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### МАТИЦА СРПСКА Одељење за ликовне уметности

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# The Quality of Fitness in the Architecture of the 20th Century: An Oversighted Design Principle from the Beaux-Arts Tradition

ABSTRACT: Architectural design method from the tradition of the École Nationale Supérieure des Beaux-arts de Paris, considered one of the most prestigious educational institutions since its establishment in the 17 century, flourished until the Second World War across the countries aligned with the culture of the West. Though it marked the majority of buildings designed and constructed during the first four decades of the 20th century, pre-Second World War Beaux-Arts architecture remains under-researched within the international historiography. Exploring a lesser known design principle from the Beaux-Arts tradition – the quality of fitness in architecture – this paper aims to contribute to a better understanding of the topic. By the 20th century, Beaux-Arts architects – though, indeed, ever aware of the aesthetic potentials of architecture – approached design pragmatically. Beaux-Arts tradition insisted on functional designs, sensitive towards the local context and the use of the cutting-edge building technologies. Exploring an example from New Zealand architectural history, this paper will show that Beaux-Arts methodology was more practical than what has been generally proposed by the historians of architecture.

KEYWORDS: 20th-century architecture, Beaux-Arts design method, architectural functionality, form follows function, the quality of fitness in architecture, New Zealand architecture.

### INTRODUCTION

For millennia, architecture of the Western Civilisation mostly relied on lessons from the past. Learning from the achievements of their predecessors, architects developed their craft and expressed themselves – as well as the patrons, society, and the epoch – through architectural forms rooted in history. A considerable section of architecture created during the first four decades of the 20th century was not an exception. In his exemplar study of the architecture of the 19th and 20th centuries, Henry-Russell Hitchcock, distinguished American architectural

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historian, noted that 'traditional architecture includes the majority of buildings designed before 1930 in most countries of the Western World and a considerable, if rapidly decreasing, proportion of those erected in succeeding decades (Hitchcock1968: 392).' For Hitchcock, the phrase 'traditional architecture' marked a specific type of the 20th-century buildings designed before the Second World War with the employment of historic principles, forms and elements. Academia – tertiary education institutions, various schools and faculties of architecture spread across the world – acted as the main disseminator of the traditionalist principles throughout the Western countries. Among them, École Nationale Supérieure des Beaux-arts de Paris stands out as one of the most prestigious, extending its influence to the most distant corners of the Western World. Developed since the 17th century, design and teaching methodology of French École was the core of the early 20th-century architectural curricula from the United States of America to New Zealand.

And yet, supported by the official institutions, respected architects, patrons and the wider public of the period, this majority – which can easily be described as the period's mainstream – remains a widely under-researched topic in the histories of the 20th century architecture written in the countries of the West.1 Easily understood and engaging, traditionalist manner of architectural expression was abundant in communicative potentials.2 Hence, as a rule, it was chosen for important public structures and ambitious private projects. This paper aims to contribute to a better understanding of the complexity of design methodology behind the architecture created by the architects trained the Beaux-Arts tradition during the first four decades of the 20th century. The paper does not intend to challenge the general historiographic assertion that Beaux-Arts architects valued the artistic potentials of complex, symmetrical compositions. However, it will argue that Beaux-Arts training prepared its students to consider various aspects of design equally.

The paper is a fraction of a PhD thesis focused on the 20th-century traditionalist architecture (Mađanović 2020). Maintaining that it constitutes a significant proportion of the pre-Second World War architecture of the Western World, the research was carried out in New Zealand. In this regard, a remote Pacific island of strong connections with the United Kingdom, open to wider European, American and Australian cultural influx, New Zealand was identified as a suitable milieu for the study of the subject in manner.

Analysing an awarded essay published in a leading New Zealand architectural journal of the period, this paper will explore architectural fitness – a specific 'quality' of architecture instilled in the Beaux-Art tradition and deemed essential for the overall design quality. Outlining the scope of the problem, the paper opens with a concise consideration of the widely established interpretations of Beaux-Arts architecture, put forth by the historians of the 20th century architecture, who asserted that it was primarily concerned with artistic and compositional issues. Though increasingly questioned since the 1960s, this line of argument was consolidated by the generations of scholars echoing the criticism formulated by the early proponents of Modernism.

<sup>&</sup>lt;sup>1</sup> In fact, scholarly references on the topic are so scarce that only one monograph dedicated specifically to the traditionalist architecture of the 20th century has been written to date: Pigafetta, Abbondandolo, Trisciuoglio 2002.

<sup>&</sup>lt;sup>2</sup> Anthony Alofsin remarked that the analogy of architecture as language is one of the oldest tropes in the traditions of western European architecture: Alofsin 2006. The problem continues to attract scholarly attention. For example: Guillerme 1977: 21–26; Achleitner 1999: 94–106.

Offering context information, the second part concisely introduces the Beaux-Arts tradition in the history of New Zealand architecture in the 20th century. Finally, the third section explores the 'quality of fitness' in architecture. The paper will show that the architects trained in the tradition of the French École des Beaux-Arts carefully considered functional planning, recognized the importance of the physical and socio-cultural context, and contemplated the implications of the new building technologies for the development of a modern architecture.

### A FORGOTTEN MAJORITY: TRADITIONALIST ARCHITECTURE AND THE ÉCOLE DES BEAUX-ARTS IN THE 20TH CENTURY

Despite the more recent interests and a few isolated earlier efforts, pre-Second World War architecture in the Beaux-Arts tradition has mostly acquired a negative image in the histories about the 20th century architecture. Moreover, extent in the context of architectural historiography, the topic remains unexplored to such an extent that an international consensus about the appropriate term has not yet been reached. Impeding development of a single, understandable and recognisable definition of the subject matter, terms such as historicism, eclecticism, academism – to list a few - are amongst the most popular of choices. Discussing this type of architecture, Hitchcock employed the term historicism, which he described as a "clumsy", yet relatively accurate term matched by no other viable adjective (Hitchcock1968: 392-410). According to Hitchcock, historicism, 'quite simply... means the re-use of forms borrowed from the architectural styles of the past, usually in more or less new combinations (Hitchcock1968: 474).' Nikolaus Pevsner also used the term historicism – pejoratively – in the penultimate chapter of An Outline of European Architecture titled 'The Romantic Movement, Historicism, and the Beginning of the Modern Movement, 1760–1914' (Pevsner 2009: 188–217). In his extensive monograph on European architecture of the 20th century, Arnold Whittick intermittently employs the terms 'eclecticism' or 'tradition' (Whittick1974). Accepting Hitchcock's term 'New Tradition', Kenneth Frampton discussed 'a consciously "modernised" historicist style' in the context of ideology and its utilisation by the establishment (Frampton 2007: 210). In his Modern Architecture, Alan Colquhoun uses the term 'eclecticism' occasionally, and in a negative context – for instance, when referring to 'an academic tradition that had degenerated into eclecticism, imprisoned in a history that had come to an end and whose forms could only be endlessly recycled (Colquhoun 2002: 10).'

However, architectural historiography saw a few valuable efforts to redeem the Beaux--Arts tradition and explore its contributions to the development of the 20th century architecture. Writing in 1960s, Reyner Banham offered a new reading of the 20th-century Beaux-Art legacy – introducing a then revolutionary reading of the Modern Movement (Banham1960). Banham maintained that specific predisposing causes which had originated from the opposing, academic tradition, helped the development of Modern architecture. Accentuating the importance of three loosely grouped sets of ideas – all of them formulated during the 19th century – Banham particularly discussed the influence of two Beaux-Arts titles – Julien Gaudet's *Éléments* and Choisy's rationalist *Histoire* (Choisy1899; Gaudet 1910). Resulting from the exhibition "The architecture of the École des Beaux-Arts", held in New York's MOMA from October through January 1976, monograph of the same title was the first major attempt to rehabilitate the legacy

of Beaux-Arts in an English speaking environment (Drexler 1977). Published a few years later an important study by Donald Egbert and David Van Zanten, *The Beaux-Arts Tradition in French Architecture*, develops the exploration of the topic further (Egbert and Vananten c. 1980). In his seminal *Aesthetics of Architectural Academism*, Aleksandar Kadijević explained the multifaceted contributions academic institutions made to the development of Western architecture in the 19th and 20th centuries (Kadijević 2005). In his monograph, Kadijević dedicated due attention to the tradition of the Beaux-Arts. As mentioned earlier in the text, only one monograph dedicated specifically to the traditionalist architecture developed on the Beaux-Arts principles during the first four decades of the 20th century has been published to date – *Architettura tradizionalista: architetti, opere, teorie* by Giorgio Pigafetta, Ilaria Abbondandolo, and Marco Trisciuoglio (Pigafetta, Abbondandolo, Trisciuoglio 2002).

In contrast to the general neglect by historians of architecture, offering a centralised, wellestablished and systematic education from the middle of the seventeenth century, by the first decades of the 20th century Paris based École des Beaux-Arts became one the world's most famous schools of architecture. Beaux-Arts design methodology was taught at the universities across the globe (Crouch 2002; Kadijević 2005: 26, 40, 119-123, 133-137, 144, 209, 222-223, 358, 363-364, 422; Bassett 2011: 20; Cody, Steinhardt, Atkis 2011; Mađanović 2018b: 9-25; Ockman c. 2012). What made the Beaux-Arts method such a fitting model for the development of tertiary level architectural curricula elsewhere? Discussing Beaux-Art influences on the architectural profession in the United States, Joan Draper and Joan Ockman reached insightful conclusions, and ones that can be applied to various environments (Draper 1977: 209-238; Ockman c. 2012). The standardisation of education following the Beaux-Arts model offered solutions to two major problems. First, the establishment of systematic rules helped overcome the rampant pluralism of nineteenth-century architectural styles. The French school developed a precisely defined, universal, formula of historical architectural styles and a rational method for applying. This contributed to the emergence of a specific, standardised approach to architectural design, easily transposable in different environments and adjustable to a wide variety of requirements – from simple housing solutions to complex programmes for public structures. Furthermore, as Ockman explains, the Beaux-Arts system helped the development of specific professional attributes which helped with differentiating the architects from the other professionals of the construction industry (Ockman c. 2012). Officially supported by the governing bodies and publicly recognized, institutionalised education and the resulting design methodology developed in the tradition of the French Beaux-Arts, therefore, played an important role in the history of the 20th-century architecture.

### DESIGNING AND TEACHING 'UPON SOME RECOGNISED SYSTEM': BEAUX-ARTS TRADITION IN NEW ZEALAND ARCHITECTURE OF THE 20TH CENTURY

Michael Findlay notes that the Beaux-Arts classicism served as the basis for many of New Zealand's key buildings and public spaces until the Second World War (Findlay2011: 27). Focused on the development of functional planning solutions, actively responding to the urban environment, and clothed in the historical forms deeply rooted in the tradition of Western Civilisation, the Beaux-Arts design methodology was an ideal design system for New Zealand

during the first four decades of the century. The decades preceding the Second World War marked a golden period in New Zealand history. Business confidence and internal investment bloomed as the country entered an era of prosperity in the mid-1890s (Brooking 2000: 230–254). The country's economy was growing; the socio-cultural matrix was transforming as the old towns were developing into cities and the population shifted from an immigrant-based to a native born one; and the transition of New Zealand from a colony to a dominion in 1907 influenced the political climate and growing self-confidence (King 2003).

Under the circumstances, construction industry thrived. The bustling community was primarily interested in efficient, functional solutions, expressive of the modern society, and built to last. To respond to said requirements in terms of structure and planning, the architects employed cutting edge technologies of the period, contemplated modern needs and the changing way of life (Mađanović 2018a: 326–337). When designing architecture expressive of the dominant sociocultural values and suitable for the generations to come, they reached into the formal repertoire of historic architecture of the West. Beaux-Arts design formula suited their needs perfectly – as Mark Crinson notes, discussing architectural and urban interventions in London during the first decades of the 20th century, Beaux Arts planning 'married' classical form with 'modern construction and the best of modern conveniences (Crinson c. 2003: 9).'

Donald Basset notes that a first step towards a systematic introduction of Beaux-Arts method in New Zealand was the establishment of students' associations in the country's main centres (Bassett 2011: 20). Wellington got its first Architectural Students Club as early as 1910, and Auckland followed, with the founding of Architectural Students' Association in June 1914. By November of the same year the Auckland Association developed a type of atelier system, with famous New Zealand architects as changing patrons (Bassett 2011: 20). Determined to raise the profession to a higher level, architects campaigned for the establishment of an official architectural school in New Zealand. In Christchurch, a three-year Diploma Course in Architecture was offered by Canterbury College from 1914, run in conjunction with the Schools of Art and Engineering. However, aspiring towards greater recognition, the profession was not fully satisfied. Active debating, the relentless efforts of the New Zealand Institute of Architects and individual practitioners continued, ultimately bearing fruit. The first New Zealand School of Architecture was officially established at Auckland University College in 1917 (Gatley, Treep 2017). The Auckland School of Architecture appointed its first Chair and Dean in 1925, Professor Cyril Knight, educated in the Beaux-Arts tradition at the University of Liverpool. Building on the Beaux-Arts teaching methodology and design principles, Knight introduced the first fulltime fiveyear Bachelor of Architecture in 1926, producing graduates from 1931 (Treep 2017: 14-39).

Prior to the establishment of local schools of architecture, publications, education abroad, overseas experiences, and migration marked the four main sources of Beaux-Arts influences and the general British appreciation of the classical ideal in architecture in New Zealand. New Zealand architects who were educated abroad most often studied in the United Kingdom or the United States of America, where they had the opportunity to develop their skills under the heavy influence of the Beaux-Arts design methodology (Mcewan 1999: 1–16; 2018: 25–36). Writing in 1915, Eric Gooder, a student of architecture from New Zealand, stressed the importance of studying abroad, because, at the time, in none of the major domestic cities was 'there anything

approaching the various institutions in Europe and America where architecture is taught upon some recognised system (Gooder 1915: 271).' Lacking systematised architectural education, the United States and the United Kingdom adopted and adapted the Beaux-Arts model for the development of their tertiary level instruction during the course of the nineteenth century (Noffsinger 1955; Draper 1977; Crouch 2002; Ockman c. 2012).

In addition to the education and overseas experiences, Beaux-Arts influences reached New Zealand through print media. In the case of New Zealand, texts about architecture played an even more significant role, as the physical remoteness of the country impeded frequent travels. New Zealand architects were most often operating under the influence of the Anglicised version of Beaux-Arts texts, typified by a number of titles described by Colin Rowe as 'an American and British attempt to provide an English equivalent to the Beaux-Arts theorist Julien Gaudet's *Elements* (Rowe 1994: 72).' By the mid-1920s these texts became established architectural treatises, quoted and read as texts in schools of architecture throughout the world, including New Zealand (Mađanović 2018b: 9–25). First published in 1907, *Essentials of Architecture* by John Belcher was amongst the most influential of said handbooks (Belcher 1907) (Fig. 1). A student of the École, Belcher was a well-established English architect, and the president of the Royal Institute of British Architects.

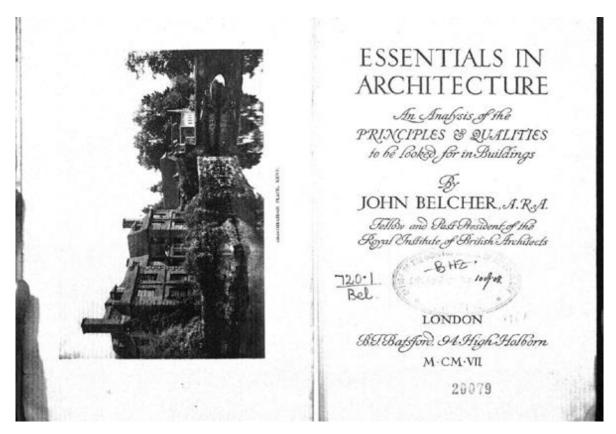


Fig. 1. Cover Page of the Essentials of Architecture by John Belcher (London: B.T. Batsford, 1907)

### 'THE RIGHT THING IN THE RIGHT PLACE': THE QUALITY OF FITNESS IN ARCHITECTURE AND THE BEAUX-ARTS TRADITION

It was Belcher's *Essentials* that J. F. Ward, a young New Zealand student of architecture, looked up to when he wrote his award winning assay titled 'The Quality of Fitness in Architecture' (Ward1917: 891–895).3 Commentary by Basil Hooper, a well-known New Zealand architect, shows that, though written by a member of a younger generation of the country's architects, the essay – and the ideas it advocated – were commended by the representatives of the older (Hooper 1917: 903–904).

Ward asserted that, though architecture can be appreciated from various standpoints – such as beauty, usefulness, strength, and repose – 'in order to pass the test or standard,' it must possess the quality of fitness (Ward1917: 891). Ward continues to explain that to satisfy this requirement it is not sufficient for a building to be beautiful in form and design, and structurally sound:

The design and construction of the work must also be in keeping with the purposes to which the building is to be placed; the decorative details must also be appropriate to the materials used; and the complete building be in harmony with its natural surroundings and local tradition. Briefly, to fulfil the quality of fitness a work of Architecture should be true to its purpose, materials of construction and locality (Ward1917: 891).

Similarly to their Modernist counterparts, the concept of architectural honesty, the imperative of functionality, and the sense of an architect's responsibility to the society permeated the arguments of the New Zealand architects trained in the Beaux-Arts tradition. Essential for the British understanding of architecture, the notion of honesty, or 'truthfulness', was rooted in Pugin's *Contrasts* (first published in 1836) and *True Principles of Pointed or Christian Architecture* (1841), where he emphasised building function and the rationality of structure.



Fig. 2. Cover Page: 'Progress with which is Incorporated the Scientific New Zealander' (*Progress* 1, No. 1 (1 November 1 1905): 5)

<sup>&</sup>lt;sup>3</sup> This essay won the first prize at the Fiftieth Prize Competition organized by the *Progress*. The *Progress* was New Zealand's first architectural periodical (Fig. 2). Published in Wellington, the country's capital, from 1905 to 1924 and heavily illustrated with photographs, drawings and plans, it was an essential resource that kept the profession up to date with the international discussions on architecture, and, perhaps more importantly, facilitated the expression of local professional voices. For more about the *Progress* see: https://paperspast.natlib.govt.nz/periodicals/progress/1923 (Accessed 7 March 2019).

As Robert Macleod notes, Pugin's first fundamental rule was that there should be no features of a building which were not necessary for convenience, construction, and propriety (Macleod1971: 9). Furthermore, according to Pugin, the planning was to become the basis for massing and general form, with visible external articulation mirroring the disposition of the internal spaces, and 'all ornament should consist of enrichment of the essential construction of the building propriety (Macleod1971: 11). But the main theme of *True Principles* was construction – Pugin systematically analysed Gothic architecture to demonstrate the constructional necessities that gave rise to its characteristic forms. Mordaunt Crook summed Pugin's architectural theory in the Keatsian syllogism: Beauty is truth, truth beauty (Crook1987: 70). Amongst the first architectural theorists who made a distinction between structural principle and decorative form, Pierre-François-Henri Labrouste was the advocate for a similar position. Labrouste demanded that forms of decoration be rationally induced from materials and methods of construction as well as from the specification of programme (Drexler 1977: 129, 332). Drawing from these ideas, Ward stressed that, according to the quality of fitness, subordination of utility to appearance would be inexcusable in commercial or residential structures:

When it is considered that the home is the life-long shelter of the family, the pranks of design committed by architects of the eighteenth century cannot be tolerated. With them, convenience and homeliness gave way to effect and symmetry; bedrooms went windowless so as to fit in with the grand fenestration schemes of the front, and to obtain symmetry of masses, kitchens were separated by the length of the house from the dining rooms. In endeavouring to impart a monumental character to homes, they failed to bear in mind the whole fitness of purpose in domestic Architecture (Ward1917: 891).

The above paragraph from the essay eloquently communicates the importance placed on functional designing by the 20th-century traditionalist architects, and their dissatisfaction with the previous practices of sacrificing a building's utility at the expense of the compositional effects and symmetry.

Pugin's ideas and the line of French rationalist thinking clearly influenced pre-Second World War traditionalist understanding of the relations between function, construction and form. However, these students of the Beaux-Arts did not forego the importance of the visual in architecture. The quality of fitness dictated that 'dealing... with the functions of a building, it is not only necessary that the structure be actually suitable; it must also have the appearance of being so (Ward1917: 892).' Here they approached Ruskin's idea. Ruskin, indeed, admitted that 'the essential thing in a building, its First virtue – is that it be strongly built and fit for its uses.' But, 'the noblest thing in a building, and its Highest virtue, is that it be nobly sculpted or painted (Ruskin 1904: 89).' And similarly, Ward noted that 'bearing in mind the function of a monumental building where beauty and grandeur are the prime considerations, our sense of fitness is not disturbed when we observe practical convenience sacrificed to appearance (Ward1917: 893).' Similarly, according to Ward, 'the quality of fitness is not transgressed when plaster or stucco is used to cover materials, structurally strong enough, but inferior in appearance (Ward1917: 893).'

In this case, the widely established understanding of the Beaux-Arts tradition about the importance placed on the visual in architecture truly holds. However, motives behind the

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Fig. 3. 'Dirleton', the residence of J.A. Pike: northeast elevation and pergola. Designs by Hoggard & Prouse. Photograph, 1911 (*Progress*, No. 7 (1 May 1911): 662)

subordination of functional planning to compositional effects on one hand, and concealing structural materials with those deemed aesthetically pleasing, on the other, were, in their essence, functional. When a building's primary function was to be imposing or beautiful, the issues of the aesthetics and compositional values become essential (Fig. 3). In contrast, when the purpose of a structure was to accommodate practical needs, accent was placed on planning. Priorities were clearly defined in design methodology of the 20th century architects trained in the Beaux-Arts tradition – to satisfy the sense of fitness, form follows function.

Ward continued to explain that, after functionality, the second important requirement in judging architecture from the standpoint of fitness is the question of the site. 'How perfectly, for instance, does the rambling country house nestle into the expanse of surrounding country! In the town, where every inch counts, its rambling restful appearance is not suitable to the busy confined space (Ward1917: 893).' In other words, architectural form needs to relate to the physical context – a rural landscape or a densely populated urban environment (Fig. 4). In his



Fig. 4. 'Urbis Porta', the Dilworth Trust Building. Original designs by Gummer & Ford. Drawing, 1925. (Gummer & Ford Collection, GF33, Architecture Archive, Libraries and Learning Services, University of Auckland)

essay, Ward also identified climate as a factor 'in deciding the quality of fitness (Ward1917: 894).' The origins of this idea date back to the 18th-century theories by Quatremère de Quincy. For Quatremère, architectural form was a result of the particular conditions from which it originated (Lavin 1990; De Quincy, Younes 1999). He distinguished between two types of architectural expression, which he named architectural character – *caractère essential* and *caractère relative*. While the former denotes universal and ideal types, the latter was a relative architectural expression. *Caractère relative* was dependent on different conditions, such as climate, terrain, or governance.

The concept of *caractčre relative* became an integral part of design methodology of the 20th century architects trained in the Beaux-Arts tradition. Approaching architecture from a standpoint which could, in today's terms, be described as 'sustainable', traditionalist architects considered climate factors when deciding a building's orientation, planning, shape and size of apertures, and, lastly, appropriate architectural forms. By the 20th century, Beaux-Art architects across the world maintained that consideration of climate is essential for development of regional and local architectural identities – as opposed to the formal uniformity of Modernist internationalism (Pigafetta, Abbondandolo, Trisciuoglio 2002: 29).

In the third place, Ward discussed materiality: 'among the considerations of fitness that influence the use of building materials are the texture, grain, natural strength and origin of the particular material and the tools used to fashion it (Ward1917: 893).' Discussing the selection of most suitable materials – and returning to the issues of the visual in architecture – Ward reminded that a building needed not only to *be* structurally sound, but it must also project an image of strength. What did this mean for traditionalist design? For instance, a wooden bank building, with a properly constructed strong-room, is a safe place, however, a bank with brick or stone exterior would *appear* to offer more security. As mentioned earlier in the text, for Beaux-Arts architects, architecture was a means of communication – a tangible expression of specific meanings. To achieve the quality of fitness, materials needed to be carefully selected to facilitate the communication, catering for yet another function of architecture. Beaux-Arts design process was complex, with every step carefully considered as all of the various decisions architect had to make were related, and, ideally, complimented each other. To use the exact phrasing by Ward: 'the quality of fitness in Architecture may be best described as "being the right thing in the right place" (Ward1917: 891).'

Aligned with the demands for architectural honesty, according to Ward, one of the most common violations against the quality of fitness was one material imitating the characteristic properties of another. Whenever stucco is employed was imitation of stone, one material is 'making a poor pretence at being another, sacrificing architectural truth to the artifice (Ward1917: 892).' This idea was widely spread amongst the traditionally inclined architects of the period. Writing on the other side of the Pacific, in the United States, Talbot Hamlin reached the same conclusion (Hamlin 1916). Hamlin severely criticized the imitation of stone in terracotta, a practice which he described as 'an insidious artistic insincerity (Hamlin 1916: 195).' For the 20th century Beaux-Arts architects concealing was not harmful, but imitating was. Ward also condemned period practice of placing the facades of brick and stone, above areas of plate glass – defying the physical laws of nature, another form of deception takes place, for 'no glass could be made which would bear this weight, but even the fact that the concealed

steel columns do the work, does not remove the sense of unfitness (Ward1917: 893).' According to the principle of architectural fitness, it was not enough for a building to simply *be* something – a structure made with the employment of the appropriate materials, designed functionally, and sensitive to the unique conditions of the local context. For Beaux-Arts architects, architecture was imbued with meanings, values and the notion of 'truth'. Hence, a building needed to look in a certain way – its appearance should clearly communicate its purpose.

Ward's commentary corresponds with the broader period interests in building technologies (Mađanović 2018a: 326–337). The Arts & Crafts circle and the popularity of the ideas by William Lethaby contributed to the popularity of the topic of materiality in the circles of the British architects active prior to the Second World War. Lethaby made a distinction between the 'soft' architecture that turns to 'imitation, style "effects", paper designs and exhibition,' and 'hard' architecture, founded on 'building, on materials and ways of workmanship, and proceeds by experiment (Lethaby1935: 69).' Lethaby searched for a method which would remove architecture from the domain of fashion, insisting that building science should inform the forms of modern architecture. In 1896 he proposed that design should hinge entirely around the proper use of materials, with a radical reduction of architectural embellishment: 'imagery of any kind, be it ancient or modern, must be avoided and eliminated, until a new coalescence of society imposed it unconsciously from within (Macleod1971: 58).' Ward's conclusion resonated with the previous idea:

In the development of a truer sense of fitness in modern Architecture there awaits a great problem. Until our architects are given a more thorough training in the right use of materials, and a little less time on the "orders" one may not look for much improvement. All the great advances made in machinery, cheapness of transport and production of new materials cannot be ignored. To keep in touch with them, Architects must adapt themselves to new conditions, and, the general fitness of modern work. For a sense of fitness in Architecture can only be developed on a basis of a real knowledge of modern materials and methods, their uses and deficiencies (Ward1917: 895).

#### **CONCLUSION**

Operating at the elite core of Western architecture for centuries, design methodology rooted in the Beaux-Arts tradition thrived across the world until the Second World War. However, its contributions to the development of the 20th-century architecture remain under-researched in the context of international architectural historiographies. Thorough exploration of the subject has been continuously impeded by mostly negative interpretations consolidated by the generations of architectural historians. This paper has shown that, though the French school traditionally insisted on explorations into architectural composition and aesthetic devices such as ornament, Beaux-Arts students were also trained to develop practical designs, responsive to a building's function and sensitive towards the physical and socio-cultural context.

The overlooked components of Beaux-Arts design formula – such as the quality of architectural fitness, explored in this paper – stemmed from a pragmatic approach to architecture. Relative factors of geographic, socio-cultural and historical conditions – climate, geology, available building technologies, and living habits – were all deemed essential for the development of planning solution and architectural form of any given structure. Though some of the

ideas the French School advocated were indeed too conservative for the rapidly changing circumstances of the 20th century, not all of them were retrograde. On the contrary, echoes of the essential Beaux-Arts method – the careful consideration of architectural function, context, and materiality – can be observed within the context of contemporary design practices. Embodied in abundance of professional experience refined through centuries of active practice, the rich legacy of Beaux-Art tradition resulted in multifaceted, yet internationally under-appreciated, contributions to the history of the 20th-century architecture. To develop a comprehensive understanding of the 20th-century history, as well as the origins of the contemporary design practices, these contributions need to be explored more thoroughly and re-evaluated within the international architectural historiography.

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### Милица Б. Мађановић

### ОДЛИКА ПРИКЛАДНОСТИ У АРХИТЕКТУРИ XX ВЕКА: ЗАНЕМАРЕНИ ДИЗАЈН ПРИНЦИП ИЗ ТРАДИЦИЈЕ АКАДЕМИЈЕ ЛЕПИХ УМЕТНОСТИ У ПАРИЗУ

#### Резиме

Основана у XVII столећу, Академија лепих уметности у Паризу је вековима сматрана једном од најпрестижнијих образовних институција у свету. У XX веку, утицаји француске школе били су распрострањени широм света. Од Сједињених Америчких Држава до Новог Зеланда, архитектура средина које су припадале културном појасу Запада испољавала је утицаје идеја париске Академије. Хенри Расел-Хичкок, познати амерички историчар архитектуре, окарактерисао је ову струју, називајући је традиционалистичком архитектуром XX века, као убедљиву већину продукције током прве три деценије XX века.

Упркос несумњивом утицају који је француска школа имала на архитектуру прве половине XX века, ова тема није довољно истражена у контексту интернационалне архитектонске историографије. Анонимности традиционалистичке, према Расел-Хичкоку – или академистичке, према Александру Кадијевићу – архитектуре допринеле су генерације историчара. Пишући под утицајем оштрих критика раних модерниста, историчари архитектуре XX века су академистичку архитектуру махом одбацили као ретроградну и конзервативну, примарно фокусирану на питања композиције и уметничког потенцијала архитектуре.

Овај рад је писан са циљем да се сагледа академистичка архитектура XX века из другог угла. У фокусу рада нашао се есеј којим је Џ. Ф. Ворд, млади новозеландски академистички архитекта, аплицирао 1917. године на конкурс магазина *Прогрес*, тада најцењенијег стручног гласила у земљи. Оцењивачко тело састављено од неколико угледних припадника старије генерације доделило је Ворду прву награду за есеј, потврђујући општеприхваћеност идеја које је заступао. Ворд је писао о карактеристици "прикладности" архитектуре. Истражујући концепт "прикладности", у складу са Вордовом интерпретацијом, у овом раду је показано да су се архитекти формирани под утицајем париске академије подједнако или, када би програм грађевине то налагао – увелико – бавили питањем функције, контекста и материјала, колико и композицијом и уметничким потенцијалима архитектуре.

Кључне речи: архитектура XX века, бозар начин пројектовања, архитектонска функционалност, форма прати функцију, квалитет подесности у архитектури, новозеландска архитектура.

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