

CHILD IN ARCHITECTURE TRADITION, CONTEMPORARY TRENDS AND THE FUTURE

DZIECKO W ARCHITEKTURZE TRADYCJA, WSPÓŁCZESNE TRENDY I PRZYSZŁOŚĆ

Abstract

The 20th century witnessed the development of spaces designed specially for children. At home, school and in the city, within the framework of radical zoning, solutions dedicated to a special group of users were born. Such solutions aspired to actively support general development. The child – hope and subject became a symbol of the future whereas attributes of childhood – an inspiration for shaping modern architecture. What does the continuation of this tradition look like in the face of the phenomenon of ‘disappearance’ of the childhood’s autonomy and replacing it with a model of child-adult partnership?

‘Children are the living messages we send to a time we will not see’². Our way of comprehension and interpretation of the world will be passed to our descendants in the form of architectural artefacts. Continuation of the work will be possible only when young people gain certain sensitivity. Architectural works may spatially ‘educate’. How do contemporary designers perceive their mission?

This paper aims to provide answers to the above questions. Comparative analyses show the disappearance of identity of the architecture for children. The observations of architectural education at children’s university confirm the possibility of children’s participation in architecture by playing a role of partners and co-creators.

Keywords: architecture, childhood, modernity, tradition, contemporary trends

Streszczenie

W XX w. nastąpił rozwój przestrzeni projektowanych dla dzieci. W domu, szkole, mieście, w ramach radykalnego strefowania, powstały rozwiązania, dedykowane szczególnej grupie użytkowników. Aspirowały do tego, by aktywnie wspierać ogólny rozwój. Dziecko nadzieja, podmiot stało się symbolem przyszłości, atrybuty dzieciństwa – inspiracją kształtowania nowoczesnej architektury. Jak wygląda kontynuacja tej tradycji w obliczu ‘zanikania’ odrębności dzieciństwa i pojawienia się partnerskiego modelu relacji dziecko-dorosły?

‘Dzieci są żywymi wiadomościami, które wysyłamy do czasów, których nie zobaczymy’³. Nasz sposób pojmowania i interpretowania świata przekazany zostanie potomnym w postaci architektonicznych artefaktów. Kontynuacja dzieła możliwa będzie wówczas, gdy młodzi ludzie posiadą odpowiednią wrażliwość. Dzieła architektury mogą przestrzennie ‘edukować’. Jak współcześni twórcy pojmują swoją misję?

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² N. Postman, *Technopol. Triumf techniki nad kulturą*, Muza, Warszawa 2004.

³ *Ibidem*.

Celem pracy jest znalezienie odpowiedzi na powyższe pytania. Analizy porównawcze wykazują zanikanie odrębności architektury dla dzieci. Obserwacje edukacji architektonicznej w uniwersytecie dziecięcym potwierdzają możliwość uczestnictwa dzieci w architekturze w charakterze partnera i współ-twórcy.

Słowa kluczowe: architektura, dzieciństwo, nowoczesność tradycja, współczesne trendy

1. INTRODUCTION

In the summer of 2012, in the New York MoMA, a retrospective exhibition was held. It was the Century of the Child, Growing by Design 1900–2000, showing a special interest in the child in the art and architecture of the previous century. An accompanying publication edited by J. Kinchin⁴ constitutes a set of essays about the impact of the ‘cult of childhood’ on designing in the 20th century. The works and achievements of that century were shown in the context of building a new paradigm of progressive designing thinking characterized by social sensitivity, taking into consideration the needs of a special group of users and inspired by the culture of childhood while searching for new models of shaping space. The above-mentioned publication begins with a quotation from the film Children’s Video Collective⁵: *‘In the future, children will cease to exist. As a social category, we will simply become irrelevant. My generation is likely to be the last generation of children. Or, rather, the last generation to experience childhood. That doesn’t necessarily mean that now is the time to put away childish things. Instead it may mean that the use of childish things may be extended indefinitely, until death’*. This was the harbinger of oncoming new social and cultural changes – the conditions which are presently influencing the ways of shaping architecture in public space.

2. IMAGE OF CHILDHOOD IN SCIENTIFIC RESEARCH AND ARCHITECTURE

Customs, norms and views which provide the framework of the functioning of social groups are passed from generation to generation⁶ and become immortalized in architectural forms and models. The dialogue of tradition and modernity – a repeated type and a novel concept attempting to meet the challenge of the alteration of assumptions – constitute the essence of designing. At the moments of passage or transition there comes a change of a previously adopted way of reality perception. Such moments encompass historic events, crucial legislation changes, inventions, implementation of new technologies [*‘no culture can avoid negotiations with technology’*⁷], sometimes – single innovative architectural concepts. The accumulation of new conditions and circumstances makes a breakthrough and passage into a subsequent ‘modernity’, *‘old theories are absorbed by new interpretations’*⁸. While observ-

⁴ J. Kinchin (ed.), *Century of the Child: Growing by Design 1900–2000*, The Museum of Modern Art, New York 2012.

⁵ *Ibidem*, p. 11; *‘Hundred Videos’*, 1996, directed by Steve Reinke

⁶ <https://sjp.pwn.pl/sjp/tradycja;2578426.html> (access: 20.06.2019).

⁷ N. Postman, *op. cit.*, p. 17.

⁸ Oryg. [pol.]: *‘stare teorie wchłaniane są przez nowe interpretacje’*, B. Smolińska-Theiss, *Rozwój badań nad dzieciństwem przełomy i przejścia*, Chowanna, 2010, no. 1, p. 15.

ing the process of evolution we may attempt to predict the future. Modernity in the 20th century was connected with the image of the child formed under the influence of social conditions, which was brilliantly shown by the New York exhibition of design.

B. Smolińska-Theiss distinguishes three passages (transitions) or breakthroughs in the scientific research on the childhood in the 20th century⁹:

- child as a star, hope;
- emancipated child, a subject;
- diversified childhood, child as a citizen.

These three concepts are juxtaposed with images of the child – the user in architecture:

- child as hope – a period of modernism, the development of a space for children, both at home and school, taking into consideration newly-shaped standards within the scope of ergonomics and developmental needs;
- emancipated child – a period of post-modernism, the interest in space shifts from a children's room, nursery room and school classroom to public space [The School as a Micro-City, The City as a Macro School¹⁰];
- diversified childhood – in contemporary universal intergenerational solutions – a space for play for adults, post-postmodernism.

The author formulates conclusions concerning the present-day image of childhood: *'Space is changing and so is the time of childhood. A contemporary child is not only seen at home, in the family and in its mother's embrace. The child has stepped into the public space. (...) There is a special public space that belongs to children which is separated from the world of adults. It is a space built for children where rules and norms directed at children are binding'*¹¹ – school, as the author makes her pertinent point, still remains a conservative institution. The child-citizen more and more often finds fulfilment in the space which is beyond school, in after-school activities, in places of informal education and outside school. The child appears in the adult space as an equal user. On the other hand, the school as a local centre is opening to external users. A special space for children is being replaced by multi-functional solutions.

3. CHILD IN THE TRADITION OF THE 20TH-CENTURY ARCHITECTURE

Throughout history children were not perceived as a separate social category¹². They were treated as little adults, dressed like them and living alongside them in one space without a distinctly separated place of their own. From the 14th century the separate identity and

⁹ *Ibidem*.

¹⁰ H. Hertzberger, *Space and Learning. Lessons in Architecture 3*, 010 Publishers, Rotterdam 2008.

¹¹ Oryg. [pol.]: *'Zmienia się przestrzeń i czas dzieciństwa. Współczesne dziecko widziane jest już nie tylko w domu, rodzinie, w objęciach matki. Dziecko wkroczyło w przestrzeń publiczną. (...) Istnieje specjalna dziecięca przestrzeń publiczna, oddzielona od świata dorosłych. Jest to przestrzeń zbudowana dla dzieci, w której obowiązują reguły i normy skierowane do dzieci'*, B. Smolińska-Theiss, *op. cit.*, p. 24.

¹² P. Aries, *Historia dzieciństwa. Dziecko i rodzina w czasach Ancien régime'u*, Wydawnictwo Aletheia, Warszawa 2010.

sensitivity of children was noticed [under the influence of Christian culture]. Subsequent approaches to childhood encompassed a moralizing approach from the 16th to 17th centuries underlying organized forms of education as well as health care and hygiene approaches beginning from the 18th century. The position of children was gradually improving. The boundaries of childhood were successively extended and the span of education was prolonged in modern family, which resulted from social and cultural changes, technological leap forward, progress of civilization as well as demographic changes. The Century of the Child¹³ is a period of great hopes pinned upon this group, which was pushed on to the sidelines not so long ago. *'In the 20th century the child was supposed to save the world, to free mankind from war atrocities, cruelty, violence and build paradise on Earth'*¹⁴. The Convention on the Rights of the Child [1989] as well as the Convention on the Execution of the Rights of Children [2000] crowned long-lasting efforts of the Children's Rights Movement fighting for personal, political, social and economic rights. A new type of space user came into picture – the one that had special needs and privileges – including the right to live in proper conditions, to receive upbringing in the family, education ensuring physical and psychological development, health care, leisure, access to culture and entertainment, participation in community life as well as the right to express opinions. The separate identity and special meaning of the childhood was acknowledged. There appeared new spaces designed specially for children in order to provide safety and optimum conditions of individual development.

Home. There was a change in the family model, which was connected with the employment of both parents. Life was subordinated to work in production and ensuing rhythm of the day as well as a place of residence. New forms of housing came into being in industrial centres. In flats, a special zone for children was designed as they became the focus of the daily family life. They were no longer 'hidden' in the servants' quarters but they received their own place for sleeping, playing, learning, both in the building and outside in the fresh air. There appeared a space adapted to their developmental needs, equipped with individually designed furniture and equipment which were suitable for mass production [Ch. R. Mackintosh, M. Macdonald – House for an art lover, 1902; S. Nagy, E. T. Wigand, M. Undi, 1904; G. Ball furniture, 1920; A. Siedhoff-Buscher, Haus am Horn, Weimar, 1923–24, A. Aalto – own house in Turku, 1929; L. M. Van Der Rohe, Villa Tugendhat Brno, 1930; M. Breuer – The House in the Museum Garden MoMA, 1949; B. A. Goff – Gene and Nancy Bavinger House, 1950–51; L.M. van der Rohe – McCormick House 1952, etc.].

Recreation. Equipment serving the purpose of outdoor play in open green spaces was based on typical module solutions. That enabled the users to practise motoric functions, develop their imagination and social competence. Playgrounds became an integral element of the composition of public space becoming a safe zone for children. [I. Noguchi 1939; Lollard Adventure Playground Borough of Lambeth, London, 1950; A. van Eyck around 700 playgrounds, Amsterdam, 1947–78, Z. Nemecek – Sputnik play sculpture, Prague Baba, 1959; R. Dattner square in the Central Park, 1966, L. B. Bardi – square at the Belvedere Museum of Art Trianon, Sao Paulo, 1968, I. B. Zalaegerszeg, 1979; designs by N. Jankowska for 'Dr Jordan's Gardens']. Recreational centres for children were also built beyond the places of

¹³ E. Key, *Stulecie dziecka*, Żak Wydawnictwo Akademickie, Warszawa 2017.

¹⁴ On Ellen Key's book; oryg. [pol.]: *'Dziecko miało w XX wieku zbawić świat, wyzwolić ludzkość od zła wojen, okrucieństwa przemocy, zbudować raj na ziemi'*, B. Smolińska-Theiss, *op. cit.*, p. 16.

usual residence as summer holiday centres [Hannes Meyer, Mumliswil, Switzerland 1937], creating thus a new type of leisure architecture for children spending their holidays without parents.

Children's care. Care institutions and charities for the sick, the excluded and orphans had been developing since the Middle Ages [after the conversion to Christianity]. Children would stay in such institutions with adults, the healthy would live with the sick. However, with the passing of time a specialization of care and educational institutions took place. Apart from establishments of a typically preventive nature [orphans' asylums], there developed public nurseries and kindergartens. 'The Children's Gardens' from German 'Kindergartens' came into being in the 19th century. In the 20th century there was rapid development of institutions modelled on Froebel's establishments, which partly took over the task of taking care of children and constituted a part of public educational system [H. Hofmann, A. Kellermuller Wiedikon Kindergarten Zurich, 1928–57; P. Heim, A. Kempter – kindergarten for 60 children, Wuwa, 1929 with a garden design by E. Vergin; E. Goldfinger and M. Crowley – Nursery Schools Association, 1934; Unité d'habitation in Marseilles – Le Corbusier and B. L. van Ginkel; Reggio Emilia. L. Malaguzzi; Jankowska, Uniejewski et al., the streets of Próchnik and Suzin, Warsaw]. Specialist care centres for children include also hospitals and children's homes. Since the late 19th century, along with the discovery of importance of asepsis, modern hospital service and hospitalization methods have been developing. The treatment of children at specialist children wards as well as the isolation of patients contributed greatly to the reduction of mortality and improved health care efficiency. The examples of modernist specialist establishments having child care and medical functions are as follows: Aldo van Eyck, Amsterdam, Municipal Orphanage, 1955–60; Peckham Health Centre, a recreation centre with a research centre in London, Sir O. William, Ch. 'Kit Nicholson', 1935; Richard Konwiarz, WUWA, a sanatorium for children, 1929.

Education. Introduction of compulsory education as well as the ban on employing juveniles created new conditions for the process of child's growing up. The child's tasks included education and play, whereas the state was supposed to provide children with the best possible conditions of life and individual development, in accordance with the child-centred education. School constituted public space which was specially designed for a selected social group. According to Perry's concept, school was supposed to constitute the heart of an organizational neighbourhood unit [K. Gottlob, Copenhagen, 1935–38; R. Neutra, USA, 1935; E. and E. Saarinen, Perkins, Wheeler and Will, Winnetka, 1940; E. May, Bornheimer Hang, 1926–30; E. Goldfinger – a system of pre-fabricated schools for London; A. E. Reidy – Primary School and Gymnasium Pedregulho, Rio de Janeiro, 1948–50, A. Jacobsen Munkegard, Copenhagen, 1952–56]. Specialist schools of an open-air type for the children with poor health were based on a concept of outdoor education 'in the fresh air' with the purpose of preventing the tuberculosis epidemic [H. Meyer, H. Wittwer's, St. Peter's in Basel, 1926; J. Duiker, Amsterdam, 1927–30; E. Beaudouin, M. Lods, Suresnes, 1935–36]. Parallel to the above-mentioned buildings there were also other public buildings dedicated to children as places of education outside school, such as museums, libraries, youth centres of culture [Raum der Kunst fur das Kind, Kunstschau Vienna, 1908; E. Goldfinger, P. M. Abbatt, Children's section in the British Pavilion in Paris, 1937; K. Tange, Hiroshima Childrens Library, Tokyo, 1953]. The architecture of leisure constituted an alternative to the recreation in the fresh air.

4. TRADITION VS MODERNITY – CHANGE OF DESIGNING CONDITIONS

A characteristic feature of the 20th-century architecture for children consisted in creating space zones adjusted to functional needs of children and adolescents. Jankowska and Uniejewski et al.¹⁵ regarded the following features as crucial achievements of ‘modern’ architecture [in relation to schools]: determination of basic standards of use, adaptation to the child’s scale [in accordance with the UIA Report for UNESCO, the use of the child’s measure reflects the adaptation of space to individual needs], provision of safety and security [school as ‘extension of home’] as well as taking into consideration other educational needs [contact with nature, light, greenery]. They thought that simplicity and sincerity of form which excluded artificiality stimulated creative development of the child¹⁶. Nowadays, the above-mentioned standard requirements, minimum dimensions of rooms, furniture and equipment as well as orientation relative to the points of a compass have remained the same. However, new tools and technologies have had their impact on the ergonomics of workstation [computers, wireless devices, active learning environment]. The evolution of standard requirements results also from new technical possibilities and requirements of environmental protection – we can use better solutions in the scope of technical fittings and infrastructure of buildings.

In the first half of the ‘Century of the Child’ functional solutions became individualized, whereas the form was hardly subject to such a change. Typical systems were based on block, pavilion, module [cellular], corridor solutions and consequent zoning. The sole manifestation of modernist simplicity and functionality seemed insufficient to meet contemporary needs. The second half of the 20th century witnessed a process of taking the solutions for children out of the functional space of home and school into public space. The whole process was connected with the development of new architectural typology, a new model of a place of residence, work, education, which would first of all respect social requirements and local public space as well as childhood empowerment. In the 20th century the child was noticed and introduced into architecture as a demanding user. The world of children’s games, playfulness and amateur creativity inspired solutions in architecture, which can be best illustrated by an example of Bauhaus artistic creations in the Weimar period connected with a figure of Johannes Itten¹⁷. Contemporary conditions are changing the approach to children in architecture. In ageing society it is the senior citizens who are becoming a more and more visible group in housing and public space. The ever-changing job market requires permanent learning, hence the presence of adults in educational places. The development of telecommunication technologies affects the character of social contacts, community life, access to knowledge and information resources as well as spare-time activities, for instance children very easily develop the ICT competence. In addition to that, there is a growing public awareness of the importance of eco-education in order to direct general development of children.

¹⁵ J. Jankowska, A. Uniejewski, T. Uniejewski, *Budownictwo szkół i przedszkoli*, Wydawnictwo Arkady, Warszawa 1962, p. 6.

¹⁶ *Ibidem*.

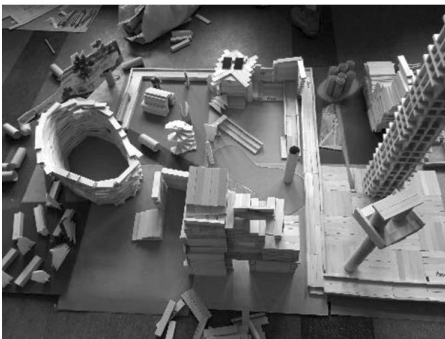
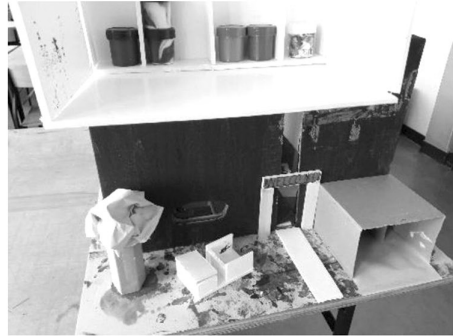
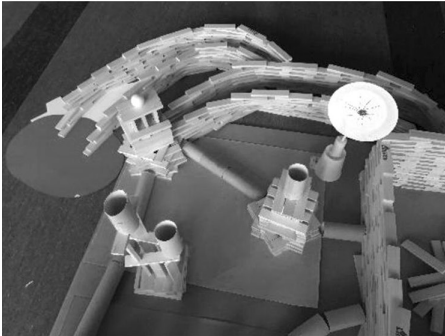
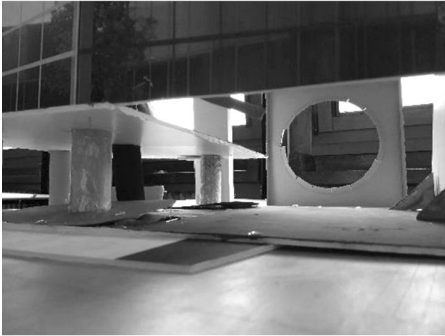
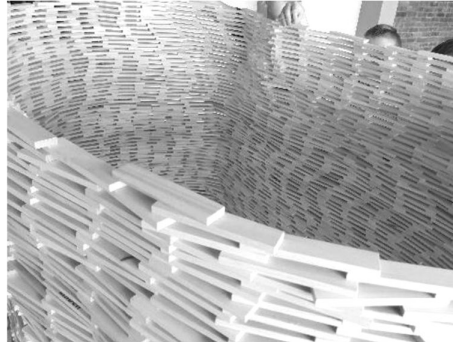
¹⁷ J. Kinchin (ed.), *op. cit.*

5. CHILD IN ARCHITECTURE – A CO-USER AND PARTNER

Since the second half of the 20th century the importance of public space in buildings for children and the youth has been growing. The above-mentioned groups also actively function in public space beyond home and school in places designed in a universal way. What can be seen is the resignation from space zoning for the benefit of mixed solutions, multi-generational solutions of flexible use. The architecture for adults often takes over the features of children's magical architecture [MVRDV, Tianjin Binhai Library; Zaha Hadid Heydar Aliyev Centre in Baku]. 'Hybrid' solutions, such as flats in post-industrial objects, education in public spaces, public space on the fifth elevation or vertical gardens, are considered to be innovative. 'Non-territorial environment' [designs by Rosan Bosch Studio]: a school without classrooms, a single-space loft – flat, a multi-functional space based on an open plan used as a workplace or cultural space; these are alternatives to separated space. The equipment is integrated with the building and adopts individual forms from the world of plays and games capturing the imagination and imitating the nature. Interactive solutions making use of the IT are built into buildings [Peter Cook, the façade of Kunsthaus Graz], similarly to solutions improving the quality of the natural environment. The restriction of traffic has impact on the improved security of pedestrians [MVRDV, Traumhaus Funari, 2015]. Children are presented with a proposition of space which reminds more of landscape [playscape] than a traditional building. They use this space along with adults on a partnership basis. A characteristic 20th-century children's design has been absorbed by 'new interpretations', where the space for children loses its separateness [SANAA, multi-functional Rolex Learning Center, 2010].

'Child-citizen' takes advantage of a wide variety of educational activities of an informal character. The significance of spatial education is emphasized in the school curriculum. A chance to popularize architecture among children is given by the so-called children's universities – national educational programmes like: 'Shaping Space' under the patronage of the Chamber of Architects of the Republic of Poland; 'Archi-Adventures' organized by the National Centre of Culture; 'University of Young Explorers' [UMO] held by the National Centre of Research and Development. DWA, namely the Children's Academy of Architecture, at the Faculty of Architecture of the Silesian University of Technology is a project financed by European Funds Knowledge and Development, European Social Fund of the EU, within the framework of the Operational Programme Knowledge Education Development – UMO¹⁸. The third mission of university is the responsibility for social development by dissemination and popularization of research results. Architectural education of children and the youth opens the doors of the university to young users. It is a new dynamic group which learns not only through participation in classes but does so equally well by exploring new places which were designed for adults. The dynamics of child's play changes for a moment a character of the design studio and the faculty's space of movement – breaking thus the routine of Saturday's classes. Using the university's infrastructure, the participants of this project develop competences which constitute the basis of permanent education. The main objective is to arouse cognitive curiosity as well as develop creativity, innovativeness

¹⁸ Project manager: dr hab. inż. arch. Beata Majerska-Paľubicka, prof. Pol.Śl.; RAr-2 employees conducting classes: dr inż. arch. M. Balcer-Zgraja; dr hab. inż. arch. Jerzy Cibis, prof. Pol.Śl.; dr inż. arch. J. Serdyńska; dr inż. arch. M. Sitek; dr inż. arch. J. Wojewódka.



II.. 1. Architectural models created by children; Children's Academy of Architecture

and design thinking in order to take actions transforming the surroundings [as an individual or team]. Workshop activities performed during such classes consist in specific children's artistic creation. It encompasses models and patterns deeply rooted in the local culture and formed on the basis of an image of home, district, school, etc. Under the influence of expert knowledge of the faculty employees and virtual tours of the latest architectural implementations, such images evolve into innovative concepts, for instance of a modern building or a city of the future [Il. 1]. The models created may also inspire architects. Children are often invited to be partners in real-life designing. The co-operation with children has been undertaken by such design studios as Susanne Hofmann [Die Baupiloten, Berlin] or Dorte Mandrup [Copenhagen]. Participation in the designing of real architecture, which is going to be used by children in the future, joins elements of practical spatial education through action with a qualitative test of preferences of the future user. All this is done in search of optimum solutions.

6. CONCLUSIONS

The mixed use of space and multi-generation dialogue model based on partnership means in practice the loss of identity of the architecture for children. In a housing estate children become a minority, the school is being transformed into a local community centre or a permanent education centre. Children appear in public buildings for adults [for instance at higher schools] becoming also their users. '*Children are the living messages we send to a time we will not see*'¹⁹. An important part of this 'message' is about spatial education. The mission of architecture as the third teacher was carried out in the 20th century by promoting hygiene and simplicity inside the buildings, later, a social integration in the concept of public space. Nowadays, the attention is focused on an innovative concept, multi-functionality, interactivity using smart solutions built into architectural buildings [media facade, game, puzzle, etc.], which contribute to the user's development through action and play. A special case of the creation of relations between architecture and a young user is an invitation to co-designing. It is an exceptional form of architectural education run with the purpose of child's future in architecture.

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¹⁹ N. Postman, *op. cit.*

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