

From *Aquatint* to *Photogravure*

Architectural Illustration in the 19th Century

An exhibition

September 6, 2007-January 15, 2008



Curated by Sally S. Dickinson, Special Collections Librarian
Watkinson Library, Trinity College, Hartford, Connecticut



This exhibition marks the dedication of the newly renovated Watkinson Library public spaces in the Raether Library and Information Technology Center, Trinity College.

On the cover: Detail of Decoration of bases, from John Ruskin, *The stones of Venice*, 1851.

All items in the exhibition are from Watkinson collections, notably from the architectural library of Josiah Cleveland Cady. Sincere appreciation goes to College Librarian Richard Ross and colleagues Jeffrey Kaimowitz, Head Librarian of the Watkinson, Peter Knapp, College Archivist, and Jessica Smith, Outreach Librarian, for their enthusiasm and support. The brochure was designed by Rita Law. The exhibition and brochure were made possible, in part, by funding from the Trinity College Library Associates.

From Aquatint to Photogravure

Architectural Illustration in the 19th Century

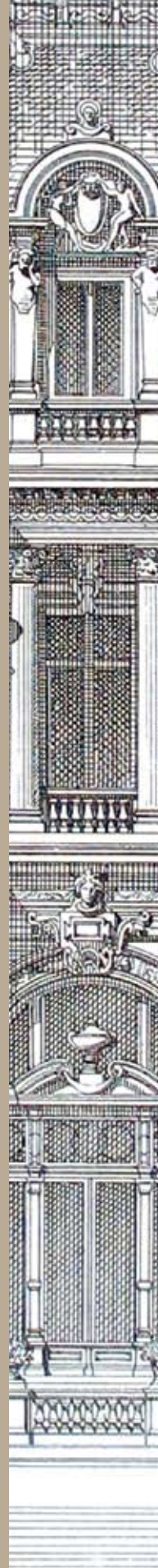
Architectural illustration in the 19th century encompassed a wide range of printing techniques for book illustration, ranging from the labor-intensive art of engraving to the more spontaneous technique of lithography. The architectural milieu was made up of numerous styles and trends, some lingering from the 18th century, which makes choosing representative examples a challenge. This exhibition offers an informal survey of the processes of illustration that span the century, featuring significant artists, architects, and publishers of the day.

The 19th century was a time of great technological change, which affected everything that relied on mechanical production, including architecture and the making of architecture books. The evolution in the making of printed images was not a clean progression from one technique to another. Although lithography was invented early in the century, engraving continued to be used for book illustration, and later was joined by a range of photomechanical processes. The printing industry, like the construction trades, was slow to embrace change since the existing means of production was comprised of a host of skilled artisans and established procedures.

Inventions in the printing trade increased the rate of production throughout the century while reducing costs and lowering the price of books for the public. Printing output rose ten-fold from 1800 to mid-century as machine-made paper replaced paper made by hand. Other inventions included the steam press, the letter-founding machine to cast letters by machine, and the development of publishers' bindings (cased by machine). Of particular relevance to the production of architecture books were technical innovations in the field of illustration. Early in the 19th century Alois Senefelder invented a way of printing images from stone which he called *Steindruckerei* (lithography). The development of steel engraving, originally developed to produce long runs of finely engraved banknotes, was adapted to book illustration c. 1820 and became widespread by mid-century, along with a way to steel-plate copper plates for longer runs. Photography presented one of the greatest challenges to the conventions of architectural representation. Although the term was coined in 1839, the process was not compatible with printing until the 1870's when the tonal *colloTYPE* printing process became commercially viable.

Likewise, in the field of architecture many styles and theories existed at the same time. One significant phenomenon that shaped ideas in architecture was the study and documentation of buildings from the past. Later, as architects got away from strict imitation of earlier styles, the sources of inspiration grew to include decoration and ornament from around the world. The structural advances in the use of iron also affected the aesthetics of design, but not significantly until later in the century. And, as the printing industry evolved, books themselves became an important way to disseminate new ideas about architecture.

Sally Dickinson





Westminster Abbey from *The microcosm of London*, 1808-1810.

CLASSICAL SURVEYS

1. James Stuart, 1713-1788, and Nicholas Revett, 1720-1804.

The antiquities of Athens. 1st ed.

London: Printed by John Haberkorn, 1762-1816.

Elevation, Tower of the Winds, copper-plate engraving

Artist: Nicholas Revett

Engraver: James Basire

Architects Stuart and Revett traveled in Greece from 1751-1753 to do the groundwork for this monumental work, one of the earliest systematic surveys of the archaeology and architecture of the Mediterranean region. The later volumes of *The antiquities of Athens* helped to fuel the Greek Revival, which continued into the early decades of the 19th century, as did the passion for architectural surveying. *Antiquities* established a new standard of accuracy for measurements taken on site, which was reflected in the precision of its line engravings. Stuart and Revett financed their work by selling subscriptions and later by releasing the work in parts, which spread out the cost of producing it. The production run was 500 copies. The small number of copies and the high cost made the work available only to a limited audience. As the 19th century unfolded new methods of printing produced illustrated books in longer runs which were therefore more affordable.

2. Charles Percier, 1764-1838, and Pierre F.L. Fontaine, 1762-1853.

Choix des plus célèbres maisons de plaisance de Rome et de ses environs. 1st ed.

Paris: P. Didot l'aîné, 1809.

Plan général du casin principal de la Villa Panfili, etching

Site architect: Giovanni Francesco Grimaldi, 1606-1680

Artists: Charles Percier and Pierre Fontaine

Engraver: Bonnard

Percier and Fontaine followed in the tradition of the great 18th century surveys with their books on the Renaissance architecture of Rome. They were among the first to exploit the genre of the plate book, which became a means to reach and influence a large audience of designers. The Empire style took shape under the influence of their work for the court of Napoleon and was popularized by their publication of books of their own designs. Part of the reason for their success was the means available to publish books in relatively cheap fascicles. Although they argued against it in the preface to their work on interiors, the books became a source for imitation among architects and inspired others to publish books of illustrations using a clean-line graphic style. The book on display is their second title about Rome and is illustrated in a richer, more rendered style by several accomplished engravers of the day. It was printed by Pierre Didot (1761-1853), the most eminent

printer in France of his time. His reputation was such that he was allowed to set up his presses in the Louvre, where the Imprimerie Royale once resided.

Etching

The etching process dates back to the 16th century and was used, often in combination with line engraving, through most of the 19th century. The process relies on using acid to eat into a metal plate producing the lines that receive the ink for printing. The look of an etching is informal and can resemble a pen and ink sketch.

TOPOGRAPHICAL BOOKS

3. **The microcosm of London.**

London: Printed for R. Ackermann, [1808-1810].

Westminster Abbey, hand-colored aquatint

(Shown opposite page)

Artists & Engravers: Augustus Pugin, 1769-1832, & Thomas Rowlandson, 1756-1827

Aquatint: Bluck

The landmark, illustrated *Microcosm of London* was conceived and published by Rudolph Ackermann, who hired two of the most highly accomplished English artists of the period to create the illustrations. It is remarkable as a comprehensive snapshot of London in the early 19th century and for its artistry and level of technical craft. The architectural scenes were composed by A. C. Pugin, and Thomas Rowlandson brought them to life with his expressive caricatures. The book was issued in monthly parts, which eventually sold for 10s. 6p. each. At completion the 26 parts were published in 3 volumes for £13 13s., a very large sum at the time.

Ackermann was a significant figure in the world of publishing and art in early 19th century Britain. At his 'Repository of Arts' he published books and prints, had a drawing school and sold and lent Old Master paintings and watercolors. He was also a patron of many English watercolor painters and commissioned much of the later work of Thomas Rowlandson. Ackermann was fascinated by technical advances in art and printing and in 1817 patented Alois Senefelder's lithographic process in England.

Aquatint

Aquatint was one of the contemporary methods used for producing color prints, the other method being lithography. The process, which became common in the 1770's, could achieve gradations of tone through the creation of a grain of varying depths etched by acid. Aquatints could be printed in one or more colors and then tinted by hand. It was a labor-intensive and, therefore, expensive process. If a run of 1,000 copies of a book with 100 illustrations were to be undertaken (resulting in 100,000 printed images), the artist would color a prototype which was then copied by numerous colorists. The term 'aquatint' refers to the method's ability to imitate a watercolor wash.



Vue du Chateau de Frasne from *Voyages pittoresques et romantiques dans l'ancienne France*, 1825.

4. The history of the colleges of Winchester, Eton, and Westminster. 1st ed.

London: Printed for and published by R. Ackermann, 1816.

Charter House from the square, hand-colored aquatint

Artist: William Westall

Engraver: J. C. Stadler

William Westall, who came from an English family of painters and illustrators, traveled on voyages to Australia, China, India, Madeira and Jamaica as an illustrator. Upon his return he used his skills to produce aquatints and lithographs for topographical plate books, such as *The history of the colleges of Winchester, Eton, and Westminster*. The book was originally issued in 12 monthly parts of which 1,000 copies were printed and sold for approximately £7 per set. This Ackermann work is actually more popular than his books on Cambridge and Oxford. It includes 48 colored plates by many accomplished artists of the day, including A.C. Pugin, T. Unwins, and F. Mackenzie, in addition to William Westall, as well as some of the finest engravers in England.

5. Baron Isidore-Justin-Séverin Taylor, 1789-1879.

Voyages pittoresques et romantiques dans l'ancienne France: Franche Comté. 1st ed.

Paris: P. Didot l'aîné, 1820-1878. 20 v.

Vue du Chateau de Frasne, lithograph printed on India paper

Artist/Lithographer: James Duffield Harding

Printer: Charles Hullmandel

The Watkinson owns the third volume, *Franche Comté* (1825), of this monumental work of lithography, orchestrated by Baron Isadore Taylor, and begun when the process of lithography was in its infancy. The complete work contains 2,700-3,000 lithographs by over 100 French and British artists. The relative ease of the process of lithography over engraving made this ambitious endeavor possible. The aim was to celebrate the medieval monuments and scenery of the provinces of France. The project was approached from the viewpoint of a traveller gathering impressions of the countryside and became the model and best example of the many Romantic lithograph albums that followed it. *Franche Comté* contains some of the finest work of the British artist and lithographer J. D. Harding, a master of carefully built tonal images. His images were printed in England by the printer Hullmandel, who was much admired in France. Fifty years later the work was used by several generations of architects as a source for images of French medieval structures and their surroundings.



6. J.B. Pyne, 1800-1870.

Lake scenery of England.

London: Day & Son, lithographers to the Queen, [1859].

The Druidical circle near Keswick, tinted lithograph

Artist: James Baker Pyne

Lithographer: T. Picken

James Baker Pyne was a self-taught landscape artist who exhibited at the Royal Academy and the Society of British Artists. His landscapes revealed the influence of several accomplished British artists, including J. M. W. Turner and Francis Danby. He also worked with Bristol artist Samuel Jackson. *Lake scenery of England* is an example of the popular genre of which Baron Taylor's *Voyages pittoresques* is such a fine example. Pyne's book is of note as an example of tinted lithography, printed in three colors, which was the precursor to color lithography. Three stones were used for printing the image: one for black ink, one for blue and one for fawn.

Lithography

The process of lithography introduced a new ease into the creation of printed images. With lithography an image could be drawn directly onto a stone printing surface, rather than being tooled in wood or metal. The process was also versatile and, as a result, not as readily identifiable as woodcuts and engravings. Toward the middle of the 19th century it became possible to transfer images from other printing methods to the lithographic stone and with the invention of steam-powered printing, the process was speeded up exponentially—from 12 prints an hour by hand from an intaglio plate (for engravings) to 1,000-3,000 prints an hour by steam-powered lithographic press.

ARCHITECTURE ROMANE

REVOL.

PL. V.



VUE INTERIEURE DE L'ORATOIRE



CHAPITEAUX AU S^oD'EXECUTION

H. REVOL DEL.

REVOL SC.

Oratory de St. Trophime pres Arles from *Architecture romane du Midi de la France*, 1873.

RESTORATIONISTS' SURVEYS

7. Henry Antoine Revoil, 1820-1900.

Architecture romane du Midi de la France. 1st ed.

Paris: Vve A. Morel & Cie, 1873.

Cady collection

Oratory de St. Trophime pres Arles, steel engraving

Henry Revoil, a disciple of Viollet-le-Duc and architect in the service of the Commission des Monuments Historiques, devoted his career to the restoration of medieval architecture in the south of France. His most significant restoration work was of Romanesque cathedrals, particularly St. Trophime at Arles, St. Gilles-du-Gard, and St. Saviour. He also designed parish churches and buildings, which revealed the influence of the ideas of Viollet-le-Duc and the Romanesque style. His elegant, measured drawings were used by architects as a source for designs in the rationalist medieval style and had a great influence on the work of American architect H. H. Richardson.

The engraved plate book was popular with architects and was particularly suited to measured drawings of buildings in plan, section, and elevation. With the development of the steel engraving in the 1820's-30's and later the ability to face a copper plate with a thin layer of iron (commonly referred to as steel) came the capability of producing as many as 100,000 copies from one plate. In the second half of the 19th century in France, some printers began limiting editions and thereby increasing the value of their work by scratching through the plates after a certain number of copies had been printed.

8. John Ruskin, 1819-1900.

The stones of Venice. 1st ed.

London: Smith, Elder, and Co., 1851. 3 v.

Decoration of bases, mezzotint

Artist: John Ruskin

Engraver: Thomas Shotter Boys

John Ruskin, writer, draughtsman, and painter, was one of the most influential art critics of the 19th century. His *Stones of Venice*, a history and study of early Venetian architecture, was based on "internal evidence," a thorough examination and measurement of the buildings themselves. Ruskin chose only what he considered the essential drawings to be used in this octavo edition. The images within the text were reproduced by the process that worked best with the subject—line or mezzotint engraving on steel, lithography, or wood-engraving. According to Ruskin, the full-page plates were mezzotints:

"...the larger plates were at first intended to be executed in tinted lithography; but, finding the result unsatisfactory, I have determined to prepare the principal subjects for mezzotinting ... requiring a carefully penned outline for the etcher and then a finished drawing upon the etching."—Preface.

The lithographer/engraver for the project was Thomas Shotter Boys, who was known for his expertise in watercolor and topographical lithography. Ruskin's work had a significant effect on the Gothic Revival in England and, later, on the Arts and Crafts movement.

9. Eugène Emmanuel Viollet-le-Duc, 1814-1879.

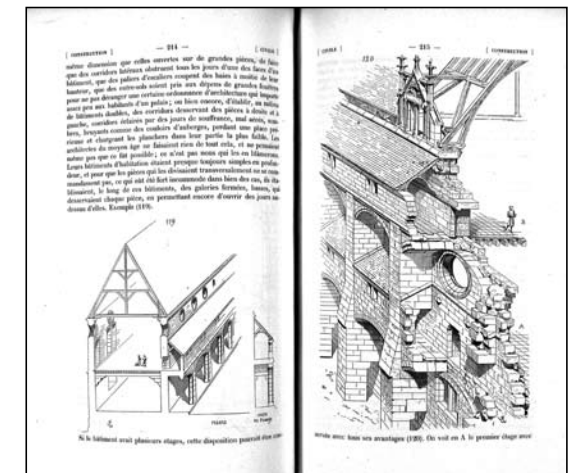
Dictionnaire raisonné de l'architecture française du XI au XVI siècle. 1st ed.

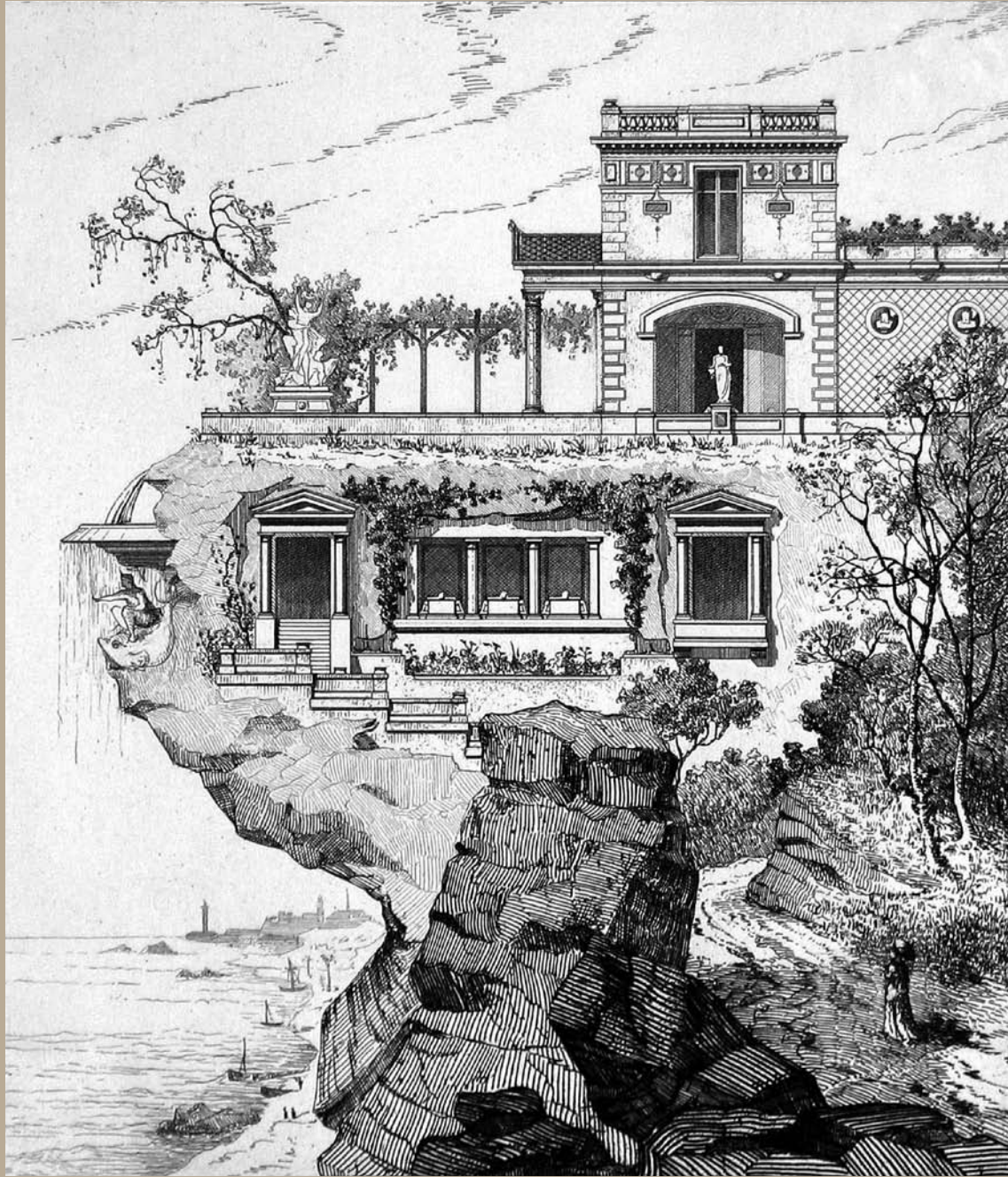
Paris: B. Bance, 1854-1868. 10 v.

Cady collection

Construction civile, transfer lithograph

Viollet-le-Duc's influential study of Romanesque and Gothic architecture represented a new synthesis of text and illustration. He had gained experience with this approach through working on the *Voyages pittoresques* of Baron Taylor (1820) which employed wood engravings as picturesque vignettes. In the *Dictionnaire raisonné* Viollet-le-Duc used illustrations to help explain the concept for each entry. His revolutionary drawings included 3-dimensional sectional cutaways and exploded and bird's eye perspectives, which helped the viewer to understand the structure of the building at a glance. Viollet-le-Duc conceived of a rationalist system of architecture in which the design of a building grew from functional and structural requirements that informed all aspects of the building. He proposed that contemporary architects design buildings according to this theory of structural rationalism, which was characteristic of French Gothic architecture. His principles would later be embraced by the proponents of modern architecture.





Une bastide sur les bords de la Méditerranée from *Concours de l'Ecole des beaux-arts*, 1875.

PATTERN BOOKS: ORNAMENT & ECLECTICISM

10. Samuel Sloan, 1815-1884.

The model architect: A series of original designs.
New ed.

Philadelphia: E.H. Butler, 1860.

Oriental Villa, tinted lithograph

One of the first Victorian pattern books in America, *The model architect* demonstrates the taste for eclectic design that was characteristic of the age. All of the designs in the book are Sloan's, so it served as a kind of advertisement of his work. The illustration shown is a tinted lithograph. Tinted lithographs are composed of one or two background tones in addition to an image printed in black. It developed around 1837 in England and was a precursor to the more labor-intensive color lithography which followed. Each color printed came from a separately inked stone.

11. Owen Jones, 1809-1874.

The grammar of ornament.

London: Quaritch, 1868. (1st ed. 1856)

Moresque No. 4, chromolithograph

The grammar of ornament, a landmark in the art of chromolithography, was also notable for its influence on the use of ornament in architecture. The book contains 100 color plates (3,000 images), introduced by Jones' 37 principles of design. Jones was an English architect who had earlier printed the first significant book in color lithography in England, a study of the Alhambra (1842-1845) based on a survey he did with the French architect Jules Goury. Throughout the 1850's he devoted himself to printing and brought the process of chromolithography to an art form in this masterful work on decoration. The book was a compendium of ornamental motifs from around the world and exploited the process of color lithography to illustrate intricate patterns that could only be accurately perceived in color.

Chromolithography

The term *chromolithography* became associated with the heyday of reproductive color lithography in the second half of the 19th century and was later used to distinguish between the *color lithograph* created by an artist and a commercial reproduction. With chromolithography up to 20 stones might have been used to create a print which involved overlaying tones to create an even larger palette of colors.

ECOLE DES BEAUX-ARTS

12. Jean Boussard, b. 1844.

Concours de l'Ecole des beaux-arts (medailles et mentions). Seconde série.

Paris: A. Morel et Cie, 1875.

Une bastide sur les bords de la Méditerranée by M. Navarre, 1871, etching

Drawn and etched by: Jean Boussard

Concours de l'Ecole des beaux-arts is a plate book of etchings by Jean Boussard, architect, reproducing entries for a 12-hour sketch problem, or *esquisse*, that preceded the Grand Prix de Rome competition. The Grand Prix de Rome was the highlight of the year in French architectural study for almost two and a half centuries. It was entered by advanced level architecture students at the national school for art and architecture in France, the Ecole des Beaux-Arts. The drawings required were plans, sections and elevations. The projects were not intended to be built and reflected a high degree of imagination within a theoretical framework of design principles. By 1855 two preliminary competitions were held (a 12-hour and a 24-hour problem) and eventually a third preliminary competition was added. The 8-10 finalists in the preliminaries were allowed to compete for the Grand Prix de Rome.

13. **Croquis d'architecture.**

Octobre 1866, no. 6.

Paris: Intime-club, 1866-1899.

Cady collection

Fragment de la façade, Un Hôtel a Paris pour un riche banquier; Grand Prix de Mr. Pascal, steel engraving
Architect: Jean-Louis Pascal, 1837-1920

Jean-Louis Pascal was a student of Charles-Auguste Questel at the Ecole des Beaux-Arts and worked in the construction office for Charles Garnier's Paris Opéra from 1861-1866. He won the Grand Prix de Rome for this town house design. After winning the Grand Prix and travelling to Italy, he worked on the reconstruction of several important public buildings in Paris, including the Grande Galerie of the Louvre, the Hôtel de Ville, and an enlargement of the Bibliothèque Nationale. Pascal showed great sensitivity to context in these projects, making sure that his façades complimented their surroundings. He later became a highly regarded teacher at the Ecole des Beaux-Arts. *Croquis d'architecture* was a monthly publication of architectural projects, Grand Prix competitions and drawings published by the Intime Club.



Grand escalier d'honneur from *Le nouvel Opéra de Paris*, 1878-1881.

MONOGRAPHS ON INDIVIDUAL BUILDINGS

14. Charles Garnier, 1825-1898.

Le nouvel Opéra de Paris.

Paris: Ducher et Cie, 1878-1881.

Cady collection

Grand escalier d'honneur, chromolithograph

Artist: Bunel

Lithographer: G. et Fc. Regamey

Garnier's masterpiece, the new Opéra de Paris, is shown to brilliant effect in this book of steel engravings and chromolithography, which displays the setting and sequence of spaces for Parisian society at the opera. Chromolithography was the perfect medium for Garnier's monograph. The process was capable of capturing in print the complex ornamentation and color that was integral to the design of the building.

This is his second book about the Paris Opéra. The first one, *Le Théâtre* (1871), was an explanation of his experience of designing and building the opera house as a reflection of his own views about architecture that responds to social needs through the creative insight of the individual. Garnier and his collaborators, including painters and sculptors, were educated at the Ecole des Beaux-Arts, and many were Prix de Rome winners. The design and ornamentation of the new Opéra was based on classical motifs reinterpreted in a way that was appropriate for a new time and place. Garnier was affected by the ideas of the rationalists who believed that architectural forms should be determined by the nature of materials rather than from abstract, formal ideals. It was the beginning of an eclecticism based on references to the past, rather than strict adherence to it. This style of architecture in France has been termed Neo-Baroque and was a style that became associated with the Beaux-Arts.

SURVEYS OF ROME

15. Paul-Marie Letarouilly, 1795-1855.

Edifices de Rome moderne, ou, Recueil des palais, maisons, églises, couvents et autres monuments publics et particuliers les plus remarquables de la ville de Rome.

Liège: D. Avanzo, 1849-1853.

(1st ed. published 1840-1857).

Cady collection

Palais del Bufalo Via della Valle, steel engraving

Artist: Paul-Marie Letarouilly

Continuing the tradition of the surveys of ancient architecture, Letarouilly visited Rome on three occasions beginning in 1821 to sketch and measure

the contemporary buildings of Rome for his comprehensive study of Renaissance and Baroque architecture, *Edifices de Rome moderne*. Letarouilly was a student of Charles Percier (see Classical Surveys) in 1816 and the next year enrolled in the Ecole des Beaux-Arts. His survey of Rome was done in the style of fine line engraving and perspective views developed by Percier and Fontaine. He also shared with them the belief that the best source of ideas for contemporary architects was the Italian Renaissance. Letarouilly thought that this period served the needs of his own time better than the ancient classical models. *Edifices de Rome moderne* was one of the most widely used reference books for architects and students in the last half of the 19th century. As late as 1890 one of McKim's assistants recalled how they would "spend hours and hours looking up data in Letarouilly, which was a kind of office bible." Over 30 editions of the work have been published since the first edition came out in 1840-57.

16. Heinrich Strack, d.1912.

Baudenkmaeler Roms de 15.-19. Jahrhunderts nach photographischen Originalaufnahmen als Ergaenzung zu Letarouilly, Edifices de Rome moderne. Berlin: Verlag von Ernest Wasmuth, 1891.

Cady collection

Palazzo della Valle (del Bufalo) 1530, collotype

Heinrich Strack was an architect and adopted son of the classical German architect Johann Heinrich Strack. His photographic survey of Rome that made reference to Letarouilly's *Edifices* focuses on documenting the façades of the buildings that Letarouilly measured and drew. The work is representative of the explosion of architectural publishing and, in particular, plate books that emerged with the expanding capabilities of mechanical reproduction in the second half of the 19th century.

Collotype

The collotype was the first photomechanical process to succeed as a commercial endeavor in the 1870's and is still in use today, though rarely. The process is based on the fact that sensitive gelatin will harden by degrees as it is exposed to light. The areas that are not exposed will remain soft and be receptive to water, while the hardened areas will be receptive to greasy ink. The hardened, cracked gelatin surface rolled with ink becomes the printing surface, similar to a lithograph. This process was the first tonal printing process for the reproduction of photographs.



Granada Alhambra, Ajimez en la Sala de los Embajadores from *Die Baukunst Spaniens*, 1893-1898.

PHOTOGRAPHIC SURVEYS

17. Lockwood De Forest, 1850-1932.

Indian domestic architecture.

Boston: Heliotype Printing Co., 1885.

Cady collection

House front at Ajmere, collotype

Lockwood De Forest, designer and landscape painter, was a member of the design group Associated Artists, formed in 1879. The group included De Forest, Louis Comfort Tiffany, Samuel Colman and Candace Wheeler. They were committed to developing a new style of interior design that looked outside Europe for inspiration. De Forest, with an interest in Eastern art and architecture that grew from his travels, was put in charge of woodcarving. After a trip to India in 1881, he commissioned workshops owned by the Hutheesingh family in Ahmadabad to produce panels and decorative carvings to use in his design projects. The carvings were fashioned after details from buildings in Ahmadabad and may have resembled some of the images in *Indian domestic architecture*. Through this book De Forest wanted to garner support for the craft of Indian woodcarving for fear that it was becoming a dying art.

18. Max Junghändel, b. 1861.

Die Baukunst Spaniens.

Dresden: Gilbers'sche Königl. Hof-Verlagsbuchhandlung, J. Bleyl, [1893]-1898. 3 pts. in 6 v.

Cady collection

Granada, Alhambra, Ajimez en la Sala de los Embajadores, collotype

One of the most widely circulated German photographic plate books on Spain, *Die Baukunst Spaniens* popularized the documentation of historic monuments in Spain that had been photographed by Charles Clifford, the British photographer for Isabella II's court in the 1850's. Although Spain had often taken a back seat to Italy, France, and Germany in the study of its architecture, Junghändel argued for an appreciation of Spanish architecture as having a national character that absorbed elements from many cultures. In regard to the Arabic-Moorish influence, he noted that due to its 700-year duration and influence on Christian building styles, it can be seen as vernacular to Spain and as a branch of its national architecture. The rich ornamentation of the Moorish style influenced architects and designers in the rest of Europe throughout the century.



Vöcklamarkt

19. Otto Schmidt, b. 1849.

Intérieurs von Kirchen und Kapellen in Österreich (12. bis 18. Jahrhundert.) Heliogravuren nach photographischen Aufnahmen ...

Wien: Verlag von Anton Schroll & Co., 1895.

Cady collection

Schöndorf

Vöcklamarkt

Salzburg, Nonnberg

Garsten

Baumgartenberg, aquatint photogravure

Aquatint photogravure was first used commercially in the 1880's and represents a high point in monochrome printing, characterized by exceptional depth of tone and representation of detail. The process began with a fine aquatint grain laid on a copper plate. The printing image was created by exposing a light-sensitive gelatin layer over the grain through a positive transparency. This relief image was then dipped in an acid bath. The incised image was then inked and pulled on a traditional rolling press. This technique was used for book illustration up to the 1930's and is still used by artists today. The term *photogravure* refers to this hand process, although it can mean any intaglio/photographic process.

20. Pierre Gélis-Didot, b. 1853.

La construction privée à la fin de XIXe siècle: Hôtels et maisons de Paris.

Paris: Librairies-Imprimeries réunies, 1893.

Maison, 197 Boulevard Saint-Germain, héliogravure

Architect: Jean-Louis Pascal, 1837-1920

Drawn by Pierre Gélis-Didot & Théodore Lambert

A town house from the late 19th century showing great contextual sensitivity by the Grand Prix winner Jean-Louis Pascal. The drawings were reproduced by Paul Dujardin using a photomechanical process called *héliogravure*.



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