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Wan Chai Market: Rediscovering Streamline Moderne Architecture

A research paper prepared for the archives of the Antiquities and Monuments Office and Commissioner for Heritage's Office

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Original version: dated 26 June 2004, for the Urban Renewal Authority

This revised and updated version: dated 2 May 2009, for the Antiquities and Monuments Office and Commissioner for Heritage's Office

Keywords

Wan Chai Market, Art Deco, Streamline Moderne, Bauhaus, architectural significance.

Abstract

This short article clarifies the correct architectural stylistic categorization of Wan Chai Market: *Streamline Moderne*. It traces the origins and evolution of the style and its influence by the *Bauhaus* tradition, with which the style of Wan Chai Market is often confused. Using local and overseas examples of both styles, the article compares the characteristics of the two styles in order to better understand their similarities and differences. With the understanding of the correct style of Wan Chai Market established, the article concludes by stating the building's architectural significance.

Introduction

Wan Chai Market is popularly but inaccurately referred to as a building of the “Bauhaus” architectural tradition. In the process of conservation, it is important to have the facts correct in order to properly assess the building’s cultural heritage significance, and, as such, the architectural and aesthetic significance of Wan Chai Market can be properly evaluated only by correctly identifying its architectural style. This lead to the question: what exactly is the architectural style of the Wan Chai Market? The short answer is: Streamline Moderne, which is an answer that immediately generates another question in most people: “What is Streamline Moderne?”

Streamline Moderne, also known as Art Moderne, is a late variation of the Art Deco style. The name “Art Deco” originated from the *Exposition des Arts Decoratifs et Industriels Modernes* held in Paris in 1925. The 1930s was the heyday of the Art Deco style in architecture, and it dominated virtually all design areas in the Western world, from graphic to industrial, product, jewellery, furniture, movie and stage set, and interior and architectural design (figs 1, 2 and 3).

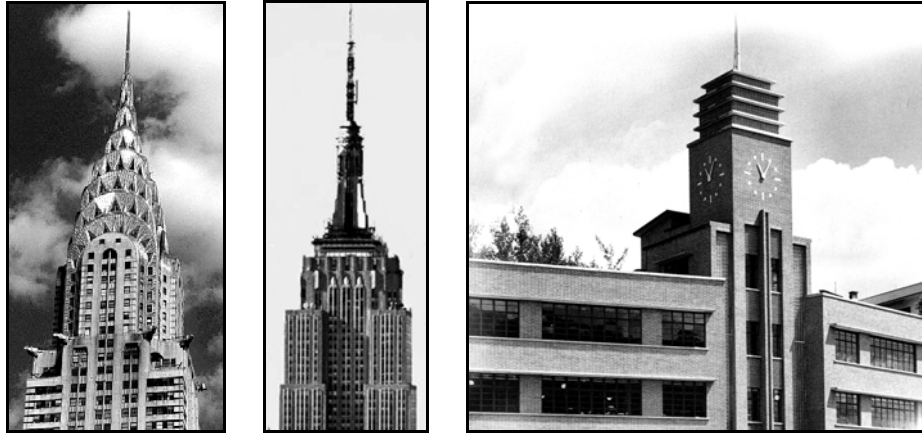


Figs. 1, 2 and 3: late-1930s era Streamline Art-Deco consumer products: Silvertone Bullet radio (1939); Pennwood Zephyr clock (1939); Kodak Bantam Special camera (1936). (Image source: (figs. 1 & 2) <http://uv201.com>; (fig. 3) <http://www.wolfsonian.org>)

During this period, the style was equally prominent in modern progressive cities in the Far East that were receptive to Western ideas in shaping their built environment, such as the internationalized Chinese city of Shanghai and the British colonial cities of Hong Kong and Singapore, as well as the Dutch colonial city of Bandung (in today’s Indonesia). In these Asian cities, the Art Deco architectural trend lingered on longer than in their Western counterpart, lasting well into the early 1950s before being completely superseded by the aesthetics of Modernism.

Origins of Streamline Moderne Architecture

Like the preceding Classically-based architectural styles, early Art Deco architecture maintained the essence of Classical architecture in terms of the observance of symmetry, proportions and ornamentation. However, unlike Classical architecture, Art Deco adopted an abstract, geometric theme in the ornamentation rather than the more organically derived decorative details of Classicism. Well known examples illustrating this early decorative Art Deco trend are the decorative spires of New York City’s Chrysler Building (1930) and Empire State Building (1931) (figs. 4 and 5). An extant comparable example in Hong Kong is the China Light and Power Building (1949) in Mongkok district, which featured a central stair tower decorated with Art Deco-style geometrical motifs (fig. 6).



Figs 4, 5 and 6: Art Deco decorated spires of Chrysler Building (1930) and Empire State Building (1931), New York; the Art Deco decorated central stair tower of China Light and Power Building (1949), Hong Kong. (Image source: (fig.4) <http://www.adamandlyn.co.uk>; (fig. 5) <http://www.adabyron.net>; (fig. 6) CLP Co. Ltd.)

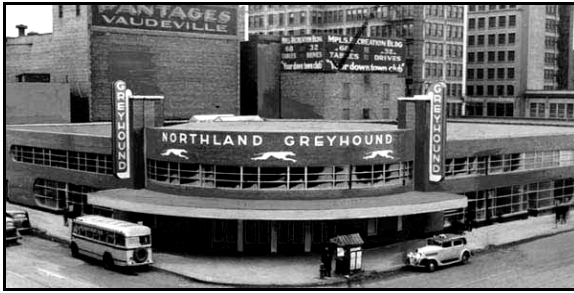
Around the mid-1930s, Art Deco, as a popular architectural style, began to lose its early decorative splendour as the clean, minimalist functional aesthetics of Early Modernism (known as Bauhaus architecture in Europe and the International Style in the U.S) exercised influence among the avant garde architectural circle. At the same time, Art Deco architecture also came under the influence of the machine aesthetics of industrial design, in particular, the inherently appealing streamlined bodies of contemporary airplanes, ships, locomotives and automobiles (figs. 7, 8, 9 and 10). It was a time when the affluent in Europe and the U.S. were taking up travel for leisure (the beginning of mass tourism). This emerging tourism industry spurred the design of transportation vehicles that could carry more people faster and farther. The result was a new Streamline aesthetics in industrial design derived from the functional necessity to apply aerodynamics to transportation vehicles, and it set a trend in other areas of design, including that of architecture. It was under such circumstances that Art Deco evolved into a style known as “Streamline Moderne.”



Figs. 7, 8, 9 and 10: 1930s Art Deco posters featuring streamlined transportation vehicles. (Image source: (all) <http://www.art.com>)

Conditions Leading to the Development of Streamline Moderne Architecture

The development of transportation in the 1930s played a direct role in giving rise to the Streamline Moderne style in architecture. Many of the transport depots, especially those for buses, in the U.S. are designed in the Streamline Moderne style because of the style's popularity coinciding with the travel boom in that country, made possible by advances in land-transport technology and the development of a nation-wide transportation infrastructure (figs. 11 and 12).



Figs. 11 and 12: Old Greyhound Depot (late 1930s) New York, USA; Salida Train Depot (1941), Colorado, USA. (Image source: (fig. 11) <http://www.lileks.com>; (fig. 12) <http://ghostdepot.com>)

The design for airport terminals paralleled the development of civil aviation and international flights in the 1930s, which was made possible by advances in aviation technology and, to some extent, necessitated by the needs of European powers for speedier access to their far-flung colonies. The Streamline Moderne style, a late variant of Art Deco, with its “wing-like” cantilevered structures, particularly suited the expression of the spirit of aviation. This was indeed the intention for the design of Singapore’s first modern civil aviation facility (which was also among the world’s first), the Kallang Airport Terminal (1937) (fig. 13). Designed by Frank Dorrington Ward, Chief Architect of colonial Singapore’s Public Works Department, the outstretched wings of the building and its cantilevered balconies were meant as a metaphor of the contemporary airplane. Besides being applied to buildings that functioned as transportation terminals, the Streamline Moderne style also extended to other building types in the late 1930s, such as residential and commercial buildings, which will be examined below.

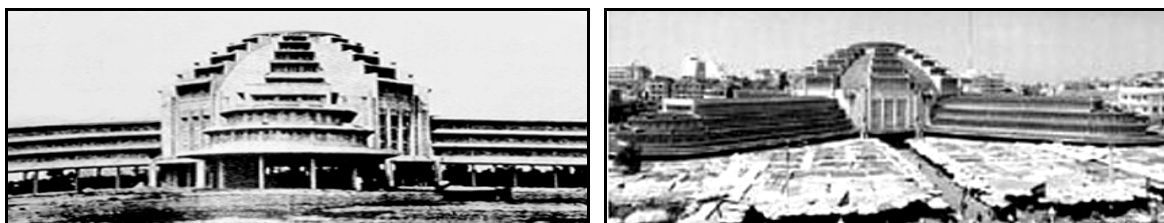


Figs. 13 and 14: Kallang Airport Terminal (1937), Kallang, Singapore; shophouse on Keong Siak Street (1939), Bukit Pasoh (Chinatown) Conservation Area, Singapore. (Image source: (fig. 13) Singapore Urban Redevelopment Authority; (fig. 14) Lee Ho Yin)

Singapore offers particularly good opportunities for examination of Streamline Moderne architecture in a former British colonial city in the Far East, as many 1930s buildings have been conserved as part of the country’s architectural heritage. The dominant architectural typology in Singapore’s conservation areas is the Singapore Shophouse, which is the term for mixed-use commercial-cum-residential buildings that were mainly built before World War II. As such, architectural conservation in that country focuses mainly on this particular building type, as can be seen in the website of Singapore’s conservation authority (which is also the planning authority), the Urban Redevelopment Authority (URA; <http://www.ura.gov.sg>, under “Conservation”).

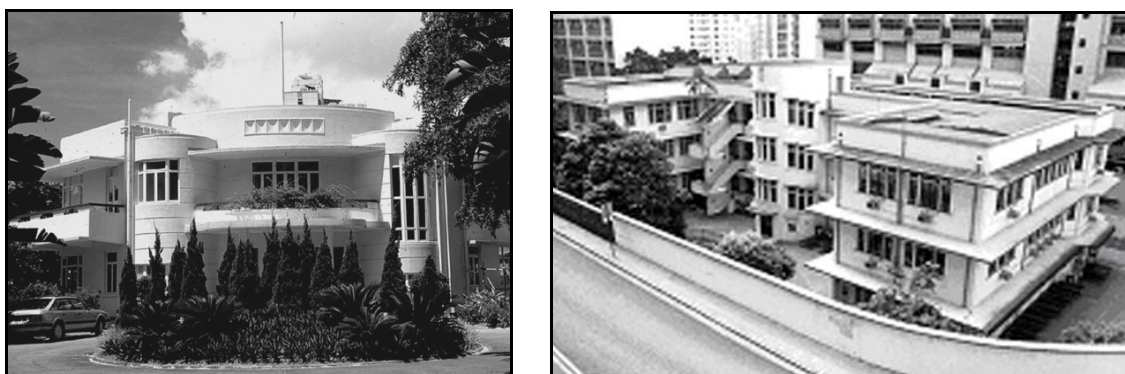
The Singapore URA classifies pre-war shophouses into four main categories: Early-style Shophouses, Late-style Shophouses, Art Deco Shophouses and Modern Shophouses. The vast majority of the Art Deco shophouses were built in the 1930s, and those built in the later half of the decade are in the Streamline Moderne style, such as the illustrated 1939 shophouse on Keong Siak Street in the Chinatown Conservation Area (fig. 14). Like the Wan Chai Market, this shophouse features similar character-defining elements, such as, the cantilevered sun-shading fins and very clean-cut and undecorated elevations. Unlike the Wan Chai Market, however, this shophouse is not misidentified as an example of Bauhaus architecture, which it certainly is not.

The French-designed Central Market in Phnom Penh (or Phsar Thmey in the romanization of the Cambodian language; also sometimes referred to as Grand Market or Phsar Thom Thmey), is a major landmark and a still-active marketplace in Cambodia's capital city. This 1937 market building is often compared with Wan Chai Market by local architects as the "only other Bauhaus market" (quoted in Chloe Lai, "Battle for Wan Chai Market Looms," *South China Morning Post*, 25 April 2004, C1). It is certainly not a Bauhaus building; it has been correctly classified by the local architectural school and institute as an Art Deco building, and it certainly can be even more accurately classified as an Art Deco building in the Streamline Moderne tradition (figs. 15 and 16).



Figs. 15 and 16: Phnom Penh's Central Market when it was first completed (1937) and its recent appearance. (Image source: (all) <http://www.phnompenh.gov.kh>)

Streamline Moderne Architecture in Hong Kong



Figs. 17 and 18: University Lodge (1949) on 1 University Drive, Hong Kong; former Northcote Teachers' Training College (1941) (now Bonham Road Government Primary School) on 9A Bonham Road, Hong Kong. (Image source: (fig. 17) The University of Hong Kong; (fig. 18) Lee Ho Yin)

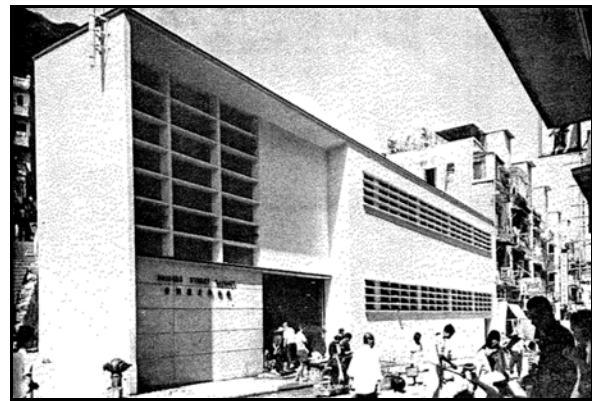
As far as it is known, there is only one Streamline Moderne market in Hong Kong (Wan Chai Market), and examples of other Streamline Moderne building types appear to be few. Two examples, which are not very well known because of their inconspicuous locations, are University Lodge (1949) (fig. 17) and the former Northcote Teachers' Training College (1941), which is now used as the Bonham Road Government Primary School (fig. 18). Both date to the 1940s, and being completed after the Art Deco decade (the 1930s), they display a strong Early

Modernism (Bauhaus) character, and can easily be confused as Bauhaus buildings if not for their obvious symmetry and other Streamline Moderne features. The architecture of these two buildings represents the transition from Streamline Moderne to Early Modernism (Bauhaus) as a popular architectural aesthetic trend.

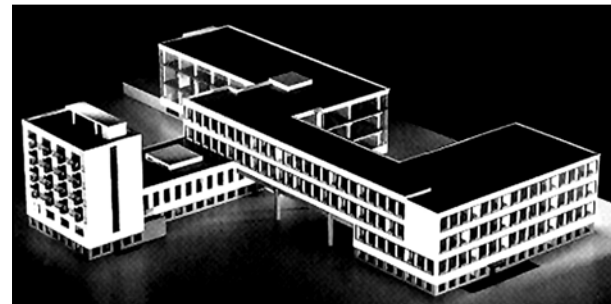
Bauhaus Architecture in Hong Kong

In view of the understandable confusion between Streamline Moderne and Bauhaus buildings, it is necessary to look at some Bauhaus examples in Hong Kong so that they can be better distinguished from the other style through comparison.

There are at least two markets in Hong Kong designed in the Bauhaus style. An early example is Central Market (1939) (fig. 19), which, interestingly, displays vestiges of the Streamline Moderne style, such as the rounded building corners. A more affirmatively Bauhaus market is Bridges Street Market (1951) (fig. 20). This market is very much designed in the Bauhaus vocabulary with its asymmetrical elevation treatment based on the principle of “form follows function”, a large glazed area near the entrance to express the transparency of the building, and the boxy rectilinear form. This classic Bauhaus building has been scheduled for conservation under the latest urban renewal plan for the locality.



Figs. 19 and 20: Central Market (1939), 80 Des Voeux Road Central, Hong Kong; Bridges Street Market (1951), 2 Bridges Street, Hong Kong. (Image source: (fig. 19) <http://www.hk-place.com>; (fig. 20) Hong Kong Public Works Department Annual Report 1953-54)



Figs. 21 and 22: Comparison of the Hong Kong City Hall (1962) and the Bauhaus School of Design in Dessau (1926). The resemblance is not coincidental; by the 1950s, the influence of Bauhaus in architecture had gone global, in part due to the exodus of Bauhaus-trained architects out of Germany before and after World War II. (Image source: (fig. 21) Hong Kong Information Services Department; (fig. 22) www.ifa.de)

By the 1950s, Art Deco as an architectural trend was practically over in Hong Kong, if not in the world. Buildings completed in this and the subsequent decade were mostly in the true Bauhaus

tradition (or Early Modernism), a prime example of which is the Hong Kong City Hall, designed by British architects Ron Phillips and Alan Fitch in 1956 and completed in 1962. The resemblance of the architecture of the City Hall to that of the Bauhaus School of Design in Dessau (which can be considered as the prototype of Bauhaus architecture), from the overall composition to the architectural details, is unmistakable (figs. 21 and 22).

There is one place in Hong Kong where a good number of true Bauhaus-style buildings are preserved in tip-top condition, and that is Kadoorie Hill in Mongkok. This is an area developed as a prestigious residential district starting in the late 1930s, and most of the houses in this inconspicuous location, particularly on Kadoorie Avenue and Braga Circuit, are very much designed to the Bauhaus tradition (figs. 23 and 24). The concentration of such Bauhaus houses on Kadoorie Hill compares well with White City of Tel Aviv in Israel, a UNESCO World Heritage Site (inscribed 2003) significant for being the largest concentration of Bauhaus building in the world (see the official website at <http://www.white-city.co.il/english/index.htm>). The main reason why there exists this prevalently “Bauhaus district” in Hong Kong is because the collective owner of these architectural gems is the phenomenally wealthy Kadoorie family, and as such, there is almost no pressure to redevelop the properties in this locality.



Figs. 23 and 24: Houses on Kadoorie Hill, Kowloon, developed in the 1950s in the Bauhaus tradition. (Image source: (all) Ho-Yin Lee)

Comparing Streamline Moderne and Bauhaus

The theoretical basis of Bauhaus design is based on the expression of modern mass production. Until the early 20th century, buildings, like any other hardware item used in everyday life, were handcrafted and therefore unique, as no two handmade items could possibly be exactly the same. In the early 20th century, the mass production process employing machines and assembly lines to assemble final products from standardized pre-manufactured parts was introduced. The most illustrative of this is the automobile industry, which, in its infancy at the turn of the 20th century, was akin to a precision cottage industry in which every vehicle was handmade and could not share body parts. In 1913, the Ford Motor Company created the world's first assembly line that mass-produced virtually identical standardized car models in the thousands.

The new mass-production process ushered in a new thinking for architecture, in which the design and construction of buildings should reflect the standardized and systematized industrial approach. This architectural philosophy became formalized under the Bauhaus School of Design in Germany. The Bauhaus School of Design building in Dessau (1926) (figs. 22 and 26), became a prototype to demonstrate the modern approach of architecture, in which buildings were designed and constructed from the onset as an assemblage of pre-manufactured components, in

the manner of a mass-produced piece of machinery. In addition to this philosophy, the aesthetics of the Bauhaus building also reflects the principle of “functionalism,” meaning that the form of a building must be primarily derived not from pure aesthetic consideration, but from the expression of its intended function. This became the basis of the Modernist’s architectural maxim “form follows function.”

Buildings designed in the Art-Deco-based Streamline Moderne style share many similarities with buildings designed in the Modern-based Bauhaus style, as both styles share a common form-follow-function aesthetic principle as well as the same construction technology using reinforced concrete, which became common since the 1920s. All these commonalities gave rise to similar tectonics between buildings of the Streamline Moderne and the Bauhaus styles. As such, it is hardly surprising that the two styles of buildings look remarkably similar to laypeople, who, more often than not, tend to label Streamline Moderne under the more well-known “Bauhaus” moniker. However, there are telling differences between the two styles, the most distinctive of which are:

(1) Form and Facade (figs. 25 and 26)

Streamline Moderne:	The façade and often the entire building form are symmetrical.
Bauhaus:	The composition of the building form and all elevations are asymmetrical.

(2) Wall Corners and Surfaces (figs. 25 and 26)

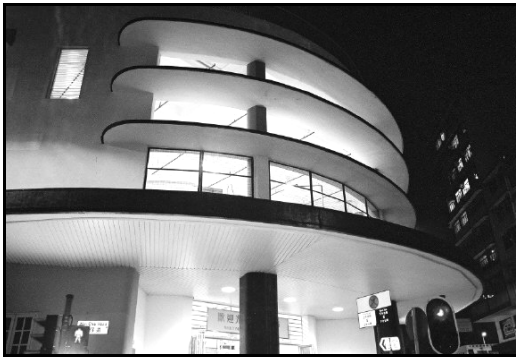
Streamline Moderne:	Wall corners are rounded and the central feature of the building (which is usually the stair core) has curved wall surfaces.
Bauhaus:	Rectilinear wall corners and surfaces throughout the building.



Figs. 25 and 26: Symmetrical and rounded Wan Chai Market (1937) vs. asymmetrical and rectilinear Bauhaus School of Design in Dessau (1926). (Image source: (fig. 25) Hong Kong Urban Renewal Authority; (fig. 26) <http://www.arch.mcgill.ca>)

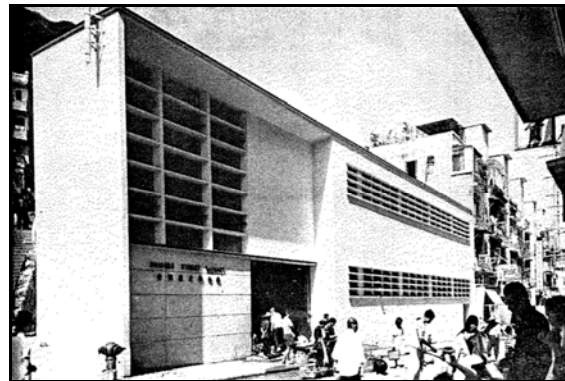
(3) Character Defining Features (figs. 27 and 28)

Streamline Moderne:	Sun-shading fins in the form of horizontal cantilevered slabs to emphasize the horizontality of the building form. Sometimes the fins come in the form of vertical cantilevered slabs projecting from the sides of fenestrations to emphasize the verticality of certain parts of a building, such as a central vertical feature.
Bauhaus:	A large glazed area, either in the form of a curtain wall or a large window, to emphasize on the transparency of the building. This glazed area is often framed by a rectangular grid (window mullion or sun-shading fins).



Figs. 27 and 28: horizontal lines of Wan Chai Market emphasized by cantilevered sun-shading fins vs. rectangular grids of the Bauhaus School of Design in Dessau (1926). (Image source: (fig. 27) Lee Ho Yin; (fig. 28) <http://www.euklides.no>)

The Wan Chai Market (1937) (fig. 29), featuring a symmetrical elevation, rounded corners, curved wall surfaces and a strong emphasis of horizontality in the elevation by means of the cantilevering sun-shading fins, is unmistakably a classic Streamline Moderne design. A good comparative example of a Bauhaus design is the Bridges Street Market (1951) (fig. 30), which features an asymmetrically composed elevation, rectilinear wall corners and surfaces, and the “egg-crate” type of rectangular sun-shading framework on a large window area.



Figs. 29 and 30: Streamline Moderne-style Wan Chai Market (1937) vs. Bauhaus-style Bridges Street Market (1951). (Image source: (fig. 29) Lee Ho Yin; (fig. 30) Hong Kong Public Works Department Annual Report 1953-54)

Architectural Significance of the Wan Chai Market

In conservation, the architectural style of a heritage building is an important character-defining element associated with its architectural / aesthetic value. As such, correctly identifying the style of the Wan Chai Market allows a more accurate assessment of its architectural significance. As far as it is known, Wan Chai Market is one of the very few surviving examples of Streamline Moderne architecture in Hong Kong. More significantly, it is almost certain that it is the *only* Streamline Moderne market building in Hong Kong, and possibly in the whole of China as well. As a unique example of its kind in China, Wan Chai Market carries enormous architectural significance, and this should be considered in its evaluation for conservation.

Bibliography

Banham, Revner. *Theory and Design in the First Machine Age* (2nd ed.). Cambridge, MA: MIT Press, 1980

Bayer, Patricia. *Art Deco Architecture: Design, Decoration, and Detail from the Twenties and Thirties*. London: Thames and Hudson, 1992

Benton, Charlotte, Tim Benton and Ghislaine Wood (eds.). *Art Deco 1910-1939*. London: V&A, 2003.

Bush, Donald J. *The Streamlined Decade*. New York: Braziller, 1975.

Frampton, Kenneth. "The Bauhaus: The Evolution of an Idea 1919-32," chap. In *Modern Architecture: A Critical History* (rev. & enlarged ed.). London: Thames and Hudson, 1985, 123-129.

Norberg-Schulz, Christian. "Bauhaus," in *Meaning in Western Architecture*. New York: Rizzoli, 1980, 193-194.