

Architect Irving Gill (1870-1936) and the Specifications for Bentham Hall, The Bishop's School

By Nicolas Stougaard and Nicole Holland

"All workmanship shall be strictly first class in every respect..."¹

A rare document was discovered in the basement of The Bishop's School, La Jolla, California, during preparations for the School's Centennial Celebration in 2009. Architect Irving Gill's specifications for the construction of Bentham Hall, one of the two earliest buildings on campus, provides a remarkable opportunity to reflect on issues of design, materials, and the translation of the architectural vision into the practical details of recipes for aggregate concrete, pouring times for framing molds, architect's approvals, and contractor's liabilities, among other issues.

Examination of the contractors' specifications is particularly interesting considering the document was generated by the working team of Joseph H. Johnson, Bishop of the Los Angeles Diocese of the Episcopal



Portrait of Irving J. Gill, 1915.
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This article developed from an independent art history study by student Nicolas Stougaard ('11) in his senior year at The Bishop's School, under the direction of instructor Nicole Holland. The authors wish to thank Aimeclair Roche, Head of The Bishop's School; Lenore Fraga, Chief Operating Officer; Suzanne Weiner, Director of Marketing; John Jones, former Building Manager; Jane Kenealy, Archivist, San Diego History Center; and Dr. Molly McClain, editor, *The Journal of San Diego History*.

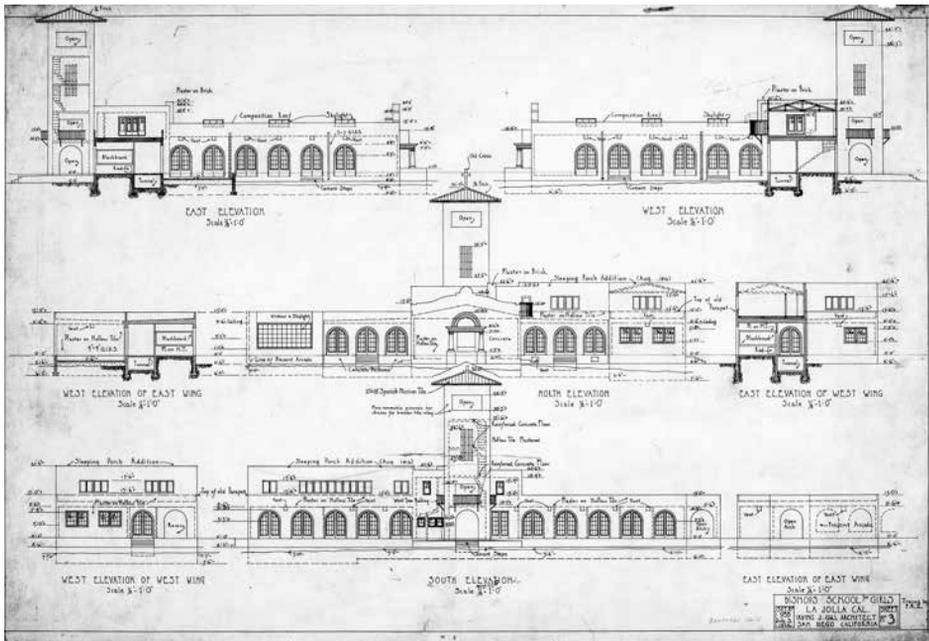
Church, Ellen Browning Scripps, and Gill, all of whom were dedicated to the virtues of simplicity and serenity (still part of the School's motto) and the creation of a learning environment "set apart" that continues to serve its original mission. Gill wrote, "If we, the architects of the West, wish to do great and lasting work we must dare to be simple." Scripps, meanwhile, envisioned a campus of simplicity and natural beauty.²

How does such a campus rise from the exacting instructions for mixing materials in a concrete tub? The Gill project for Bishop's stands today as one of the great multi-structural projects of his career, a life's work distinguished by an innovative and ethical stripping down of ornamental elements in favor of the simple geometry of the straight line, the arch, the circle, and the square. Fusing American pragmatism with idealism in the Progressive Era, Gill ranks as a leading proto-modernist. He achieved with The Bishop's School qualities of "honesty, frankness and dignified simplicity."³ Contractor's specifications from this period are rare in any archive, and a careful examination of the Bentham Hall specifications both enhances our understanding of the building itself, and offers vital information on period building practice.

The Architect

Irving John Gill, born in 1870, in Tully, New York, near Syracuse, began his career as a draftsman in the architectural office of Ellis G. Hall. After a few years, Gill moved to Chicago in 1890 to work with Hall's old partner, Joseph L. Silsbee. The latter also employed the Wisconsin native Frank Lloyd Wright, later to rise to preeminence as a twentieth-century American architect. Wright quickly transferred to the office of Dankmar Adler and Louis Sullivan, as would Gill. It was there that Louis Sullivan, the so-called father of the skyscraper, famously dictated, "form ever follows function."⁴ This principle would remain fundamental to both Gill and Wright in their formulation of organic architecture. They believed that the form of the building rose from its physical and social requirements. During his time at the firm, Gill may have assisted Sullivan with his work on the renowned Transportation Building for the 1893 World's Columbian Exposition in Chicago, a design that featured Sullivan's unique stylistic combination of precociously modern simplification and Arts and Crafts-style Romanesque ornamentation.

In the year that the Exposition opened, Gill became ill and was forced to leave Chicago for the healthier climate of San Diego. He brought with him to Southern California a rich heritage of design principle and technique. Shortly after opening his first office with Joseph Falkenham, an article in the local San Diego newspaper, *The Golden Era*, noted: "Mr. Gill intends doing nothing short of revolutionizing the country architecture of this fair 'Italy' of ours."⁵ He did just that.

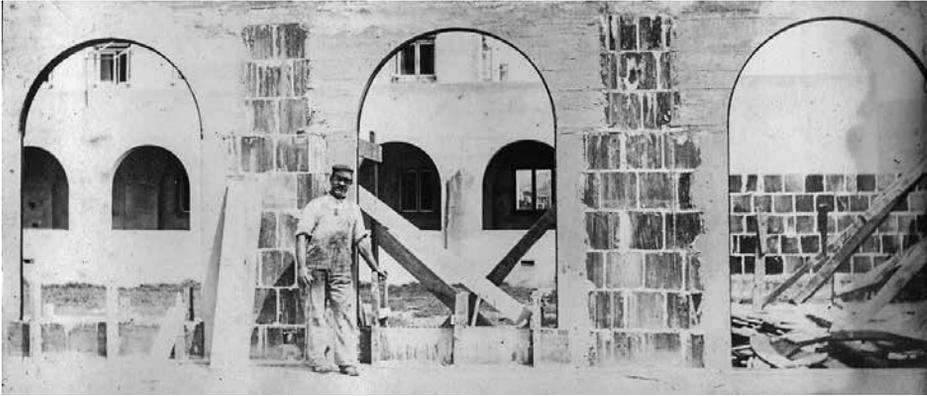


Irving Gill, *Bentham Hall East, West, North and South Elevations*, graphite and ink on linen, dated in title block, July 3, 1912. The south elevation, seen at the foot of the sheet, features Gill's original tower, designed in the Italian "belvedere" or "watchtower" style, with unglazed openings on each side, a design echoed in the extant upper story of Gilman Hall, once the sleeping porch. Carleton M. Winslow replaced Gill's tower with a domed version around 1930. Courtesy of the Architecture and Design Collection, University Art Museum, University of California, Santa Barbara, 1968 105.11.D.56.

The Document

Gill envisioned a school design of poetic simplicity, drawing on California's Spanish Mission style, Italian and Moorish architecture, and the natural beauty of the coastline. In the forty-one-page specifications document, Gill scrupulously detailed construction methods for the reinforced concrete school, ranging from concrete to plumbing, the vacuum cleaning system, pipe width and electricity, as well as safety requirements.⁶ Let to bid in 1910, the specifications served as the textual blueprint, or instruction manual, for the winning builder: La Jolla Building and Lumber Company.⁷ In it, Gill detailed materials and labor, including transportation, scaffolding, ladders, apparatus, tools and utensils, and instructed the winning bidder "to protect his interests against loss by fire, earthquake etc."⁸ Finally, the contractor was directed to "keep the premises in as clean and orderly a condition as possible. . . . At the completion of the contract to leave the work broom clean, complete and perfect in every respect, weathertight [sic] and ready for occupancy."⁹

The firm hand of the architect was clear from the beginning. Gill wrote, "Make no changes or departure from the plans, drawings or specifications without a written



The Bishop's School under construction, ca. 1910-20, Album #104, The La Jolla Historical Society.

order to that effect from the Architect."¹⁰ He placed the greatest emphasis on "concrete work," as his project revolved around the expert use of the ancient building material. He also highlighted the importance of using only the "standard, uniform brand" of Portland cement of "uniform color and free of lumps" mixed in a "batch machine mixer" to be approved by the architect. He gave precise specifications for the grades of aggregate, "free from loam, clay, sticks and other such impurities," and listed the amounts of water, aggregate, mortar, and cement to be used in each individual section of the School.¹¹ For the piers, walls, and flooring, Gill required eight parts of aggregate for every bag containing less than or equal to ninety-four pounds of cement per cubic foot. For other sections of the building, Gill required only six parts aggregate for each bag of cement because these areas simply "didn't need to be as sturdy." Finally, Gill insisted on using the Kahn system of concrete reinforcing, to be ordered from the Trussed Concrete Steel Company, Detroit, Michigan.¹²

The wooden forms for piers, columns and walls needed to be clean, "good quality lumber, sufficiently strong and rigid and thoroughly braced and secured in place so as to properly form and fully sustain the concrete work without deflection." Gill wrote, "Place the rough side of the lumber next to the concrete for all plastered surfaces."¹³ Lumber should be Oregon Pine except for the sashes, which were to be made in sugar pine with birch veneer.¹⁴ Samples for hollow terra cotta, to be used for second-story floors and roofs, had to be approved by the architect, and should "emit a metallic sound when struck and a fracture must show close texture and uniform color."¹⁵ Concrete should set at least six hours in column and pier molds and, for the concrete floors, it was advisable to pour "vigorously to completion." If it was necessary to stop, however, the architect would determine "the place of stopping."¹⁶ All forms would remain in place for eighteen days, and floors would be tested with one hundred pounds per square foot in "one month after removing forms."¹⁷

Directions for the foundations include the stipulation that “the Architect will measure the excavations, determine the amount of variations, and order changes in writing before any concrete is laid.”¹⁸ Walls would be finished in plaster with exact thicknesses ranging from 1/2 to 3/8 inch, and made in proportions “five (5) parts cement, twelve (12) parts sand, and (1) one part lime paste.”¹⁹ The architect’s insistence on the finest quality materials is clearly stated in the section entitled “glazing,” in which he specified that all glass shall be the best of its class.²⁰

Gill’s command of sources is evident in his stipulation that hardware should be provided by P&F Corbin manufacture, and finish should consist of “dull bronze well-lacquered” and nickel plated in bath rooms.²¹ Details for size of plumbing pipes included precise instructions for the drinking fountain, to be “cut from Italian marble.”²² Steam heating had to be “first class” while Gill’s radiators of choice were the “Rococco [sic] Pattern wall radiator, manufactured by the American Radiator Company.”²³ Gill provided the location of all electrical outlets as well as vacuum cleaning piping.²⁴ Facing for the “Gillespie” Runford [sic] fireplace is specified as “Cambridge “Fieance” [sic] tile selected by the Architect.”²⁵

In the section entitled “painting,” the architect stipulated approval of all colors. Then, in a hitherto unknown detail of the project, Gill stated: “The concrete cross on the north elevation shall be properly treated and covered with gold leaf so as to make a first class, durable job.”²⁶ Projects change in production, and therefore it is not surprising that this cross no longer exists. What is astonishing, however, is that the architect called for gold leaf, a luxury form of decoration associated with Renaissance opulence and completely out of character with the otherwise modernist style of the building. We may never know whether architect or patron stipulated this ornamentation, what model it may have been based upon, or how design moved from this grandeur to the simple Celtic metal crosses that adorn Bentham and Scripps Halls today.



Scripps Hall, left, and Bentham Hall, right, with its small chapel and bell tower, 1912. At this time, the main entrance to campus was located on Prospect Street. ©SDHS #81:11867.

The Style

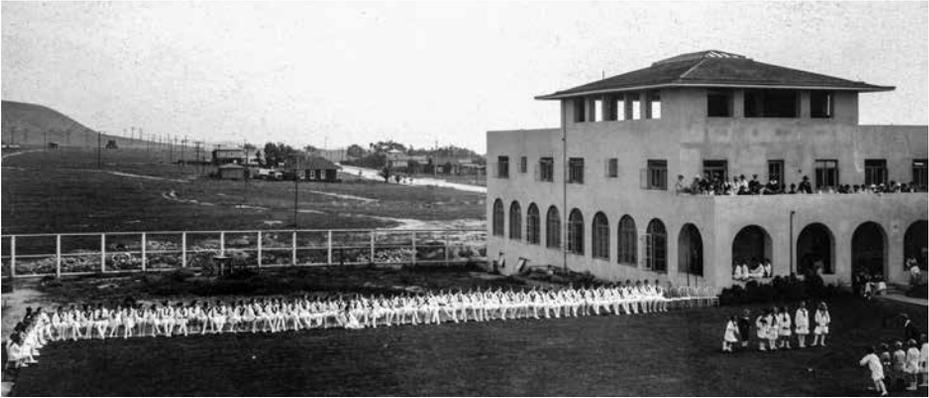
In the early twentieth century California was still a rural countryside, unsettled and vast, lacking a permanent architecture. In his 1916 article for Gilbert Stickley's architectural magazine, *The Craftsman*, Gill noted, "The West unfortunately has been and is building too hastily, carelessly and thoughtlessly."²⁷ He declared that it was his and other architects' duty to "create lasting work" that would help residents of young California settle the land.

A modernist, Irving Gill believed that in order to "break away from this degradation (temporary housing) we must boldly throw away every accepted structural belief and standard of beauty and get back to the source of all architectural strength—the straight line, the arch, the cube, and the circle."²⁸ Keys to the realization of these pure shapes were the wooden form for the concrete molds, and, indeed, the color, texture, and thickness of the concrete itself. Because Gill shaped his architecture on the basis of these enduring fundamental forms, he was able—like Sullivan and Wright—both to focus his attention on the functionality of the spaces and to consider the complimentary interplay between building and surrounding nature. Gill's aesthetic lay in the conviction that ornament detracts from the grandeur and meaning of buildings, and that it is merely a cover-up for "the fundamental weakness of (the architect's) design."²⁹ Nonetheless, his attention to the fine points of radiator pattern, fireplace tile, and the gold-leaved cross itself demonstrates that, within the bounds of his aesthetic, there was room for the architect's discretion.

Hygiene as a value of architectural practice, one commensurate with simplicity,



During World War I, Bishop's students tended a victory garden and rationed wheat, meat, and other foodstuffs. Students enrolled in a course, Surgical Dressings, appear in the windows of Bentham Hall. Courtesy of The Bishop's School.



Gilman Hall (1916-17) provided a vantage point from which visitors could view games on Open Day, 1921. Courtesy of The Bishop's School.

was another value on which Gill insisted. He pursued “the idea of producing a perfectly sanitary, labor-saving house, (a style) where the maximum of comfort may be had with the minimum of drudgery.”³⁰ In his projects, including The Bishop’s School, Gill omitted all architectural accents that required maintenance, including baseboards, molding, and paneling. He viewed them as merely dust collectors. Gill’s system for vacuum cleaning pipes was noted in the specifications. In addition, the architect emphasized the purity with which he approached his work by washing his buildings of any color and painting them a creamy white, always having the final word on color, as he stated in the specifications.³¹

With his dedication to honesty and simplicity, realized through painstaking attention to texture, color, strength, and finish, Irving Gill was able to create an architectural language that was permanent to the West. With its historicist references to Spanish Mission, Renaissance and Moorish styles, it inserted itself into traditional practice. It also participated in the vocabulary of European modernism that was to flourish in the years following World War I.

NOTES

1. [Joseph H. Johnson], The Bishop of the Protestant Episcopal Church in Los Angeles and Irving J. Gill, *Specifications of Materials and Workmanship to be Supplied for the Erection of the Instruction Section of a REINFORCED CONCRETE SCHOOL to be Built on Lots 1 to 4 and 13 to 24 in La Jolla Park Addition to the City of San Diego, California*, January 18, 1910; collection of the Trustees, The Bishop’s School, La Jolla, California. This is one copy of an edition of six.
2. Irving J. Gill, “The Home of the Future: The New Architecture of the West: Small Homes for a Great Country,” *The Craftsman* 4 (1916), 141, <http://digicoll.library.wisc.edu> (accessed July 23, 2014). Gill’s article included a photographic illustration of the first Bishop’s campus in Banker’s Hill, downtown San Diego. For more information on Gill’s plans for the campus of The Bishop’s School, see Molly McClain, “The Bishop’s School, 1909-2009,” *The Journal of San Diego History* (hereafter *JSDH*) 54, no. 4 (Fall 2008): 235-67; Nicole Holland, Ashley Chang, and Pieter

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- Stougaard, "Irving Gill's Vision for The Bishop's School," *JSDH* 54, no. 4 (Fall 2008): 268-70; Sarah J. Schaffer, "A Significant Sentence Upon the Earth: Irving J. Gill, Progressive Architect: Part I: New York to California," *JSDH* 43, no. 4 (1997): 218-39; and Schaffer, "A Significant Sentence Upon the Earth: Irving J. Gill, Progressive Architect: Part II: Creating a Sense of Place," *JSDH* 44, no. 1 (1998): 24-47.
3. Gill, "The Home of the Future," 144.
 4. Louis H. Sullivan, "The Tall Office Building Artistically Considered," *Lippincott's Magazine* (April 1896), 409, <https://ia600403.us.archive.org/11/items/tallofficebuildi00sull/tallofficebuildi00sull.pdf> (accessed July 23, 2014).
 5. Bruce Kamerling, *Irving J. Gill, Architect* (San Diego: San Diego Historical Society, 1993), 5.
 6. Gill, *Specifications of Materials and Workmanship*, 1.
 7. Thomas Mitchell, *Reviewing the Vision: The Story of the Bishop's School*, (La Jolla, 1979), 17.
 8. Gill, *Specifications of Materials and Workmanship*, 2-3.
 9. *Ibid.*, 4. The sections are listed in the index as follows: General Conditions (page 1); Excavation (5); Concrete Work (7); Carpenter Work (16); Glazing (19); Hardware (20); Sheet Metal Work (22); Composition Roofing (23); Plumbing (24); Vacuum Cleaning (28); Electrical Work (29); Steam Heating (32); Lathing and Plastering (36); Painting (39).
 10. *Ibid.*, 13.
 11. *Ibid.*, 7-9.
 12. *Ibid.*, 7-8.
 13. *Ibid.*, 9.
 14. *Ibid.*, 16-17.
 15. *Ibid.*, 11.
 16. *Ibid.*, 12.
 17. *Ibid.*, 15.
 18. *Ibid.*, 12.
 19. *Ibid.*, 14, 36.
 20. *Ibid.*, 19.
 21. *Ibid.*, 20-21.
 22. *Ibid.*, 26.
 23. *Ibid.*, 33.
 24. *Ibid.*, 28.
 25. *Ibid.*, 13.
 26. *Ibid.*, 40.
 27. Gill, "The Home of the Future," 141.
 28. *Ibid.*, 143.
 29. *Ibid.*, 142.
 30. *Ibid.*, 147.
 31. Gill, *Specifications of Materials and Workmanship*, 40.