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## *Archetype and community character of the nest residential building development*

*A creative process – as long as we are able to follow it at all – consists in reviving the old symbols of mankind existing in unawareness, in their development and transformation into a complete work of art.*

C.G. Jung [11, p. 41]

Nest arrangements of the residential building development constitute one of the possible concepts of a habitat, which in its deepest layer takes into account psychology, sociology as well as history. One of the reasons why people in the past focused on central arrangements was their archetype and community character. This form with the emphasized centre – *sacrum*, a community forum, ensured the feeling of safety and stimulated social bonds. A round and archetypal shape of the structure expressed one of the most significant symbols – the image of the world – *Imago mundi*, which exposed the place by separating the internal ordered micro-cosmos from the external, chaotic and amorphous surroundings.

Carl Gustaw Jung – a Swiss psychiatrist and psychoanalyst finds origins of the concentric form of an arrangement in the mandalic archetype (circle and centre) – a supra-personal image which has a strong ordering impact and is independent of external factors. This scheme of disintegration of one into many and integration of many into one constitutes the prototype which is part of the collective unawareness content – reflecting common human thoughts which exist in all cultures [15]. Jung compares the form of fore-image to the axis system of the crystal structure, which pre-forms it in the crystal solution although the system itself does not have any material form of existence. This form is revealed only in the way of crystallisation of ions and consequently also molecules. The archetype itself is an invisible factor; however, it instinctively pre-forms thinking, feeling and acting of the psyche. Its content appears during an individual's life when personal experience is acquired in this form. The way of psychical functioning is inherited – *pattern of behaviour*,

hence the essence of an archetype is transcendental – psychoid: its existence cannot be proved until it is activated *in concreto*, similarly to the instinct. Jung as the first one discovered collective unawareness in which archetypes exist [14]. The existence of this spiritual heritage of human development, which is revived in each individual structure, was proved by the contemporary research on fractals and by defining the so called Mandelbrot collections.

The word archetype originates from Greek and means the first form or original model, which constitutes the basis for further variations and combinations. This notion was used for the first time in the domain of architecture by Paul Zucker in *Town and Square* in 1959 and then by Aldo Rossi in *Architecture of the City*. It also appears in the works by M. Graves, Rob and Leon Krier as well as Mario Botta [17]. Jean Piaget introduces the notion of interpersonal organizational and topological schemes of the place of living. They serve the purpose of being orientated in the space and geometrical scheme are developed from them, which in turn serve the purpose of more detailed goals. One of the basic patterns consists in establishing centres, i.e. the places – nearness (near directions, i.e. roads – as the continuity and terrains, i.e. zones – as the limitation). Christian Norberg-Schulz classifies places, roads and zones as constituent elements of the existential space. The nest arrangement symbolises 'the need of ascribing to the place'. Piaget's topological schemes resemble the concepts of space which were earlier represented by a philosopher Martin Heidegger, a historian of art Dagobert Frey, architects Rudolf Schwarz and Kevin Lynch [16].

Gestalt psychology shows that complementarity is perceived as a feature which is strongly distinctive, superior to the factors of nearness and continuity. Complementarity is a feature of the space corresponding to the

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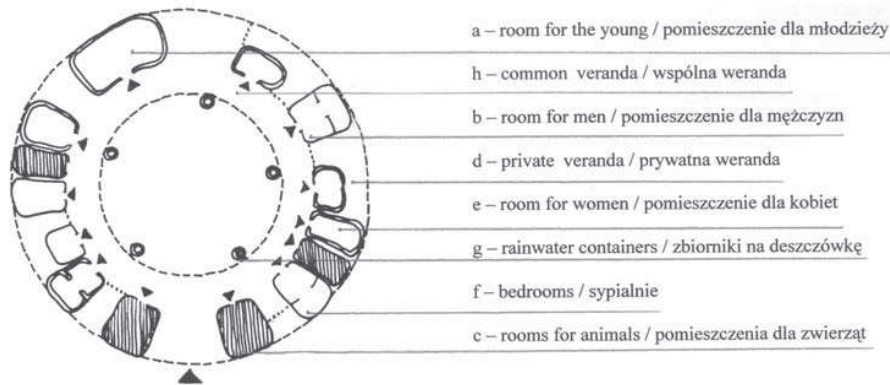


Fig. 1. A functional scheme of the residential complex of Tokolor tribe, South Sahara, Africa; prepared by the author on the basis [6, p. 213]

Il. 1. Schemat funkcjonalny zespołu mieszkaniowego plemienia Tokolor, pld. Sahara, Afryka, opracowanie autorki na podstawie [6, s. 213]

human subconscious need of feeling safe, which was defined by Oskar Newmann in *Defensible Space* as one of the most important behavioural factors [5], [17].

Jung's psychology gathered many experiences with regard to various mental processes and resulting actions thereof, which may be created in a human being through the contact with a symbol. It has many layers of a human experience, which stimulate appropriate associations and feelings. Archetypes are a sort of intentions – momentary and original models of energy, which shape images. They are universal for all people and are commonly expressed in mythology, architecture and art.

In the light of the above statement, the nest arrangement of residential units appears as a dynamic process which was given a physical form and each time it creates another combination of 'chaos' and 'order'. A spatial structure always develops from the centre which symbolises a multitude in oneness. The well-ordered interior has a numinotic character – originally understood as the reality of another kind and the axis around which the existential space of the society living in the complex is built. That which is 'internal' – well-ordered, constitutes the opposite of that which is 'external' – amorphous. Diverse relations between elements in the nest structures result from the character and level of dynamism of these two fundamental components of space.

The most original form of manifesting *internal sacrum* in the residential complex with the nest arrangement is the **empty space** of the square. It appears in the oldest tribal settlements with a matriarchal system, which is known from excavations. Its dynamism manifests itself in the possibility of taking on various shapes and sizes. At the same time it is also a multifunctional and common space not belonging to anyone and being under a direct impact of Nature. The internal square functions as an island – a different territory with an ordered character which is part of an amorphous ocean of the surroundings.

An empty archetypal space of the square can be seen in African habitats among settled tribal communities, among other things, in *impluvia* of Jola people in southern Senegal (Fig. 1). In these structures each residential unit is open to the internal yard – a regenerating place where four basic elements of creation impinge: air, earth, water and light. The plan of the complex constitutes 'a family life map' and imitates the act of creation – known from the western African Cosmogony – in which natural factors stimulate creation as a result of which a human friendly environment

is formed. The interior of the house is divided into male and female parts. Each residential unit, apart from a bedroom part and an attic, is equipped with a rice granary and a storage place – pantry. The rice granary image is the element which plays an important role in religious rituals delivering the power of a divine soul and ensuring the existence of the community. Among residential units there are enclosures for animals, while the internal yard is surrounded by a covered veranda – a place of common work – which is connected with the community rooms [4].

The Nomad settlements also constitute an interesting group in this type of solutions. In the case of the Australian people Achilpa each time a settlement is established the surroundings are given cosmic features – 'a place is created' by sticking a sacred pole into the ground around which temporary houses are built. This pole is carried by the tribe during wanderings and the way it is slanted shows the direction of the further march. A residential structure becomes in this way a spacious Cosmic-diagram [10].

The internal yard – in these most archetypal nest arrangements – represents the space which totally belongs to Nature and is sometimes emphasised by a centrally situated element: trees (as a sacred grove or garden), stones (as a single monolith or several stones) or water (as a spring, stream, pond, rainwater container). These elements constitute *Hierophany (revelation of sacrum)* thanks to which it is possible to experience *internal sacrum*. The arrangement of the whole structure develops from this internal core which unchangeably symbolises the essence of life and allows looking at the nest structure as at the mosaic of components complementing and permeating one another, in which a residential development constitutes only a part of the bigger whole [16]. Ruth Ammann – a Swiss architect and psychologist defines the nest arrangement of residential units in the following way: *these are individual spaces of life combined in a collective structure. Whereas the open yard constitutes an opposition of the house closed space – this is 'not-a-house' surrounded by houses, a free space attracting people in order to act together and create a new quality* [1, p. 164]. This corresponds to the original feelings of man by giving a feeling of safety in a group in a physical and psychical sense as well as a free and open space which makes it possible for an individual to develop creatively. Thanks to this the nest arrangements become a reflection of a Psycho-cosmic-diagram – a symbol of the human personality completeness, a universe reflected in Self. In later

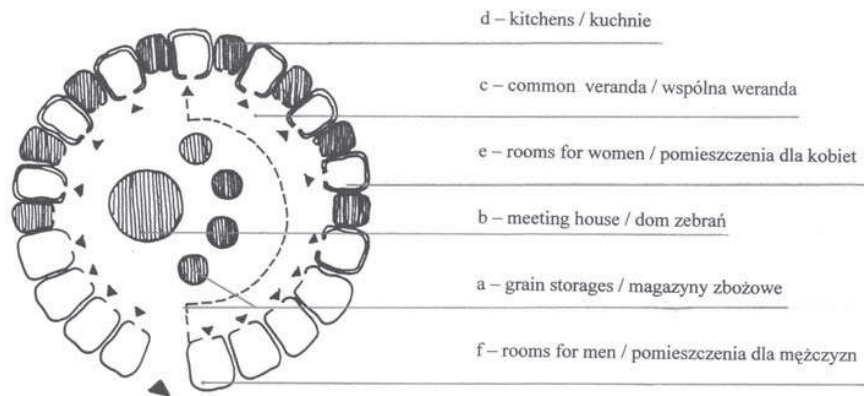


Fig. 2. A functional scheme of the residential complex of Pigmies, Cameroun, Africa: prepared by the author on the basis of [6, p.83]

Il. 2. Schemat funkcjonalny zespołu mieszkaniowego Pigmejów, Kamerun, Afryka: opracowanie autorki na podstawie [6, s. 83]

solutions a temple structure as a place of prayer and contact with transcendence appears in the central part of the square.

Along with the change of the matriarchal system into the patriarchal one, the residential development constitutes a spacious frame for the superior function – symbolising the world power – the place of meeting for the elders or the head's house – the chief with storage houses for food. A spacious structure, similarly to a galaxy, still develops from its centre. In the solutions of this type a common part, which is situated centrally, is built as the first one and then a residential part. A tradition of building round huts around the square, which serves the purpose of the society integration and patriarchal authority emphasis, exists until today in the arrangements of Pygmies settlements. In the centre of the square there is a common veranda – a place of work, grain storages and a meeting house. Men live in huts in the zone of the main entrance to the complex, while women and children live in the complementary part of the circle.

Kitchens are located among houses. What is really worth noticing is the fact that huts' entrances often face one another, which shows harmony of neighbourhood (Fig. 2).

The contemporary nest settlements respect the basic elements of bonds which are pointed out by social ecologists and are visible already in the earliest archetypal settlements, i.e. *a limited size of the group of inhabitants, clearly defined and guarded area of activities (territory), integration point (centre) and organised children care* [9, p. 108]. An internal yard with a garden, which constitutes an integral part of the settlement – *integral sacrum* – additionally enriched with a community function, more and more often appears in the solutions.

The form typology of small residential complexes prepared by Gerhard Bickenbach allows us to perceive a specific character of structures in the suburbs and in the city, which proves the principle that 'Evolution teaches us to live in a group [2, p. 1].

### ***Internal backyard***

The form with an internal backyard constitutes a fundamental form connected with landscape. Until today, it is one of the basic forms of farmer development in many countries, in particular in the Scandinavian ones. It was used in housing estates in the suburbs as a quiet courtyard with a common or mostly private garden as well as an open recreation square of common use.

The form of the internal backyard – courtyard is associated with the following residential arrangements built nowadays: Traube form – grapes with more or less loose arrangement of residential units around a common area; Hof, Platz form – backyard, square – a regular structure built on a circle, ellipsis, tetragons and multilateral shapes; Prospekt, Hof form – semi-open with a shape similar to a horseshoe and with a bigger or smaller narrowing of a common area – Prospekt, Sack, Strasse – a dead-end street and Prospekt, Sack, gasse – a cul-de-sac. Analysing the above forms of the nest building development we can see certain form inclinations closed in two directions: opening and direct contact with the landscape or a contrary tendency – consequent closing as regards contacts with the surrounding reality. In this way, an archetypal form is adjusted to the parameters of a given place – natural conditions, the existing building development and traditional building models. The form of backyard and square evolves in

the direction of a limited space often crossed by a wheel transport – backyard, street/avenue or pedestrian precinct – backyard, shopping arcade/gallery. William C. Ellis classifies this form of the extended courtyard to the one out of two configurations of a traditional street; the other constitutes continuous development. A street or pedestrian precinct is closed from three sides and seems to be a limited space. Such a space is perceived first of all as the place and then as traffic route. The increasing opening is manifested in form of Prospekt, Hof, where the internal space intermingles with the external one allowing direct contact with the surroundings. It evolves in the direction of weak forms – linear: a dead end street and cul-de-sac [2].

A tendency to close and separate a common space from the external environment and then to open it to the surroundings – which is perfectly seen in the group systems – is a phenomenon in accordance with human *soma* – a model of behaviour. *The inhabited area is furnished similarly to the divine cosmos, an organism that lives with cyclic returns of creation time and inevitable recurrence of situations which appear again and again in the life of individuals and generations. However, cosmos is also an active organism, which during its development absorbs that which must have been taken out from chaos, a domain beyond the limits of rational*

and cosmic order. *The experience of chaos and cosmos constitutes an original image of behaviour of a creative life* [3, p. 127]. The nest arrangement symbolises the need of belonging to a place. When the place enters interactions with its surroundings, the problem of the interior appears (ordered *sacrum*, Cosmos) and that which is outside (amorphous *profanum*, chaos). Christian Norberg-Schulz calls this relation a fundamental aspect of the existential space. In order to enter a closed form, the element of the road is introduced – a direction thanks to which it is possible to connect the interior with the exterior. A longitudinal movement symbolises here the openness to the world – dynamism both physical and spiritual as well [16].

The psychologist Kurt Koffka claims that models which are totally or almost closed seem to be self-sufficient and stable organisations. Openings in limiting areas, which are visually connected with adjacent spaces, give a spatial or visual possibility of getting to know the surroundings of the closed space. The space does not have to be closed completely in order to be perceived as such because human visual perception is characterised by a tendency to close spaces in man's imagination [17].

Analysing particular forms of the group residential development connected with the landscape, we can see their inclination in the direction of closing the space along with concurrent discrete opening towards the natural environment – forest, park, meadow or water. Such settlements, which originate from the farmer arrangements, in their forms are usually openwork and constitute freely arranged detached structures which are connected or not with additional elements or they create a concise nest with a regular square or rectangular form of the internal courtyard with one opening.

The nest structures belonging to the other group are those which were created from the city squares performing representative and facility functions. They certainly form closed interiors.

The city square – Focus constituted a good landmark and at the same time it also performed an ordering func-

tion in relation to the city tissue. In the 18<sup>th</sup> century it was transformed into a quiet residential square, first becoming a playground and finally a central point – the space of social life for a limited group of families. Among the modern forms of housing estates with the group arrangement originating from the city square, we can differentiate the following types: Ring form – concentration of residential units around a common space additionally surrounded by buildings – mostly terraced houses; Juwel, Fokus form – underlies the complexes with a visibly exposed centre of the internal courtyard in form of dominant: small/street architecture or high green. The former is exemplified by a complex of family detached houses development in Maślce Małe at Braniewska Street in Wrocław. This development follows the principle: 'residential nest' + 'residential street'. The other form, which is arranged on solid figures, performs the function of a unique element in the urban design. The complex of family detached houses development on Monte Cassino Street in Wrocław is situated in a culminated point of Sepolno housing estate which was mainly shaped by terraced houses development. This solution shows positive aspects of the unique element: it is at the same time the ordering element which introduces a space order and complements other parts of the urban development. It also eliminates monotony and homogeneity as well as a close functional similarity of the development.

Each place is connected with a cultural factor which allows achieving a variant character in formal and functional solutions in accordance with the climate, features of the landscape and a local building tradition. It is also associated with the notion of a cultural space understood as the tradition and memory of spatial models which are determinants of the building process and identification of the safe space. The basic archetype – ring and centre becomes enriched with local building models and filled with the content which is specific for a given cultural circle. It is directly reflected in the occurrence of two models – creating a social space of communities and associations.

### *Social conditions*

Integration of space by means of urban structures built on the basis of the group arrangements makes it possible to shape space in a more diverse way and at the same time to adapt it to the needs of man in a better way. Cosy and intimate urban interiors of different characters, kinds and functions are designed on the basis of the arrangement models known for centuries which are in accordance with principles of proportion and visual perception. They create a residential space of a new quality, enriched with elements integrating the community and specific for the particular natural environment and cultural circle. This space ensures the sense of safety and possibility of identification with a particular unique place and with a limited group of people – community of neighbours. In this way natural frames are created in which a habitat can originate and develop.

The housing estate ought to facilitate the process of establishing positive relationships among people and

meet the requirements which are formed in the process of social evolution. Primitive communities lived in groups consisting of up to 50 persons and thus establishing a settlement of a reasonable size. In such a small demographic unit all its members maintained mutual contacts and in this way they were a social community. Hunting groups and their settlements were a part of a bigger population unit which usually comprised up to 500 people who lived within a distance of about five kilometres in order to communicate quickly. There are few contemporary tribes which still live in primitive conditions until today and they have the same number of people. Social anthropologists use the numbers of 50 and 500 people to define groups which are typical of the existence of non-class societies which are deprived of organisational forms. If this number exceeded 500, the community would have to break up, separate or establish



a social hierarchic structure [6]. Despite the existence of modern means of communication, the number and structure of social groups are still influenced by the models which functioned in the past. Thanks to the evolution a human being was shaped so that she feels a biological need to belong to a group as well as to identify with a particular place whose size can be managed. Therefore, there is a need to create units which can be understood by humans, i.e. the units whose sizes enable identification and reinforce social bonds.

### *Spatial models*

Contemporary studies carried out on the nest form of the residential development proved its archetypal and psychoid character, which made it possible to create a big variety as regards formal and functional solutions within one topological scheme. A big variety of variants of the urban interiors, their character and kinds of the development create richness of the scenery in which various individuals can shape their lives in a particular way and which constitute a cradle of different talents.

A limited number of residential units which are a part of the development – usually from three to twelve, which means a community not exceeding 50 people – form the social environment: the space of communities or associations.

**A community model**, which is based on strong family, clan, tribal, ethnic, religious or national bonds is a feature of closed and stable social groups. Territorial bonds, which result from the fact of common subordination of an individual to tradition and common good, constitute integrating factors. This model exists in the arrangements of residential developments of people who live in communities: tribal (African Pygmies, tribes of southern Senegal, Australian Arunta – Achilpa tribe, American Indians from Kansas tribe), religious (e.g. Flemish Beguines), family (e.g. traditional Norwegian developments) and neighbour (e.g. Dutch and Dannisch complexes of the *cohousing* type), where habitants resign from individual plots of land for the space which is collectively used.

**Associative model** – characteristic for open communities, it is based on the balance of integrating and isolating factors, harmony of individual and community interests, with a different character and weakened territorial bonds at the same time. This model appears in most of the nest developments where the common space – the internal courtyard coexists with a private space – individual gardens.

A social organisation has a great influence on land development of the complex inhabited by a tribe community – a space scheme of the settlement is a diagram of the tribe system. In communities based on matriarchy the internal square of the settlement usually remains empty and gives room for *sacrum*. In patriarchal communities there are functions connected with the world power – a chief house or a place of meeting for the elders appear in the central part of the settlement.

A settlement of a polygamous tribe in Kasuliyili in Ghana is the example of a modern patriarchal African habitat. A basic structure of such a farming settlement consti-

At the beginning of the 1970s behavioural sciences were developed according to which a human being was perceived as a social and psychic individual whose behaviour was studied in the following domains: anthropology, sociology, psychology, ethology. The problems of a territory (studies by E.T. Hall [11], [12]), privacy (research by R. Sommer), safety and control (studies by O. Newman), cognition and orientation (research by E. Król-Bač) and finally symbolism are inextricably linked with the scale and form of the residential development [4].

tutes a complex with a group system inhabited by a family community. It consists of several residential units, rooms for animals and food storages which surround oval squares. The enclosed area of the irregular settlement is divided into three zones: for the family elders, women with little children as well as for the chief and young men. The biggest square – the square of women is the main area of the community life: the place of meetings, ritual dances and preparing meals. Stone hearths are situated in its centre. In the elders' square there is a tomb of the family founder, which emphasizes a significant meaning of the ancestors' cult. An entrance to the complex goes through the biggest house which serves the purpose of common receptions. The chief, young men and women with children live in separate huts. Concentration of many such households creates the structure of the village 'organism'. Architecture is organic – mud and clay – and resembles forms of hives and termitaries.

Mutual accuracy of spatial and social structures (clan or tribe) is readable in residential complexes of the Oceania people. In settlements of Triobriands from Papua New Guinea, the chief's wives' huts surround his houses situated around the square for gatherings and ritual ceremonies. Ancestors' tombs and granaries are situated in the centre of the arrangement.

The Australian tribe Arunta builds its settlement in the shape of a circle which is divided into four quarters; one phratry lives in each of them. Within the settlement there is a separate common space – the place of community meetings. In this way, the circle settlement is inhabited by several families living in phratrias [6].

In settlements built by Bedouins – shepherd's Arabian nomads – access to water plays a fundamental role – a source and place of prayer. These two elements accumulate a residential structure around themselves. The smallest social unit is a family, then – as regards the size – a group of relatives (they usually graze their cattle on the common pasture). In these settlements residential and farming developments are situated around the square with a place for prayers – a mosque (before Islam was created, Bedouins practiced polytheism as well as the cult of stones and stars) and the sheik's house. In the close neighbourhood of the complex there is usually a well which is connected by 'the love way'. Traditional settlements of Bedouins have a periodical character. They are characterised by changeability, variety and impermanence. Cosmos-like creation of the place confirms impermanence of all phenomena in the



Fig. 3. Two-courtyard farm Bjørnstad in an open-air ethnographical museum Maihaugen in Lillehammer, Norway. The courtyard with farm extensions (photo: E. Cisek)

Il. 3. Gospodarstwo dwudzielnicowe Bjørnstad w skansenie Maihaugen w Lillehammer, Norwegia. Dziedziniec z zabudowaniami gospodarczymi (fot. E. Cisek)



Fig. 4. Farm development with a nest arrangement in Lom, Norway (photo: E. Cisek)

Il. 4. Zabudowa farmerska o układzie gniazdowym w Lom, Norwegia (fot. E. Cisek)

Universe. Changeability of the surrounding reality, including also a general experience of our body changeability means that they depend on specific reasons. The residential environment is created and then it falls apart depending on particular conditions. Its existence is a dynamic process: it is created, developed and then dies.

The form of traditional Norwegian group settlements, which are built in the eastern part of the country, is designed on the basis of one or two internal courtyards. In the past, these complexes were inhabited by family communities. The 18<sup>th</sup>-century farm Bjørnstad, which is now situated in the open-air ethnographical Maihaugen museum in Lillehammer, is a classical example. The farm has a two-courtyard arrangement. Around the first one there are three houses: two seasonal ones (winter and summer) and the so called chimneyless cabin with a centrally located hearth. The following structures were also

built in this part of the settlement: a granary – traditional *loft*, workshops – with residential parts upstairs, a stable, forge and henhouse. Around the other courtyard there are only facility buildings: a barn, storages, hiding places, a shed, sheep shed and sty (Fig. 3). In the close neighbourhood of the settlement there was a sauna. In the past, the farms were located in the cut off from the world valleys. Therefore, their organisation assumed self-sufficiency and autonomy. A traditional settlement plot was inhabited by one family. The complex extension was connected with a small society development – each member when achieving maturity built a new house around the common square. The farms in Gudbrandsdalen valley resemble living budding structures which are unique in their forms. Some of them comprise even several buildings [6]. Modern Norwegian nest settlements in their form refer to the old traditional solutions (Fig. 4, 5).

For old religious communities the house and settlement were not only buildings with the developed area, but also the space which was organised spiritually. Religion and architecture are two domains and two ways of human commune with eternity. In the past, they were organically connected with one another, sometimes they became separated from one another, and they became antagonistic in order to come closer nowadays. The result of this approach is not a comeback to the original unity which was natural in the pre-modern closed sacral cultures but a relation which could be defined as *a conjunction of internal harmony* (according to Janusz Bogucki) [3, p. 127]. Its beginnings are connected with small communities of friends where loving for others and the internal life are reflected in activities, signs and spatial images. The excellent examples of this type of settlements are Netherlander begijnhofs of Beguines, which constitute an attempt of personification of a spiritual experience and ethical reflection.

*Hofjes* – these are group arrangements with an internal and natural garden – sacrum, which form particular ecosystems in a regular city tissue. These cosy and quiet



Fig. 5. Nest residential development in Lillehammer, Norway (photo: E. Cisek)

Il. 5. Zabudowa mieszkaniowa gniazdowa w Lillehammer, Norwegia (fot. E. Cisek)

courtyards, which are surrounded by houses whose gables are facing the centre of the arrangement, were built as early as in the 13<sup>th</sup> century in the northern provinces of what is now Belgium and Holland on the initiative of charity institutions for the poor and the elderly. Such secluded places were also inhabited by women – Beguines. Their life was simple, based on prayer and work: they cultivated the common garden within the courtyard and looked after the sick and poor people. *Hofjes*, which were inhabited by them, were called *Begijnhofams*. Beguines were a religious congregation of unmarried women who lived in a catholic community; however, it was not a religious order. This form of a religious life probably originated from windows of crusaders, who devoted themselves to asceticism and charity. The areas of beginhofs were called beginages. The settlement usually consisted of individual houses built around the internal courtyard – a garden, chapel and rooms of common work. A characteristic feature of the complex was a diversity of residential units within the whole settlement – each of the houses is different and unique with regard to the formal as well as functional solution. Until today over 20 such beginages have survived. These are settlements in Brugia, Diksmuide, Kortrijk, Gent, Oudenaarde, Aalst, Dendermonde, Antwerp, Hoogstraten, Turnhout, Herentals, Lier, Mechelen, Tongeren, St. Truiden, Hasselt, Diest, Zontleeuw, Tienen, Leuven, Aarschot and Amsterdam [8].

The backyards of Beguines have a shape of an irregular tetragon which is combined with the city tissue and forms a design with the hierarchical arrangement. It constitutes a unique element, a form which dominates over the surroundings, along the streets which complement the entire arrangement. The entrance to the complex was emphasized with a stone portal of a unique form, which gave each hofje an individual character. It led to another world – a separated and ordered sacral space – *sacrum*. A human being, who crossed this border, entered a carefully cultivated garden. Inscriptions on the stone gates gave the information about the things which were situated behind them. Above the entrance to *begijnhofu* in Brugia in Flandria there is a meaningful name: 'Mary's Vineyard'. The association garden – *sacrum* constitutes the basis of the whole spatial arrangement of the development. A garden space of the courtyard was the place of prayers – contact with transcendence and work for the good of the whole community. A circle which is composed of residential units expresses the idea of circulation. On the one hand, it means establishment and concentration, while on the other hand it means separation of the holy area – *sacrum* from the amorphous surroundings – *profanum*. This border was often exposed by a stone bridge over the moat – a channel or river which had to be crossed in order to enter the complex. The space of the internal courtyard was not homogenous; it has visible cracks, which is further emphasized by upward opening by means of a vertical component – *axis mundi*, which constituted the so called *mythical hierophany* (according to M. Eliade [10]). The exposed central point became the



Fig. 6. Begijnhof in Brugia, Belgium (photo: E. Cisek)

Il. 6. Begijnhof w Brugii, Belgia (fot. E. Cisek)

place of cosmic planes crossing – the tunnel which connected the world reality with heaven. Forms of this holy axis, which appeared in *begijnhofs* are as follows: a sculpture, tree – garden or chapel – *begijnhofkerk*.

The settlements with a centrally situated element of the chapel – church are preserved, among other, in Mechlin Diest and Dutch Amsterdam.

In *begijnhofie* in Amsterdam a common garden part was placed higher in relation to the adjacent space of half-private pre-gardens connected with residential units. A restored settlement is arranged around the 15<sup>th</sup>-century church. At present, this complex is inhabited by single women. The settlement, which in the past was built for a religious community, was gradually transformed into the space of a neighbour community. E. Neff's theory seems to prove this process: 'Later development preserves the original arrangement'.

In certain solutions the internal *sacrum* is arranged only by means of a garden with a vertical rhythm of trees. In *begijnhofie* in Brugia situated on Minnewater Channel (Flandria, Belgium) *begijnhofkerk* is hidden in the development frontage, while in the complex interior there is a green 'carpet' with high elms among which a 'stream of daffodils flows' in spring making a particular and unique climate of the settlement. Distinct zoning of the space can be seen within the courtyard: the square centre is a common garden; moreover, some buildings have fenced pre-gardens. Gates leading to individual houses constitute a spatial threshold between the semi-public zone of the garden and the semi-private one which is connected with particular residential units. Nowadays, a part of the settlement was given to St. Benedict Order sisters, while the rest of the houses with more diverse and richer forms of gables are inhabited by old single women (Fig. 6). *Begijnhof* in Antwerp had a similar arrangement (Fig. 7).

A part of preserved *begijnhofs* lost readability of the central point as a result of intensive rebuilding works. In Lier settlement the space of the internal courtyard was almost completely developed and in this way it created the complex resembling a little city: with stone-paved





Fig. 7. Begijnhof in Antwerp, Belgium (photo: E. Cisek)

Il. 7. Begijnhof w Antwerpii, Belgia (fot. E. Cisek)

streets, a church, workshops for artists and private enclosed gardens situated in different places of the development. At present, this complex is inhabited by old people and artists.

*Hofjes* are not only adopted mediaeval settlements which maintain the idea of original *sacrum* and the community space. The closed form, individualised residential units and a human scale additionally make a unique climate of each settlement and fully correspond to the primitive feelings of man – they ensure the feeling of safety in a physical and psychical sense. In fact, as time goes by, the complexes change their external appearance

– they are completed by terraced houses developments and are gradually rebuilt; however, they still inspire modern architecture in a magical way.

The Netherlander *hofjes* constitute the beginning of the Dutch system of social welfare. Nowadays in Holland and Belgium residential complexes based on the neighbour community are built on the basis of the concentric arrangement with an internal garden. In these settlements the semi-public space is located in the central part of the square and constitutes a voluntarily donated private space in order to have a more representative common part [7].

### ***Modern examples of the nest residential development***

Neighbour communities with the nest arrangement of the development have become widespread mainly in Finland, Sweden, Denmark and Holland.

Norwegian nest developments are built with the use of great amounts of wood. Forms and structures which are in harmony with nature are thus built from wood. Courtyards have an irregular shape; therefore each development acquires the only and unique appearance. Norwegians are called 'people of trees' and they create architecture which is a sort of interpretation of the native environment. The forest landscape specifies dynamic neighbourhood of horizontality and verticality: the mountainous and rocky landscape with numerous fiords. The mountain ridge – a typical substructure of Norwegians – usually underlies a stone or concrete wall which is a basis for wooden scaffolding containing a residential space. In this way Sverre Fen defines 'a Norwegian house' which is connected with the ground and has a far reaching opening. The structure develops organically from the ground surface, which shows a dependence of a dynamic and vertical type taken from the world of plants. Particular structures containing

a residential or facility part are arranged in a free way as 'small separate worlds' and then are combined in a collective building.

The Netherlander nest developments, which are built in Belgium and Holland, are mostly unique elements – they form cosy, quiet and green spaces in the regular city tissue. The houses façades are simple and austere because of the construction requirements and employed materials – mainly brick. The Gothic verticalism dominates in shaping the compact development, which emphasises the shape of the internal courtyard and points out to typical urban roots.

Swiss group developments by Pierre Dorsaz, which are built in the open mountainous landscape, also show dependencies of the vertical type on shaping the form of the complex. The Alpine housing estate La Hameau de Verbier (built in 1990) consists of three residential nests built around a natural mountain pond. This development with its form corresponds to the surroundings: the complexes in the background imitate the shape of a water basin, while residential units: openwork and spatial in their forms – with



a wooden construction on the stone substructure – bring to mind branching trees strongly embedded in the mountainous landscape. The central part of the internal square is lowered by one storey in relation to the main pedestrian precinct for the residential units. The explicit arcade created in this way – taking into account tourists – with galleries, workshops and services constitute a spatial frame for the open courtyard on the axis of which there is a chapel – for people of all religions. Residential complexes of agrotourist character have underground car parks which use the natural slope of the terrain. The arrangement of roofs, wooden galleries and extended facility arcades, which are characteristic for this region, contribute to a unique climate of the whole development [6].

The Finnish group complexes are mostly based on the rectangular internal courtyard which constitutes the space directly connected with the community function. Residential complexes arranged in this way result from the fact that the Finns have the sense of social bonds, but they need isolation at the same time, which allows having a real contact with nature. This originates from the village culture tradition which is still present in modern residential architecture. Therefore, forests and parks constitute direct neighbourhood. The residential development creates an internal space in the green tissue and thanks to the openwork form full of clearances and openings, it allows nature to permeate the interior of the arrangement. R. Pietila calls his compatriots ‘people of forest’ who create their own settlement in the limits of their territory. The way of functioning of these developments in the forest environment resembles the one of autonomic ecosystems. These complexes are characterised by moderation, simplicity, skilful connection with the ground, purposeful use of materials and constructions. The Finnish nest developments are arranged horizontally. They correspond to the surroundings – flat landscape with numerous lakes and spruce-birch forests.

A tetragon-like enclosure of the settlement, which commonly appears both in the Finnish and Swedish developments (Fig. 8), constituted an unattainable model on the basis of which a model of the settlement for a limited number of families with a rich social program was created.

Very often, a starting point for building a residential complex is the process of creating a common part – this is usually a community house or a sauna. This place constitutes a sort of ‘a cornerstone’ for the future development – for the inhabitants it is their shelter and their first house during the building process of the entire development. Thus, we can see that the creation process is started from the inside and not from the outside and it is conducted by the people who are bound by a common idea and the intention to put it into practice. A powerful need to integrate the inhabitants is reflected in the formation of the internal courtyard space and strongly developed common utility parts, accessible for all of the social groups living there. Model examples of such solutions are Finnish group settlements which were built in the 1970s in Lahti (architects K. Virta, M. Rotko, implemented in 1976) and Tapioli (architect Pentti Aholi,

implemented in 1964). The complex of single-family development with the group arrangement in ‘Forest Town’ Tapioli presents an example of the technique called ‘building in touch with nature’ by not destroying rocks or plant compositions but exposing the features of the landscape. When comparing architecture with natural forms of the landscape we observe the principle of the moderate contrast – the arrangement of white houses skillfully blends in with the terrain and like a rocky monument stands out of the forest surroundings.

The idea of having a sauna in the complex is a manifestation of the Finns’ devotion to tradition and culture – for them it is indispensable almost from the cradle until the very old age. The Finnish word for sauna – ‘*zoyly*’ expressed the notion of spirit or life as well. In the old times the Finnish people perceived this place as *sacrum* space – the point where it was possible to get in touch with ‘the source of existence’. In our times the fact of inviting a guest into a sauna is a gesture of hosts’ friendship and hospitality. It constitutes a common space which serves the purpose of inhabitants’ integration. A good example here is the settlement of Kapykyla in Lahti (architects K. Virta, M. Rotko, completed in 1976). The nest complexes are literally immersed in the forest tissue, therefore it is almost impossible to tell the difference between internal courtyards and spaces between the buildings. This effect is additionally intensified by numerous clearances. A common part is in the development frontage of each complex and consists of a sauna, hiding places, garages, laundrette, thermal centre, power distribution transformer station and storage room near the common garden, which are integrally connected with the courtyard space.

A community house is an element which also appears in Dutch and Swedish group developments. It can be located within the complex as a detached building – in the development frontage and line or within the range of the internal courtyard, which closes the internal space of the complex and is in the close neighbourhood of the complex often as a house – sculpture.



Fig. 8. Residential complex with the nest arrangement in Ystad, Sweden (photo: E. Cisek)

Il. 8. Zespół mieszkaniowy o układzie gniazdowym w Ystad, Szwecja (fot. E. Cisek)



Fig. 9. Complex of *Cohousing* type in Middelburg, Holland  
(photo: E. Cisek)

Il. 9. Zespół typu *cohousing* w Middelburgu, Holandia (fot. E. Cisek)

A community house in Egely Complex in Denmark (arch. NOVA 5, completed in 1996) was designed for old people. The building is situated within the boundaries of the complex with an entrance directly from the internal courtyard. Within its limits a common kitchen for meetings was designed as well as rooms for the medical and physiotherapy staff.

In residential complexes of Egebjergtoften and Egebjerggard III in Denmark a community house is a separate detached building situated in the close neighbourhood. In the first example, it is situated on the northern side of the residential development. It is partly located on water and constitutes a unique element in the arrangement of the whole complex. Inside the courtyards of three nests there are additional common facility rooms. A community house in Egebjerggard III was also designed as a separate building; however, it can be entered from the green interior of the complex. It constitutes a closure of the common courtyard space and at the same time it is an attracting element to which attention is drawn. In a one-storey building there are the following rooms: a meeting room, kitchen, game room and toilets.



Fig. 10. Complex of old castle stables connected with the residential development in Książ (photo: E. Cisek)

Il. 10. Zespół dawnych stajni zamkowych, połączonych z zabudową mieszkaniową w Książu (fot. E. Cisek)

Moreover, the community house can also perform the function of a spatial sculpture. In the close neighbourhood of Egebjerggard II residential complex in Vingebø in Denmark an unusual building was erected which combines a community function with the form of great artistic expression. 'The wing house' – the result of cooperation of the architect Jan Gudman-Hoyer and sculptor Niels Guttormsen – has a one-space interior – the place of meetings and facility rooms such as a kitchen, two rooms and a toilet, which are situated under the entresol. The form of the building is in perfect harmony with natural surroundings, while its uniqueness and originality makes it possible to perform the role of a unique element and work of art at the same time.

In Bruket housing estate in Sandviken in Sweden (arch. Ralph Erskine) the community part is located in the central part of the green courtyard. This is a community house used by inhabitants for different ceremonies, games and meetings. It additionally serves the purpose of the space for children during bad weather. Moreover, there are a laundrette and a shower which are willingly used in summer by both young people and adults [6].

Neighbour communities are mainly based on the community-neighbour space location within a limited territory. This quality of the space was used in the system of 'Neighborhood Watch' employed in Canadian and American complexes of residential developments. The main goal of arranging this type of space is safety of residents and protection of property, which are based on the sense of mutual responsibility for one's own space.

A particular example which meets the above criteria comprises neighbour communities which represent a trend of comunitarism. *Collective housing (cohousing)* cooperatives, which are mainly widespread in Denmark, Holland and North America, belong to this trend. The basis idea of this type of developments is as follows: *Forming a community connected with a distinctly specified territory whose members are in close contact and organize themselves in order to achieve common goals* [13, p. 76]. The main goal of these developments is to reduce the operating costs of buildings by means of common management and to make common decision as regards repairs and investments. A residential complex in Middelburg in Holland constitutes a good example here (Fig. 9).

In New Zealand, where 95% of population live in complexes of a community character, a group development consisting of not more than six residential units in a nest is a popular form.

Ropata Village (arch. Roger Walker) complex can be a good example, where the strong sense of residents' safety made the designers resign from individual gardens for the good of a common space within the complex. This tendency can be also observed in the Australian complexes.

Each of the above mentioned models can be enriched with a presumption function. The complex model which at the same time constitutes the place of living, recreation

and work became popular in the 1980s after the study by Alvin Toffler 'The Third Wave' had been published. According to Toffler, prosumption means every production which aims at direct fulfilling one's own needs. Such actions range from cultivation of fruit and vegetables in adjoining to the house hotbeds to the service of energetic devices (windmill, solar panels) which belong to the complex. Moreover, within the limits of the development there are places of work [3, p. 124–126]. Prosumer complexes are built mainly in the United States, Great Britain and Denmark.

A complex of multi-family development in Hulme in Great Britain combines a place of living with a place of work. The internal courtyard with a recreation garden constitutes a complement of many-functional activities of the residents. A half-open form of the development and a functional-spatial character has programmed mobility as well as adaptation to the changing needs in the scope of surface and general space.

The old complex of the castle stables in the close neighbourhood of Książ Castle is a rare example of combining the farmstead development with the residential part (completed in 1844). The buildings were erected on the plan of a closed tetragon with a roofed manège in the north side. They have features of 'The Third Wave' habitat. Within the development there are stables, workshops, warehouses, offices and a coach house as well as a flat for the staff families. An orchard was planted in the close vicinity of the complex. Each family living there was given two fruit trees within the limits of the common garden (Fig. 10).

The associative model definitely dominates in the Polish solutions. It is based on the harmony of the general and individual good at the same time weakening territorial bonds. This model appears in the majority of nest developments where a common space coexists with a private space which is most often represented by private gardens.

We can differentiate three basic models in this group depending on the proportional share of the individual and common part: the one with the advantage of a private space, dominance of a common space and with a proportionally equalled share of both spaces.

Solutions as regards wheel transport, which was introduced to the complex, reduce a percentage share of the private space within the courtyard. It is usually designed on the external side of the complex. Solutions of this type appear in simple or hierarchical Cul-de-sac arrangements and also at the endings of dead end streets.

Reducing the private space in favour of the common territory can also be noticed in arrangements with internal garden or walking courtyards and small, separate, private gardens within their limits. In these solutions on the external side there is only a public zone of the thoroughfare. Entrances (through ones) and small services are usually located on this side of the development. As an example we can mention the complex situated on Jaracza Street in Wrocław (architect Andrzej Miech, completed in 2000) (Fig. 11).



Fig. 11. Complex of multi-family development with the garden courtyard on Jaracza Street in Wrocław (photo: E. Cisek)

Il. 11. Zespół zabudowy wielorodzinnej z dziedzińcem ogrodowym przy ul. Jaracza we Wrocławiu (fot. E. Cisek)

In the solutions in which the internal courtyard is filled only with private gardens where the residential units are accessible from the outside, we can notice that there is more private space than the commonly used space.

The balance between the common and private space is characteristic for two types of developments. The first one is the arrangement with a visible division according to the following principle: an integrating common space – in the internal space of the courtyard, while an intimate private part – individual gardens – outside the complex. The other arrangement refers to the solutions where the area of private gardens within the courtyard is similar to the common space – recreational or garden-like. This is illustrated by a Danish example – Skotteparken (arch. Hanne Marcusse, Peter Stengaard, completed in 1992)

Recently, the number of concepts which are based on organic models by imitating functional biological mechanisms or forms created by nature has increased. Group arrangements can be autonomic developments where contact with the surroundings or other complexes without disturbing their own internal structure as a whole is still possible. The way of functioning of one element – 'a residential nest' – in a bigger urban structure shows its biotic character, the principle of centralization and miniaturisation which exists in living organisms. This organic character should be considered in connection with the context of time and space, environment, function as well as structure. A concentric form is not organic in itself or by association with an egg or nest, but it is organic at the place where it is reasonable. The essence of an organic character is the logic of nature – not its lack.

Nest developments with an archetypal and abstract form are a kind of architecture which is always perceived together with the life for which it creates frames only. This spectacular form of living in accordance with human *soma* – a pattern of behaviour – has accompanied man's development for thousands of years and constitutes useful heritage thanks to which an individual learns how to coexist with a group and natural environment in harmony.

Translated by B. Setkiewicz



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### Archetypowy i wspólnotowy charakter zabudowy mieszkaniowej gniazdowej

Układy gniazdowe zabudowy mieszkaniowej uwzględniają w swojej warstwie ideowej zarówno psychologię, socjologię, jak i historię. Jednym z powodów, dla których w przeszłości chętniej zwracano się ku założeniom centralnym, był ich wspólnotowy i archetypowy charakter. Forma ta, z zaakcentowanym centrum – *sacrum* i forum wspólnoty, zapewniała poczucie bezpieczeństwa i stymulowała więzi społeczne, stanowiąc równocześnie kosmogram i psychokosmogram. Obraz świata – *Imago mundi* – znajdował odniesienia w archetypowym kształcie zespołu, podkreślającym miejsce przez wydzielenie wewnętrznego, uporządkowanego mikrokosmosu od zewnętrznego, chaotycznego

i amorficznego otoczenia. Funkcjonujące po dziś dzień modele wspólnotowe i asocjacyjne zabudowy gniazdowej posiadają odmienną koncepcję bezpieczeństwa jednostki i inaczej definiują granice jej wolności. Kompozycja architektoniczna w obu przypadkach ma jednak za zadanie: ułatwiać kontakty, stwarzać warunki do kontroli ludzkich zachowań lub spod tej kontroli wyzwalać, bronić prywatnej własności przestrzeni i wzmacniać interesy grupy społecznej. Łączy się z tym pojęcie przestrzeni kulturowej, rozumianej jako tradycja i społeczna pamięć archetypów przestrzeni, które są elementem budowania i identyfikacji przestrzeni bezpiecznej.

**Key words:** archetype, residential development

**Słowa kluczowe:** archetypy, zabudowa mieszkaniowa gniazdowa