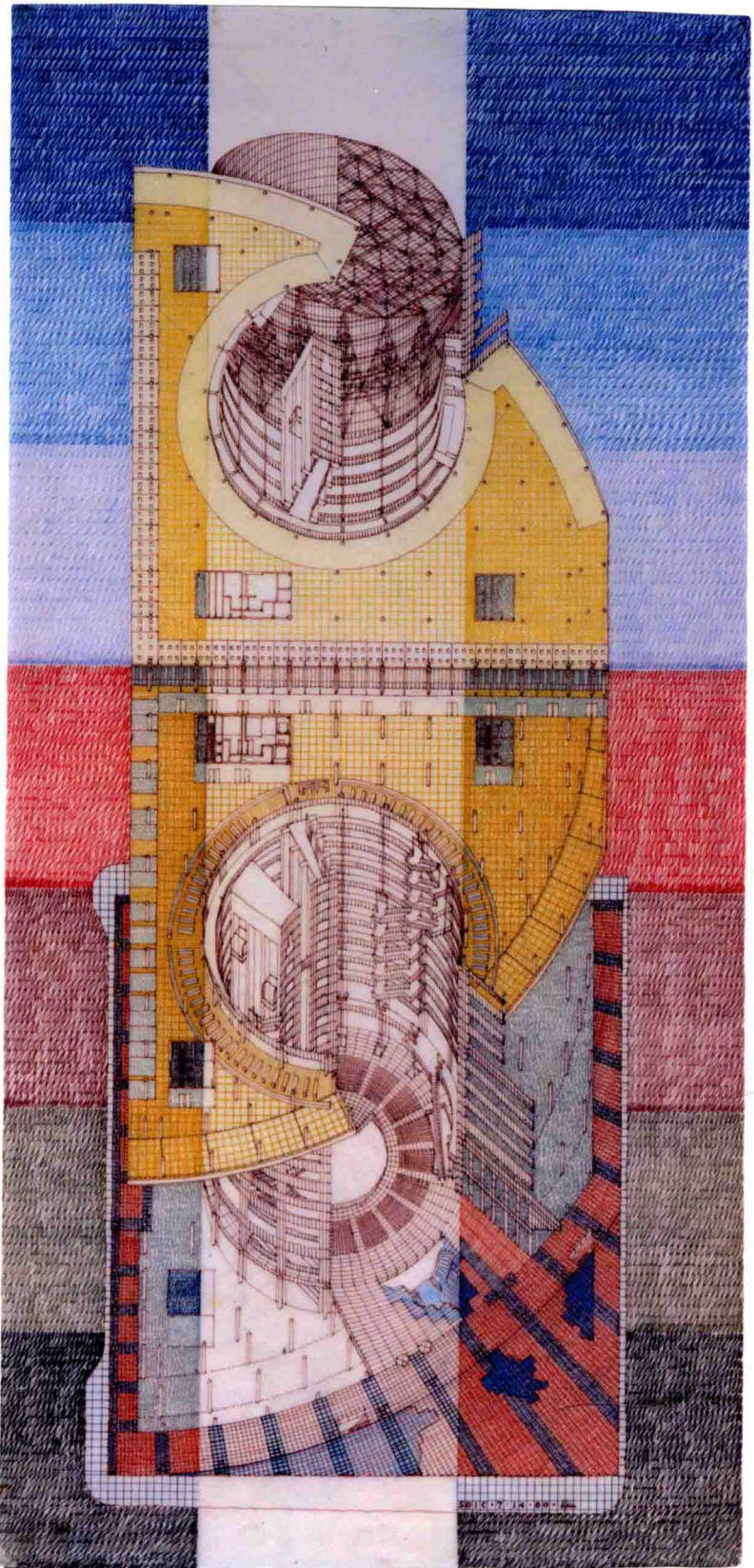


100 YEARS OF ARCHITECTURAL DRAWING

1900-2000

Neil Bingham



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LAURENCE KING PUBLISHING

*To Jill Lever, my first and constant
guide in the art of the architect*

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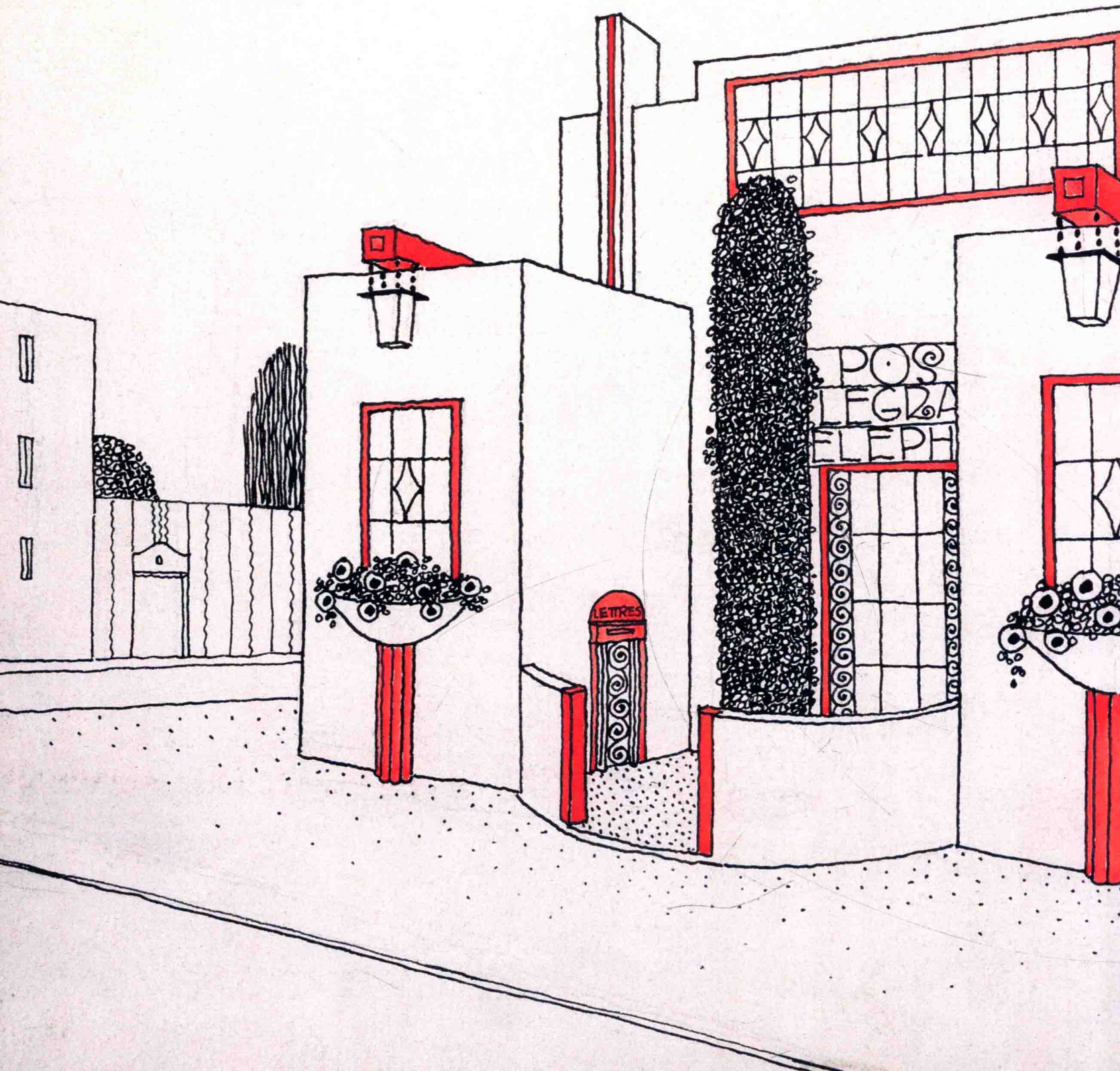


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INTRODUCTION

This study, presented chronologically, is a world survey of architectural drawings of the twentieth century. Masterworks stand alongside examples that should be better known, with a few that are simply my idiosyncratic choices. By the skilful and artistic use of medium – most typically pencil, pen and watercolour washes – architects engage in and communicate design. In truth, architectural drawings are architectural representations – although the majority of drawings are hand-rendered and painted, ‘drawings’ also appear in such forms as prints, photo collages and digital images.

Architects do not work in isolation, and from the kaleidoscopic body of architectural drawings surviving from the twentieth century there emerge significant topics and themes. Historical continuity in architectural drawing is a notable example, perhaps best exemplified in the twentieth century by the Bauhaus. The drawings made by the masters and students at this experimental school during its short but brilliant existence from 1919 to 1933, and later by its members as they found leading roles internationally, influence architectural design and education to this day. At the Bauhaus, new and simplified methods of presenting building forms emerged in architectural representation, such as the use by Farkas Molnár in 1921 of the humble linocut in his studies for a modern villa drawn in line (see p. 57), a slap in the face to the meticulous neo-classical drawing expected in other architectural schools. Friedl Dicker-Brandeis and Franz Singer, students together at the Bauhaus, took with them into private practice the daring axonometric view (see p. 105), made popular under Walter Gropius, the founder of the Bauhaus (see p. 79), and Hannes Meyer, first director of the school’s architecture department (see p. 88). While the horrors of war caught Dicker-Brandeis teaching art to children for many years as a prisoner in Terezin concentration camp before her death in Auschwitz, Singer was able to flee to England. Gropius had moved to America, as did his colleagues Herbert Bayer (see p. 135) and Marcel Breuer, whose office grew to one of the largest in New York during the 1950s (see p. 149). Even as late as the 1990s, the direct influence of the Bauhaus approach to architectural drawing can be seen in the line drawings of Chicago skyscrapers by Bertrand Goldberg (see p. 291), who had been at the Bauhaus when it was shut down under pressure from the Nazis while also working in the office of the school’s third director, Ludwig Mies van der Rohe (see p. 141).

This laying on of hands among architects within the master–pupil relationship is the mainstay of artistic continuity. Norman Foster, whose drawing style is light but as precisely controlled as one of his high-tech buildings (see p. 242), cites influences from his student years. The delicate, almost flippant, sketches that he can whisk up are a legacy of enjoying the lighthearted vignettes by the architect Hugh Casson (see p. 162), in whose office he spent a youthful summer. And while a postgraduate student at Yale University, Foster was employed as a draughtsman in the office of the dean of the Yale School of Architecture, Paul Rudolph, an architect known for his heavily ruled, highly detailed renderings (see p. 229).

The drawings of Frank Lloyd Wright, another giant of the twentieth century, were strongly influenced by his admiration for traditional Japanese prints – even the red seal office signature

on his drawings was like that of a Japanese master of the wood-block print (see p. 70). Wright also retained the refined and fluid hand of his Lieber Meister, as he referred to Louis Sullivan (see p. 176). Wright's style gradually transformed over his long career of more than 75 years, but each phase is unmistakably Wrightian. His apprentices, staff and followers perpetuated his changing approach to drawing, like Marion and Walter Griffin, who, having left Wright's office and gone to Australia to design the country's new capital, Canberra, then moved on to build in India, working in the style of Wright's early 'textile block' designs of the 1920s (see p. 126). Paolo Soleri left Wright in the late 1940s and pursued a long career known largely for his designs for alternative habitats – space-age and often megalithic – which expanded upon Wright's interest in community planning (see p. 154). In this survey of architectural drawings, we can trace the historical visual narrative of twentieth-century architecture in design and draughtsmanship – one of tradition, experiment and beauty. From our perspective today, in which the computer-aided design (CAD) drawing dominates, a development that ignited in the 1990s, the twentieth century appears as the golden age of traditional architectural hand-drawing.



Atelier Bigot at the École des Beaux-Arts de Paris, 1927–1936.

Students of architecture bend over their drawing boards, crowded together in a studio at the École des Beaux-Arts under the supervision of Paul Bigot (see p. 112). The group is mainly working on plans for their assignment to create a design for a concert hall. Large drawings, grand projects and symmetrical planning were major components in the long-standing academic tradition of the French École des Beaux-Arts system of teaching and practice, which remained internationally influential until World War II.

1900–1913

ARCHITECTURAL DRAWING WITH TRADITION

As the twentieth century dawned, architecture was steeped in the historicist tradition that had dominated most of the nineteenth century. Architects, trained mainly through the apprentice system, but also increasingly in the new architecture schools, learnt to draw using conventional methods of representation based on formal techniques and picturesque aesthetics.

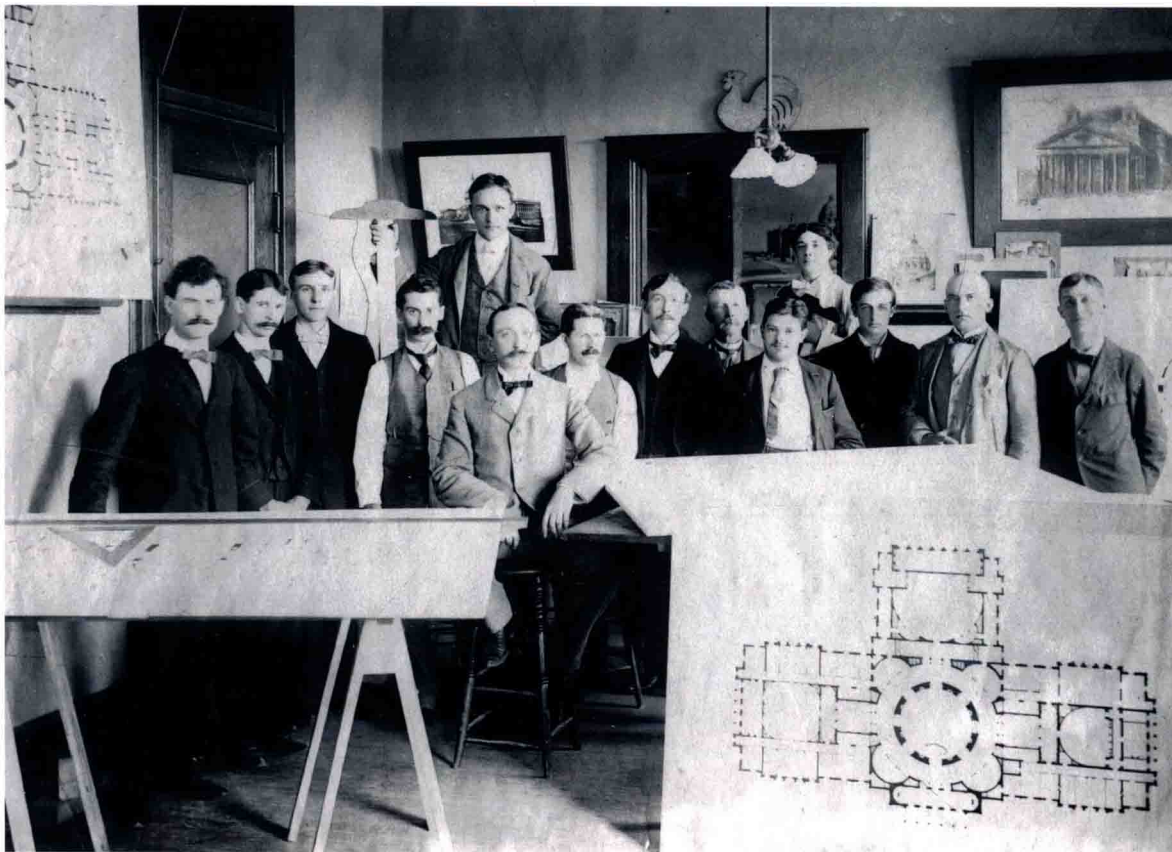
This was a period of strong national identity, with countries defining themselves by using native architectural characteristics. In northeast Spain, for example, Josep Puig, an architect contemporary with Antoni Gaudí, created highly decorative buildings that harked back to the local golden age of the late Gothic and early Renaissance, an assertion of the richness of the Catalan tradition (see p. 10). For those nations with empires, the identity of the motherland could be transferred abroad in mighty building projects that connected people on other sides of the globe. Edwin Lutyens and Herbert Baker were the most famous architects of the British Empire, creating New Delhi, the new capital for the British Raj in India. Baker designed the new capitol buildings of South Africa, the Union Buildings in Pretoria (see p. 17), a sprawling fortress emulating the architecture of Christopher Wren. Baker's grand architectural drawing of the scheme, even though made twenty years after the building was completed in 1913, was specifically created to be exhibited at the Royal Academy of Arts in London. There it was viewed by an informed public who identified with Baker's evocation of St Paul's Cathedral, a spiritual heart of empire, and therefore considered an appropriate style for a British colonial seat of government. For those countries under the regulation of imperial control, architecture could also be a means of asserting national identity in the face of outside domination. Armas Lindgren's design drawing for a new cathedral-size church in Tallinn, Estonia, a state under Russian Imperial patrimony, was a symbol of the Young Estonia movement and thus would have stirred keen Estonian sentiments with its local character of rough-cast stone walls and peaked bell tower (see p. 18). The Czar, however, did not approve.

Many grand projects, like Baker's South African government building, followed the prevalent academic classicism, an ideology based in a canon of historical elements that informed architectural learning, teaching and practice. The Beaux-Arts system, centred in France, was widely disseminated, and popular in countries such as America, where new cities blossomed with the tide of emigration. Beaux-Arts focused upon the art of drawing to create buildings and city schemes that were classically inspired, symmetrically composed, with large and complex plans and elevations, and bold, detailed decoration. The 1908 Beaux-Arts town-planning scheme for Chicago by Daniel Burnham became a model of its type when the design drawing, showing streets radiating from a grand piazza and public building, was published (see p. 20).

Great perspective drawings at this period were made to seduce the client, dazzle the exhibition visitor and be published. In less spectacular projects, especially designs for domestic buildings, the Arts and Crafts movement also influenced the art of presentation. The reigning architects of the movement were British: C.F.A. Voysey, whose evocative drawings make the viewer yearn to

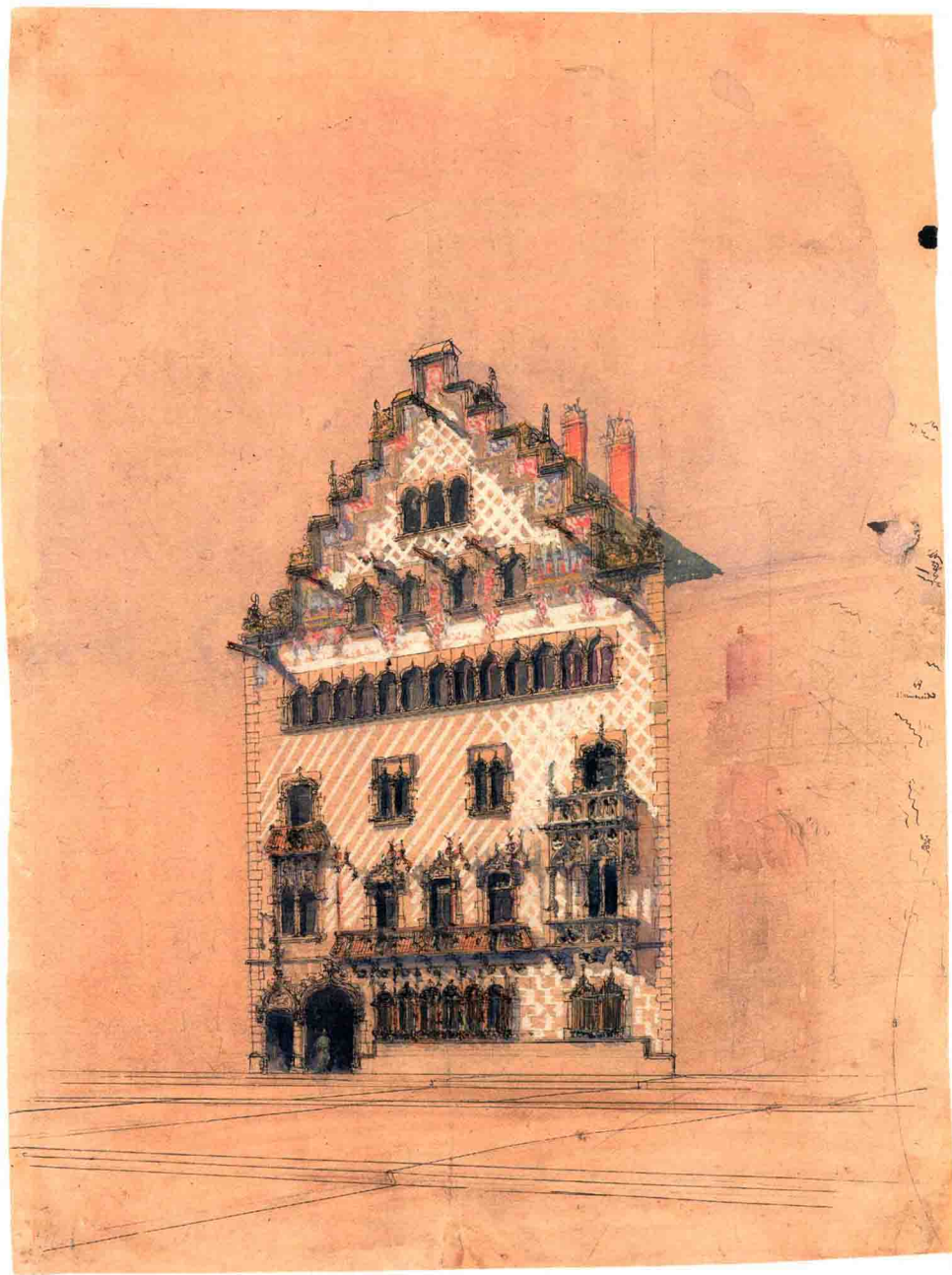
be sitting in the garden of one of his houses on a fine English afternoon (see p. 15), and Charles Rennie Mackintosh, with his exquisitely stylized drawings of Scottish houses with rugged exteriors and delicate interiors rendered in black ink, ready-made for the printed page (see p. 14).

Fin-de-siècle architects were extremely knowledgeable about craftsmanship, especially in the use and decoration of traditional materials such as stone, brick and wood. This intimacy could turn even the routine working drawing into a technical and artistic feat. Karl Moser's line drawing for a spire as part of his new Church of St John, in Mannheim, Germany, is an elevation delicately but insistently scaled: noted in the drawing are the decreasing heights of the stone course, the distances between jambs, and the sizes of openings (see p. 12). Yet this accuracy is set off by the free-flowing line of the sculpted surface, a swirling design of Jugendstil foliage arrayed upon a loosely Gothic Revival body. The combination of practical and imaginative, always a good balance in architectural design, makes Moser's drawing both workable and decorative.



Cass Gilbert and his staff display the principal floor plan of the Minnesota State Capitol Building, St Paul, USA, c.1900.

Gilbert's great office drawing for his design for the Minnesota State Capitol building exemplifies the Beaux-Arts style that was sweeping America, via Europe, at the beginning of the twentieth century. Architects derived their designs from ancient Greek, Roman and Renaissance examples, making their plans symmetrical, as clearly seen in Gilbert's large pen-and-ink example. On the back wall, right, hangs a print of the Pantheon in Rome, a source of inspiration.



JOSEP PUIG (1869–1956)
Casa Antoni Amatller, Paseo
de Gracia, Barcelona, Spain.
Perspective, c. 1898
 Ink, coloured washes
 and gouache

As a prominent politician and powerful advocate of Spanish Catalan culture, the architect Josep Puig i Cadafalch hid his correspondence and architectural archive behind a false wall that he built in his Barcelona home when Primo de Rivera instituted a dictatorship in the mid-1920s. There the material remained secreted until discovered by his descendants in 2003. The architectural drawings of Puig's near-contemporary Antoni Gaudí did not enjoy such good fortune; they were destroyed in a fire during the Spanish Civil War.

Puig's scholarly research and obvious enjoyment of late Gothic and early Renaissance

architecture in his native northeast Spain is evident in this design drawing for the Barcelona town house that he built for the chocolate maker Antoni Amatller i Costa. It is drawn in ink, almost wholly freehand, the pen moving constantly but with confident accuracy around windows, entrance portal and stepped gable to form the highly decorative stone mouldings. The diagonal and cross-hatched lines brushed in white gouache represent Puig's intention of covering the façade with bright and richly patterned tiles.



WILLEM KROMHOUT
(1864–1940)
American Hotel, Leidseplein,
Amsterdam, Netherlands.
Elevation, 1900
Pencil, ink and
coloured washes

An elevation is a projection along a horizontal plane of the façade of a structure, observed by the viewer flat-on. By 1900, in the hands of a master architect such as the Rotterdam-based architect Willem Kromhout, large architectural elevations for substantial projects like his Amsterdam Hotel had become technical feats of detailing and colouring – big office productions. Kromhout's

Art Nouveau design is scaled at 1:50 (i.e., the drawing is one-fiftieth the size of the proposed hotel), allowing all the lively detail to be appreciated, especially the stained glass and mosaic patterning. The clock tower is viewed set back, out of the elevational plane, achieved by using the traditional architectural drawing convention of thinner lines and muted colour.

KIRCHE FÜR DIE NÖ. LANDESIRRENANSTALT:



OTTO WAGNER (1841–1918)
Church of St Leopold, Vienna,
Austria. Perspective, 1902
Ink and coloured washes

The designs of the great Austrian architect Otto Wagner were widely known through *Einige Skizzen, Projekte und ausgeführte Bauwerke* (My Sketches, Projects and Executed Buildings), volumes of fine reproductions of drawings and photographs of his buildings, published between 1890 and, posthumously, 1922. This drawing was illustrated in the third volume of 1906, and, like all the plates, was in black and white. The colour

of the original is glittering, with the white form of the golden domed church, trellised terrace and winding hilly path set against a hazy purple sky and sandy brown earth textured by spattering the paint with an atomizer. Only the lantern cross slips across the upper margin of this design for the Church of St Leopold, built in the grounds of the State Insane Asylum of Lower Austria, on the outskirts of Vienna.