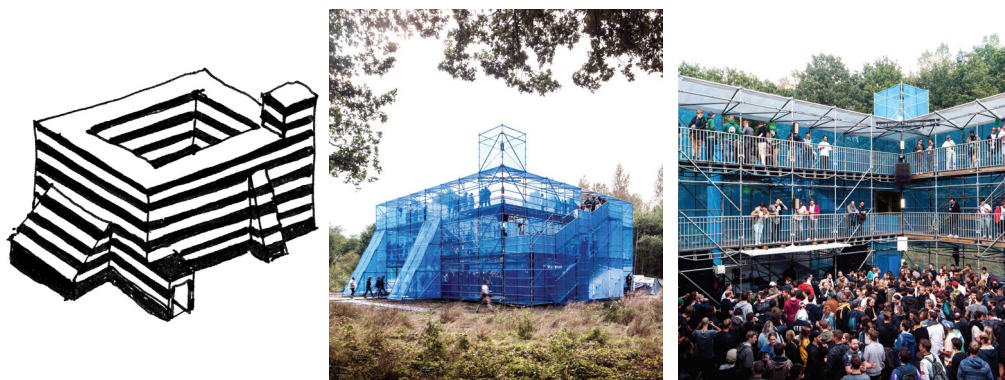


Fig. 11. Assemble, New Castle for Horst Festival, sketch by Assemble, photo by J. Verrecht [13]

5.7. New Castle for Horst Festival, 2017

The temporary pavilion “New Castle” was constructed by Assemble, commissioned by Horst Festival – the festival of music and art that took place in 2017 in Belgium. Here, the context of the place was also the inspiration for the creators, especially the location of the object in the forest meadow near the lake and the 14th century castle.

The iconic form of the castle with a characteristic facade of dark and light stripes of stone has been reinterpreted in a creative way by Assemble. In order to achieve the effect, which is typical for the architecture of fortifications, the new building was constructed using systemic steel scaffoldings. Hidden in the thicket of greenery, the skeleton was covered with a transparent grid with a blue color, enhancing the abstract impression of the whole. Perception of the object changed, depending on the time of day; it had the most attractive look at night, when it was illuminated by extra lights. It not only fulfills the role of the background for theatrical performances during the events, but it becomes itself a source of new experiences for the recipient [13].

6. Summary

This article presents the characteristics of the temporary architecture along with the aspects of mobility, flexibility and sustainability, which are associated with it. At the same time, the significance of its role in the field of theater function was emphasized, since it can be taken advantage of in order to promote culture and art as well as to integrate the local community. This integration is possible not only through the created object, but also through the creative cooperation of all parties in the investment process at all stages of its design and implementation. The contemporary temporary architecture provides great opportunities for the creative activity of the designer, and the implementation of its projects can significantly change the perception of urban space and even stimulate its economic development.

Analysis of selected complete projects by the Assemble collective, illustrates contemporary tendencies in the design of temporary architecture and indicates the direction of its future development. The presented examples allow us to see the impact of the idea of sustainable development on construction and the role of the designer in the proper and original use of the means of expression and technological solutions, so that a positive reception of the object in the community is achieved and at the same time its negative impact on the environment is reduced.

Positive reception in the industry and the rewards that have been granted to the above projects, as well as the visible attachment of recipients to individual objects, confirm that temporary architecture does not remain less valuable than permanent architecture.

References

- [1] Kronenburg R., *Architecture in Motion: The history and development of portable building*, Routledge, Londyn 2013, 29–31, 7–8.
- [2] Encyklopedia PWN online, <https://encyklopedia.pwn.pl/haslo/architektura;3870803.html> (access: 23.10.2018).
- [3] Gilewicz W., *Poza Użytecznością*, Czasopismo Techniczne. Architektura, z. 1-A, Kraków 2009, 269–270.
- [4] *World Commission on Environment and Development. Our Common future*, New York 1987.
- [5] Saval N., *Assemble: Making Things Happen*, The New York Times, New York 2015, <https://www.nytimes.com/2015/08/19/t-magazine/assemble-architecture-collective.html> (access: 23.10.2018).
- [6] Brown M., *Urban regenerators Assemble become first 'non-artists' to win Turner prize*, The Guardian. London 2015, <https://www.theguardian.com/artanddesign/2015/dec/07/urban-assemble-win-turner-prize-toxteth> (access: 23.10.2018).
- [7] Assemble, <https://assemblestudio.co.uk/projects/the-cineroleum> (access: 23.10.2018).
- [8] Assemble, <https://assemblestudio.co.uk/projects/folly-for-a-flyover> (access: 23.10.2018).
- [9] Dezeen, <https://www.dezeen.com/2012/08/08/theatre-on-the-fly-by-assemble/> (access: 23.10.2018).



- [10] Assemble, <https://assemblestudio.co.uk/projects/the-big-slide> (access: 23.10.2018).
- [11] Dezeen, <https://www.dezeen.com/2014/08/27/the-playing-field-pop-up-theatre-assemble-southampton/> (access: 23.10.2018).
- [12] Assemble, <https://assemblestudio.co.uk/projects/bell-square-pavillion> (access: 23.10.2018).
- [13] Assemble, <https://assemblestudio.co.uk/projects/horst-festival> (access: 23.10.2018).