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RATIONALISM AND INTUITION IN URBAN PLANNING. THE CASE OF PHILADELPHIA

RACJONALIZM I INTUICJA W PLANOWANIU PRZESTRZENNYM NA PRZYKŁADZIE FILADELFI

Abstract

Stretched between the rivers Delaware and Schuylkill, Philadelphia is characterized by an orthogonal street network, delineated according to a plan drafted by Thomas Holme in the second half of the 17th century. The city's uncomplicated urban plan was to be complemented by architecture equally as rational. Two centuries later it has been improved by the architect Paul Phillip Cret and the landscaper Jaques Gréber, who were both trained in the spirit of Beaux-Arts and, nonetheless, did not hesitate to use their intuition. Their work was a key element of the policy aimed at the city's beautification, which served as a basis for the City Beautiful movement. Devoted to the development of Philadelphia's urban form, this paper aims to show how both rational trends and intuitive actions do complement each other in order to create the city's unique character.

Keywords: urban planning, Philadelphia, rationalism, intuition, City Beautiful.

Streszczenie

Rozciągnięta pomiędzy rzekami Delaware i Schuylkill Filadelfia charakteryzuje się ortogonalną siecią ulic wytyczonych według planu Thomasa Holme'a z drugiej połowy XVII wieku. Nieskomplikowany plan uzupełnić miała również racjonalna architektura. Dwa wieki później plan miasta został poprawiony przez wykształconych w duchu Beaux-Arts i posługujących się intuicją – architekta Paula Philippa Creta i pejzażystę Jacques'a Grébera. Ich praca stanowiła kluczowy element polityki upiększania miasta będącej podstawą tendencji *City Beautiful*. Niniejsza praca, poświęcona rozwojowi formy urbanistycznej Filadelfii, ma na celu pokazanie, jak tendencje racjonalistyczne oraz oparte na intuicji działania uzupełniają się w tworzeniu unikalnego charakteru miasta.

Słowa kluczowe: planowanie przestrzenne, Filadelfia, racjonalizm, intuicja, City Beautiful

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1. Ideological beginnings of Philadelphia

The city of Philadelphia is distinguished by its ideological heritage, which originates from the historic background of its foundation, preceded by an agreement between King Charles II of England and William Penn. In 1681 the King made an offer to honour a debt owed by the Crown to the family of Penn, for which he offered a colony in North America¹. The name of the new colony, Pennsylvania (Penn's Woods), was intended as a tribute to admiral Penn, who was William's father. Through obtaining an overseas colony William Penn also escaped prosecutions that were to be soon centred on the Religious Society of Friends, commonly known as Quakers, to which he belonged. Separated from the Church of England in the mid-17th century, the religious group of Quakers belongs to the puritan movement and distinguishes itself from other Christian groups by rejection of the hierarchical structure. Moreover, Quakers advocate equality, tolerance as well as freedom of belief. As a consequence of the latter, they also renounce the creed. For the members of the Society, belief is a personal fact and cannot be imposed. For the majority, Quakers share the notion of the inner light, which designates the experience of God in everyone. According to the protagonists of the movement, the experience of God is always personal and does not require intermediaries, as for example the clergy. In accordance with his convictions, William Penn considered his colony as a milieu of equality and tolerance, where the freedom of belief would be guaranteed to all citizens. Upon his arrival on the American continent, Penn insisted that native people be treated fairly, requiring also that they be well paid for land occupied by white settlers². Fair in comparison to the behaviour of other colonizers, Penn's approach to the Native Americans became a symbol of Quaker egalitarianism. The land purchase act inspired a legend, according to which William Penn would personally meet the chief of the Lenape Indians to conclude the peace treaty. Not documented and therefore uncertain, their meeting nevertheless became the theme of several paintings and prints. However, what remains certain is the fact that Philadelphia was the only colonial town without fortress or barricade, in large part because William Penn expected to live peaceably with the Lenape tribespeople³. It also ought to be mentioned that the scene symbolizing the peace treaty between settlers and native people was selected as the central motif of the American Philosophical Society's seal in 1743. The motto that accompanies the drawing states: "Nullo Discrimine", making no distinction. When William Penn proceeded to the founding of Philadelphia, the name he selected also had a symbolical meaning. Borrowed from Greek, the name Philadelphia signifies brotherly love⁴. As could be expected, life in the newly founded town of Philadelphia embodied the convictions of the Quakers. Among other things, it guaranteed freedom of worship. The fame of Philadelphia soon attracted many European immigrants. In the second half of the 18th century, its growing population gave Philadelphia the first place among the cities of British colonies in North America.

¹ J. W. Reps, *La Ville Américaine. Fondation et projets*, fr. translation Guillitte P., Architecture + Recherches, éditeur Pierre Mardaga, Bruxelles Liège 1981, p. 156.

² *Insight Guides: Philadelphia and Surroundings*, multiple authors, ed. Ross Z., APA Publications Singapore, 2e edition 2001, updated 2002, p. 21.

³ *Idem*, p. 21.

⁴ *Philadelphia Architecture. A Guide to the City*, ed. J. A. Gallery, the Group for Environmental Education, [Prepared for the Foundation for Architecture, Philadelphia, Pennsylvania], the MIT Press, Cambridge, MA 1984, p. 10.

2. Rational urban layout

The founding of Philadelphia followed the indications of William Penn also in a physical sense. The instructions he gave to his commissioners leaving for the new colony in 1681 were very precise. The city was to be traced on a raised, dry and sanitary land, which should also be accessible by a navigable watercourse. Then, the street network was to be uniform, and so was to be the buildings' spacing⁵. Upon his arrival on the site, the first Surveyor General of Pennsylvania, Thomas Holme, dedicated himself to the realization of William Penn's vision of the city. The plan of Philadelphia traced by Holme in the summer of 1682 stretched from the Delaware River halfway the distance towards the Schuylkill River. Having arrived in America, Penn himself decided to extend the plan of the city to the riverbanks of the Schuylkill⁶. Developed until 1683, the plan of Philadelphia is thus extended between the two rivers. (Ill. 1)

Resulting from a rational approach to planning, the urban structure of Philadelphia is principally defined by four main streets, one of which runs from the east to the west, while three others have a north-south orientation. Of the three north-south streets, two follow the banks of Delaware to the east and Schuylkill to the west, while the third crosses the centre of the city. The square that forms at the crossroads of the main east-west street and the north-south central street is reserved for institutions. The cross of the two main streets divides the city into four quarters, each of which receives a square. The four squares of Philadelphia were the first public parks in America⁷. Finally, the plan includes secondary streets: eight east-west streets and twenty north-south streets. To the north of the new city Penn decides to provide a green strip of land designated for agricultural use. It was known as Liberty Lands.

3. Simplicity of architecture

The orthogonal network of streets that was solicitously laid out on the land between the rivers Delaware and Schuylkill, providing the new city with optimal conditions for stable growth and development, was meant to be completed with uniform, standardized architecture. The construction of houses in the city of Philadelphia started directly after the completion of its urban plan. The development spread gradually from the Delaware River towards the Schuylkill. This orientation was dictated by the importance of the marine port that is located on the Delaware River. The first buildings in Philadelphia were inspired by the typology of English country houses⁸. They were characterized by steep roofs, projecting chimneys and small windows. Nonetheless, the English building traditions were modified in Philadelphia "by the Quaker emphasis on simplicity."⁹ Influenced by the ideological background which guided the founders of the city, early architecture in Philadelphia focused mainly on its utilitarian values, rather than on detailing. Also, the cityscape of Philadelphia was from the beginning marked by the use of brick. The first brickyard opened in 1695 and the popularity of this building material was largely related to its fire resistance, a factor taken

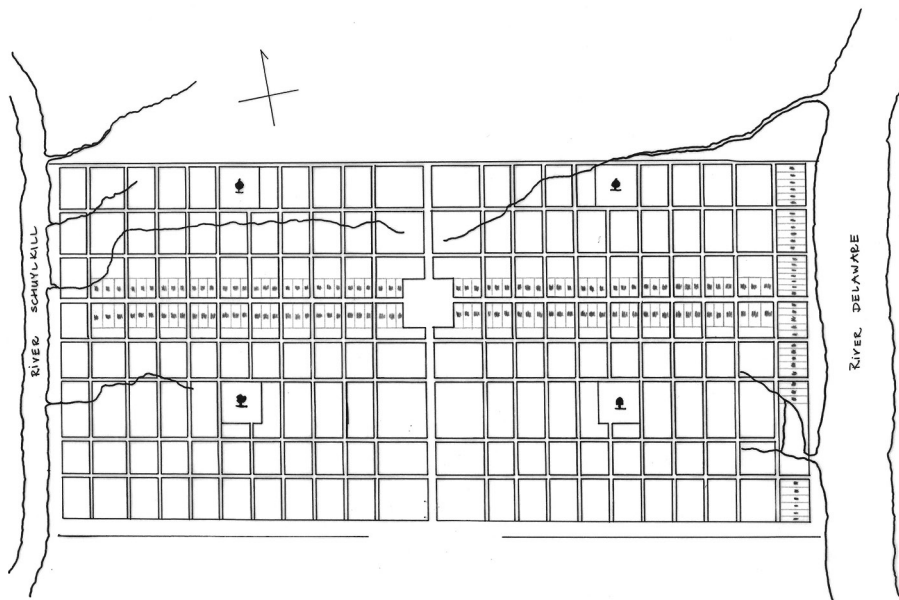
⁵ J. W. Reps, *op.cit.*, p. 158–159.

⁶ *Idem.*, p. 158–159.

⁷ *Idem.*, p. 162.

⁸ *Philadelphia Architecture, op.cit.*, p. 13.

⁹ *Idem.*, p. 13.



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into consideration after the Great Fire of London¹⁰. The use of brick was anchored permanently in the Philadelphia urban landscape during the 18th century with the popularity of Georgian style.

3.1. The Georgian style

The popularity of Georgian architecture in America, simplified in the region of Pennsylvania so as to match the taste of Quakers, corresponds to the significance of neo-Palladianism in Europe. In Philadelphia, the Georgian style was particularly promoted by the Carpenter's Company, a leading corporation of entrepreneurs in construction. A classic example of the Georgian style in Philadelphia is the Carpenter's Hall, built by Robert Smith in the years 1770-1773. Based on a symmetrical, cross-shaped plan and built in brick, the Carpenter's Hall is a two-storey building with a basement level and it has a gable roof with a lantern in the centre. Of its four gable walls, two are crowned with pediments. Its cornices and window frames are made of stone and its windows are divided into several tiles with the casements painted white.

The Georgian style was also adopted for the construction of row houses. (Ill. 2) Developments of this type were related to the growth in the industrial sector as well as population growth. The contiguous brick houses have set Philadelphia's urban character as we know it today. Typically, a row house is an individual house with two or three levels and often with an attic lit by dormers. The alignment of row houses along the street refers to the notion of opposing its frontage (street side) to its back (garden side). Most popularly used in relation with the Georgian style, the English sash windows, which are typically divided into several identical tiles with white framing and casements, are one of the characteristic features of residential row houses that have shaped the Philadelphia cityscape.

4. Cultural importance and historic background of Philadelphia – further development

It could be said that Philadelphia's rational urban plan and its standardized architecture reflect, in a way, the ideological values advocated by the Quakers. The simplicity of the urban landscape reflects Philadelphia society, homogeneous in terms of citizen's rights.

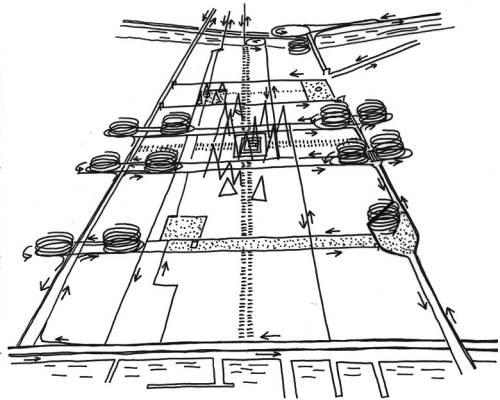
Being the first major American city that was traced over a grid scheme, Philadelphia has greatly influenced the development of urbanism in America¹¹. Moreover, the city soon gained particular significance as a cultural centre, which was largely due to establishment of the University of Pennsylvania, which took place in 1740 with Benjamin Franklin as one of the

¹⁰ *Idem.*, p. 12.

¹¹ J. W. Reys, *op.cit.*, p. 167.

Ill. 1. First plan of Philadelphia by Thomas Holme, 1683. Drawing by the author

Ill. 2. A typical street of Philadelphia with Georgian dwellings. Photo author



- III. 3. Benjamin Franklin Parkway in Philadelphia. View towards Philadelphia Museum of Art. Photo by author
- III. 4. Louis I. Kahn, housing project in Mill Creek, 1952–62. Redrawn by the author from: Ronner H., Jhaveri Sh., Vasella A., *Louis I. Kahn. Complete Work 1935–74*, Institute for the History and Theory of Architecture, The Swiss Federal Institute of Technology, Zurich 1977, p. 43, fig. MCH 17 : Perspective Drawing, 1954
- III. 5. Louis I. Kahn, Plan for Midtown Philadelphia – Traffic Studies, 1951–53. Redrawn by the author from: Ronner H., Jhaveri Sh., Vasella A., *Louis I. Kahn. Complete Work 1935–74, op.cit.*, p. 24, fig. PMT 7 : Perspective sketch, west view from Delaware River

founders. Three years later, the American Philosophical Society was founded in Philadelphia, also with a contribution from Franklin. In the same period of time, that is the first half of the 18th century, the city emerged as an important publishing centre at the scale of British colonies in North America. This allowed intellectuals from the Philadelphian milieu to convey their progressive ideas. For example, the first treaty against slavery was published in Philadelphia in 1739¹². Given the beliefs of its founders, it is not surprising that Philadelphia became one of main centres that opposed slavery. At the same time, Philadelphian milieu played a significant role in the struggle for Independence. Selected to host the Continental Congress, the city witnessed the birth of the United States, being also the place where the Declaration of Independence was signed on July 4th, 1776, in the building known today as Independence Hall. In the years that followed the War of Independence, Philadelphia served as the capital city of the United States, until Washington DC was prepared for this function.

In the context of the Philadelphian milieu, the birth of liberal democracy, the first in the world, could be interpreted as a continuation of the egalitarian ideas advocated a hundred years before by William Penn. The principles of liberty and equality before the law, on which the American Constitution is based, are very consistent with the values proposed by the Quakers. Moreover, while the Quakers rejected any hierarchical structure, the US Constitution is based on opposition to aristocratic regimes.

The historic background of Philadelphia's emergence as a significant cultural and political centre constitutes an important context of it becoming a model American city. Its rational urban form and standardized architecture corresponds with the egalitarian concepts advocated by the city's leading intellectuals, submitting the social life to simple rules and equal laws, with no distinctions made.

5. The Beaux-Arts vision of urban improvement

At the beginning of the 20th century, the city of Philadelphia welcomed thousands of immigrants from Europe, who left their homeland for multiple reasons, including poverty, World War I, the rise of Nazism or, finally, the outbreak of World War II. Philadelphia's growing population, which reached the level of 1,800,000 citizens in 1920, put the city government to a trial¹³. Chaos on the streets and traffic jams showed that the infrastructure needed urgent improvement. The opening of the first subway line (Market-Frankford Line) in 1907 promoted the development of residential neighbourhoods beyond the existing city limits. At the same time, the centre of Philadelphia became more commercial. The spatial development of the agglomeration did, however, require expanding its transportation network. In 1926, the first bridge spanned the Delaware River. At the time of its opening, the Benjamin Franklin Bridge was the longest suspension bridge in the world. This ambitious project was led by the engineer Modjeski and, on the architectural side, supervised by Paul Phillipe Cret. To this architect of French origin the city of Philadelphia also owes some bold decisions which introduced wide arteries into its urban tissue. Their design apparently refers to the model of the Parisian Grands Boulevards.

¹² Philadelphia Firsts 1681–1899, <http://www.ushistory.org/philadelphia/philadelphiafirsts.html>, last access: 24-06-2010.

¹³ *Philadelphia Architecture, op.cit.*, p. 88.

When it comes to the architecture, the first decades of the 20th century brought a considerable influence from the Beaux-Arts tradition. Paul Phillipe Cret, a French architect who graduated from the École des Beaux-Arts in Paris, and who emigrated to the United States in 1903 to teach at the University of Pennsylvania, played a particular role in transplanting the French Beaux-Arts style to Philadelphian ground. Although the style itself drew upon the principles of French neoclassicism, which refer to the rational philosophical background of the Age of Enlightenment, it equally contained elements of Gothic and Renaissance, not hesitating to blend them with the use of modern materials, such as iron and glass. Merging the French Beaux-Arts with the existing urban form of Philadelphia, based on the orthogonal module, was, despite the rational foundations of both, in a considerable measure dependent on the designer's intuition, which at the first sight might seem a paradox. While the new Beaux-Arts buildings raised in Philadelphia at the beginning of the 20th century, such as the Philadelphia Museum of Art (Ill. 3), designed by Zantzinger, Borie & Medary, were largely based over neoclassical principles of composition, their setting within the urban context was subject to verification by the intuitive feelings of the planners. The most significant example of such intervention in the urban tissue of Philadelphia is the project of the Benjamin Franklin Parkway (Ill. 3), a diagonal axis laid out in 1917 by Paul Phillip Cret and Jacques Gréber on the model of the Champs-Élysées de Paris. The immense scale of the investment, its multiple and differentiated crossing points with the orthogonal network of streets, the angle at which it cuts the city blocks, are all decisions made by the planners under the influence of not only their knowledge, but also their personal, subjective sense of beauty.

6. City beautiful movement

The realization of the Benjamin Franklin Parkway in Philadelphia was one of the principal achievements which can be attributed to the City Beautiful movement, a tendency in urban planning and architecture that shaped the physiognomy of American cities at the turn of the 20th century. The protagonists of this trend dedicated themselves to the idea of improving the quality of life in the city through the beautification of its public spaces. Idealistic to some degree, this approach found its prolongation in the vision of the city that develops around “a constellation of institutions”¹⁴. In this vein, the grandeur of a city can be measured by the institutions it has to offer to the citizens. With the vision of urban beautification as its origin, the City Beautiful movement inspired the implementation of numerous projects of public utility, including museums, galleries, universities, libraries, and office buildings. New institutional buildings that were proposed and implemented in Philadelphia at the beginning of the 20th century within the framework of the City Beautiful vision, were designed according to different architectural styles. The key realization of the epoch, the Philadelphia Museum of Art by architects Zantzinger, Borie & Medary, embodies the principles of Greek revival style, for example. Another significant building of that period of time is Philadelphia City Hall, designed by John McArthur Jr. and Thomas Ustick Walter in the Second Empire style. Other significant works contain the alternative neoclassical and Georgian Revival designs that were elaborated by Paul

¹⁴ D. Brownlee, *Building the City Beautiful. The Benjamin Franklin Parkway and the Philadelphia Museum of Art*, Philadelphia Museum of Art, Published on the occasion of an exhibition shown at the Philadelphia Museum of Art, September 9 – November 26, Philadelphia 1989.

Phillipe Cret for the American Philosophical Society as well as some modern alternative designs for a residential building located at Benjamin Franklin Parkway 2601, by the same architect. Moreover, Philadelphia, which remained a relatively conservative environment in terms of architecture, saw its first high rise buildings erected in the 1920s and 1930s. Applied onto the city's orthogonal grid, the exemplary realizations of different architectural styles promote the concept of diversity fitted into the contextual frame, which has now become an important aspect of urban planning in America. Composing the urban landscape and building the city's skyline with the use of differentiated architectural styles, as well as marking the cityscape with prominent dominants or monumental buildings carved into it, requires the designers to engage their intuitive feelings about the integral effect of their intervention in the urban form.

7. Rational functionalism

When, following the Great Depression, unemployment increased and several strikes were organized in Philadelphia, the focus switched to housing for the poor. Several projects were launched nationwide (e.g. U.S. Housing Authority) as well as at the local level so as to face that problem. Among the groups of architects who were interested in social housing we can identify the Architectural Research Group, founded by Louis I. Kahn and Dominique Beringer. The work of the group, mainly concentrated on questions related to satisfying the minimum of existence, followed the pragmatic principles of functionalism and it continued to evolve in the first decade that followed World War II, bringing, among others, the realization of the Mill Creek Housing project, designed by Louis I. Kahn and implemented in the years 1947–54 (Ill. 4). Coherent with the use of modern architectural language, the functionalist approach to the design resorts to rational thinking about meeting the basic needs of humanity. In the context of Philadelphia's historical background, these rational guidelines in architectural design are moreover consistent with the values advocated by the Quakers, which are most of all concentrated on equal rights of the citizens. In particular, the right to public space as well as to livable, sanitary conditions for the poor inspired new architectural as well as planning standards. Their influence can be identified not only within the social housing projects of the time, but also in the writings of many prominent architects, many of whom, although not all, belonged to the CIAM. Beyond the framework of this organization were the texts written on the issues related to the social housing architecture by Louis I. Kahn, based in Philadelphia. What emerges from his writings on this subject is the will to supply the inhabitants of social housing units not only with minimal livable conditions, but also to make their environment as aesthetic as possible within a reasonable budget.

Furthermore, the hope to improve the quality of life in Philadelphia pushed architects and planners to organize an exposition devoted to the future of the city. The Better Philadelphia Exhibition, elaborated by, among others, Robert Mitchell, Oskar Stonorov, Louis I. Kahn and Edmund Bacon, opened in September 1947. During the two months that followed its opening, the exhibition welcomed more than 340 000 visitors¹⁵. The purpose of this venture was to convince citizens that Philadelphia required a new take on town planning.

¹⁵ A Biography of Edmund N. Bacon (1910–2005), <http://www.edbacon.org/bacon/edmundbacon.htm>, last entry 29-09-2010.

8. Post-war policy of public space improvement

The economic situation of Philadelphia, which improved after World War II, allowed the city authorities to promote new strategies of urban improvement. Starting from the 1950's, numerous projects were launched in Philadelphia so as to target the problematics of public transport, of housing as well as of public spaces. At the same time, they were supposed to support the solution of the social crisis which occurred at that time in the United States. With regard to this problem, the improvement of public spaces was seen as a potential means of reconciling the divided society, which resulted in bringing their appearance to the attention. The prosperity period of the 1950s and 1960s was therefore marked by a come back of the City Beautiful tradition, however in a contemporary formula. The two plans elaborated in the 1960s, namely the Comprehensive Plan from 1960 and the Plan for Centre City from 1963, summarized the projects undertaken for the revitalization of the city centre¹⁶. One of the first projects realized within the framework of this urban improvement policy was the creation of the Independence National Historical Park. Established in 1956, the park is devoted to the history of the American Revolution and includes several institutions that are related to it, of which the Independence Hall would be the most important. The creation of the park involved restoration of this historic building as well as arrangement of Independence Mall, a new public green space, designed by Edmund Bacon, who was the executive director of the Philadelphia City Planning Commission at that time. Several Victorian buildings were demolished in order to realize this project, which evoked discussions. Another ambitious project concerned Society Hill. This historical district, which is south of the Independence Hall and contains a large number of original 18th- and 19th-century buildings, was at the time one of Philadelphia's worst slums. Thanks to the revitalization program, almost all the precious buildings in this area were bought by the city¹⁷. At the same time, several other buildings were demolished to accommodate new developments. Finally, the revitalization policy also concerned the housing. The deteriorated social housing, located in the north and west of the agglomeration, was demolished and replaced¹⁸.

Among the different projects developed in the post-war period of prosperity as a part of Philadelphia's downtown rehabilitation policy, can be found several designs proposed by Louis I. Kahn. Namely, it is the series of projects entitled Philadelphia City Planning, of which none were realized. Among others, the series contains the Traffic Studies (1951–53) elaborated in collaboration with Anne Tyng for Philadelphia city centre. (Ill. 5) Proposed within the framework of this design, the introduction of a highway that becomes a barrier between the city centre and the poor neighborhoods to the south is quite a controversial element. According to the architect, this decision “would accomplish the demolition of decidedly bad slums and help frame the area known as centre city.”¹⁹ What is particularly interesting from the point of view of rational towards intuitive methods of shaping urban space, is the fact that the plans produced for this project tend to “dematerialize the physical form of the city in

¹⁶ *Philadelphia Architecture, op.cit.*, p. 91.

¹⁷ *Idem*, p. 91.

¹⁸ *Idem*, p. 92.

¹⁹ L. I. Kahn, *Toward a Plan for Midtown Philadelphia*, 1953, [in:] A. Latour, *Louis I. Kahn: Writings, lectures, interviews*, Rizzoli, NY 1991, p. 28–52.

favor of pure flow, like an electrical circuit"²⁰, referring to one of the post-CIAM trends that sees the city as an interface of different networks and introducing, at the same time, abstract thinking about the urban form. This way of seeing the city is continued in Kahn's project for the Penn Centre, elaborated in the years 1951–58, also in collaboration with Anne Tyng. Included in this work, the famous design of the City Tower (1952–57) feeds the discussion on the use of triangular network in architecture in the 1950s and 1960s. These and other unrealized projects belong to the important debate about the possibility of improving the quality of life in the city through urban intervention.

Trying to combine respect for the existing urban form with the principles promoted by the CIAM and with the language of the International Style, the projects related to the policy of Philadelphia's urban renewal in the post-war period placed the city in position of national leader in the fields of urban renewal and built heritage conservation. Or, repeating Eric Mumford, "Philadelphia was one of the first cities where a new synthesis of CIAM ideas, as filtered through ASPA (American Society of Planners and Architects), and respect for the existing urban context began to offer an alternative model for postwar urban redevelopment in the United States."²¹ In the same period of time, American architects began to question the International Style, while their attention was brought to the context. In 1950, Robert Venturi selected the role of context in architectural composition as the subject of his Master's thesis, which he worked on at Princeton University²². In the introduction to his work, Venturi stated that the existing conditions of a site must be taken into consideration and respected by the architect. Above all, the relationship between the old and the new should be studied so as to highlight the value of what already exists. According to him, "its context is what gives a building its meaning. And consequently change in context causes change in meaning."²³ The importance attributed to the context, which was also raised by other architects in other regions, particularly in Europe, marked a significant change in perception of the urban space as well as in the practice of planning. Although the architectural style of many interventions related to the post-war policy of urban renewal in Philadelphia referred to the International style and functionalism, they nonetheless introduced an aura of experimentation with the established urban form, which remains at some point submitted to the designer's intuition.

9. Conclusion

The city of Philadelphia may serve as an example of a place that was shaped by both rational knowledge regarding the urban form and its geographical setting as well as the intuitive feelings of its planners, particularly in terms of aesthetics. The phases of Philadelphia's urban development differ not only by epoch and current architectural style, but also by politics as well as related ideological concepts and basic values of the society. The formal expression

²⁰ M. Wigley, *Network Fever*, Grey Room 4/2001, p. 106.

²¹ E. Mumford, *Defining Urban Design. CIAM Architects and the Formation of a Discipline, 1937–69*, Yale University Press, New Haven 2009, p. 65.

²² R. Venturi, *Context in Architectural Composition*, M.F.A. Thesis, Princeton University, 1950, published in: Venturi R., *Iconography and Electronics. Upon a Generic Architecture. A View from the Drafting Room*, The MIT Press, Cambridge MA 1996.

²³ R. Venturi, *op.cit.*, p. 335.

of these ideas has a visible bearing on planning, as could be observed from the earliest stage of the city's development, where the rational thinking of the Quakers was translated into the simplicity of the urban layout delineated by Thomas Holme as well as into that of the Georgian style, which made the new city coherent with the ideological concepts of the milieu. Another important stage in the development of Philadelphia's urban form made a link between the French Beaux-Arts tradition and the policy of urban beautification. Even though the Beaux-Arts style operated some rational instruments, mainly the geometry, it nonetheless relied, to some degree, on the planners' intuition. Referring to the notion of beauty, which does not always obey strict rules and cannot be guaranteed by their application alone, relies to a large extent on the intuitive feelings of the artist, who decides about the angle of a new urban axis, for instance. Beauty escapes the rules and any architectural or planning design that aspire to it will have to be characterized by a dose of instinctive action.

The following planning strategies that marked the urban development of Philadelphia confirm the constant interlacing of rational and intuitive approaches to the planning, which are also inseparable from the politics of the time. After the functionalist segregation of zones according to main activity (eg. housing, offices), the new thinking on urbanity gave rise to the question of mixity, which allows more liberty to the interlacing of different functionalities, bringing the attention back to the pragmatic principles of everyday life as well as to the people's daily habits. The science of urban sociology, which can help to analyze human behaviours in the public space, can also deliver important information on the users' preferences regarding the city's physiognomy as well as the urban layout. Although such guidelines might call for a rational answer in the form of adjusted design, the planners would nonetheless tend to invest their subjective feelings into each project, combining measurable, rational knowledge with immeasurable intuition. Constant interlacing of the two diverse approaches can be compared to a parabolic function with two extremes. Despite being contradictory, they are both necessary so as to create a whole.

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