

Gaudi's Influence on Architecture in Barcelona and Bilbao

Fall Semester 2024

Instructor: Matthew Schlieb

Program Format: 5 week Course, with 2 hour academic Powerpoint lectures, including time for questions throughout. No required text or books, however, a bibliography is provided for optional further reading.

Course Objective:

To offer a master level survey of Antoni Gaudí's architecture, curated in preparation for a University of Pittsburgh Osher tour through Barcelona and Bilbao in the Spring of 2025, examining his seminal works, exploring leitmotifs, manifestos, and partis pris, through the perspective of a practicing architect and writer on architecture.

Course Description:

Gaudí set out to restore humanity through a living architecture of expressionistic forms derived from nature's flora and fauna, originating within Mudéjar influences in the Catalan culture of Barcelona, constructed with equilibrated structures reacting to weight and space, while anticipating the parametric architecture of today. This course will trace the arc of Antoni Gaudí's life and architectural work, analyzing ten seminal works that will be visited during the University of Pittsburgh Osher Spring 2025 tour of Barcelona and the Guggenheim Museum in Bilbao, examining Gaudí's schematic strategies, theoretic postulates, and material executions, contextualized by his collaborations with artisans and poets.

Course Outline:



Lecture 1: Mudéjar & Trencadís Mosaics

An examination of Mudéjar influences from the Middle Ages and the revival of Catalan culture in the romantic Renaixença movement of Barcelona. Three early works by Gaudí will be visited: Casa Vicens (1883-1885), Güell Estate Pavillions (1884-1887) and **Palacio Güell (1885-1890)**.



Lecture 2: Parabolic & Catenary Curvatures

An examination of Gaudí's experimentations with inverted tensiles and the catenary curve, in search of an equilibrated structure illustrated in the use of the Estereostatic model. Three more works by Gaudí will be visited: **Colonia Güell (1898-1916)**, **Park Güell (1899-1914)** and Portal Miralles (1901-1902).



Lecture 3: Pilotis & Parametric Structures

An examination of the industrialization of structural engineering in the 20th century, in use of new modern materials and methods of construction. Three works by three masters of 20th century architecture will be visited: **Mies van der Rohe's Barcelona Pavilion (1929)**, **Casa Milà (1905-1910)** 'the stone quarry' and Frank Gehry's El Peix d'Or (1992).



Lecture 4: Metaphor & Living Architecture

An examination of Gaudí's search for a plastic and continuous form, inspired by his experimentations with natural anatomic, flora and fauna in his search for a Living architecture. The last three works by Gaudí will be visited: the 'house of bones' **Casa Batlló (1901-1906)**, the Nativity façade of the **Sagrada Família (1884-1926)** and **Sagrada Família School (1909)**.



Lecture 5: Plasticity & Deformational Form

An examination of Gaudí's influence on the plasticity of today's architectural practice and the impacts of computer technology on the future of design and construction of buildings in the 21st century. A visit to Frank Gehry's masterpiece, **Guggenheim Museum in Bilbao (1991-1997)**, and the artistic works by Richard Serra (The Matter of Time, 1997), Sol Lewitt (Mural Drawing No. 831, 1997), Louise Bourgeois (Mum, 1999), Jeff Koons (Celebration series, 2000) and Yayoi Kusama (Hall of Mirrors of Infinity, 2020).

Chronology of the life and works of Antoni Gaudí:

- 1852 (June 25) Antoni Gaudí y Cornet is born and baptized (June 26) in Reus, Tarragona, Spain.
- 1863-68 Attended the Colegio de los Padres Escolapios in Reus.
- 1867 Created drawings for the handwritten school magazine El Arlequin, 10 to 12 issues.
Visited Monastery of Poblet in Tarragona, with friends José Ribera and Eduardo Toda.
- 1868-73 Attended the Instituto de Enseñanza Media and Facultad de Ciencias de la Universidad de Barcelona.
- 1872 Start of Third Carlist War, the fall of the First Spanish Republic in 1874, restoring the Monarchy.
- 1873-78 Attended Escuela Provincial de Arquitectura in Barcelona, matriculated in 1874, degree on March 15, 1878.
- 1874 Joined the textile cooperative society La Obrera Mataronense.
- 1875-76 Served in the Infantry Reserves.
- 1875-77 Worked for Architect Francesc de Paula del Villar y Lozano on the Lady Chapel of the Monastery of Montserrat.
- 1876 Worked for Engineer José Serramallera drafting for the industrial machinery firm of Padrós y Borrás.
 Founding member of Associació Catalanista d'Excursions Científiques, a society for reviving interest in Catalan antiquities.
- 1877 (Sept. 8) **Death of his mother, Antonia Cornet y Bertrán.**
- 1877-82 Worked for Builder Josep Fontseré on the entry gate and cascade in the Parc de la Ciutadella in Barcelona.
- 1878 Worked for Architect Juan Martorell on furniture for chapel of Marqués de Comillas palace estate.
 Designed his own roll-top writing desk, which was moved to each of his studios for the rest of his life.
 Visited Montserrat, Elne, Mallorca, Pic de la Maladeta, Toulouse, Carcassone with Catalan excursionist group.
 (June) Wrote memorandum to Barcelona municipal government on importance of street lamps, awarded designs.
 (June) Designed showcase for Esteban Comella glove maker, for the Paris World Fair of 1878,
in Eudaldo Puntí carpentry shop meets Eusebi Güell and sculptor Llorenç Matamala y Piñol.
 (August 10) Wrote in diary a response titled Ornamentation to Lluís Domènech y Montaner's 1878 article on eclecticism.
- 1882 Drafted Juan Martorell's design for Barcelona cathedral façade, lettered by Lluís Domènech y Montaner.
 Designed a hunting pavilion for Güell family at Garraf, never built.
- 1883 Designed and built machinery shed for La Obrera Mataronense, his first parabolic arch structure, made of wood.
 (Nov. 3) **Nominated by Juan Martorell to replace Villar y Lozano as the architect for Sagrada Familia.**
- 1884 Left La Obrera Mataronense cooperative.
- 1885 (March 19) First re-design for Sagrada Familia. Dragon Gate completed in Vallet workshop.
- 1887 **Travels with 2nd Marqués de Comillas to Andalusia and Northern Morocco, makes plaster casts from Alhambra for pavilion at Barcelona World Fair of 1888.**
- 1889 Rusiñol writes critique of Palacio Güell, first press naming Gaudí as the architect.
- 1890 Start of the Modernismo Movement in Barcelona.
- 1892 Sagrada Familia founder José María Bocabella dies.
 Large donation made to Sagrada Familia,
Gaudí begins 'natural forms' study on Nativity.
- 1893 Friend/mentor Bishop Juan Bautista Grau dies.
 Sagrada Familia director M. de Dalmases y Riba dies.
- 1894 Gaudí nearly dies from Lent Fast.
- 1895 (January) Sagrada Familia models of flora (tree).
- 1898 Spanish-American War, loses Cuba/Puerto Rico.
Gaudí begins 'equilibrated structures' study.
- 1900 Joan Maragall writes 1st article on Sagrada Familia, naming Gaudí as the architect.
- 1901 Güell starts company making asphalt and cement.
- 1903 Completes Park Güell gatehouses, viaducts, entry stairs and walls, begins colonnade/terrace.
- 1904 Transitions Nativity Towers to circular plan.
 King Alfonso XIII tours Sagrada Familia with Gaudí.
Gaudí begins 'color and light' study at Mallorca.
- 1905 Maragall writes (3rd) Sagrada Familia fundraising.
- 1906 Moved with father and niece to Park Güell.
Death of his father Francesc Gaudí y Serra.
Friend/mentor Juan Martorell dies.
 Gaudí's year of 'holocausto'.
 Start of Noucentisme Movement in Barcelona.
- 1909 (July 25-August 2) **Setmana Tràgica.**
- 1910 Paris Exhibition of Salon des Beaux Arts.
 Gaudí stricken with Brucellosis/Maltese fever.
- 1911 Sculptor Carlos Mani dies.
 Writer Joan Maragall dies.
- 1912 Niece Rosa Egea Gaudí dies.
- 1914 **Righthand assistant Francisco Berenguer dies.**
Sagrada Familia in debt, exploring termination,
 Gaudí sells family farm at Riudoms to reduce deficit, and dedicates himself solely to Sagrada Familia.
 (July 28) Start of World War I, Spain neutral.
- 1916 Friend/mentor Bishop Torras y Bages dies.
 Gaudí asks shopkeepers to contribute alms.
- 1917 Designed Sagrada Familia Passion Façade.
- 1918 (July 8) Patron/friend Eusebi Güell dies.
 Sagrada Familia model of hyperboloid windows.
- 1922 1:10 model of Sagrada Familia columns/vaults, designed Glory Façade.
- 1923 1:25 model of Sagrada Familia interior/pinnacles.
 Barcelona purchased Park Güell.
- 1924 (Sept.11) Arrested for attending a Catalan mass.
- 1925 Moved into Sagrada Familia studio.
 (Nov. 30) **St. Barnabas Tower completed.**
- 1926 (June 7) Gaudí struck by streetcar, (June 10) dies in Hospital de la Santa Creu, (June 12) buried in the crypt of Sagrada Familia.
- 1929 Nativity Towers completed.
- 1935 Construction comes to stop when Domènec Sugrañes dies, the last architect to have worked with Gaudí on Sagrada Familia.
- 1936 (July 17) Start of the Spanish Civil War. Mobs burned Gaudí's workshop, smashing models and removing his body from the crypt.
- 1939 Sagrada Familia crypt and schools rebuilt by Francesc de Paula Quintana. Models pieced back together, to resume construction.

1867-69 Restore Poblet Monastery

1878-83 designed

1883-88 built Casa Vicens

1883-85 designed El Capricho

1884-87 stables, gatehouse, dragon gate for Güell Estate.

1885-88 Palacio Güell

1887-94 Astorga Episcopal Palace

1888-90 St. Teresa convent

1891-94 designed Casa de los Botines

1892-93 Tangiers Mission

1895-99 Bodega

1900-14 Park Güell

1898-1908 designed Colonia Güell

1891-1900 Nativity Façade

1901-14 Nativity Towers

1909 Sagrada Familia Schools

1914-26 Nativity Pinnacles

1901-02 Miralles Gate

1900-08 Bellesguard

1898-1900 Casa Calvet

1906-10 Casa Milà

Variations on Mudéjar style (1878-1888)

Variations on Gothic style (1887-1908)

Search for structural synthesis (1892-1908)

Search for a Living architecture (1892-1925)

Bibliography:

- Trattato teorico pratico dell'arte di edificare, S. Rondelet (Società Editrice, Mantova, 1831)
- Architecture Arabe ou Monuments, Pascal Cost (Paris, 1939)
- The Stones of Venice, John Ruskin (George Allen, London, 1853)
- The Grammar of Ornament, Owen Jones (Ivy Press, London, 1856)
- The Mudéjar Style in Architecture, José Amador de los Ríos (Real Academia de Bellas Artes de San Fernando, Madrid 1859)
- Trattato dell'arte del carpentiere, A. R. Emy (Antonelli Editore, Venezia, 1862)
- Dictionnaire Raisoné de L'architecture Française, Viollet-le-Duc (E. Martinet, Paris, 1869)
- L'Art Arabe d'après les Monuments du Kaire, Prisse D'Avignes (Ve A. Morel et cie, Libraires-Éditeurs, Paris, 1877)
- L'esprit des bêtes, Zoologie passionnelles, Mammifères de France, Alphonse Toussenel (Marpon et Flammarion, Paris, 1884)
- The Artistic Vision and Religion of Gaudí, Francesc Pujols (Quaderns Crema, Barcelona, 1927 Spanish)
- Gaudí, Josep F. Ràfols and Francisco Folguera (Editorial Canosa, Barcelona, 1928 Spanish)
- The Church of the Sagrada Família, I. Puig Boada (Editorial Barcino, Barcelona, 1929, English 1986)**
- The Art of Gaudí, Juan Eduardo Cirlot, (Omega, Barcelona, 1950 Spanish)
- Gaudí: 1852-1926, Josep F. Ràfols (Editorial Aedos, Barcelona, 1952 Spanish)
- Gaudí: The Man and His Work, Joan Bergós (Ariel, Barcelona, 1954, English 1999)** photos by Marc Llimargas
- Gaudí, Henry-Russell Hitchcock (The Museum of Modern Art, New York, 1957)
- Gaudí, Le Corbusier (Fotoscop, Barcelona, 1958)
- Antoni Gaudí, James Johnson Sweeney and Josep Lluís Sert (Frederick A. Praeger Publishers, New York, 1960)**
- Gaudí: biography, Jordi Elias (Editions Circo, Barcelona, 1961)
- Antonio Gaudí: A Reappraisal, E. Casanelles (Studio Vista, Barcelona, 1965, English 1967)
- Gaudí: An Architecture of Anticipation, Juan Perucho (Ediciones Poligrafa, Barcelona, 1967)
- Global Architecture: Antonio Gaudí, Casa Batlló, Casa Milà, Maria Lluïsa Borràs (A.D.A. Edita, Tokyo, 1972)
- Gaudí: His Life, His Theories, His Work, César Martinell (The MIT Press, Cambridge, 1967, English 1975)**
- Gaudí, Juan Bassegoda (Publicaciones Espanolas, Madrid, 1971)
- Cripta de la Colonia Güell de A. Gaudí, Josep Lluís Sert (Ediciones Poligrafa, Barcelona, 1972)
- Gaudí, David Mower (Oresko Books Ltd., London, 1977)
- Complete Works of Gaudí, Juan Bassegoda (Rikuyosha, Tokyo, 1979)
- Gaudí: The Visionary, Robert Descharnes and Clovis Prévost (Viking Press, New York, 1982)** photos of various sources
- The Designs and Drawings of Antonio Gaudí, George R. Collins and Juan Bassegoda Nonell (Princeton University Press, Princeton, 1982)
- Gaudí, Ignasi de Sola-Morales (Rizzoli, New York, 1984)**
- Catalonia: A Self-Portrait, Josep Miquel Sobrer (Indiana University Press, Bloomington, 1992)
- Antoni Gaudí: Architecture, Ideology and Politics, Juan José Lahuerta (Electa Architecture, Milano, 1992, English 2003)**
- Gaudí Guide, Xavier Güell (Editorial Gustavo Gili, Barcelona, 1994)
- Gaudí, Editorial Escudo de Oro, S.A. (Fisa – Escudo de Oro, Barcelona, 1996)
- Antonio Gaudí: Master Architect, Juan Bassegoda Nonell (Abbeville Press Publishers, New York, 2000)
- Gaudí: a biography, Gijs van Hensbergen (Perennial, New York, 2001)
- Living Gaudí: The Architect's Complete Vision, Maria Antonietta Crippa (Rizzoli, New York, 2002)** photos by Marc Llimargas
- Gaudí Drawings, Joan Barjau (Triangle Postals, Barcelona, 2002)
- La Colònia Güell, Miquel Domènech and Antonio Funes (Triangle Postals, Barcelona, 2003)
- Gaudí: Àlbum Científic, Juan José Lahuerta (Triangle Postals, Barcelona, 2003)
- Gaudí Dalí, Llorenç Bonet and Cristina Montes (Paco Asensio, Barcelona, 2003)
- Gaudí: Complete Works, Isabel Artigas (Evergreen, China, 2008)
- Little Story of Gaudí, Fina Duran (Editorial Mediterrània, Barcelona, 2011)
- Little Story Güell Palace, Tina Vallès (Editorial Mediterrània, Barcelona, 2011)
- Casa Batlló, Barcelona: Gaudí, Juan José Lahuerta (Triangle Postals, Barcelona, 2011)
- Little Story of the Casa Batlló, Bel Olid (Editorial Mediterrània, Barcelona, 2012)
- Little Story of El Capricho de Gaudí, Mercè Ubach (Editorial Mediterrània, Barcelona, 2012)
- Gaudí x Gaudí, Antonio G. Funes, Josep Liz and Pere Vivas (Triangle Postals, Barcelona, 2012)
- A Stroll with Mr. Gaudí, Pau Estrada (Editorial Juventud, Barcelona, 2013)
- Park Güell: Gaudí's Utopia, Josep M. Carandell (Triangle Postals, Barcelona, 2014)
- Antoni Gaudí: Ornament, Fire and Ashes, Juan José Lahuerta (Tenov Books, Barcelona, 2016)**
- This is Gaudí, Mollie Claypool (Laurence King Publishing, London, 2017)
- Little Story of the Sagrada Família, Jordi Faulí (Editorial Mediterrània, Barcelona, 2017)
- Gaudí and the expiatory Temple of the Sagrada Família, Montse Cardoner Puig (Renodrac, S.C.P., Valldoreix, 2017)
- The Symbols of the Nativity façade, Montse Cardoner Puig (Renodrac, S.C.P., Valldoreix, 2017)
- A Sea of Stories: Gaudí, Anna Manso (Editorial Mediterrània, Barcelona, 2018)**
- Gaudí: An Introduction to his Architecture, Juan-Eduardo Cirlot (Triangle Postals, Barcelona, 2018)**
- Gaudí and trencadís mosaic, Mireian Freixa and Marta Saliné (Triangle Postals, Barcelona, 2018)** photos of various sources
- The Basilica of the Sagrada Família, Josep Maria Carandell (Triangle Postals, Barcelona, 2018)
- Jujol & Gaudí, Josep M. Jujol Jr. (Triangle Postals, Barcelona, 2019)

Joan Canaleta (worked on Colonia Güell after Berenguer's death)

Domenech Sugranyes (completed Nativity Towers and first Pinnacle at Gaudí's instruction)

Francesc de P. Quintana (rebuilt Sagrada Schools and finished Passion Façade)

Instructor Bio:

Matthew Schlueb is a licensed architect practicing architecture for over two decades. He studied architecture at Ohio State University, followed by graduate thesis work at Pratt Institute. He founded SCHLUEBarchitecture, an architectural practice maintaining six to eight active projects, where his designs have been awarded locally and nationally by juried competitions, receiving praise internationally in both print publication and television media. His own home is a manifesto on creativity, questioning the conventions of building practices, and exploring tapered curvilinear form, to expand the minds and sensitivities of his two sons raised in that environment.

Instructor Experience:

Matthew Schlueb owns and operates a sole-proprietorship private practice, specializing in residential architecture. He has authored ten books on architecture and lectures from the kindergarten to post-graduate level.

Abridged CV:

2024 - Debut of Lunar Unit 0136 prototype on the future of architecture, senza armatura or extinction retrospective
2023 - Began design for the Garden House Development, an artisan retirement community prototype
2022 - Began construction of the Garden House prototype
2021 - Began design for the Garden House prototype, to restore architecture and preserve humanity
2020 - Began construction of one-room, plant-based, addition to Villa Vuoto
2019 - Instructor, Carnegie Mellon University, Osher Lifelong Learning Institute, The Architecture of Antoni Gaudí
2018 - Invited Entry, Laka Foundation, The End of Architecture
2017 - Invited Speaker, PechaKucha Night Pittsburgh 26, Are We the Last Architects?
2016 - Instructor, Univ. of Pittsburgh, Osher Lifelong Learning Institute, Architecture in the Modern Era
2015 - Featured writer/monthly contributor to the North Hills Magazine
2014 - Launched 'Architectural Storytelling' initiative, Cherry Blossoms
2013 - Featured guest on the Discovery Channel Network, Epic Bathrooms
2012 - Profiled in Pittsburgh Business Times, Executive Living, A Well-Rounded Experience
2011 - Villa Vuoto featured in Wesley Spectrum Tour of Homes, charitable fundraiser
2010 - Inaugural SCHLUEBarchitecture Student Design Competition, Dream Home
2009 - Published An Architect's Manifesto on the Origins of Creativity
2008 - Villa Vuoto published in Pittsburgh Magazine, winner of Superior Interiors, Far Out
2007 - Launched 'the schlueb suite: Rifugio Collection', SPLASH Luxury Home Collection
2006 - Villa Vuoto published in Moodne Kodu, Estonia, Crusade Against Rectangle
2005 - Featured guest on the HGTV Network, OFFbeat America
2004 - Completed construction on Villa Vuoto
2003 - Registered Architect, State of Ohio
2002 - Launched the 'Why Learn to Draw?' initiative, creativity against the world
2001 - NCARB Certification, licensed to practice throughout North America
2000 - Established SCHLUEBarchitecture studio, private practice, Pittsburgh
2000 - Registered Architect, State of Pennsylvania
1994 - Master of Architecture, Pratt Institute
1993 - Bachelor of Architecture, Pratt Institute
1991 - Bachelor of Science in Architecture, Ohio State University
1968 - Born in Columbus, Ohio

Authored Books:

2026 - Le Corbusier Reflections of Gaudi in Five Points (forthcoming)
2018 - traces: drawing from underlays (Villa Vuoto Publications, Pittsburgh)
2017 - eave shakings: North Hills Monthly Magazine, vol.3 (Villa Vuoto Publications, Pittsburgh)
2016 - mousetrap (Villa Vuoto Publications, Pittsburgh)
2016 - leaf shakings: North Hills Monthly Magazine, vol.2 (Villa Vuoto Publications, Pittsburgh)
2015 - sleeve shakings: North Hills Monthly Magazine, vol.1 (Villa Vuoto Publications, Pittsburgh)
2012 - sketches: blog on architecture (Villa Vuoto Publications, Pittsburgh)
2008/2010 - Villa Vuoto: An Architect's Manifesto on the Origin of Creativity (Stella Cadente Publications, Pittsburgh)
2002/2005 - creativity against the world (Villa Vuoto Publications, Pittsburgh)
1994 - gestured form and activated space (Pratt Institute, New York)

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Course Materials:

<http://www.schluebarchitecture.com/lectures/2024/pitt/gaudi/>