

Research for Development

Stefano Della Torre  
Massimiliano Bocciarelli  
Laura Daglio  
Raffaella Neri *Editors*

# Buildings for Education

A Multidisciplinary Overview  
of The Design of School Buildings

Fondazione  
Politecnico  
di Milano 

 Springer Open

# Research for Development

## Series Editors

Emilio Bartezzaghi, Milan, Italy

Giampio Bracchi, Milan, Italy

Adalberto Del Bo, Politecnico di Milano, Milan, Italy

Ferran Sagarra Trias, Department of Urbanism and Regional Planning, Universitat Politècnica de Catalunya, Barcelona, Barcelona, Spain

Francesco Stellacci, Supramolecular NanoMaterials and Interfaces Laboratory (SuNMiL), Institute of Materials, Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Vaud, Switzerland

Enrico Zio, Politecnico di Milano, Milan, Italy; Ecole Centrale Paris, Paris, France

The series Research for Development serves as a vehicle for the presentation and dissemination of complex research and multidisciplinary projects. The published work is dedicated to fostering a high degree of innovation and to the sophisticated demonstration of new techniques or methods.

The aim of the Research for Development series is to promote well-balanced sustainable growth. This might take the form of measurable social and economic outcomes, in addition to environmental benefits, or improved efficiency in the use of resources; it might also involve an original mix of intervention schemes.

Research for Development focuses on the following topics and disciplines: Urban regeneration and infrastructure, Info-mobility, transport, and logistics, Environment and the land, Cultural heritage and landscape, Energy, Innovation in processes and technologies, Applications of chemistry, materials, and nanotechnologies, Material science and biotechnology solutions, Physics results and related applications and aerospace, Ongoing training and continuing education.

Fondazione Politecnico di Milano collaborates as a special co-partner in this series by suggesting themes and evaluating proposals for new volumes. Research for Development addresses researchers, advanced graduate students, and policy and decision-makers around the world in government, industry, and civil society.

THE SERIES IS INDEXED IN SCOPUS

More information about this series at <http://www.springer.com/series/13084>

Stefano Della Torre · Massimiliano Bocciarelli ·  
Laura Daglio · Raffaella Neri  
Editors

# Buildings for Education

A Multidisciplinary Overview of The Design  
of School Buildings



Springer Open

*Editors*

Stefano Della Torre  
Architecture, Built Environment  
and Construction Engineering—ABC  
Department  
Politecnico di Milano  
Milan, Italy

Massimiliano Bociarelli  
Architecture, Built Environment  
and Construction Engineering—ABC  
Department  
Politecnico di Milano  
Milan, Italy

Laura Daglio  
Architecture, Built Environment  
and Construction Engineering—ABC  
Department  
Politecnico di Milano  
Milan, Italy

Raffaella Neri  
Architecture, Built Environment  
and Construction Engineering—ABC  
Department  
Politecnico di Milano  
Milan, Italy



ISSN 2198-7300

Research for Development

ISBN 978-3-030-33686-8

<https://doi.org/10.1007/978-3-030-33687-5>

ISSN 2198-7319 (electronic)

ISBN 978-3-030-33687-5 (eBook)

© The Editor(s) (if applicable) and The Author(s) 2020. This book is an open access publication.

**Open Access** This book is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this book are included in the book's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the book's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG  
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

# Contents

<b>Urban and Social Role of School Buildings</b>	
<b>The Open-Air School Typology in the Milanese Experience: The Trotter and the Rinnovata Pizzigoni</b> . . . . .	5
Enrico Bordogna	
<b>The Topic of the School Building in the <i>Milanese</i> Professionalism</b> . . . . .	17
Michele Caja, Martina Landsberger and Angelo Lorenzi	
<b>Space and Figuration of the School Building in the Construction of the Metropolitan Periphery: The School as a Social Emancipation Workshop</b> . . . . .	29
Domenico Chizzoniti	
<b>Imagining the School of the Future</b> . . . . .	41
Massimo Ferrari, Claudia Tinazzi and Annalucia D’Erchia	
<b>Modernist Schools in the New Rural Landscape of the Pontine Plain</b> . . . . .	53
Francesca Bonfante, Nora Lombardini, Emanuela Margione and Luca Monica	
<b>Rural and Urban Schools: Northern Greece in the Interwar Period</b> . . .	63
Cristina Pallini, Aleksa Korolija and Silvia Boca	
<b>The Schools as Heritage and a Tool for Political and Cultural Integration. The Buildings of the <i>Plan de Edificación Escolar</i> in Buenos Aires</b> . . . . .	73
Maria Pompeiana Iarossi and Cecilia Santacroce	
<b>Origins and Development of the American Campus: The “Academical Village” of Thomas Jefferson</b> . . . . .	85
Mariacristina Loi	

<b>Bovisa: A Park for Work and Research</b> . . . . .	95
Domenico Chizzoniti, Luca Monica, Tomaso Monestiroli and Raffaella Neri	
<b>The City’s New Road. The Fundamental Role of Nature in Urban Transformation Processes</b> . . . . .	105
Adalberto Del Bo	
<b>The Quality of the Project and the MIUR Standards for the Control and Funding of Buildings for Education and Training</b> . . . . .	117
Giovanni Castaldo, Matteo Gambaro, Elena Mussinelli and Andrea Tartaglia	
<b>Education as Reconstruction. School Typology in Post-earthquake Reconstruction in Central Italy</b> . . . . .	127
Enrico Bordogna and Tommaso Brighenti	
<b>Design for Schools</b> . . . . .	139
Domenico Chizzoniti, Luca Monica, Tomaso Monestiroli, Raffaella Neri and Laura Anna Pezzetti	
<b>The Paths to Innovation: Tools, Models and Processes</b>	
<b>A BIM-Based Process from Building Design to Construction: A Case Study, the School of Melzo</b> . . . . .	163
Giuseppe Martino Di Giuda, Paolo Ettore Giana, Francesco Paleari, Marco Schievano, Elena Seghezzi and Valentina Villa	
<b>A Collaborative Approach for AEC Industry Digital Transformation: A Case Study, the School of Liscate</b> . . . . .	175
Giuseppe Martino Di Giuda, Paolo Ettore Giana, Marco Schievano and Francesco Paleari	
<b>Use of Predictive Analyses for BIM-Based Space Quality Optimization: A Case Study, Progetto Iscol@</b> . . . . .	185
Giuseppe Martino Di Giuda and Matteo Frate	
<b>Technical-Scientific Support for the Definition of the Project for the Reconstruction of School Buildings Involved in Seismic Events</b> . . . . .	193
Emilio Pizzi, Maurizio Acito, Claudio Del Pero, Elena Seghezzi, Valentina Villa and Enrico Sergio Mazzucchelli	
<b>“A Factory for the Future”: Inveruno New School</b> . . . . .	203
Tomaso Monestiroli, Francesco Menegatti, Maurizio Acito, Giuseppe Martino Di Giuda, Franco Guzzetti and Paolo Oliaro	
<b>Field of Education and “Corpus Socialis”</b> . . . . .	213
Riccardo Canella and Micaela Bordin	

**Space-Places and Third Teacher: The Issue of Architectural Space in the Age of Knowledge Cities and Schools 3.0** . . . . . 225  
 Laura Anna Pezzetti

**Management, Transformation and Enhancement of the Built Heritage**

**School Building Surveying: A Support Tool for School Building Registry Office** . . . . . 239  
 Angela S. Pavesi, Genny Cia, Cristiana Perego and Marzia Morena

**Extension for the Accademia di Brera at the Farini Marshalling Yard in Milan: The Architecture of the Campus and Spaces Frames for Teaching** . . . . . 249  
 Luca Monica, Luca Bergamaschi, Giovanni Luca Ferreri, Paola Galbiati and Massimiliano Nastri

**Camillo Boito’s “Capannone” for the Accademia di Brera in Milan: Reuse of a Railway Depot** . . . . . 261  
 Gabriella Guarisco, Maurizio Acito, Stefano Cusatelli and Mehrnaz Rajabi

**A University Campus for Medical Disciplines in View of the Redevelopment of the Guglielmo da Saliceto Hospital in Piacenza** . . . . . 271  
 Piero Poggioli

**Application of Externally Bonded Inorganic-Matrix Composites to Existing Masonry Structures** . . . . . 283  
 Angelo S. Calabrese, Tommaso D’Antino, Carlo Poggi, Pierluigi Colombi, Giulia Fava and Marco A. Pisani

**Strengthening of Different Types of Slabs with Composite-Reinforced Mortars (CRM)** . . . . . 293  
 Tommaso D’Antino, Angela S. Calabrese, Carlo Poggi, Pierluigi Colombi, Giulia Fava and Massimiliano Bocciarelli

**Energy Retrofit Potential Evaluation: The Regione Lombardia School Building Asset** . . . . . 305  
 Fulvio Re Cecconi, Lavinia Chiara Tagliabue, Nicola Moretti, Enrico De Angelis, Andrea Giovanni Mainini and Sebastiano Maltese

**Energy and Environmental Retrofit of Existing School Buildings: Potentials and Limits in the Large-Scale Planning** . . . . . 317  
 Giuliano Dall’O’ and Luca Sarto



# The Schools as Heritage and a Tool for Political and Cultural Integration. The Buildings of the *Plan de Edificación Escolar* in Buenos Aires



Maria Pompeiana Iarossi and Cecilia Santacroce

**Abstract** The school buildings represent an important testimony to the social and cultural policies adopted in geographically and historically determined contexts. Today, these complexes constitute a broad and diversified patrimony, largely worthy of protection and enhancement. In the framework of a wider research program with Universidad de Belgrano-Buenos Aires, this chapter presents the results of a research about the 43 schools built in Buenos Aires between 1885 and 1904 as an implementation of the *Plan de Edificación Escolar*, showing how the school architecture can constitute a tool for the social and cultural integration, and simultaneously a decisive element to outline the face of the great *Capital federal*.

**Keywords** Schoolhouses · Buenos aires · Architectural heritage · Immigration in Argentina

## 1 Introduction

Concerning the development of modern states and in the majority of geographical backgrounds, the architectural definition's choices for primary school buildings reveal features that a specific nation decides to give to itself. Often, not only the pedagogical principles are used like a model for distribution and functional layouts but also constructed buildings through their architectural language reveal a clear declaration about the cultural origin chosen to represent and define the national identity. Examples of these are the adoption of Lombard neo-Romanesque style by Camillo Boito for post-unitary Italian schoolhouses and, for the Germany between the two wars, the strict and, at the same time, domestic proto-rationalism type of school buildings by Heinrich Tessenow.

This iconic role of “future citizens’ knowledge factory” assigned to the schoolhouses gives them a huge documental and testimonial value, suggesting the necessity of safeguarding this extended heritage that are often threatened by more than from

---

M. P. Iarossi (✉) · C. Santacroce  
Architecture, Built Environment and Construction Engineering—ABC Department,  
Politecnico di Milano, Milan, Italy  
e-mail: [mariapompeiana.iarossi@polimi.it](mailto:mariapompeiana.iarossi@polimi.it)

© The Author(s) 2020  
S. Della Torre et al. (eds.), *Buildings for Education*, Research for Development,  
[https://doi.org/10.1007/978-3-030-33687-5\\_7](https://doi.org/10.1007/978-3-030-33687-5_7)

the passage of time, to the obligation to mitigate between the necessary sanitary updates and the lack of available public resources.

An area of characteristic interest is represented by the extended compendium of scholastic complexes built in Buenos Aires in a historical crucial moment for the young South America republic, corresponding to the beginning of the massive migrant wave in 1880 (AA.VV. 1906; Zuccarini 1909; Capocaccia et al. 2016; Carchaca, and others 2016), which will continue until the middle of the last century, and to the transformation of the city into *Capital federal*.

## 2 The Schoolhouses Design as a Tool for Political and Cultural Action

The Argentinean historiography designates a group of liberal, conservative and positivist cultural formation politicians and intellectuals like *Generación del Ochenta*, who, between the 1880 and the 1916, were in-charge of the young South American republic, making the destiny of it, choosing to incarnate the *imprinting* of the Nation on three axioms: national secularity, Europe-like cultural model and immigration, especially the European one, like a resource.<sup>1</sup>

A natural result of the last one was the *Ley de Educación Comun n. 1420* of 1884—which sanctioned the obligatoriness, universality and the gratuitousness by the State of primary education up to 14-years-old<sup>2</sup>—an essential tool to govern, first of all through linguistic unification, the process of integration of huge and multiethnic migrant flows, which poured out on the nation (and above all on Buenos Aires) until the middle of the twentieth century, except the interruptions during both the world conflicts (Fig. 1).

*1420 Ley*'s inspiration were Domingo Faustino Sarmiento's theories, who was the President of the Nation from 1868 to 1874, and whose theories, explained in *De la Educación popular*,<sup>3</sup> addressed the strategic role of primary education and the necessity to propagate it through an organic implementation framework, the training of teachers and the definition of high architectural and sanitary facilities *standards* for school buildings.

This organic vision was reflected in establishing, both the *Escuela Primarias*, destined to be a district's basic service, and the *Escuelas Normales*, imagined like laboratories where the direct observation of students' daily life was an essential part of the teachers' training course.

The immediate application of the law determined in the first two-year period 1884–1886 the construction of 56 new schools in the Nation, which design was

<sup>1</sup>Gerchunoff and Llach (1998) Italianos en la Arquitectura Argentina, 2004.

<sup>2</sup>Art. 2 of the *Ley* says "*La instrucción primaria, debe ser obligatoria, gratuita, gradual y dada conforme a los preceptos de higiene*" [primary school must be obligatory, free, gradual and in compliance with sanitary precepts] in: *Collección de Leyes y decretos*, Tomo 1, p. 282.

<sup>3</sup>Sarmiento (1849).



**Fig. 1** *Escuela Elemental de Niñas* during their construction, photo S. Boote, 1889

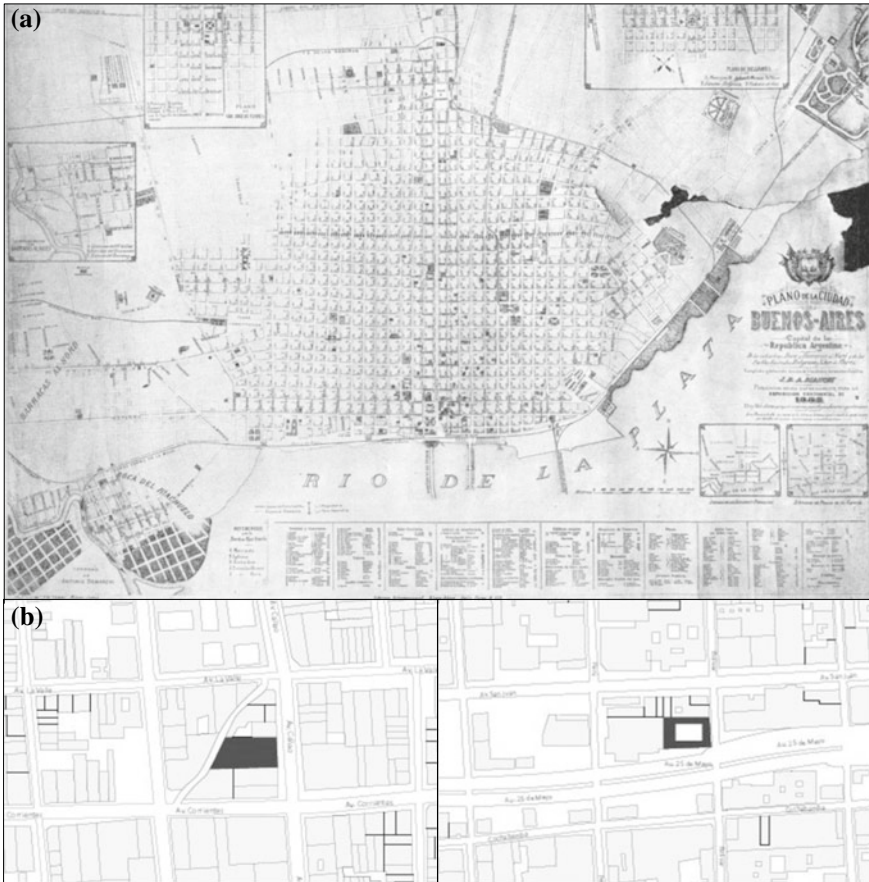
defined by Italian architects and engineers, delineating the *Escuela-Palacio* [school–palace] model, in which the layout was organized around courtyards and the façades were in *Neo-renacentista* style, like the *Escuela Normal Superior en Lenguas Vivas* “Mariano Acosta”, designed by Francesco Tamburini between 1883 and 1885.

### **3 Buenos Aires as an Experimental and Coding Lab of Schoolhouse Architecture**

In 1899, in view of a more organic realization of the law, the *Plan de Educación Escolar* was promulgated, with the goal of supervising the construction of school buildings on the whole national territory and drawing the guidelines for their design, testing them at first in Buenos Aires.

Meanwhile in the city—chosen in 1880 as Capital of the Federal State—processes of transformation were in place, changing its original structure of *Gran aldea* [big

village]—based on the extensive application of the checkerboard foundation principle, fixed in the sixteenth century by the *Leyes de Indias*<sup>4</sup>—in the current metropolis (Figs. 2 and 3).



**Fig. 2** Relationship between urban layout and schoolhouses: **a** City's plan by Bianchi, 1882; **b** Buildings' position in a block: along a street (left: *Escuela Normal Superior n°9* "Domingo Faustino Sarmiento", 1886) and in the corner (right: *Escuela Normal Superior n°7* "Bernardino Rivadavia", 1902)

<sup>4</sup>The *Leyes de Indias* is an imposing juridical *corpus* composed of the sum of all laws released by the Spanish Crown, between 1512 and 1680, to regulate the different aspects of political, economic and social life in the New World. In 1680–1681 they were revised and collected in the *Recopilación de Le Leyes de las Indias*, consisting of nine books, of which the fourth, title 111–130, includes procedures about settlement, fields' division and public works' fulfilment in new conquered areas. Through proportional rules within *cuadras*, *calles* y *solares* [blocks, streets and parcels], it was meant to guarantee the urban form's normalization, as a sign of Spanish supremacy all over the New World. See: España (2017).



**Fig. 3** Example of facades for schoolhouses along a street (left: *Escuelan*°3 “Juan Maria Gutiérrez”, 1901) or in the corner (right: Escuela “Presidente Mitre”, 1902)

In the *porteño* urban landscape, the implementation of the *Plan* set two questions: a typological one—concerning the necessity to define some layout solutions based on sanitary facilities requisites—and a semantic one, linked to the need to identify the school buildings through their architecture, viewed as the tangible and unequivocal presence of the State, also in the Buenos Aires monotony, generated by the infinitive repetition of the grid block.

To answer these requests, *CNE-Consejo Nacional de Educación* nominated the Italian engineer Carlos Morra as general supervisor, who between 1898 and 1904 designed, only in the *Capital*, 23 schoolhouses (D’Amia and Iarossi 2018). Morra defined three different solutions, based on school educational level, on students’ class and on building’s position in the block (Grementieri and Shmidt 2010):

Type A: for elementary school: with classrooms on ground floor and the principal’s accommodation on first floor.

Type B: for *Escuelas Normales*: with classrooms on two floors and residence on the other side of the parcel.

Type C: for school in the corner of the block.

However, the most important of Morra’s contributions was the definition of a specific language for the building’s façade, determining an elements’ abacus—like entrance portal or thermal window—that identified the building’s functional parts and a syntactic rule system, and which application had determined a façades’ composition that instantly allows to recognize schoolhouses among the other buildings (Fig. 4).

## 4 Survey and Analysis of Study Cases

Researches were carried out in CeDiap’s archive in Buenos Aires showing that between 1880 and 1910 in the *Capital*, 46 schoolhouses were built; these have been collected in a database that gathers and compares, for each schoolhouse, historical archive data with the observed ones on site and recorded in individual census’





During a survey and census campaign carried out in Buenos Aires,<sup>5</sup> 23 of the 46 schoolhouses were designed by Carlos Morra. They represent today an important architectural bequest, deserving of knowledge, safeguard and enhancement.

Finally, in the collection of schoolhouses by Carlos Morra, four case studies were selected, chosen to guarantee a variety in terms of location, size, dating and pedagogical destination.

In fact, two buildings were built before and two after 1899, when *PPE* started. In addition, the second and fourth example were designed to host primary schools, whereas the first and third were *Escuelas Normales*, institutions like cornerstones for the implementation of the Sarmiento's reform and of laical education, where primary school was included as an internship laboratory for future teachers.

The selected buildings are:

- (A) *Escuela Normal Superior n°9* “Domingo Faustino Sarmiento” (1886);
- (B) *Antigua Escuela Graduada de niñas* “Hipólito Vieytes” (1880–1885);
- (C) *Escuela Normal Superior n°7* “Bernardino Rivadavia” (1902);
- (D) *Escuela n°3* “Juan Maria Gutiérrez” (1901) (Fig. 6).

The analysis—based on surveys carried out in Buenos Aires, complemented with original archival materials, kept at the *CeDiap-Centro di Documentación and Información*—has been developed in order to identify four aspects, characterizing the architecture of each building:

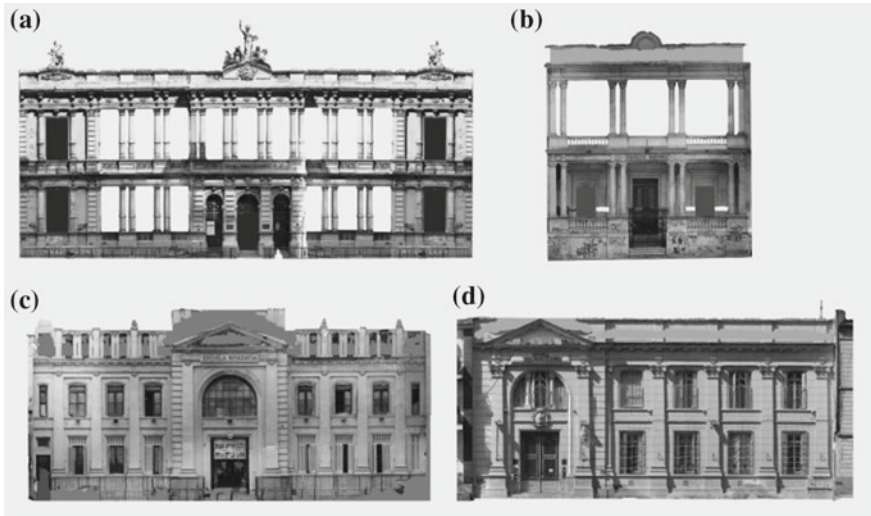
- Urban and architectural characters: position in the block, size and layout articulation on the ground floor;
- Ordering principles of the façade: structural organization, symmetry, modularity and overhang/retraction of its parts;
- Proportioning of the façade and geometric layouts;
- Constructive system (trilithic system and/or masonry wall) and components of the façade, summarized and compared in a specific abacus.

This analysis highlighted significant differences between schoolhouses built before and after the *Plan*.

The two examples referred to the first period—although they are very different in size and destination, being one a primary school and the other an *Escuela Normal*—show typological and linguistic adhesion to the model of the *Escuela-Palacio* [palace-schoolhouse]. Connections are assured by monumental staircases, corridors and open galleries, marked by often coupled columns. The facades are

---

<sup>5</sup>The results of this campaign—carried out in March 2017 during the International History and Representation's Workshop, in partnership with School AUIC of Politecnico di Milano and FAU of Universidad de Belgrano, under the scientific direction of M. P. Iarossi and G. D'Amia—were improved through researches and thesis expound on schoolhouses' topic. They are still object of detailed studies, since they have converged in an innovative educational project and in a research about Italian-Argentinian heritage in Buenos Aires (Iarossi et al. 2017), in partnership with Dept ABC of Politecnico di Milano (coordinator, M.P. Iarossi) and FAU-Universidad de Belgrano (coordinator L. Bonvecchi) supported with Erasmus+ Ka 107 funds.

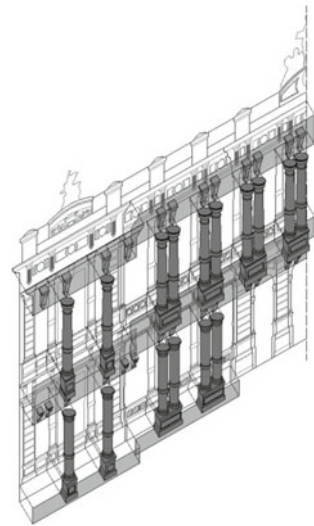


**Fig. 6** Case studies, façade orthomosaics (elab. by Agisoft Photoscan): **a** *Escuela Normal n°9* “Domingo Faustino Sarmiento”; **b** *Escuela de niñas* “Hipólito Vieytes”; **c** *Escuela Normal n°7* “Bernardino Rivadavia”; **d** *Escuela n°3* “Juan Maria Guitiérrez”

*Neo-renacentista* style, elevated on a stylobate and completed by an attic wall as a sculptural crowning.

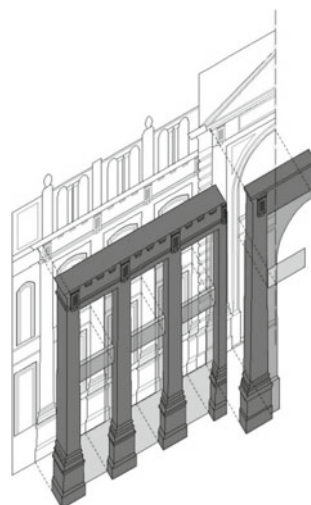
The composition of the front, especially in the case of the grandiose *Escuela n°9*, in complex and hierarchically organized, with altimetric overlap of the elements and planimetric articulation, by protrusions and indentions of the façade (Figs. 7 and 8).

**Fig. 7** *Escuela Normal Superior n°9* “Domingo Faustino Sarmiento”. The facades are *neo-renacentista* style, elevated on a stylobate and completed by an attic wall as a sculptural crowning





**Fig. 8** *Escuela Normal Superior n°7* “Bernardino Rivadavia”. The façade has tectonic wall. Columns replaced by pilaster strips in giant order, to mark the sequence of wall modules of the front



Instead, the two examples following the *PPE*—in addition to the foreseeable surrender to this model in favour of adherence to the typological schemes by Morra itself codified in implementation of the *Plan*, with a close division of administrative spaces, always facing the road, from those for teaching, articulated around one or more courtyards—show the development of a specific language for the scholastic architecture, paying specific attention to define the elements of the façade, which is entrusted with the task of representing, in relation to the city, the value of the educational institution and the presence of the State. In addition, they demonstrate a foreseeable surrender to this model in favor of an adherence to the typological schemes by Morra, codified in the implementation of the *Plan*, with a close separation of the administrative spaces, always facing the road, from those for teaching, articulated around one or more courtyards.

This objective is pursued accentuating more the aspects of the tectonic wall compared to the trilithic order. Thus columns, as an autonomous element of articulation of the front, disappear and they are replaced by pilaster strips or, at most, by semi-columns, in giant order, to mark the sequence of wall modules of the front. These are of only two kinds: the window-module and the portal-module.

The latter, whether placed at the centre of the façade, to identify a symmetry axis, whether at an extremity, to conclude it asymmetrically, always consists of pilasters in giant order, resting on a base and surmounted by a tympanum, with the name of the school inscribed, to frame, at the ground floor, the entrance door and, above, a thermal window, an element that, repropounded by Morra in his project of *Biblioteca Nacional*, will become a distinctive element of his architecture (Figs. 9 and 10).



**Fig. 9** Model of the *Escuela-Palacio*. Connections are assured by monumental staircases, corridors and open galleries



**Fig. 10** Architectural elements composing the Morra's façade: tympanum, thermal window, pilasters in giant order, cornice

## 5 Conclusions

The study carried out highlighted the documental and the architectural intrinsic value one of the schoolhouses' heritage built in Buenos Aires between the nineteenth and the twentieth century.

But, above all, the pragmatic value of Argentinean experience in building schoolhouses is shown, and also how they can be an efficient political and cultural action tool, especially helpful and necessary in contests where the occurrences of massive migrant phenomenon asks for the use of social and cultural integration's strategies, able to set up real development perspectives for the Nation.

## References

- AA.VV. (1906) *Gli Italiani nella Repubblica Argentina all'Esposizione di Milano 1906*. Stabilimento grafico della Compañía general de Fósforos, Buenos Aires. Censo general de población, edificación, comercio e industrias de la ciudad de Buenos Aires levantado en los días 11 y 18 de septiembre de 1904, 1906. Compañía sud-americana de billetes de banco, Buenos Aires
- Brandariz G (1998) *La arquitectura escolar de inspiración sarmentina*. FADU-UBA, Buenos Aires
- Capocaccia F, Pittarello L, Rosso Del Brenna G (eds) (2016) *Storie di emigrazione: architetti e costruttori italiani in America Latina*. Stefano Termanini Editore, Genova
- Carcacha G, and others (2016) *Conformación del sistema educativo argentino: capital social y formación de atributos productivos de la fuerza de trabajo (1880–1930)*. In: *Jornadas de economía crítica. IX Coloquio de SEPLA*. 25–27 agosto del 2016, UNC-Córdoba Argentina. [https://www.academia.edu/28206275/Conformación\\_del\\_sistema\\_educativo\\_argentino\\_capital\\_social\\_y\\_formación\\_de\\_atributos\\_productivos\\_de\\_la\\_fuerza\\_de\\_trabajo\\_1880-1930](https://www.academia.edu/28206275/Conformación_del_sistema_educativo_argentino_capital_social_y_formación_de_atributos_productivos_de_la_fuerza_de_trabajo_1880-1930)
- D'Amia G, Iarossi MP (2018) *Carlos Morra e il disegno degli edifici scolastici a Buenos Aires come strumento di azione politica e culturale*. In: Salerno R (ed) *Rappresentazione Materiale/Immateriale*. Gangemi, Roma, pp 615–622
- España (2017 [1681]) *Recopilación de leyes de los reinos de Indias: mandadas imprimir y publicar por la Magestad Católica Don Carlos II*. Tomo 4. Biblioteca Virtual Miguel de Cervantes, Alicante. <http://www.cervantesvirtual.com/obra/recopilacion-de-leyes-de-los-reinos-de-indias-mandadas-imprimir-y-publicar-por-la-magestad-catolica-don-carlos-ii-tomo-4>
- Gerchunoff P, Llach L (1998) *La generación del progreso (1880–1914). El ciclo de la ilusión y el desencanto. Un siglo de políticas económicas argentinas*. Ariel, Buenos Aires, pp 13–59
- Grementieri F, Shmidt C (2010) *Arquitectura, educación y patrimonio. Argentina 1600–1975*. Pamplatina, Buenos Aires
- Iarossi MP, Mele G, Rossini M (2017). *Architetture italiane a Buenos Aires. Censimento, descrizione, analisi e valorizzazione di un patrimonio a rischio*. In AA.VV. (ed) *Territori e frontiere della rappresentazione*. Gangemi, Roma, pp. 1325–1334
- Italianos en la Arquitectura Argentina (2004). Buenos Aires: Boletín CEDODAL
- Sarmiento DF (1849) *De la educación popular*. Imprenta de Julio Belín, Santiago de Chile
- Zuccarini E (1909) *Il lavoro degli Italiani nella Repubblica Argentina. Leggende studi e ricerche*. La Patria degli Italiani, Buenos Aires

**Open Access:** This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

