Houses, Objects and Architects.
Architectural Drawing in Children's Literature

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Abstract

The research, presented here in summary form, investigates the contributions of architectural drawing in children's books and literature. The role of drawing in aesthetic education, in education for the understanding of space and in the introduction of young readers to the world of 20th century architecture is of primary importance and the research aims to underline as case studies are only simple examples for readers who are cognitively less trained than adults, but describe a precise educational strategy that cannot be derogated from other means.
The historical-critical investigation has its scope of observation the strict contemporaneity and aims to organize taxonomically the works collected and observed, proposing a textual analysis (in a graphic sense) of categories identified through the description and exegesis of some emblematic cases.

Keywords: Illustration, Architecture, Education, Visual Storytelling, Picture Book.

Introduction

The awareness of the need for a specific training in the understanding of space and the figures that compose it from the first years of life, is acquired since the first half of the twentieth century in pedagogical, psychological and artistic field [Dewey 1934; Piaget 1947; Klee 1925]. Specific techniques, methods and methodologies have been developed and applied in the educational field, at every age of life, starting from primary education (3-6/7-11 years old) in which the education process we refer to tends to construct the cognition of one's own proximal space and of the geometrical and chromatic nature of the objects that manifest themselves in it. In addition to this widely acquired objective, in recent years specific attention has rapidly developed to heritage education, both

tangible and intangible, with multiple implications: from aesthetic one to education to the value of the history of our civilization, from education to arts as an expression of individual creativity to education to the quality of architectural spaces to stimulate a shared need and not only elitist [1].
One of the preferred tools, according to our thesis, is representation in all its forms, from the graphic sign to photography, passing through multi-material and digital elaborations. Literature on the subject is boundless and it is difficult even to select a limited number of studies that have focused on the ways in which representation can be related to education in space, the city and architecture as a form of artistic expression. For this reason,
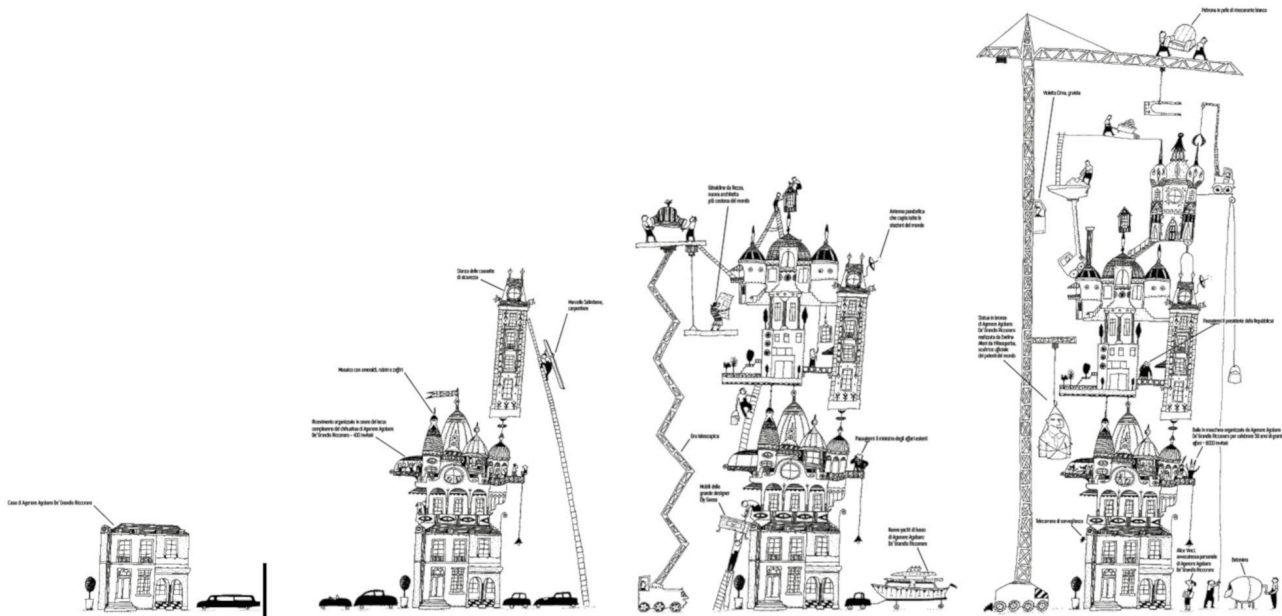
Fig. 1. Four phases of the elevation of the house of Agenone Agobaro De' Grandis Riccoraro, one of the two billionaire protagonists of Skyscrapers by Germano Zullo.

we will mention only a few texts to whose bibliographies we refer for a more extensive treatment: in the field of graphic sciences we point out *Intelligenza grafica* [Cicalò 2016], in the pedagogical field *Arti visive nella didattica* [Panciroli 2012] and in the psychological field *Il significato del disegno infantile* [Oliverio Ferraris 2012].

The research presented here is a summary of a historical-comparative investigation, in which a specific medium – the illustrated children's books – is identified as a support for the process of heritage education and whose specific system of representation is the design of architecture.

The books examined are mainly analysed from the iconographic and iconological point of view, and later from the pedagogical point of view, and the result of which, in essence, is revealed by the definition of a taxonomic organization and by the exegesis of some case studies that can be 'read' (literally or metaphorically) according to a semantic stratification of great depth [Luigini, 2018b].

Signs and drawings

The case studies collected are diversified by origin, technique and target, but have in common the leading role of architecture (or design) both in its authorial and anonymous form, always with a characterization useful to the process of cognitive transfer that in the young reader allows the formation of that spatial and figurative competence that we referred earlier.

Moreover, in the interest of underlining how these illustrated books [2] currently hold the educational potential for architecture that we have already anticipated, we have used their current presence in the catalogues of their respective publishers as a further criterion for the selection of volumes [3].

In the taxonomic organization we have identified some categories that we will describe in detail below.

The categories identified are:
- stories set in invented architectures;
- stories containing authorial architectures;

- travel books;
- non-fiction books;
- books published by architects;
- architectural monographs.

It is clear that these categories can sometimes be interconnected and some books can be counted in either category. For example, some architectural monographs, as well as travel books, do not in themselves aim to tell a story, so it would be possible to include them in the non-fiction category. Like some books that tell stories containing authorial architectures, they are actually monographs of architecture or design [4]. Or the category of books published by architects, which we previously considered as a subcategory of non-fiction books [Luigini 2018b] because in almost all cases they share the basic non-narrative approach, but as the collection of texts belonging to this category increases, it was possible to verify how certain peculiarities –which we will present below– made it a *de facto* autonomous category.

The description of the books that will accompany the various taxonomic categories, here, is operated with criteria of innovation with respect to the literary tradition and graphic and representative quality.

Invented architectures

In the story told in Germano Zullo's book *Grattacieli* [Zullo 2018] (fig. 1), two eccentric billionaires compete in the construction of the most eccentric, sumptuous and bizarre dwelling, starting from two buildings on which, page after page, through the work of architects with unlikely names (Arthur J. Sciacallo or Géraldine du Rezza), are configured with the addition of new rooms and new functions: from the most reasonable 'ultra-modern kitchen' and 'mosaic of emeralds, rubies and sapphires' to the 'cinema', the 'walk-in closet with 6,000 seats' and the 'pool with wave generator'. A senseless rivalry, where the epilogue seems to be already written in the shaky structures designed with a dry style –almost in memory of the building site executives– full of details that become expedients for the narrative. The page of the book also assumes its own role and, strengthened by the adoption of a Mongian projection, the limits of the sheet become a visual field whose line of land remains unchanged throughout the book and whose void at the top of the first pages seems to virtually contain the space of the

Fig. 2. Illustration taken from The Arrival by Schaun Tan with the perspective openly inspired by the famous engraving by Gustav Dorè Over London by rail (1872).

imagination of that continuous figurative invention that the story will prove [5].

Distant from the carefree and ironic nature of the two books just mentioned –but also distant for the stylistic choice that perhaps shows the widest audience compared to the previous ones– Schuan Tan's *The arrival* [Tan 2016] (fig. 2) is a silentbook that has received well-deserved international fame for the elegance of its settings, the refined graphic technique and above all for the narrative capacity of a theme so controversial such as emigration. The protagonist leaves his place and his affections to find his fortune elsewhere, but this 'elsewhere' reveals itself very quickly as a place to interpret, where everything is different from his previous experience. The beauty of the settings designed by Tan is such that, also in dramatic moments of the narrative, the eye is attracted by the bird's-eye perspectives, or by others with an ant's-eye perspectives, to run from building to building a multitude of architectural inventions that in many cases declare their debt to direct references, never hidden: this is the case for a church that seems to recall the Cathedral of Siena or for the large hall where the emigrants arrive, designed on the model of the hall where the emigrants actually arrived on Ellis Island, but above all

for the perspective of the terraced houses taken up, by the same admission of the author, from the famous engraving by Gustav Dorè *Over London* by rail contained in *London. A pilgrimage,* published in 1872.

Aaron Becker has published a successful trilogy of silent books consisting of *Journey, Discovery and Return* (fig. 3). These are three stories of a little girl who, like a modern Alice, enters a fantasy world through a small door, but the surprising invention, probably autobiographical, lies in the way this door materializes in the book: the little girl, in fact, finds a red chalk on the ground in her grey room and it is with this one that she draws on the wall the door through which the story comes to life. In this case, the drawing becomes the place of the imagination, the place of the project of fantastic architectures, and through the drawing the protagonist becomes free.

Authorial architectures

When a reader without specific competence approaches a book belonging to this category, he may not distinguish it from those belonging to the previous category, interpre-

Fig. 3. Table taken from *Journey* by Aaron Becker, that predents an updated version of *Alice in Wonderland*.
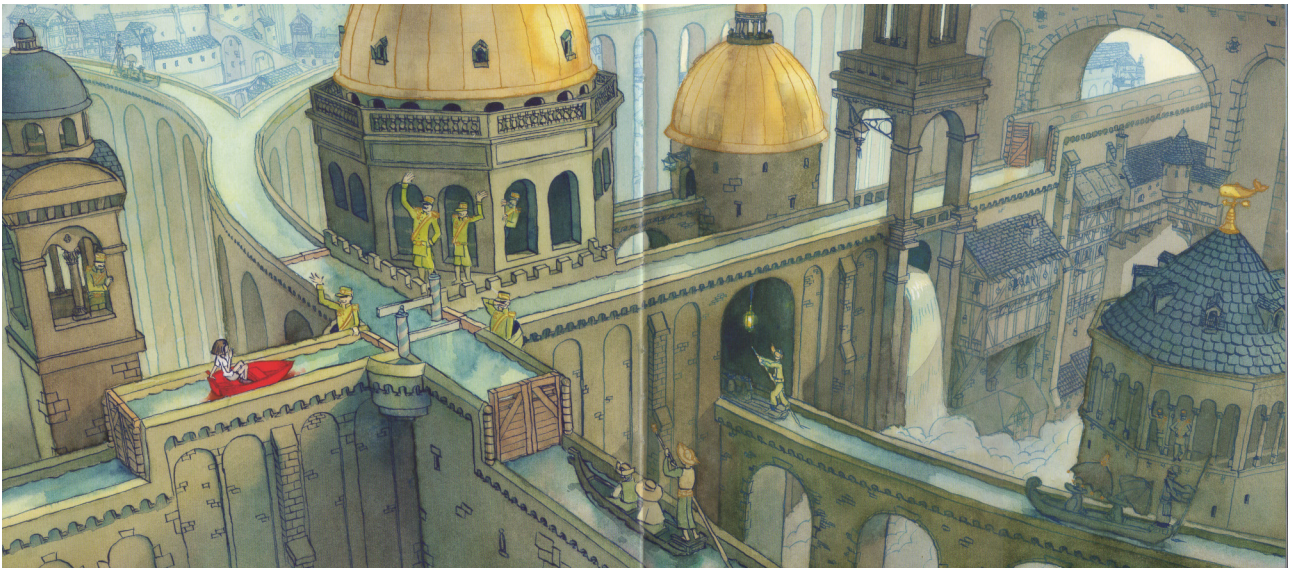
ting as 'extravagant' or mere 'curiosity' the formal and spatial solutions of the buildings and objects he encounters in the narrative. Only in a few cases, and specifically in those where historical buildings are dealt with, could it be possible to recognize values that elevate the subjects of these illustrations to real monuments.

The case of the crossroads of characters named 'Frank' in Young Frank, architect [Viva 2013] an architect illustrated by Frank Viva, is different. It tells the story of the young Frank, who feels like an architect and builds bizarre tangles of objects, and the elderly Frank, his grandfather, an architect too, who reprimands his grandson for the lack of rules in the composition of his projects. Because of this distance of approach and for a moment of demotivation of little Frank decide to visit the MoMA in New York, where the two ones know the works, among others, of two other 'Frank' –Frank Gehry and Frank Lloyd Wright– realizing that grandfather Frank had lost the enthusiasm for discovery, for the excitement of architecture. The book, for its refined settings, is full of cultured quotations of twentieth-century design objects, and this makes it even more a valid tool for education about heritage and architecture. Another exemplary album is the interpretation by American illustrator Steve Guarnaccia of the classic children's literature *I tre porcellini* [Guarnaccia 2009], in which he first of all characterizes the three protagonists –who are known to 'build houses'– such as the three most important North American architects of the twentieth century, or Frank Lloyd Wright, Philip Johnson and Frank Owen Gehry, and then studded the narrative environment of architectural masterpieces of the last century, from the villas of Greene & Greene to Glass House by Johnson, from the Einstein Tower by Mendelssohn to the Fallingwater by Wright (fig. 4), from the Gehry House to the Pyramid of Louvre. Every single environment in which history takes place and every single object in history –with the exception of a curious polka dotted concrete mixer– is taken from the history of architecture and design of the twentieth century. But Guarnaccia's innovation with respect to other similar texts is manifested in the guard and counter-guard of the volume where, far from being a decorative expedient, he re-proposes all the drawings of the works contained in the volume, indicating their title, author and year. Guarnaccia builds a 'map' with which to navigate the masterpieces designed by him but not only: it allows the adult who reads the story to the child –the fairy tale is suitable from about 2 to 5 years old

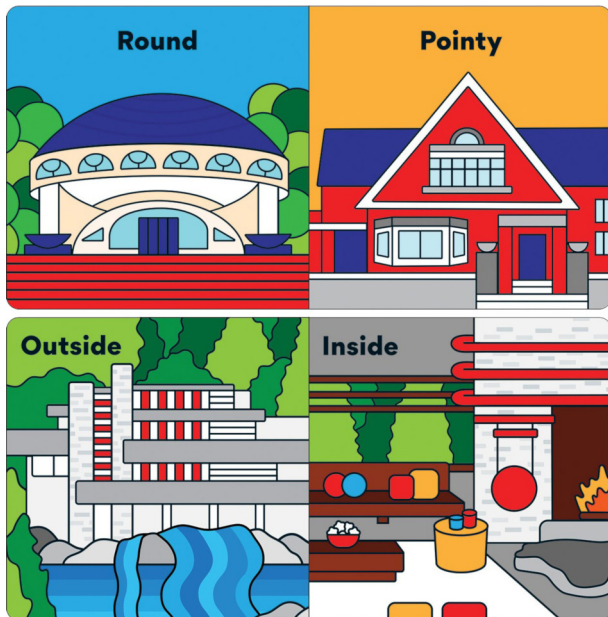Fig. 4. The Fallingwater by Frank Lloyd Wright taken from The Three Little Pigs by Steven Guarnaccia.

Fig. 5. Illustration depicting the Trevi Fountain taken from This is Rome by Miroslav Šašek.
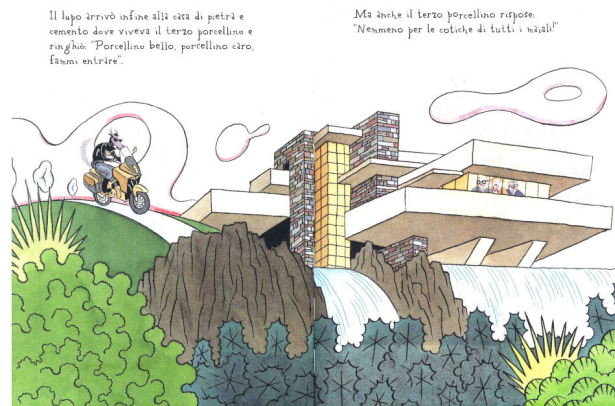
so the reading of the text component must necessarily be mediated by an adult– to be able to find himself the multitude of stories that lie behind each drawing [Luigini, 2017]. From the architecture of Gehry and Deconstructivism to Johnson and all the styles he mastered, from Ian Ming Pei to Piacentini, from Neoplasticism to Mies van der Rohe, from Buckmister Fuller to Achille Castiglioni: everything becomes accessible thanks to the illustration of Guarnaccia.

In 2018, Mario Bellini, to whom the Unione Italiana per il Disegno gave the gold plate the same year, edited *Il design spiegato ai bambini* [Bellini 2018], with illustrations by Erika Pittis, in which he describes his projects and the principles that inspired them, starting from his childhood. A journey through the history of Italian design through the work of the author who aims to transfer not so much the value of the architect's projects, but the autobiographical path fueled by passion, curiosity and the need to express an emotional creativity.

Travel

Travel has always been a recurring theme in children's literature, and if in many cases it acquires the meaning of a journey in search of inner growth, happiness or discovery of the world (from the epic Herculean vicissitudes to *Cappuccetto Rosso*, through Johnatan Swift's *Gulliver's travels* and many more recent ones, such as Tan's *The arrival* and Aaron Backer's trilogy), it should be noted that in recent decades there has been a proliferation of children's travel books dedicated to real tourism. And why not, even if imagined, but still set in real places.

Individual cities or entire continents, told to children by illustrators, are presented as a kaleidoscope of new, heterodox, often simplified but never naive points of view on architecture and monuments.

Miroslav Šašek, born in the nascent Czechoslovakia in 1916, after having studied architecture and found himself exiled from his native land, illustrates the famous *This is*

Fig. 6. Some pages taken from Opposites with Frank Lloyd Wright.

Fig. 7. Pages dedicated to Berlin from Metropolis by Benoit Tardif.

Paris in 1959, subsequently replicating his approach and editorial proposal for dozens of other cities, including, in 1960, Rome [Šašek 1960].

This is Rome (fig. 5) is made up of 27 watercolour plates measuring 46x31.2 cm, composed of about 100 drawings and texts by the same author, of which at least 30 are architectural drawings or urban views. In some cases a mixed technique is used, which consists in inserting black and white photos of some sculptural works in his drawings [6]. The general approach, recounted by Šašek himself, is that of an extraordinary draughtsman-traveller, who roams like a voluntary shipwreck in the amazing richness of the cities he visits: he tells us that he liked to get lost in the streets and squares carrying with him a notebook to draw, starting with the visit to the main monuments and then continuing until he discovers some substantial but sometimes hidden features of the different urban realities he went through. In real life, he drew numerous sketches –a urban sketcher *ante litteram*– which he subsequently re-elaborated and laid out, often composing more than one sketch in a single table. His fast, clear and never usual line, combined with a direct and often ironic narration, has made his illustrated books true masterpieces still today, at the threshold of sixty years from the first edition, regularly exhibited in bookshops all over the world. The predilection, then, for the central perspective, and a rarer application of the accidental perspective, is an indication of a stylistic approach that allows a clear and in-depth reading of both the proportional schemes – for example, the Trevi Fountain or the staircase of Trinità dei Monti – and the decorative parties, sometimes represented with a detail that would not be expected in an illustrated book for children.

Metropolis by Benoit Tardif [Tardif 2017] (fig. 7) is a visual guide to 32 major cities around the world, dedicated also but not exclusively to children. The book has a setting that recalls, rather than a paper album of photographs and clippings, a collection of shots taken with the smartphone and displayed in the form of thumbnails, where the text is reduced to the indications of the subject of each drawing and where the visual story captures the full attention of the reader. The drawings are very schematic, coloured with flat and saturated colours and an economy of details of the individual buildings that seems to give way to the need for direct experience: it will be useful to understand their value, taking into account the fact that these books were designed and produced in an age of visual overexposure and that the high-definition images

of each single work are within anyone's reach and can be reached with a few clicks. Drawing, therefore, is free to express other values at the expense of verisimilitude, promising – rather than revealing – the beauty of the visit to the cities it tells.

Non-fiction

In the years of the abuse of the term 'storytelling', we probably felt the need to define as a unit that heterogeneous set of books that have no narrative content, that do not tell stories. Also in the children's publishing offer, the distinction –not always so clear– between books that follow a plot and books that present contents with alternative intentions, is becoming increasingly necessary. The particular character of this category requires more specification in the subcategories that we introduce below.

Concept books
Some books introduce children to elementary concepts and notions that in exemplary cases use works of architecture or design to pursue their own purpose, even if apparently alien to the creative context.
Two small illustrated books, for example, use what we might call the 'graphemes [Luigini 2018] of Frank Lloyd Wright's architectural language to introduce children –pro-

Fig. 8. Illustration depicting Uncle Oscar sitting at one of his 26 chairs of author taken from Uncle Oscar's chair. From A to Z. by Magnus Englund and Daniel Frost

Fig. 9. Table of the book Le nostre città ieri e oggi. The image above reproduces the book as seen with the naked eye, while the three images below simulate the vision of the book through the three red, green and blue colored lenses.
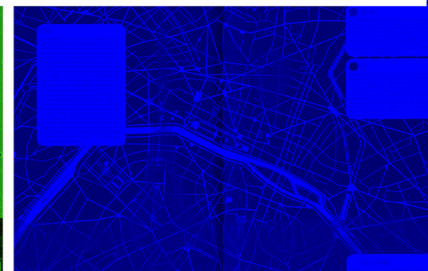
bably aged 2-4 years– to geometric forms and 'opposites'. *My first Shapes with Frank Lloyd Wright* [Ortiz 2017] and *Opposites with Frank Lloyd Wright* [Ortiz 2018] (fig. 6) are two small volumes that, through architectural drawings, teach the classification of geometric forms, the first, and the distinction of opposing concepts (hot/cold, inside/outside, day/night etc.), the second. In this case, through the skillful graphic elaboration of the illustrator, Frank Lloyd Wright's architectures become geometric forms poised between a figurative syntax and an abstract grammar, without betraying the original sign and keeping all the works perfectly recognizable.

ABC
Adding a narrative component [7], *Uncle Oscar's Chairs. From A to Z* by Magnus Englund and Daniel Frost [Englund, Frost 2018] (fig. 8) is the chronicle of two children visiting their uncle and asking him to tell them about the 26 chairs he keeps around a large table, each one with a name that starts with a different letter of the alphabet. At the sight of the incredible shapes of their uncle Oscar's chairs, little Jack and Molly are unable to restrain their curiosity, and so a journey through the masterpieces of twentieth-century design starts, in an exchange of questions and answers between the protagonists that intertwines history, design and imagination. As a demonstration of the anthological intent, the authors indicate the name of the chair, the author and the year of production on the top right of each table.

Reference books and atlases
Among the non-fiction books a certain number is dedicated to the presentation of information on the most diverse themes, from history to science, from nature to the biographies of historical figures, and are usually organized according to chronological or thematic criteria. In this varied landscape you can often find books that deal in some way with the theme of architecture and the themes surrounding it (the city, design etc.).
The book *Case nel mondo* [Pesce, Tonello 2018] (fig. 10) published by Electa Kids, with texts by Maria Paola Pesce and illustrations by Martina Tonello, takes us on an imaginary journey through different and distant places, located all over the world and characterized by different climates and cultures. The narration is only a device to introduce the double-page illustrations –4.4x37 cm– in which the houses are immersed in their environments (urban or rural) and of which you can observe in detail the destinations of the

environments that compose them but also the furniture and objects that together with discreet characters, inhabit it. These are illustrations that speak of everyday domestic life, and that introduce the reader to an understanding of the relationships between spaces and their functions.
Of great interest, the editorial series *'libri lente'* by the Italian publisher Sassi junior, is composed of four volumes of which three on scientific topics (human body, animals and nature) and one on historical-architectural issues. The last one, titled *Our Cities Yesterday and Today*, shows thirteen major cities and capitals from around the world (Paris, New York, London, Rome, Berlin, Dubai, Tokyo etc.) through drawings of urban views whose protagonists are famous

Fig. 10. Two houses from the book Case nel mondo. by Maria Paola Pesce and Martina Tonello.

architectural monuments, with the addition of an urban plan in the background. But the aspect of primary interest is the device of representation used: a 'mask' through which to look at the book, has three colored lenses (red, blue and green) each of which inhibits the feeling-perception of the traits of the figure drawn in the same color, thus revealing, or rather making visible, from time to time a different part of the illustration (fig. 9). The red lens shows us the view of the city and the monument *as it was yesterday*, the green lens *as it is today*, and the blue lens shows us the plan with the indication of the position of the monument, or *where it is*. The reader can thus recognize the great monuments now in a state of ruin (Parthenon and Colosseum) and see them as they were at the time of their construction, or the great modern and contemporary monuments (Eiffel Tower, Burj Khalifa, Empire State Building or the crossroad of Shibuya in Tokyo) to see them as they were under construction or as the cities were before their construction. All of that contextualized with characters and means of transport, terrestrial or air, of the time.

Architects editors

Many of the books listed in the entire taxonomy are written or illustrated by architects, but some of them –specifically those listed in this category– are different at least in one peculiarity: the editorial proposals presented here –talking about 'books' seems to us to be a semantic limit– have to do, as individual titles or as entire editorial activities, with 'doing design' rather than with the history of architecture. They are experience books, for the visual or spatial design of architectural or urban configurations. In some cases they invite the reader to interpret architecture and urban views, in others to graphically describe their daily experience.

The independent publishing house Tower Block Books [http://towerblockbooks.com/] was founded by a designer and an architect and the books they publish generally have as their theme the relationship between architecture and imagination, especially, but not only, childish. In their *The Big Letter Hunt* [Amandine, Nieto Ferreira 2014; Amandine, Nieto Ferreira 2016], the discovery of the city becomes a game of references between photography and typography, with which to discover the alphabets hidden in the architectural views that follow one another in the urban experience. A game of forms and points of view in a changing perspective, which promotes an attitude of observation capable of combining reality and abstraction, volumetric vision and two-dimensional projection.

All the titles of Tower Block Books concern architecture, or rather, as they explicitly state on their company website, they concern 'places': cities, streets, domestic environments, but still significant spaces. As in the case of *My bedroom* [Nieto Ferreira, Bowers 2017] or *What did Alex see?* [Nieto Ferreira, Vigrass 2017], and a publication on public buildings is being prepared that looks interesting because it follows a call for drawing in which more than 250 illustrators from over 45 countries participated.

French architect and illustrator Fanny Millard has published several books for children, all of them somehow focused on the theme of the elaboration of spatial configurations. Some, perhaps closer to architectural monographs but with a fundamental experiential component, are books presenting Parisian or French monuments to be redrawn by connecting a series of numbered points. Even less narrative than others, based entirely on the construction of

Fig. 11. *Organic Space. Le livre maquette pour découvrir le paysage by Fanny Millard. Experiential books can be freely configured and combined with others to build a myriad of imaginary landscapes.*

experiences of spatialization in which body, space and book become indispensable parts of a significant whole, Basic Space. Le premier livre maquette [Millard 2016] and *Organic Space. Le livre maquette pour découvrir le paysage* [Millard 2017] (fig. 11) are experience-books, useful for elaborating and exploring multiple configurations starting from a single object-book or from several object-books combined with each other.

Like Fanny Millard's books, other authors have also developed editorial projects that make experience a way of training creativity and problem solving. It will be useful to remember Studio Roof kits such as *Archiville* or the series of world capitals (from Barcelona to London, from New York to Tokyo) that constitute a selection of monuments of ancient, modern and contemporary architecture capable of identifying symbolic elements of individual cities.

Finally, there is the *Stampville* kit [Débat 2017] (fig. 12), a set of stamps containing the basic elements of an architectural grammar that can be adapted both to traditional contexts and, freely composed, to more refined, innovative and contemporary contexts.

Monographs

This taxonomic category is certainly one of those that most attracts our attention because of the direct relationship between children's illustration and authorial architecture, but also because the pedagogical objective of these volumes is, in particular, to bring young readers closer to modern and contemporary architecture.

In recent years, volumes of this kind have multiplied, and on the basis of narrative methods similar to travel books, it is possible to tell directly, and without further filters or mediators, the work of great architects, from Antoni Gaudì to Zaha Hadid, passing through significant works such as the Fallingwater by Frank Lloyd Wright.

As Janette Winter tells us, the gestation of the book *The World Is Not a Rectangle: A Portrait of Architect Zaha Hadid* [Winter 2017] (fig. 13) lasted a few years because from the moment she was struck by Hadid's architecture she first tried to get to know the designer through architecture books, according to the author too specialized and impenetrable to non-experts, and then tried to understand it by following lectures and interviews on Youtube to hear from her speakerphone descriptions of the projects and the design process. This direct approach to Hadid's words

Fig. 12. Kit Stampville to build architecture and city images starting from the basic elements of the individual stamps.

Fig. 13. Table taken from The World Is Not a Rectangle: A Portrait of Architect Zaha Hadid by Janette Winter in which we see a Zaha Hadid intent on drawing.

allowed Winter to figure out her own illustrations as representations of memories or dreams of the Anglo-Iraqi archistar, leading the reader to an intimate and profound knowledge of the character and his approach to the project.

The books in the *Who Build That?* series by Didier Cornille [Cornille 2014a; Cornille 2014b; Cornille 2016] (fig. 14), on the other hand, are probably dedicated to a public of a higher age group, because they are organized as didactic atlases and the projects are presented starting from a brief biography of the author and then continuing with a description of the work and then the drawings, almost always more than one. Cornille's drawings are unmistakable: his minimal, detailed and precise coloured strokes refer to the canonical projective models, passing from time to time from an ant's eye perspective to an oblique axonometry or to a central perspective with some passages with an exploded axonometric. Cornille's imagery is an imagery that is closely linked to the world of architecture and design: after graduating from the Ecole de Beaux-Arts in Lille after his meeting with Ettore Sottsass, he himself worked as a designer. From these experiences, the French illustrator derived his autograph trait, so familiar to those involved in architectural design that it makes us think that the recipients of his books are not only primary school children but, probably, also adults. In any case, these volumes remain poised between specialist monographs and narrative, bringing architecture into

children's readings but through stories inspired by reality or stories of invention. In this case, as we will explain in more detail in the conclusions, the design of architecture mediates between the complexity of the work and the cognitive level of the reader, allowing in fact a perception that would not be possible even in the presence of the original work.

Conclusions

Our work consisted, as it is clear from the brief descriptions given, in the taxonomic cataloguing and analysis of each volume according to four different codes: a) the *iconic code*, b) the *graphic* and *type-graphic code*, c) the *mediation code* and d) the *pedagogical code*.

The *iconic code*, clearly, concerns the representative qualities of the illustrations, their character, their level of modelling with respect to the real subject, their projective system and other characteristics similar to these. The *graphic* and *type-graphic code* concerns the way in which the illustrations are presented to the reader, the relationship with the text, the choice of materials and format. The *mediation code* concerns the way in which illustration makes possible not only the 'recognition' of a given subject (in this case remarkable architectures and design objects) but above all its ability to set in motion the cognitive transference and, subsequently,

Fig. 14. Drawing depicting the Brooklyn Bridge taken from a book in the Who Built That? series by Didier Cornille.

to develop in memory that imaginary that makes the reading experience a truly formative experience. Finally, the *pedagogical code*, partly integrated with the previous one, concerns the specific training objective, which can be the development of creativity (*Iggy Peck Architect* or *Stampville*), spatial cognition (Fanny Millard's books or those of the Tower Brick Books), the construction of a specialized imaginary (*I tre porcellini* by Guarnaccia or *Baby's first Eames*) or the formation of a metaphorical idea of personal growth (*Journey by Aaron Becker*) but also others.

However, what results from the study of these volumes is that our initial hypothesis seems to be valid in any case: the representation of architecture, in this specific context, is the optimal medium for carrying out the processes necessary to achieve the pedagogical objectives we have listed. This happens for some reasons, the main one probably being the mediation that the drawing allows between the complexity of the work in reality and the reader, on average a child aged between two and eleven years. The drawing, the result of the discretization of reality carried out by the illustrator, finally makes a complex artistic expression such as archi-

tecture accessible to an otherwise impermeable public. But the illustrator's drawing is not the only drawing that enters into these processes: without dwelling on the pedagogical role of redrawing, which we give as an acquired fact, it is evident how this discretization (and if we want, as an example) makes the work of architecture accessible not only to the child's gaze, but also to his hands, to his graphic abilities. So in the didactic field, as we are already experimenting, it is possible to structure didactic units that contain phases of drawing of the child, taking as a model the illustrations of the books. Drawing, therefore, what they would not be able to draw from life or from a photographic image.

Drawing, in these cases even more, represents, 'makes present' architecture in a way that children can 'read' it –with their eyes and with their own drawing– and in so doing it makes concrete an art that, otherwise, would remain invisible to the eyes of children. It is, therefore, through drawing that children can be educated in heritage and know, more or less in depth but increasingly from more points of view– figurative, plastic, spatial, historical, experiential, imaginative, etc.– architecture and its possible declinations.

Notes

[1] Directive MIUR 107/2016 recognizes the educational role of cultural heritage, and is followed the next year by the *National Plan for Cultural Heritage Education*. In fact, although the dissemination of these policies is rather encouraged, the activities are still in the development phase, and a comprehensive validation phase is still missing.
A parallel could be suggested with similar French policies, which have been promoted for some time and whose references can be found in Casonato 2017, notes 1-3.

[2] In specialized scientific literature, the term illustrated register is preferred to illustrated book, because in the case of children's literature the texts are mainly illustrated, the relationship between images and texts is diametrically opposed to that of an illustrated book where the images illustrate the text that would be readable autonomously and sometimes the text is completely missing –in this case we speak of a *silent book*– such as the numbering of pages, which is normally absent. The size and physical characteristics of the book also make it easier for children to handle it, but also for the illustrations to be reproduced in greater detail. For a complete discussion of the subject, see: Faeti 1972; Farnè 2002; Beseghi 2006; Beseghi, Grilli 2011; Terrusi 2012.

[3] The research was developed from the end of 2016 to the present day and the integration of new titles takes place at such a rate that it would seem that the production of these illustrated books is following a growing trend. Suffice it to say that in the six months between

September 2018 and February 2019 more than twenty titles were taxed.

[4] This is the case for the edition of Steven Guarnaccia of *I tre porcellini* e *Riccioli d'oro e i tre orsi*, and some others.

[5] Marcella Terrusi speaks of the gap that is created in the empty space between the text and the images, and that "presupposes the active presence of an 'implicit reader', that is, a reader capable of venturing into those empty spaces to build his interpretation of the text, his understanding and personal imagination, in the active mechanism of reading and discovering the text" [Terrusi 2012, p. 99].

[6] Technique that he will later develop in the ironic *Questa non è una pietra* [Šašek 2018], recently reissued by Quodlibet, where, following his stay in Rome, some classical and Renaissance statues are reinterpreted in unlikely and irreverent situations: so the Moses of Michelangelo finds himself traveling on a Vespa, the Medusa of Bernini goes to the coiffeur and Marcus Aurelius dispenses coffees in a bar.

[7] As already mentioned, some texts go beyond the limits of a taxonomic classification and contain components attributable to several categories. In this case the volume could have been catalogued in the same way as *Il design spiegato ai bambini* by Mario Bellini, but we preferred to highlight the methodological character typical of ABC books.

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Reference list

Amandine, A. Nieto Ferreira, R. (2014). *The Big Letter Hunt London East End*. London: Tower Block Books.

Amandine, A. Nieto Ferreira, R. (2016). *Big Letter Hunt: London. An Architectural A-Z Around the City*. London: Tower Block Books.

Bellini Mario. (2018). *Il design spiegato ai bambini*. Milano: Bompiani.

Beseghi, E. (a cura di). (2006). *Infanzia e racconto. Il libro, le figure, la voce, lo sguardo*. Bologna: Bononia University Press.

Beseghi, E., Grilli, G. (a cura di). (2011). *La letteratura invisibile. Infanzia e libri per bambini*. Roma: Carocci.

Casonato, C. (2017). Images for Little Architects. Architecture and Architectural Drawing in Children's Books and Comics: An Interesting Case Study. In *Proceedings*, vol. 1, n. 9, pp. 1-12.

Cicalò, E. (2016). *Intelligenza grafica*. Roma: Aracne.

Cornille, D. (2014a). *Who Built That? Modern Houses. An Introduction on Modern House and Their Architects*. Hudson: Princeton Architectural Press.

Cornille, D. (2014b). *Who Built That? Skyscrapers. An Introduction on Skyscrapers and Their Architects*. Hudson: Princeton Architectural Press.

Cornille, D. (2016). *Who Built That? Bridge. An Introduction on Ten Great Bridge and Their Designers*. Hudson: Princeton Architectural Press.

Débat, A. (2017) *Stampville*. Hudson: Princeton Architectural Press.

Dewey, J. (1934). *Behaviour Development in Infants: A Survey of the Literature on Prenatal and Postnatal Activity 1920-1934*. New York: Columbia University Press.

Englund, M., Frost, D. (2018). *Uncle Oscar's Chairs. From A to Z*. London: Paricolar Book.

Faeti, A. (2011). *Guardare le figure. Gli illustratori italiani dei libri per l'infanzia*. Torino: Einaudi.

Farnè, R. (2002). *Iconologia didattica. Le immagini per l'educazione: dall'Orbis Pictus a Sesame Street*. Bologna: Zanichelli.

Guarnaccia, S. (2009). *I tre porcellini*. Mantova: Corraini edizioni.

Klee, P. (1925). *Pädagogisches Skizzenbuch*. München: Albert Langen.

Luigini, A. (2017). Disegnare architetture per educare al bell.o Esegesi iconografica di un Picturebook di Steven Guarnaccia. In C. Panciroli (a cura di). *Infanzia - Le arti e l'Infanzia*, pp. 206-216. Parma: Bambini srl.

Luigini, A. (2018b). Dispĭcĕre. Formare lo sguardo all'architettura con i libri illustrati per l'infanzia/Dispĭcĕre. To educate the gaze on architecture through picture books for children. In R. Salerno (a cura di). *Rappresentazione Materiale/Immateriale/Drawing as (in)tangible*. Atti del 40° Convegno Internazionale dei Docenti delle Discipline della Rappresentazione/XV Congresso UID. Milano 13-15 settembre 2018, pp. 1293-1298. Roma: Gangemi Editore International.

Luigini, A. (2018a). *Grafemi e tipi standard. Una metodologia per l'analisi evoluzionistica dell'Opera di Oscar Niemeyer*. Roma: Aracne.

Millard, F. (2016). *Basic Space. Le premier livre maquette*. Bordeaux: EXTRA éditeur d'espaces.

Millard, F. (2017). *Organic Space. Le livre maquette pour découvrir le paysage*. Bordeaux: EXTRA éditeur d'espaces.

Nieto Ferreira, R., Bowers, J. (2017). *My Bedroom*. London: Tower Block Books.

Nieto Ferreira, R., Vigrass, L. (2017). *What did Alex see?*. London: Tower Block Books.

Oliverio Ferraris, A. (2012). *Il significato del disegno infantile*. Torino: Bollati Boringhieri editore.

Ortiz, L. (2017). *My first Shapes with Frank Lloyd Wright*. New York: Mudpuppy.

Ortiz, L. (2018). *Opposites with Frank Lloyd Wright*. New York: Mudpuppy.

Panciroli, C. (2012). *Arti visive nella didattica*. Verona: QuiEdit.

Pesce, M.P., Tonello, M. (2018). *Case nel mondo*. Milano: Mondadori Electa.

Piaget, J. (1947). *La représentation du monde chez l'enfant*. Paris: Presses universitaires de France.

Šašek, M. (1960). *Questa è Roma*. Milano: Fratelli Fabbri Editori.

Šašek, M. (2018). *Questa non è una pietra*. Macerata: Quodlibet.

Tan, S. (2016). *L'approdo*. Latina: Tunuè.

Tardif, B. (2017). *Metropolis*. Firenze: Edizioni Clichy.

Terrusi, M. (2012). *Albi illustrati. Leggere, guardare, nominare il mondo nella letteratura per l'infanzia*. Roma: Carocci.

Trevisan, I., Borgo, A. (2017). *Le nostre città ieri e oggi*. Schio: Sassi science.

Viva, F. (2013). *Young Frank, architect*. New York: MoMA Press.

Winter, J. (2017). *The World Is Not a Rectangle: A Portrait of Architect Zaha Hadid*. San Diego: Beach Lane Books.

Zullo, G. (2018). *Grattacieli*. Milano: Mondadori.