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Evaluation of the architecture of an orphanage for orphaned children in the context of the reform of residential institutions (deinstitutionalisation concept)

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Abstract

On the basis of the analysis of more than a hundred projects that have been completed over the past four decades, the process of the transformation of the architecture of orphanages in the context of the deinstitutionalisation strategy was analysed. The analysis was based on a specially developed method of comparing environmental and peculiarities of fostering. The main goal of this method was to establish a connection between the effective methods of raising children and architectural form. In accordance with the structure of the plan, three types of orphanage have been identified – single, branched and dispersed.

As a result of the analysis, three factors were identified that contribute to the preservation of outdated methods of organising the architectural space of an alternative care institution for children. A number of design solutions have been identified that have significant potential for strengthening deinstitutionalized, child-centred educational practices that correspond to the best interests of the child.

Keywords: orphanage, architecture, varieties, deinstitutionalisation, evaluation

1. Introduction

The growing focus on architectural solutions for spaces dedicated to children without parental care highlights the significant transformations taking place in the field. Therefore it is crucial to explore the effectiveness of the different approaches that can enhance the implementation of specific methods for the care of orphans. The initial phase involves organising and categorising the planning structures commonly found in such facilities and establishing an evaluation framework. The ultimate objective is to develop a well-rounded design strategy for boarding institutions that promote the successful social integration of orphans and fosters a positive sense of "self-image" within them.

2. Terminology and methods

The basis of the proposed terminology relating to the method of analysis is the concept of foster care, which has a complex nature and is widespread in scientific discourse in the English language (Bruskas 2007:70-77; Barber et al. 2004; Rosenfeld et al. 1997: 448–457). This outlines a set of measures aimed at actively promoting the well-being of the child, encompassing their education, physical and emotional development, and their successful integration into society. Consequently, the design process should translate these foster responsibilities into tangible spatial features, which become the primary focus of interest in architectural theory and practice.

Based on the information provided, the developed method comprises four analytical components: spatial, foster, quantitative and chronological. To apply this method, data from over a hundred projects from various countries and social contexts were examined. The chronological scope covers the past four decades. The selection of projects encompassed both implemented and notable experimental and competitive endeavours. An important criterion for inclusion was the project's alignment with categories such as community-oriented and family-oriented, which are reflected in factors like capacity, area, flexibility, integration with the environment and visual appeal.

2.1. Terminological concept of deinstitutionalisation

Deinstitutionalisation is the process of transition from institutional care to family forms of foster care. Deinstitutionalisation is also the direction set by the European Union. In 2012, pan-European guidelines for the transition from institutional to community-based care were developed (NIK, No. 134/2022/P/22/031/KPS).

3. Spatial variability of alternative care facilities for children

Based on the analysis of planning structures, it was determined that the examined examples can be classified into three main types – solid, branched and dispersed. The solid type primarily consists of traditional premises characterised by an "institutional" architectural approach, where the system's functionality took precedence over the child's individual interests. Over time, these premises underwent some stylistic and functional modifications in line with neo-modernist aesthetics, but they remained largely inadequate for modern methods of orphan care (see Fig. 1). The branched variety includes relatively small-scale structures that maintain their overall volume but are divided into functional and spatial components (see Fig. 2). The dispersed type consists of separate buildings scattered throughout the site, aiming to enhance individualisation and minimise the "institutional" characteristics typically associated with boarding facilities (see Fig. 3).

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Fig. 1. Internat in Montceau Les Mines (by arch. X`TO Architectes)



Fig. 2. Orphanage in New Jerusalem (by arch. 4D and A Architects)



Fig. 3. Eco-Village for Orphaned Children proposal in Soy (by arch. Suzy Syme & Andrew Costa)

During the analysis, it was discovered that out of the one hundred and ten examined objects, the majority consisted of a branched planning-spatial scheme. Sixty-nine design solutions fell under this category, with twenty-three featuring a complete scheme characterised by a single geometrically simple main structure. The remaining eighteen objects can be described as dispersed schemes.

It is quite remarkable that despite the extensive process of "deinstitutionalization" which started in the West in the nineteen-fifties, there

remains a prevailing tradition of solid block-like structures that exhibit a rather conservative approach. Conversely, there is a proliferation of innovative experiments with care spaces in developing countries. It is notable that the majority of dispersed schemes are found in these regions. It can be postulated that the climatic characteristics of southern areas, where the concern for heat loss is less significant, might have influenced this pattern.

The extensive planning and spatial scheme offers several advantages, including the preservation of functional coherence, cost savings and the opportunity to incorporate innovative approaches to shaping the environment. The decrease in the prevalence of conservative planning and spatial structures indicates that architects strive to align with the knowledge that has emerged in the interpretation of children deprived of parental care in the early twenty-first century. Across all types of spatial schemes, dynamic and asymmetric solutions dominate, which are aimed as evoking emotional responses and creating uniqueness. Considering the human scale, the avoidance of an overwhelming scale, and the avoidance of monotonous rhythmicity signify the close connection between deinstitutionalisation methods and architectural techniques.

The dispersed structures, with little information provided, exhibit a wide range of spatial planning approaches. However, this type of planning is commonly utilised for cost-effective and budget-friendly shelters in African countries, aligning with both climatic conditions and local traditions. Several noteworthy options stand out for their exceptional characteristics with regard to both the environment and fostering. These include the proposed design of a shelter in Oliphantsfontein (South Africa) by architect Sans Frontier, project EMAAHMEGY084493 submitted to the Kaira Looro competition for the best residential institution for children in 2022 by Ahmed M. Aglan and Haridas Narvekar, a project for a children's "eco-shelter" in Soya (Kenya) by Suzy Syme and Andrew Costa, and a shelter for children near the village of Kisumu (Kenya) by Thorsten Kramser. In these projects, the dispersed units typically consist of multiple rooms, fostering a familial and familiar environment while avoiding isolation and loneliness.

The examination of the dispersed type also yielded significant insights into the spatial organisation of deinstitutionalised residential facilities. Through various practical approaches to dispersity, it became evident that there are methods that fall within the spectrum between extreme individualisation and significant collectivisation. While separate residential units isolated in space can facilitate personal development, they may not fully promote the cultivation of adaptive skills in children or foster positive relationships with the social and natural environment.

4. The "microuniverse" of care institutions for orphans

The organisation and initial analysis of samples of care institutions for children without parental care indicate that a well-balanced approach can be achieved through a spatially rich and diverse environment, where several children reside in a "microuniverse" setting. This setting consists of an internally isolated space that remains connected to the external environment, integrating elements from both realms and facilitating social interaction. Architectural projects and interior designs reflect various methods of nurturing and education. Although most of the analysed facilities had a predominantly static nature, the incorporation of both transformability and adaptability proves to be an effective technique in this context.

In developed countries, the principles of deinstitutionalisation are evident in the overall structures, which are progressively reduced. However, there is also room for techniques that prioritise family orientation and individualisation. Although these structures may appear as cohesive entities, their spatial planning is aligned with the values of deinstitutionalisation. One notable example is

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the orphanage project near Kathmandu, designed by the New York office of MOS Architects. Within a single volume, each floor represents an isolated space with elements of a micro-landscape and its own functional orientation. This configuration creates a unique microuniverse, comprising various functional zones that together form a self-contained environment. Additionally, the integration of a section into an existing conventional educational institution can be achieved using a unified spatial type. Such integration should be viewed as a method of socialisation and an approach to minimising the contrast between children from ordinary families and those without parental care.

The branched type is the predominant category and exhibits diverse planning and spatial configurations. Typically, the facilities are organised around a central hub that serves as a focal point for the entire community. These structures are often intended to accommodate a large number of individuals, which poses challenges in aligning the building design with principles of family and individual orientation.

Among the examined instances, there are notable instances of experimentation with the conventional single-family house stereotype. For instance, the Kertminde boarding facility in Denmark, designed by the CEBRA studio in 2014, showcases various compositional techniques, such as scaling and rotation, which contribute to the creation of a suitable visual and functional framework for the implementation of contemporary fostering approaches. Moreover, architects interpret the employed archetype as poly-metaphorical (CEBRA, ArchDaily), enabling the visual adaptation to different behavioural role models (see Fig. 4). The analysed projects predominantly feature a planning structure characterised by the rhythmic arrangement of rectangular spatial volumes, often repeated throughout the complex. Occasionally, an accent is employed to enhance the overall compositional unity. Considering the abundance of branched-type projects, they can be categorised into several subtypes based on their nature, such as modular, ensemble, experimental and simplified.



Fig. 4. Our house – the children`s home of the future in Dermark (by arch. CERBA)

The modular subtype exemplified by the children's village project in Aqaba, Jordan (1991, Jafar Tukan & Partners), which received the Aga Khan Award (The AKDN 1991), showcases the repetition of standardised clusters that can be partially modified to suit the specific needs of the area or functional structures. Projects that interpret the archetype of a country house with a plot align more closely with the deinstitutionalisation strategy. These projects accommodate one “family” consisting of three to six children, providing a scale and space conducive to a family-oriented environment. In modular structures,

certain spaces are designated for shared use, administration, or service, and they generally blend seamlessly with the overall character, primarily differing in their size and volume. The issue of accommodating the desired number of children remains unresolved, as it directly depends on the availability of staff. When the volume of modules is limited, a boarding facility can possess high environmental and foster characteristics, making it a viable architectural model for alternative care institutions for children. The versatility of modular designs also offers promising prospects for employing various techniques to enhance recreational and rehabilitative effectiveness, particularly in cases where alternative care involves working with children with special psychosomatic needs (see Fig. 5).



Fig. 5. SOS Children's Village, Aqaba, Jordan (by arch. Jafar Tukan & Partners)

The ensemble subtype is characterised by greater unity of volume and the use of compositional accents. Its environmental and foster characteristics are slightly lower than those of the modular type and approach standard solutions of institutional institutions, for example, a orphanage in the city of Kimberley, Canada, architect George Berry, 2022 (Purcell Collegiate School) (see Fig. 6). In addition, there are options in which the buildings are separated,

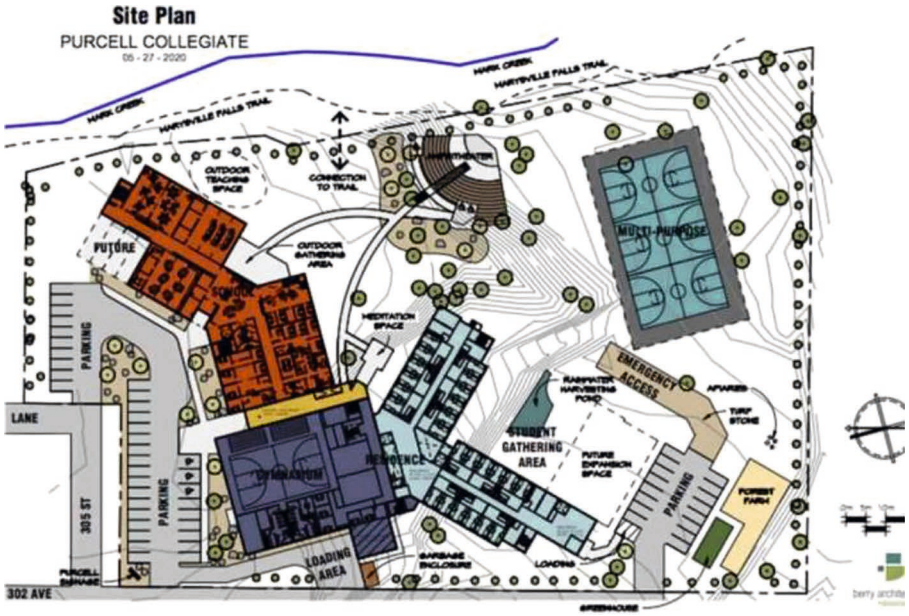


Fig. 6. Orphanage in the city of Kimberley (by arch. George Berry)

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but maintain the unity of style and large-scale planning. It was this factor that became decisive for classifying them as a branched spatial planning type, for example, a orphanage in Los Angeles, architectural bureau Gensler, 2019 (Day B, 2020) The ensemble can also be achieved with the help of a unifying element, for example, the roof as in the shelter in the village of Canuala (Brazil), arch. P. Duchenes and G. Utrabo, 2018 (Estudio Gustavo Utrado, 2010).

The experimental subtype encompasses a relatively small number of objects, distinguished by their innovative approaches to structural organisation based on geometric or physical attributes of the main masses. An example of this is the orphanage facility constructed in 2000 in New Jerusalem, South Africa (Holloway, 2013), where container structures are smart planned to form an extensive arrangement of planning elements. This project also offers a diverse program that emphasises flexibility and adaptability of spaces. Dynamic compositions with large cantilevers and the use of contrasting colours are employed to address the developmental challenges often faced by children raised outside of traditional family conditions. Furthermore, there is an evident pursuit of self--sufficiency, the creation of micro-landscape environments, and the utilisation of expressive morphology to evoke heightened emotional responses, such as in the "Seeds of Life" project located in the Nile Delta, Egypt, designed by architect Najla Al-sheikh in 2016 (see Fig. 7) (Al-Sheikh, 2016).



Fig. 7. Seeds of Life in the Nile Delta (by arch. Naila Al-Sheikh)

Simplified types of structures are predominantly employed in developing countries. Typically, these buildings are of a temporary nature and are utilised in response to unforeseen circumstances or emergencies such as natural disasters, military conflicts and epidemics. However, it should be noted that the environmental and foster indicators of such structures are generally not high.

5. Conclusions

1. The disparities in the quality of residential buildings across different regions of the world are highlighted. In more developed northern countries, the number of alternative care facilities is relatively small, and the project solutions tend to be more integrated in nature. The treatment of orphans in these regions often relies on adoption, which is why some projects exhibit an "institutional" nature. This can be attributed to factors such as the need to minimise heat loss, the temporary nature of stay, and the practice of integrating education and growth environments within regular educational institutions. By contrast, the range of experimentation with care spaces in the more developed southern countries is broader.

Various typological groups can be observed, featuring both high and low environmental and foster indicators.
2. It was determined that based on the master plan structure, the analysed samples can be categorised into three types: solid, branched and dispersed. Within the branched type, modular, ensemble, experimental and simplified subtypes are identified. The employed methodology demonstrated the significance of the interplay between the architectural design of boarding schools and the psychological aspects of child development in such environments. Moreover, the analysis revealed certain shortcomings stemming from the lack of integration between these two elements and the frequent reliance upon stereotypical "institutional" design approaches.
3. Several projects have been identified as particularly intriguing in terms of embracing the principles of deinstitutionalisation. These projects specifically explore temporary structures, which can serve as a valuable material for pre-design analysis, especially when designing facilities for refugees and displaced individuals. Furthermore, the emphasis on symbiosis with the environment, which is a crucial aspect of these projects, deserves notable attention.

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