## MONEY



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### Fool's Gold JT Bachman

Each image in this series features pyrite (commonly known as fool's gold) in a foreign yet mundane context. The meaning behind each image is intentionally vague, yet as a collection they are intended to evoke a discourse centered around the built environment, ambition, progress, happiness, and cost. Bachman graduated from the Yale School of Architecture in 2012.

There is an elephant in the room. It sits at every client meeting. It chooses every material, sets the length of every cantilever, and decides the height of every tower. It contextualizes every style and every urban form. It destines some projects to paper, yet lays the foundation of every built work.

From its roughest sketches to its finest details, architecture is a product of its financial environment. Can the Egyptian pyramids be disconnected from the monumental wealth of the pharaohs? Can the embellishments of the Baroque be separated from the openhanded patronage of the Catholic Church? Can the steel frames of Modernism be detached from the economic efficiencies of mass production? Formless itself, money forms architecture—but the academic community remains hesitant to broach the subject.

Students are introduced to architecture through forms, materials, masters, and styles, but rarely through economic imperatives. Architects are notorious for underpaying interns, overspending budgets, and sacrificing fees to answer a higher calling than the bottom line: to be stewards of design quality and public welfare. Many designers pursue artful building above all else, maintaining that a great project is its own reward, but establishing value in the marketplace is an art in itself.

Does architecture reach its potential when untethered from economic realities, or must it harness them to contribute meaningfully to the built environment? *Money* investigates architecture's complex relationship with a subject we cannot afford to ignore.

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# WHAT'S ON THE FACE OF A COIN?



### Elisabetta Terragni

Buildings cost money and often appear on tender, be it Monticello on the U.S. nickel or the White House on twenty-dollar bills. How can something so large and complex be condensed into a token image, and what does it reveal of its object?

Key historical events—such as going to war, founding institutions, or entering a new era—have been commemorated on coins since antiquity. The tradition returned to full vigor in the Renaissance, when rebuilding the church of Saint Peter was celebrated in 1506. The medal cast for the occasion preserves Bramante's original idea of the project better than the surviving drawings or the building as it stands today. 1 What shape do buildings take and from what viewpoints are they represented on coins and medals? In the medal for Saint Peter's Caradosso depicted the "rock"symbolic of Peter as the stone on which Jesus built his church—which was included in the cornerstone for the turreted and domed temple.2 Collecting the funds for the church's construction triggered a revolt in the Germanic lands and stirred Luther into secession from Papal authority, shaking the rock to its foundation. Ironically the medal's message celebrates consolidation while its financing brought the Church to the brink of schism.

The figural relief on a coin is necessarily minimal and often crude, but it is always related to threedimensional objects such as the coin itself. Compressed into shallow relief, a building appears starkly abbreviated and reduced to its defining features. Typically a temple or an arch is seen in elevation with just a slight suggestion of depth, whereas monumental structures such as the Colosseum or a harbor require a synthetic image combining different views.3 On the Brass Sestertius issued by Titus in 80 AD, the huge ellipse of the Colosseum was captured in a dual representation that matches its elevation with a view into the crowded arena. The challenge of imaging an entire harbor, as it appears on the Neronian sesterce of 64 AD, is approached by means of

a montage: an aerial overview with the lateral façade projected onto the ground and ships seen head-on.<sup>4</sup> On the other end of the scale, relatively small objects, such as the Temple of Janus (the altar of peace), also find their place on coins, as do triumphal arches and pieces of sculpture.

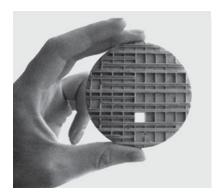


Previous page Medal commemorating the Beheading of the King and Queen of France, 21 January 1793 on the (future) Place de la Concorde. Above Brass Sesterce with the Colosseum, issued by Emperor Titus, 80 AD.

While the difficulties of representing a building on the small face of a coin are obvious, the greatest challenge lies in capturing its features to convey its public significance. To introduce these issues, I asked students in a course on visual studies at the Spitzer School of Architecture at the City College of New York to design and cast a commemorative image of a contemporary building inspired by those on coins and medals since antiquity.

From among the attempts to capture the connection both of architecture to money and of a building's physical character to its representation, the following experiments produced interesting results, each showcasing a different set of characteristics, in a different material, and with a different technology in order to make the identity to its object unmistakable.

Perhaps the most direct link between the key features of a building and the intrinsic qualities of a relief emerges in a comparison of the Temple of Janus, in the Roman Forum, and Le Corbusier's Unité d'Habitation.<sup>5</sup> The new coin matches up elevation and section, whereas the ancient one combines front and side elevations in one plane. The comparison draws on the essentially domestic pattern of the façade and the staggered arrangement of apartments (as only a section can reveal). Unintentionally perhaps, the meaning of Janus in Roman antiquity and the significance of the Unité d'Habitation in modern culture converge in the god's connection to peace, the passage of time, the solar year-remember Le Corbusier's insistence on the cycle of night and day in many of his drawingsand the inauguration of a modern form of collective dwelling. Le Corbusier saw his Unité as directly connected with peace when he argued against rearmament and in favor of urban housing, including the somewhat doubtful observation that freestanding high-rises would be less vulnerable to bombardment than the traditional city. What links the ancient Roman coin of the Temple of Janus most closely with the new rendering of the Unité is its detailing, the geometry of balconies and windows that conjure the vision of peacetime domesticity that the architect desired for postwar reconstruction in France.<sup>6</sup> These buildings were to shine with the "splendor of rough concrete" as the material most appropriate for the times. In reaction to the importance of concrete, the coin was cast not in metal but in cement as a bearer of the material's special significance.



John Evans and Chad Richardson: Medal with Le Corbusier's Unité d'habitation, Marseilles.



Temple of Janus. Coin from the time of Nero (54 to 68 AD) The doors of the temple are closed in peace time.

There are iconic buildings that coalesce in a single figure, such as Frank Lloyd Wright's Guggenheim Museum, in New York City. Not only does it stand for private patronage, as did ancient objects of munificence or Renaissance palaces, but it also possesses a unique architectural character in its allusion to the Pantheon. By adapting the curvilinear surface of the building to the circular shape of a coin, this modern medal demonstrates how one can make, even in hindsight, a fitting commemorative image; and the coin's realization in silver adds qualities of richness, finish, and simplicity.7 Like the silver dollar, the Guggenheim Museum coin has a touch of munificence and exceeds its value as common currency.

In a contrast, another student adopted an ancient representation of the Colosseum, picking up the competing features of a monumental

Jamie Silvestro, Medal of F.L. Wright's Guggenheim Museum. New York.

building whose external shape betrays little about its nature and purpose. Roman coin depictions of the second and third century AD combine the cylindrical shape of the arena with a steep view to the interior, where corrida-like fights of horsemen and animals took place.8 Starting from such a composite image, other students sought to adapt the concept to an equally intriguing contemporary structure, Rem Koolhaas's Seattle Public Library.9 Its volumes are displaced in space and its public areas greatly extended, while a glass veil envelops solids and voids with its taut membrane. This envelope—half hinting at and half obscuring the disjointed volumes of the building-evokes the pattern of a QR Code, which holds key information for library users, hence the visual pattern (en)closing the building becomes the symbolic token of admission. In keeping with the contemporary materials prevailing in the public library, the coin is made of multicolor Plexiglas. The use of a synthetic material suspends the traditional link of coins to the value of metal to suggest that in the information age only the information on the coin holds any convertible value.

The only way to render extended spatial relationships within the shallow relief of a coin is to collapse them into a single foreshortening. Baroque coins privilege the depth of city views and the lengths of



Francesca Bucci-Vernizzi, Timothy Myron and Gregory Nakata, Medal of Rem Koolhaas's Seattle Public Library.

gardens and palaces to affirm their claim to a God-given rule over the land. The vast views extending to the horizon are transformed into a geometry of power in which cardinal points enter into visual correspondence and override any other concern. 10 The fact that spatial connections among buildings prompted urban interventions that ascertain dominion goes to show that the city fell into a kind of anonymity while landmark buildings and fortifications assumed a paramount role. Furthermore, much of Baroque planning was motivated by the desire to make explicit what had been



merely implied before. To be sure, an unobstructed view from one building to another is more readily achieved in images than on the ground, hence the number of Baroque vedute that create an illusory second city in which things fall into place by virtue of representation alone. As an exercise in this vein, a student commemorated two of the most remarkable buildings in Barcelona by Catalan architect Antoni Gaudí by framing the towers of the Sagrada Família cathedral with an odd-shaped attic window of the Casa Milà.11 The gnomic shape of a palace chimney silhouette contrasts the soaring spires of the cathedral. The Trinitarian symbolism takes the mysterious form of a magic quadrangle whose numbers always add up to thirty-three.

Many historical buildings are known only from their representation



Previous image and above Steven Rusche, Medal of Antoni Gaudi's Casa Mila with rooftop view of the Church of the Sagrada Familia.

on coins and medals because they were changed or vanished altogether. 12 It is intriguing to think that what may be most valuable (and costly) about a building survives only in the form of its representation on tender of the wealth sacrificed for it. Buildings, in order to be realized, do require sacrifices. In archaic societies such sacrifices were often real: animals, even humans, valuables, and precious artifacts, not to mention the actual cost of material and labor.

Typically the sacrificial objects would be embedded in a cornerstone or in the foundations of a building, recognizing that the structure represents an investment in the future. Even when invisible, this piece of metal is "a guarantee of exchange in the future for something not given in the present." 13 Its purpose is to remember, to establish continuity, and to escape disappearance.

Coins are two-sided, so looking at one face means not seeing the other. The duality of head and tail reflects perfectly the Janus-headed character of buildings and the twofaced nature of time. If the imprint has as an invisible complement in its absent mold or matrix, the image is only a thumbnail version of its object on a diminutive surface. This engenders a game of absence versus presence, positive versus negative, softness versus hardness. To flip a coin is nothing other than to provoke a decision, or rather to have the chance to make a choice. There is always a loss, not only of memory but also of presence. Casting or striking coins obliges the maker to an exacting process of redaction,

as everything inessential needs to be cut away, knowing full well that much will inevitably disappear and only little will slip through the sieve of time. Knowing that you will lose something, be it a bet or the mold, the head or the tail, you recognize the coin's dual nature as a token of fate.

- Arnaldo Bruschi, Bramante (London: Thames & Hudson, 1973, 1977), 145: "An early project may possibly belong to the summer or at the latest to autumn of 1505, when Julius II [...] must have decided to demolish the dangerously ruinous Constantinian basilica and rebuilt it.
- 2 Ibid.: Twelve of [Caradosso's] famous medal[s] were placed with the foundation stone in the base of the first pier on 18 April 1506.
- 3 See Harald Küthmann and Bernhard Overbeck, eds., Bauten Roms auf Münzen und Medaillen (Munich: Egon Beckenbauer, 1973), 32-33; and Daniele Leoni, Le monete di Roma, Nerone (Verona: Leone, 2010).
- 4 Leoni, Nerone, 24-26.
- 5 John Evans and Chad Richardson, Visual Studies, City College of New York, Spitzer School of Architecture (Spring 2010).
- André Wogenscky, "The Unité d'Habitation at Marseille," in Le Corbusier, ed. H. Allen Brooks (Princeton, NJ: Princeton University Press, 1987), 117–25; Tim Benton, "Marseille: Unité d'Habitation, or the Company of Clouds, the Sky, or the Stars" in Le Corbusier, An Atlas of Modern Landscapes, ed. Jean-Louis Cohen (New York: Museum of Modern Art, 2013), 201-11.

  Jamie Silvestro. *Visual Studies* (Spring 2009).
- Parties Pares out Mout Mana Madriller 79.77
- 8 Bauten Roms auf Mauf M und Medaillen, 32-33.
- 9 Francesca Bucci-Vernizzi, Timothy Miron, and Gregory Nakata, Visual Studies (Spring 2011).
- Based on dominion as the monarchies and principalities were, their medals and coins frequently included views of entire cities, *Schlösser*, and castles, as on the 1685 silver coin of Maximilian II with a view of Munich, or the gold ducat of the Elector Karl Theodore of the Palatinate, struck in 1764, with a view of Mannheim. A particularly striking example is the

- silver medal (by C. H. Küchler) commemorating the beheading of the King of France on January 21, 1793. The regicide took place in what is today the Place de la Concorde—so named after the revolution in hopes of harmonizing the parties. An immense crowd occupies the square and the Rue Royale, witnessing the beheading on a scaffold erected at the intersection of two axes, the Louvre linking with the Tuileries, and the square with the Rue Royale and the old church of La Madeleine. The two prominent buildings flanking the square are the Ministry of the Navy and the Hotel de Crillon, where Louis XVI and Benjamin Franklin signed a document recognizing American independence in 1778. Today an Egyptian obelisk occupies the spot of the scaffold.
- 11 Steven Rusche, Visual Studies (Spring 2009).
- 1.2 From among many ancient Roman examples, the Temple dedicated to Isis and Serapis in the Campo Marzio appears on sesterce and denar by Vespasian and Domitian, but all traces of it have vanished (cf. Bauten, 68-69). Likewise the Triumphal Arch of Nero is known only from a sesterce issued in 64-66 AD. The Arch was dismantled along with the cancellation of other works by Nero as an act of damnatio memoriae (cf. Antike MMtike aus der Sammlung Amersdorffer, ed. Klaus Vierneisel [Berlin: Staatliche Museen. Antikenmuseum. 1976], 79).
- Aristotle, Nichomachian Ethics 11b11-13, discussed by Anne Carson in the context of inscriptions and epitaphs as they, like money, enter into the economy of exchange: u 'To be exchanged, commodities must be somehow comparable,' says Aristotle. That is why money was invented. It provides a sort of mediator." (Economy of the Unlost: Reading Simonides of Keos with Paul Celan [Princeton, NJ: Princeton University Press, 1999], 76.)

### **AOC**

AOC is a practice of architects, urbanists and interpreters, established in 2003 by Royal College of Art alumni Tom Coward, Vincent Lacovara and Geoff Shearcroft, with University of Cambridge graduate and cultural interpreter Daisy Froud. Motivated by the ways in which forces and factors besides architects shape places, they are committed to delivering projects that fully engage with and respond to the contexts—social, economic, political and spatial—in which they are set. They place emphasis on participatory practice and briefdevelopment, believing that a broader conversation creates a richer and more bespoke end product. AOC regularly lecture in the UK and overseas, and teach at The Cass. The Bartlett and Brighton Schools. of Architecture, provide design and policy advice to governmental and statutory bodies, and contribute to contemporary architectural culture through writing and public debate.

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### **NINA RAPPAPORT**

Nina Rappaport is an architectural critic, curator, and educator. She is publications director at the Yale School of Architecture. Her Vertical Urban Factory project that provokes manufacturing in cities, includes an exhibition, public events, supply chain transparency, and a forthcoming book (Actar 2014). The exhibition has been displayed in New York, Detroit, and Toronto and continues to travel. She has also co-edited the book Ezra Stoller: Photographer (Yale University Press, 2012) and she is author of the book Support and Resist: Structural Engineers and Design Innovation (The Monacelli Press. 2007). She has received grants from the Graham Foundation and New York State Council on the Arts, among other funders. Rappaport teaches urban design theory and industrial urbanisms at architecture schools in New York City.

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David Ross Scheer is an architect who brings a broad background in practice, teaching and research to his work on the effects of digital technologies on architecture. Mr. Scheer has taught architectural design, history and theory at the University of Cincinnati, Arizona State University, Miami University (Ohio) and the University of Utah. He has lectured and written extensively on BIM with particular emphasis on its use in small firms and its impact on architectural education. Mr. Scheer has been a member of the national advisory group of the AIA Technology in Architectural Practice Knowledge Community (TAP) since 2006 and was its Chair in 2012. He is author of the forthcoming book The Death of Drawing: Architecture in the Age of Simulation, which investigates the effects of the transition from drawing to digital tools, particularly on how architects think and design.

### **ROBERT SHILLER**

Robert J. Shiller is Sterling Professor of Economics, Department of Economics and Cowles Foundation for Research in Economics. Yale University, and Professor of Finance and Fellow at the International Center for Finance, Yale School of Management. He received his B.A. from the University of Michigan in 1967 and his Ph.D. in economics from the Massachusetts Institute of Technology in 1972. He has written on financial markets, financial innovation, behavioral economics, macroeconomics, real estate, statistical methods, and on public attitudes, opinions, and moral judgments regarding markets. Professor Shiller was awarded the 2013 Nobel Prize in Economic Sciences, together with Eugene Fama and Lars Peter Hansen of the University of Chicago, "for their empirical analysis of asset prices."

### **ROBERT A.M. STERN**

Robert A.M. Stern is an architect, teacher, and writer. He is the founder of Robert A.M. Stern Architects LLP, and Dean of the Yale School of Architecture.

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Andrew Waugh is a founder and director of Waugh Thistleton Architects in London, England. He is a pioneer of tall timber architecture and recipient of the RIBA President's Medal for Research. The core ethos of Andrew's practice is to achieve sustainability in construction through rigorous and constant research.

### JAY WICKERSHAM

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Alejandro Zaera-Polo is an accomplished contemporary architect. His practice has produced critically acclaimed and award winning projects for the public and private sector on an international scale. He is currently the Dean of Princeton. School of Architecture and was Dean of the Berlage Institute. Mr. Zaera-Polo was the inaugural recipient of the Norman Foster professorship at Yale University School of Architecture, and has taught at Columbia, UCLA, and the Architectural Association in London. In addition to his professional and academic roles, Alejandro Zaera-Polo is recognized as an original theorist and thinker of contemporary architecture, whose texts can be found in many professional publications such as El Croquis, Quaderns, A+U, Arch+, Log, AD and Harvard Design Magazine.

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