Reformation of the American Architectural Institution under the Ethos of Mass Production: The Institutional Project of "The Architect and the Industrial Arts" Exhibition (1929)

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Abstract
This dissertation looks into the institutional transition of American architecture implied in the 1929 exhibition "The Architect and the Industrial Arts" held by the Metropolitan Museum of New York. The establishment of an architectural institution by the Beaux-Arts movement in the late nineteenth century was one of academic professionalism, positioning the architect as master artist in the realm of high art. However, in the changed society of the early twentieth century marked by scientific management, ethos of mass production, and the emergence of industrial design, a different institutional model was on display in the Metropolitan show, which featured interior spaces fully furnished in the prevailing Exposition Style. Engaged in the design of everyday interior environments of urban life, in a fashionable style of the market and defining themselves in a pragmatic approach, architects brought forth to the public a new professionalism serving a broader culture market as arbiter of public demand, in the process revealing the possibilities and limits of such institutional reformation.

Keywords: Institution of architecture; The Architect and the Industrial Arts; Exposition Style; mass production; industrial design

1. Introduction
In 1929, a group of leading American architects participated in a design exhibition at the Metropolitan Museum of New York. Titled "The Architect and Industrial Arts", it presented to the general public fully furnished interior spaces designed in accordance with the fashion of the era — the so-called Exposition Style, which emphasized verticality, angularity, zigzags, and rhythmic patterns through the use of both luxury and new materials. It was in this "active promotion of a new, modern style" that numerous studies in the field of industrial design placed the show's historical importance (Miller, 1990, 24-25).

In architecture, however, the aesthetics of this style was not received favorably — contemporary proponents of the "International Style" called it "half-modern" (Johnson, 1932, 19), referring to its transitory position between neoclassicism and the full tide of Modern Architecture that followed. As one of the first experiments in modern Gesamtkunstwerk design and the last ornamental enterprises, it shared the features of European Art Nouveau, but with a belated emergence by three decades. The appearance of this American trend in modern architectural historiography is usually limited in its application to the skyscraper, and the argument of its practitioners, reflecting its fundamentally commercial nature, is often reduced to a simplistic philosophy of cost versus profit (Tafuri and Dal Co, 1979, 227-228).

However, this exhibition and its promoted style open up a richer field of discourse when viewed not in terms of aesthetic style but from an institutional point-of-view, in the context of the reformation of the architectural institution in modern America. The process of modernization entailed the institutionalization of various social roles, norms, and values; architecture also underwent this process to obtain disciplinary standards and professional status that were socially accepted and agreed upon. While the architectural institutions of European countries were consolidated under governmental intervention since the Renaissance — for instance, by L'Administration des bâtiments royaux in France and The Royal Office of Works in England (Kostof, 1977, 124-208) — the task was almost entirely left to architects themselves in the United States. Because of this self-declared — rather than state-approved — status as cultural elites in the building market (Woods, 1999), institutionalization of the architectural profession and discipline involved active engagement in public discourse — the enlightenment of the potential client, i.e. the public at large.

The purpose of this paper is to trace, through the visual and textual evidence of a public sphere event, the reformation of modern architecture in America as a
social institution, and examine how it responded to and reflected the changing conditions of American society. Although the study will include an examination of the Exposition Style, it will do so from an institutional rather than aesthetic viewpoint. By disclosing the social context of such style, already a cultural fad in the marketplace, it will reveal how a formal coherence functioned in relation to the establishment of a certain institutional position of architecture.

2. Establishment and Reformation of a Modern Architectural Institution in America

Throughout the nineteenth century, architecture in America was a disorganized but growing field. In the absence of design standards and licensing laws, anyone could practice their craft in architectural design and construction. However, during the late nineteenth century when other fields such as medicine and law were undergoing institutional professionalization, two groups of architects, based in cities with the nation's largest building markets, distinguished themselves from the mass builders by formulating a coherent discipline and professionalism.

The first of these groups were progressive practitioners of Chicago responsible for the so-called "commercial style" of office buildings. Led by Henry Hobson Richardson, William Le Baron Jenney and six younger men — Dankmar Adler, Daniel Burnham, John Wellborn Root, William Holabird, Martin Roche, and Louis Sullivan — working in the city's post-Great Fire reconstruction boom, the so-called Chicago School developed an architecture responsive to economic and practical exigencies while addressing the ethical, aesthetic, and symbolic needs of an urban industrial society, a position in which historians of the later period were able to locate the American origins of modern functionalism that will dominate the postwar era.

However, these efforts of the Chicago architects to institutionalize architecture were confronted with inherent dilemmas. With artistic ideals architecture was difficult to teach and test, let alone license, and since architects in most cases served the commercial needs of a private client, claims to social relevance and detachment from the interests of business were weak. Also, because there were commercial builders in the building market, architects could not claim exclusivity of their service (Dostoglú, 1982).

On the other hand, an architectural movement founded on different disciplinary grounds was formed by architects who were either trained in or influenced by the French École des Beaux-Arts. Alarmed by the lack of regulation in the building industry and architectural profession of America, these architects — mostly based in New York — strove to construct a prestigious institutional setting for architectural practice by importing the Parisian school's established system of design methodology and artistic discipline. At the core of the Beaux-Arts system was the clear formal discipline of neoclassicism, in which vocabulary and grammar of architecture had already been historically perfected and it was the task of contemporary architects to compose them in a correct and systematic way to meet modern programmatic and functional needs. Such composition required an artistic inspiration and a thorough knowledge of historical ornaments and details as well as modern requirements, which could only be gained through strict and professional education, and it was on this basis that the Beaux-Arts movement established itself as an academic institution in the realm of high art. Their capacity for social contribution was on public display in "The White City" of the World's Columbian Exposition of Chicago in 1893, where the visual order and regularity of the neoclassical style formed a striking contrast to contemporary laissez-faire urban developments. Appealing to the cultural taste of the East Coast's elite class, as well as the need of the Republican government to enhance its authority through monumental architecture, the Beaux-Arts system assumed hegemony as the modern architectural institution in America (Bentel, 1993, 33-50).

In the Beaux-Arts movement's fulfillment of its ultimate goal to enhance the social status of architects (Kostof, 1977, 214), it is important to note that its strict and correct neoclassical style was not only a choice of taste but also served an institutional purpose as a visual medium through which the professionalism, academism, and social contribution of architecture could be transmitted to the public. It was this presence of a strong visual proof of professional capacity that the Beaux-Arts system possessed over the progressive architects of Chicago. This, along with a systematic education curriculum — also formed after the École des Beaux-Arts — and alliances to the realm of high art were instrumental in founding the modern institutional form of American architecture as a professional and academic discipline, and brought about an era known as the American Renaissance.

However, the social milieu that supported the artistic ideals of the Beaux-Arts system was fundamentally shaken in the early decades of the twentieth century, which saw a great change in the aims and structure of American society. Since the 1910s, industrialization, mechanization and restraints under the condition of World War I — which imposed a moratorium on building constructions unrelated to the war effort — led to the rise of a more technical, pragmatic approach to all areas of social activity. The introduction of scientific management and new machinery into the industry culminated in the ethos of mass production. More than a practical approach to the production of goods, mass-production liberated the masses from the struggle for mere existence and enabled them, for
the first time in human history, to give their attention to more distinctly human problems (Hounshell, 1984). In socio-commercial logic, it understood that increased production demands increased buying, and that the greatest total profits can be obtained only if the masses can and do enjoy a higher and ever higher standard of living. In the milieu of the postwar era, this pragmatic approach gained increasing weight in the cult of engineering, which reached beyond the realm of science and technology, as engineers were accepted as professionals with specific knowledge who were committed to the fair distribution of the goods and wealth produced by industry. Not owning the means of production themselves and therefore unconcerned with business interests, they emerged as suitable mediators of social conflict (Gouldner, 1979).

In the years following the First World War, increased production volume generated by engineering and scientific management exceeded the capacity of the market, resulting in overproduction that became one of the main causes of economic depression. The professionals that supposedly saved the nation from this economic stagnation were from advertising and industrial design, which increased sales by inspiring sales through promotion and new design. The concept of engineering, previously focused in the area of production, expanded to the realms of marketing and industrial design, all agents of reason and pragmatism in the fluent operation of the commercial market in capitalist society.

Under these new social circumstances, Beaux-Arts-inspired architects, with their aspirations of high art and dependence on patronage of the small class of elites, had trouble obtaining works while mass builders, empowered by the social agenda of maximizing efficiency as well as developments in construction technology and engineering, claimed an increasing volume of the building market. In an industrial world increasingly dominated by machine technology, business enterprise, and capitalist endeavor, architects, apart from an aesthetic quest of creating a new style suitable to the new age, were increasingly feeling the need for reformation of the institutional cast in which they practiced. In 1929, the editorial of The Architectural Record correctly summed up the problems in the practice of architecture as "how to adjust design to the conditions created by mass production" and "how to adjust the general practice of architecture to the conditions created by modern techniques in the useful arts, including commerce and industry" (Mikkelsen, 1929, 65). It was under these social and architectural circumstances that the 1929 Metropolitan show "The Architect and the Industrial Arts" was conceived.

3. Institutional Reform Projected in "The Architect and the Industrial Arts" (1929)

With the lack of educational institutions to promote the alliance between art and industry, it was museums that played a crucial role in supporting the increasingly growing field of industrial design in America. An institution reserved solely for high art at its inception, the Metropolitan Museum of New York became an active member in this movement and initiated its annual exhibition of industrial design in 1917. Its purpose was to engage directly in the realm of actual production, as a barometer of trends in current design, and the early restriction that all displayed works have inspirational origins in the Museum collections was soon dropped in favor of a new requirement that they be American in design and reflect the conditions of mass production.

As the need for a more focused exhibition arose, the Museum decided to limit the industrial design shows to one area, and the first show to materialize from this effort was "The Architect and the Industrial Arts" of 1929. The Museum had already engaged architects in the design of a few department store exhibitions — for instance Macy's "Exposition of Art and Trade" in 1927 and 1928, prepared in collaboration with the Museum — but this was the first time they occupied the center stage of an industrial design show held in the context of a popular art institution, under a title underlining the importance of their profession.

Richard Franz Bach — curator and instructor at the School of Architecture, Columbia University, and the director of the Metropolitan's newly formed Department of Industrial Relations — and ceramic designer Leon V. Solon enlisted nine designers to take up the task and act as the Cooperating Committee on the show. With the exception of Solon and landscape designer Armistead Fitzhugh, the Committee consisted of the most renowned architects of its time, mainly the creators of the New York skyscrapers: from New York, Raymond M. Hood, Ely Jacques Kahn, Ralph T. Walker, Joseph Urban and Eugene Schoen; Eliel Saarinen from Detroit; and John Wellborn Root, Jr. from Chicago.

The role charged to the architects was to assemble, from a basic scheme by Saarinen and Kahn, group displays of designed objects in thirteen simulated room arrangements, which represented the conditions of modern living: backyard garden, man's study in a country house, conservatory, show window, woman's bedroom, central garden feature, men's den, child's nursery and bedroom, dining room, bath and dressing room, apartment house loggia, salesroom, and business executive's office. Fulfilling its role as an exhibition to promote industrial design, statements from all participating designers were published in the exhibition booklet, which also included a list of 158 manufacturers who supplied the materials for its furniture, lighting fixtures, windows, and various equipments. The show, held at the Museum's Gallery of Special Exhibitions, was an immediate success, so much so that its closing date was rearranged from
March 24 to September 2, attracting over 186,000 visitors in total.

3.1 Subject: Interior Spaces of the Everyday

The purpose of the show, to engage directly in the daily life of the consumer was stated in the Museum's Bulletin made available to the visitors: "[e]ach one of the units takes a problem of arrangement, such as occurs in the house or apartment of the average American, and attempts to give a solution which shall be practical, attractive, and composed of objects and materials possible for mass production" (Read, 1929). Although the final result, focused on the environment of an urban and relatively high-income population, somewhat deviates from its aim to solve the issues of the "average" American, it marked quite a departure from what audiences had seen at previous architectural shows based on Beaux-Arts ideals. A comparison is useful with "The International Exposition of Architecture and Allied Arts" show of 1925, an expanded version of annual shows held by the Architectural League of New York. Traditionally, the subject of domestic and business interior space was hardly a concern of the previous Beaux-Arts discipline and its exhibitions, which maintained a strict hierarchy among building types and distanced itself from the commercial realm to maintain its status as high art. The 1925 show, responding to the changes in socio-economic milieu surrounding the architectural institution, expanded its scope to include representations of banal building types such as schools and factories as well as submissions from manufacturers, but they were nevertheless incorporated in the grand scheme of historicist style under the atmosphere of high art. Room decoration in the form of period rooms became part of previous annual Architectural League exhibitions in the postwar years and was present in the 1925 show, but they were mostly part of the manufacturer's exhibition and hardly involved prominent architects. The court of honor, the major space of the exhibition with an enormous setting reminiscent of Paris salons, was still strictly reserved for architectural drawings, sculptures and paintings, which represented the artistic dimension of architecture.

3.2 Formal Feature: Exposition Style

From the outset the show declared that its emphasis was to "encourage confidence on the part of the general public in the development of a distinctive American style" (American Architect, 1929). With the exception of the woman's bedroom setting by Root—which was criticized for its traditional ornamentation — all rooms featured a comprehensive and harmonious application of the Exposition Style. There are many accounts on this style's origin and influence, but it was doubtlessly most heavily influenced by the "Exposition des Arts Décoratifs et Industriels Modernes" of 1925. Although the US declined to take part in this Paris exposition, a large group of American architects, designers, and potential consumers visited the show, and an investigation by order of the Secretary of Commerce followed, along with a loan exhibition of selected furniture and decorative objects, its early installment taking place in the Metropolitan Museum. Its impact on the American cultural market and design industry was enormous. As noted earlier, the problem American industrial society faced in the 1920s was the saturated market. Manufacturers were forced to surmount their reliance on elite or localized markets and build an expanded "national market", which required the formation of "an ideological bridge across traditional social gaps — region, taste, need and class" (Ewen, 2001, 25). By channeling a desire for
identical form through a demographically differentiated market, a dominant style could exploit both production volume and the consumer's quest for distinction, but this style could not rely on traditional motifs since strategic rhetoric in advertising nullified the customs of ages, rendering them as a fragile and backward looking traditional lifestyle. The style of the Paris show fulfilled these demands, and immediately obtained credence in New York and soon spread through the design world of the United States, in a wide range of fields including industrial design, fashion, and graphic arts.

The full acceptance of the market's new popular style in the public sphere of the gallery is significant regarding the institutional establishment of architecture, since it invalidates the neoclassical style that was central to the foundation of the Beaux-Arts institution. The acceptance of a stripped down style entailed that all the knowledge and skills of classical composition gained from years of hard study and training in neoclassicism, along with the aura of artistic prestige it possessed, be surrendered. It is true that Architects, initiated by aesthetic and cultural concerns, were in search of a new style for the age, but working in a style that is broadly practiced by interior and industrial designers hardly rendered their service exclusive. The fact that architects accepted the Exposition Style, even in these conditions, suggests the willingness to move beyond their past reliance on the patronage of the elite class and serve the mass market, in an institutional cast similar to that of the industrial designer.

Once again in the history of the American architectural institution, style was more than an autonomous choice in aesthetic taste. As neoclassicism was a visual proof of the professional and academic capacities of the Beaux-Arts institution, Exposition Style functioned as a vehicle through which modern architecture's new institutional form — responsive to the requests of a broader mass market — was delivered to the public sphere.

3.3 Discourse: Pragmatist and Functionalist

Although the visual presentation of the show had strong stylistic emphasis, the discourse accompanying it betrays an alternative approach. The architects' own accounts on their works, delivered to the general public through the exhibition booklet and partial reprints in journals of art and architecture, are characterized by extensive functionalist arguments. Hood's description for his office design virtually touches on every practical issue of architecture in the age of industrialization and mass production:

The task of the contemporary designer is first to search for the practical solution of his problem, and then to avail himself of every material, every invention, every method that will aid him in its development. He does not forget that it is his business to fashion the materials he uses into a beautiful form, but he realizes that only by this road can he hope to find the real beauty, which will be the harmonious expression of modern life. Especially must there be acknowledgement of the fact that the machine, as a tool of the designer, has replaced the craftsman in contemporary production, and has, therefore, tremendously influenced modern design (Hood, 1929, 70-71).

Indeed, this seemingly stylized office is explained strictly in terms of functional and material concerns. According to Hood, each material was chosen because of its fitness for the work it is to do, and with regard to economical upkeep and sanitary qualities. On its aesthetic choice, Hood simply mentions that the "decorative treatment . . . has been dictated by the capabilities of the machine or process by which it is made" (Hood, 1929, 73). Bach's review of the show also downplayed its apparent stylistic orientation to bring forward a functionalist argument. His description of style was based on underlying reason and not formal principles, and for the latter he leaves the matter open for future developments, as he believed that the current style was still in its adolescence (Bach, 1929, 40). Responding to the spirit of the age that prioritized a scientific and rational approach, these texts were armed with a functionalist and pragmatic approach, forming a distance from the high-art inspired ideals of the Beaux-Arts system.

This apparent emphasis on both style and a functional approach, but without an inner logic to bridge the two factors, seems peculiar, especially when we consider that the interrelationship between form and function was one of the most hotly debated issues of modern architecture. What we witness in the Metropolitan show are two independent arguments — one aesthetic and visual, the other functional and textual. Although the stylistic coherence was strongly manifested in the show, discourse on formal principles was weak because, in the interest of institutional reformation, it did not matter what aesthetic characteristics the chosen style possessed, as long as it had mass appeal to the consumers. It could further be said that the presence of style was a matter of functional concern, since their new professionalism was to address the issues of the consumerist market.

It is interesting when we compare this stance regarding style and function to other disciplinary positions in modern American architecture — those of the Chicago School, the Beaux-Arts system, and the "International Style" formulated by the Museum of Modern Art, New York, in its 1932 exhibition "Modern Architecture: International Exhibition". It was the lack of validated images and a coherent framework of aesthetic conventions that disabled the progressive architects of Chicago to consolidate an institutional system that could support the social establishment of a firm institution. The arguments of the new institutional cast presented at the Metropolitan show stood on similarly responsive, functionalist, and material-based
grounds of the Chicago School, but it also had the benefit of possessing a coherent style that had great appeal to the market.

On the other hand, the Beaux-Arts architects advocated an artistic approach reified in historical style, rejecting any notion of architecture as an economic, functional practice. It is true that their neoclassical works were programatically modern and complex, but functional discourse was deliberately suppressed in order to differentiate their discipline from the practice of mass builders. This emphasis on artistic style is shared by an institutional position that would be formulated in 1932 by MoMA’s "International Style" show. With a strong formal discipline, it bypassed the problem of relating form with function by discarding the functionalist discourse altogether. While the term "International Style" later became a term synonymous with functionalist architecture, this is what the curators of MoMA — Alfred H. Barr, Henry-Russell Hitchcock, and Philip Johnson — were exactly against: they distanced themselves from functionalism that had no respect for the aesthetics of architecture. Although it is beyond the scope of the present argument, I would like to contend that the MoMA exhibition presents another model of the architectural institution, one that, with coherent style and association to high art, restores the basic characteristics of the Beaux-Arts system, even though their stylistic orientation could not be more different.

4. New Institutional Model of the Industrial Designer

The new role of the architect — his institutional position — is also briefly discussed in discourses surrounding the exhibition. In preparation of the show, the Museum emphasized that "[t]he title ‘architect' will be interpreted in its true sense as an inclusive one, covering the entire conception of the building and its contents and, further, as describing a type of generalship in design by virtue of which many talents are marshaled under the banner of a leader, who is not master but guide and counselor, shaping many capacities to one end" (Metropolitan Museum Bulletin, 1928). As in the Beaux-Arts model the architect is once again given the role of integrating the design efforts of various fields, but, since he now works in a realm that is not governed by Kunstwollen, his position as a "master" is now redefined as "guide and counselor".

This role as counselor is also mentioned in an Architectural Forum article on the 1929 Metropolitan exhibition: noting that "[t]oo little emphasis has been placed heretofore on that phase of the architect's service which differentiates it from the performance of the painter or sculptor" — i.e. the traditional alliances of the architect under the Beaux-Arts system — architecture now "depends upon the quality and character of a multitude of contributing industries. In a sense, the architect is the arbiter and interpreter of public demand in these things" (Vogelgesang, 1929, 591). This stance as mediator is analogous to the position of the engineer we have seen earlier, placed between capitalist clients and the people, possessing a specific body of knowledge and techniques, and thus owning both the technical knowledge of industrial processes and the management skills necessary to control men at work. Such professional cast was extended to industrial designers in the post-WWI era, and it was this institutional model to which the architects were assimilating their new social position, to serve the commercial needs of a larger market in a popular style.

However, also found in the exhibition space were the inherent problems and conflicts of this professional reformation. A review of "The Architect and the Industrial Arts" show formed a connection between architecture and mass production in that both were essential determinants in the creation of a "logical contemporary style, expressive of present-day needs and tastes" (Read, 1929, 146). But even if we accept the basic alliance of architecture with industrial design, the nature of architecture's link with mass production requires further investigation. It is significant that the exhibition's objects designed by the architects were not mass-produced stock articles. For the first time in the Metropolitan's industrial design shows, they were designed specifically for the purpose set by this exhibition — a feature that somewhat deviated from the serial exhibition's aims to represent the ethos of mass production. In his assessment of this period's industrial design shows of the Museum and the department stores, Jeffrey L. Meikle points out the discrepancy "between a faith in the social benefit of design for mass production and the reality of custom-made luxury goods", and ascribes this to the fact that these exhibitions often used the services of architects, who followed the tradition of architecture by concerning themselves with individual clients rather than with manufacturers. Whereas industrial design was deeply rooted in both the spirit and manufacturing methods of mass production, architecture "in general remained the conceptualizing end of the construction industry, a bastion of craftsmanship and one-of-a-kind production" (Meikle, 2001).

This is also apparent when we look into the field where mass production was directly applied to the mass building market. With the huge success of the automobile industry, it was naturally presumable that there also existed a large market for detached houses which were mass-produced, inexpensive, and, with the participation of the architect, of good quality. But efforts in the production of prefabricated houses by Robert W. McLaughlin, Jr., designer of the Motohome, and Foster Gunson, "Henry Ford of Housing", soon proved them to be commercially unviable. It was Lewis Mumford who brought forth a rational examination on this issue. Mass production technology was only applicable in the fabrication of the shell of a house,
which did not represent the greatest cost, and thus did not result in significant cost reductions. Secondly, mass production generated the necessity for a continuous turnover, which worked well for items that wore out rapidly but was inappropriate for durable goods such as houses (Mumford, 1930). Large-scale architectural productions, such as those of the skyscrapers, naturally utilized mass-produced elements — albeit in a "closed system", meaning that they were actually custom-made for the specific building in mass quantity — but this had little relevance to the mass consumerist market of architecture.

Although architects were following the professional cast of industrial design, the bridge between architecture — as a consumerist good — and mass production was more conceptual than practical. The link was generally established in an abstract milieu, through the symbol of the skyscraper, which was often portrayed — as in the photographs of Alfred Stieglitz — as a "giant machine," and compared to new industrial products based on advanced technology such as the automobile and the airplane (Cheney and Cheney, 1992, 16). There exists a similar veil of symbolism in the connection between the architect and the ethos of mass production in the new institutional position presented at "The Architect and the Industrial Arts" show.

Nevertheless, architecture's institutional alignment with industrial design — discarding the artistic prestige of the Beaux-Arts institution — also resulted in an unwanted phenomenon: it opened the way for the professionals of the latter to extend their practice in the realm of the former. The case of Norman Bel Geddes, an industrial designer who had a prolific career in architecture until a group of unemployed architects pointed out that he lacked a certificate for his architectural designs, is well known. This revealed the negative part of the institutional reformation: discarding the Beaux-Arts practitioner's prominent status as an artistic intellectual that functioned as a professional shield against other design fields, architects were now in direct competition with professionals from industrial design, who may lack the architect's sophisticated design skills — after all, these architects were educated in the arduous Beaux-Arts manner — but, many coming from the field of advertising, were more savvy in matters of business and the technical requirements of mass manufacturing.

5. Conclusion

In the Metropolitan Museum's "The Architect and the Industrial Arts" show of 1929, the fact that the most celebrated architects of the time were involved in the design of not monumental works, but everyday environments in urban life, in a fashionable style of the design market and defining themselves in a pragmatic approach, was representative of their new professional and disciplinary stance. From a historical viewpoint, this institutional project is meaningful in its search for an alternative model by which an architect functions in a cultural market, in the context of a new socio-cultural milieu dominated by capitalist and technological endeavors. But as a novel experiment it also had defects and was rather short-lived: apart from the symbolic rather than actual engagement in the ethos of mass production, the blurring boundaries between architecture and industrial design also caused professional conflicts. In sum, it revealed the possibilities and limits of a mode of architectural practice that directly engaged in the functional and commercial matters of the marketplace, without the "protection" of artistic prestige. This is perhaps why the aforementioned project of MoMA's "International Style" show, which followed three years later, soon prevailed. Not only was Exposition Style gradually replaced by an abstract and volumic "International Style", the professionalism of architect-as-artist was reinstated in place of practical arbiter.

Viewing the development of modern architecture from an institutional point of view adds another layer to its dense discursive field, already occupied by such polemics between ornament and abstraction, architecture and engineering, modernist and traditionalist, and form and function. The continuous effort of architects to obtain social legitimacy of their practice through institutionalization of their discipline should not be neglected in the historiography of modern architecture, especially where government-supported foundation or cultural base for architectural practice was weak. The spirit of "machine aesthetics" was shared in both Europe and America, but the latter's phenomenon of mass production has established another challenge to the modern institutionalization of architecture against the marketplace, which itself was another American issue.

References

Notes

1 This style is also known by a more popular term "Art Deco" coined by Bevis Hillier in his 1968 book Art Deco of the 20s and 30s. But many historians refrain from using the loosely defined term that came to be so broadly applied, even to include the period revival of the 1970s. To contemporaries it was known as either "Arte Moderne", "Zigzag Moderne", "Modernistic Style", or "Exposition Style", referring to its Parisian source, "Exposition des Arts Décoratifs et Industriels Modernes" of 1925. This paper uses the latter term, as it deals with the period immediately following the Paris exposition, the effect of which was apparent in the design industry.

2 Dealing with a social system it obviously has links to sociological studies, but the approach is different from sociology-based historiography of, for instance, Leonardo Benevolo, as the focus is not on how social factors influenced the design of certain buildings but on the system that mediates the influence of social factors on architecture in general. Analytical focus is shifted from the production of particular works to the production of a framework of justification within which the practice of architectural design is sustained as a form of professional authority.

3 The first university to establish an architectural department was MIT in 1865, and licensure of architects was first sanctioned in Illinois in 1897. The first minimum housing standard of New York was adopted in 1867, but was still ineffective as a building code.


5 This issue was most prominently brought forth in the 1924 AIA convention, which was focused on the problem of plagiarism and the role of precedent in architectural practice.

6 An important figure in the field was Charles R. Richards, who in 1920 launched, under the auspices of the National Society for Vocational Education and the Department of Education of the State of New York, a comprehensive study on the state of industrial arts and its education in the US and abroad. Two years later the result was published as Richards, C. R. (1922) Art in Industry. New York: Macmillan Company, followed by Richards, C. R. (1927) Industrial Art and the Museum. New York: Macmillan Company, which investigated the role of European museums in the development of modern industrial design.

7 In the years following the Paris exposition, the department stores of New York such as Altman's, Wanamaker's, Macy's, and Lord & Taylor's actively promoted the recent trends in decorative arts through window displays and expositions, many held in cooperation with museum institutions. The obvious cultural effect of this union of the art museum with the commercial store was the construction of modern design as a practice of both commodity aesthetic and art.

8 Hood was the architect of the Chicago Tribune Tower and American Radiator Building; Kahn was known for a number of buildings in New York and other cities and has recently assembled the Exhibition of Modern Art at Lord & Taylor's; Saarinen, eminent Finish architect who pioneered the new trend in skyscraper design with his entry for the Chicago Tribune and then engaged in the extensive school buildings of Cranbrook; Schoen, who was represented in the Macy's show; Solon, designer of important decorative installations in public buildings; Walker, architect of the New York Telephone Building and other office structures. According to R. Craig Miller, Frank Lloyd Wright's music room and Saarinen's "automobile exhibit" for the central garden were also planned but not realized (Miller, 1990, 25).


11 Hood's functionalist rhetoric can further be found in Hood, R. (1929) The Spirit of Modern Art. The Architectural Forum, 51 (5), pp.445-448, in which he stated: "The modern movement does not concern itself with looks at all…. they are incidental and not essential…. Modern involves a sincere attempt to be honest."

12 Kahn later admitted that, in the preparation of the 1929 show, "costs were secondary, and there was constantly in evidence a desire to produce beautiful things, even things that were a little startling and of a luxurious nature." Kahn, E. J. (1934) Contemporary American Industrial Art: 1934. Note by the Chairman of the West Gallery Unit. Bulletin of the Metropolitan Museum of Art, 29 (12), pp.204-205.