Sean Griffiths

Output 3: The Museum of Copying, 13th Venice Architecture Biennale, 2012

Abstract

The Museum of Copying was an exhibition conceived and executed by the founders of FAT Architects for the Venice Architecture Biennale in 2012. Griffiths played a central role in its conception and execution. In response to curator David Chipperfield's theme, 'Common Ground,' it explored ideas of the copy as a way of establishing common ground between diverse publics over time. This represented a significant moment into themes that have been present in FAT's work for the past 15 years. Its primary research questions were: Can copying be a creative technique in architecture? What potential does the figural section hold for architecture? How have photocopying, digital media and computer aided manufacture extended the repertoire of creative replication in architecture? Research methods included collaborative, curatorial work in conversation with the other contributors to the Museum: AA students, San Rocco and Ines Weizman. Together these challenged the idea of the copy as inauthentic pastiche and proposed ways of understanding and using it in more productive ways. FATs contribution, 'Villa Rotunda Redux', a replica of Palladio's Villa Rotunda, responded to the research questions using research methods that involved close examination of the original and the abstraction of essential information from it. This information was then translated into three dimensional material form

using new fabrication techniques, as two abstracted quarters of the Villa Rotunda, one a polystyrene mould, the other a foam cast. These were arranged diagonally across from one another, displaying not only the properties of their original, but also the process of their fabrication. This produced an iteration of the Villa Rotunda that was at once recognizable, yet utterly transformed and original. The installation was viewed by 178,000 visitors attending the biennale. It has also been widely reviewed in the popular and architectural press, including Phaidon, dezeen, Architects Journal, designboom, ArchDaily, Architectural Review, Los Angeles Times and Financial Times.

Key Words

Copy, replicate, Villa Rotunda, fabrication

Context

The Museum of Copying was conceived and executed by FAT architects, with Griffiths a key member of the team, for David Chipperfield's 2012 Venice Architecture Biennale, Common Ground. It was installed in the Arsenale as part of the main Biennale exhibit (fig.01) and was frequently used in the public media as the Biennale's representative image (e.g. Financial Times, August 31 2012, Los Angeles Times, August 31 2010). In the Arsenale, it paid tribute to Hans Hollein's contribution to Paolo Portoghesi's first International Venice Architecture Biennale in 1980, the Strada Novissima or 'Street of Styles', which comprised a set of copied columns reprising the history of architecture. The Museum of Copying explored various formats of the copy as a way of establishing common

ground between diverse publics over time. This represented a significant moment into themes that have been present in FAT's work for the past 15 years: the copy as a creative design technique and expression of shared meaning and of how photocopying, digital media and computer aided manufacture might extend the repertoire of creative replication. This continued in a deliberate fashion the investigations of American post-modernists Robert Venturi, Denise Scott Brown and Robert Stern into the nature of visual communication and historical and popular iconography, with experimentation with materials and prefabricated construction techniques not available during the post-modern period.

General Description

The Museum of Copying was a four-part exhibition installed in the Arsenale for the Venice Architecture Biennale in 2012. It was conceptualised and curated by FAT architects, with Griffiths a key member of the team. It included the Villa Rotunda Redux, a 5-metre high remake of Palladio's Villa Rotunda using analogue and digital fabrication techniques, conceived and executed by FAT (fig.02). Other components were: Architectural Doppelgangers, research into examples of architectural copies, fakes and replicas conceptualized and installed by students of the Architectural Association (fig.06, 07); The Book of Copying, curated by San Rocco, a

library of copies prepared by sixty invited architects (fig.04-07), and Ines Weizman's Repeat Yourself: Loos, Law and the Culture of the Copy presented the process she underwent when attempting to copy Adolf Loos' House for Josephine Baker for Ordos in China (fig.08).

Research Questions

The following research questions were explored in the project:

- Can copying be a creative technique in architecture?
- 2) What potential does the figural section hold for architecture?
- 3) How have photocopying, digital media and computer aided manufacture extended the repertoire of creative replication in architecture?

Aims and Objectives

1) To contest ideas of originality and authorship in architecture and promote copying as a mode of creativity.

In response to curator David Chipperfield's theme, Common Ground, the Museum of Copying explored ideas of the copy in architecture. Copying, downplayed or derided in modern architecture, was investigated as a positive, creative technique, able to establish common ground and communicate meaning across space, time and culture, often with surreal effects. Modern architecture constructs the myth of the authentic and the original and denigrates copying as inferior, yet often relies on unacknowledged references, recycling and the reuse of precedent. The exhibition contested ideas of originality and authenticity and foregrounded copying as their unacknowledged doppelganger. It promoted copying and faking as polemical, original things to do in architecture, often producing novelty as a result.

The Villa Rotunda was already a copy (of temple and the Pantheon) ands is arguably the most copied of buildings. It has as its progeny Chiswick House in London (1729) and Thomas Jefferson's Monticello in Charlottsville, Virginia (1756-1808) amongst

many others. Charles Jencks, protagonist-in-chief of postmodernism, used it himself as reference for his Cape Cod cottage Garagia Rotunda, Truro, MA (1976-77), replicated in the Postmodernism exhibition at the Victoria and Albert Museum in 2011. In the Museum of Copying, FAT added to this narrative by reconfiguring the villa as Villa Rotunda Redux, a scaled-down, partial copy of itself, accompanied by a digitally accessible text, the Villa Rotunda Mini-book (P.01).

The three additional parts of the Museum of Copying explored other aspects of the architectural copy. Architectural Doppelgangers was a photographic display of research into architectural copies, fakes and replicas, including a copy of the Villa Rotunda in the Palestine Territories and a faux Austrian village in China (fig.06, 07). The Book of Copying, a library of volumes prepared by sixty invited architects each of whom assembled photocopies related to a building typology, invited visitors to assemble their own version of the book by photocopying these photocopies to produce their own unique Book of Copies (fig.04-07). Invited architects included Andrea Branzi, Jan de Vylder, Ryue Nishizwa, Paul Robbrecht, Francoise Roche, Denise Scott Brown and Jonathan Sergison.

Ines Weizman's Repeat Yourself: Loos, Law and the Culture of the Copy, presented the process she went through when attempting to copy Adolf Loos' House for Josephine Baker at Ordos in China, testing the significance of copyright in architecture (fig.08). Together these challenged the idea of the copy as inauthentic pastiche and proposed new ways of understanding and using it more productively.

2) To explore the potential of the figural section in architecture

Sean Griffiths has written elsewhere (in "Virtual Corpses, Figural Sections and Resonant Fields," AD Profile 213, Radical Postmodernism, Sept/Oct 2011, pp 68-77) about the use of the "figural section" in architecture. The figural section is a disembodied slice, extrusion, fragment or surface of a building that retains the meaning of the whole that is absent. Its very absence, signified by the fragment, makes the whole excessively present. The Villa Rotunda Redo played with these ideas in a number of ways. The original Villa Rotunda is symmetrical on two axes. Across these axes, it repeats itself four times; the elements of its architectural language operate repetitively on each of its four facades. The Villa Rotunda Redux responded to this in-built copying by distilling its essential information to a single quarter (P.01). When used in rotation, this quarter would produce a full copy of the Villa. But here, a quarter section was formed as a mould and one as a cast (fig. 10). These were set in opposite quadrangles of the plan, touching at the tip of the cupola where positive meets negative (fig. 16). In this arrangement, the

incompleteness of the Villa suggested the full form while allowing a view of the process of its production (fig. 12-16).

3) To explore the potential of new material and manufacturing techniques to create new versions of an original with new meaning.

The Villa Rotunda Redux distilled information about the Villa Rotunda into new material form using new manufacturing techniques. It fabricated a large facsimile of the Villa Rotunda, taken from a shareware example on Google Warehouse (P.O1). This was routed into polystyrene blocks, which were assembled to form a mould. The inside of the mould was then sprayed with polyurethane foam (fig. 10, 11a,b). The two quarters – the polystyrene mould and the foam cast were diagonally arranged to display the process of their fabrication at large scale (fig. 15). Positive and negative, interior and exterior were set one against the other (fig. 12, 16). The opposing qualities of mould and cast were asymmetrical reflections of one another, positive and negative, solid and void, interior and exterior reflected across a diagonal line of symmetry (fig. 15).

This demonstrated that the manufacture of a copy is a project in and of itself, separate from its source. Its drive for fidelity often requires the invention of entirely new armatures and technologies and rewrite the meaning of the object produced. To quote from the Villa Rotunda Minibook: "The copy can be both exactly the same as its original and radically different at the same time" (FAT).

Research Methods

Copying requires close examination of the object to be replicated in order to make new versions of it. The Villa Rotunda Redux was developed through close analysis of the original Villa Rotunda (P.01). Given its biaxial symmetry, its essential information was distilled into a single quarter which, when used in rotation, would produce the whole. This information was translated into new material form using new manufacturing techniques. It fabricated a large facsimile of the Villa Rotunda, taken from a shareware example on Google Warehouse. This was routed into polystyrene blocks, which were assembled to form a mould (fig. 11a,b). The inside of the mould was then sprayed with polyurethane foam (fig. 10). The two quarters the polystyrene mould and the foam cast were diagonally arranged to display the process of their fabrication at large scale (fig. 13).

This method of fabrication was used to generate as faithful a reproduction of the original as scale, material and budget allowed. Yet the process also created a series of experiences that abstracted the original Villa's form. The outside of the mould became a simplified block form in which only an echo of the Villa is perceptible (fig. 11a, 13b). The inside of the mould was accurate, yet inverted, the exterior surface of the Villa turned inside out (fig. 14). The exterior of the cast presented a seamless iteration of the Villa, yet its interior revealed the gloopy, cave-like condition created by the sprayed foam application (fig. 12a). Together, the elements displayed the process of manufacturing the copy, in each part displaying the transformation of the subject by the process. They contrasted

the project's historical subject with digital techniques of construction and contemporary materials. They aimed to make an iteration of the Villa Rotunda that was at once recognizable, yet utterly transformed (fig.03).

Dissemination / Impact

The project was seen by the Biennale's 178,000 visitors (fig.07). It was published in the Biennale Catalogue and has been widely disseminated and reviewed in the architectural media. It was frequently used in the popular media as the representative image for the Biennale as a whole.

Articles and reviews in the Architectural media included:

'FAT create Museum of Copying at Venice Biennale.' *Phaidon*, 23 August 2012 http://uk.phaidon.com/agenda/architecture/articles/2012/august/23/fat-create-museum-of-copying-at-venice-biennale/

Frearson, A. 'The Museum of Copying by FAT at Venice Architecture Biennale 2012.' *dezeen magazine*, 23 August 2012

http://www.dezeen.com/2012/08/23/the-museum-of-copying-by-fat-at-venice-architecture-biennale-2012/>

Jacob, S. 'Venice preview: FAT Architects.' Architects Journal, 16 August 2012 http://www.architectsjournal.co.uk/venice-preview-fat-architects/8634443.article >

Jacob, S. 'Villa Rotunda Redux & The New Originals.' *Strange Harvest*, http://strangeharvest.com/villa-rotunda-redux-the-new-originals>

Jacob, S. '"Copying is both fundamental and dangerous to architecture" – Sam Jacob of FAT.' dezeen, 02 September 2012

< http://www.dezeen.com/2012/09/02/copying-is-both-fundamental-and-dangerous-to-architecture-says-sam-jacob-of-fat/>

Lauren db. 'FAT: museum of copying at the 13th international architecture biennale 2012.' designboom, 31 August 2012

http://www.designboom.com/architecture/fat-museum-of-copying-at-the-13th-international-architecture-biennale-2012/>

Szita, J. 'Villa Rotunda Redux by FAT.' Frame Publishers, 03 September 2012 http://www.frameweb.com/news/villa-rotunda-redux-by-fat

Rosenfield , K. 'Venice Biennale 2012: FAT presents 'The Museum of Copying." *ArchDaily*, 26 Aug 2012 http://www.archdaily.com/266893>

Ruiz, C. '"Villa Rotunda Redux" by FAT in the Venice Biennale, 2012.' *Metalocus* 17 October, 2012 < http://www.metalocus.es/content/en/blog/villa-rotunda-redux-fat-venice-biennale-2012>

Ryan, R. 'Empirical Affinities at the Venice Biennale.' *Architectural Review*, 28 September 2012 "http://www.architectural-review.com/reviews/empirical-affinities-at-the-venice-biennale/8636140.article>"

Examples of coverage in the popular media include:

Hawthorne, C. 'Venice Architecture Biennale is on limited 'Common Ground.'' *Los Angeles Times*, August 31 2010

http://articles.latimes.com/2012/aug/31/entertainment/la-et-cm-venice-biennale-review-20120901

Heathcote, E. 'Construction and Society.' Financial Times, August 31 2012 http://www.ft.com/cms/s/2/34c75e12-f281-11e1-86e0-00144feabdc0.html#axzz2MlL51L9B

A download-able publication of the Villa Rotunda Redux, The Villa Rotunda Redux Minibook, is available from FAT's web site and included here as PO1.

Evidence

Images and Drawings

- Fig. 01 Villa Rotunda Redux, axial view, photograph Nico Saieh
- Fig. 02 Villa Rotunda Redux, axial view, photograph Nico Saieh
- Fig. 03 Villa Rotunda Redux, diagonal view from above, photograph Nico Saieh
- Fig. 04 Book of Copies being installed, photograph Nico Saieh
- Fig. 05 Book of Copies being installed, photograph Nico Saieh
- Fig. 06 Book of Copies installed with Architectural Doppelgangers in the background, photograph Nico Saieh
- Fig. 07 Book of Copies with Villa Rotunda
 Redux and Repeat Yourself in
 background, and Architectural
 Doppelgangers on the left, photograph
 Nico Saieh
- Fig. 08 Repeat Yourself: Loos, Law and the Culture of the Copy, photograph Nico Saieh
- Fig. 09 Villa Rotunda Redux, render
- Fig. 10 Villa Rotunda Redux, diagram of fabrication
- Fig. 11a Villa Rotunda Redux, mould and cast, interiors and exteriors
- Fig. 11b Villa Rotunda Redux, mould interior detail
- Fig. 12a, b, c Villa Rotunda Redux, mould and cast, fabricated details a Interior of mould b Interior of mould, columns subtracted c Interior of mould, windows added
- Fig. 13a e Villa Rotunda Redux, structure a Axial view showing steel frame supporting mould b Diagonal view showing steel frame supporting mould and apex joint

- c Detail of steel frame d Apex joint from inside e Apex joint close-up
- Fig. 14 Façade expressed as positive on outside of cast
- Fig. 15 Façade expressed as negative on inside of mould
- Fig. 16 View showing relationship between positive and negative facades

Press

- P.01 Villa Rotunda Redux Minibook
- P.O2 'FAT create Museum of Copying at Venice Biennale.' Phaidon, 23 August 2012
- P.03 Frearson, A. 'The Museum of Copying by FAT at Venice Architecture Biennale 2012,' dezeen magazine, 23 August 2012
- P.04 Jacob, S. 'Venice preview: FAT Architects.' Architects Journal, 16 August 2012
- P.05 Jacob, S. 'Villa Rotunda Redux & The New Originals.' Strange Harvest
- P.06 Lauren db. 'FAT: museum of copying at the 13th international architecture biennale 2012.' designboom, 31 August 2012
- P.07 Rosenfield , K. 'Venice Biennale 2012: FAT presents 'The Museum of Copying.'' ArchDaily, 26 Aug 2012



Fig.02 Villa Rotunda Redux, axial view, photograph Nico Saieh



Fig.01 Villa Rotunda Redux, axial view, photograph Nico Saieh



Fig.O3 Villa Rotunda Redux, diagonal view from above, photograph Nico Saieh

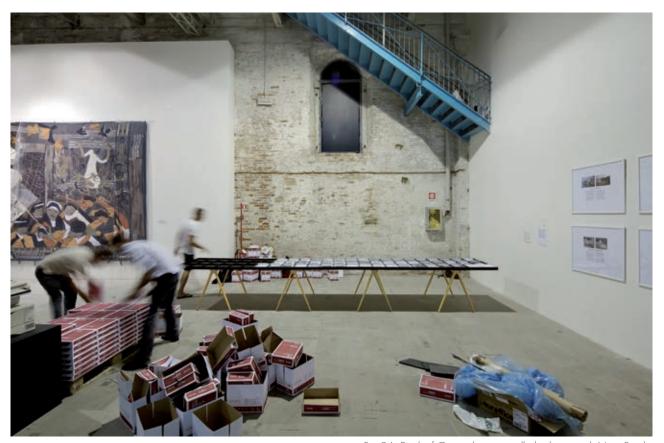


Fig.O4 Book of Copies being installed, photograph Nico Saieh



Fig.05 Book of Copies being installed, photograph Nico Saieh



Fig.06 Book of Copies installed with Architectural Doppelgangers in the bacxkground, photograph Nico Saieh



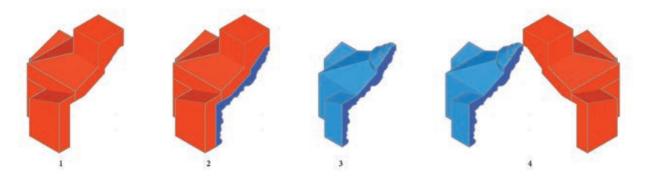
Fig.07 Book of Copies with Villa Rotunda Redux and Repeat Yourself in background, and Architectural



Fig.08 Repeat Yourself: Loos, Law and the Culture of the Copy, photograph Nico Saieh



Fig.09 Villa Rotunda Redux, render



- Diagram of Fabrication:
 1. Mould
 2. Polyurethane foam sprayed into mould.
 3. Mould demounted
- 4. Mould re-assembled adjacent to cast.

Fig. 10 Villa Rotunda Redux, diagram of fabrication

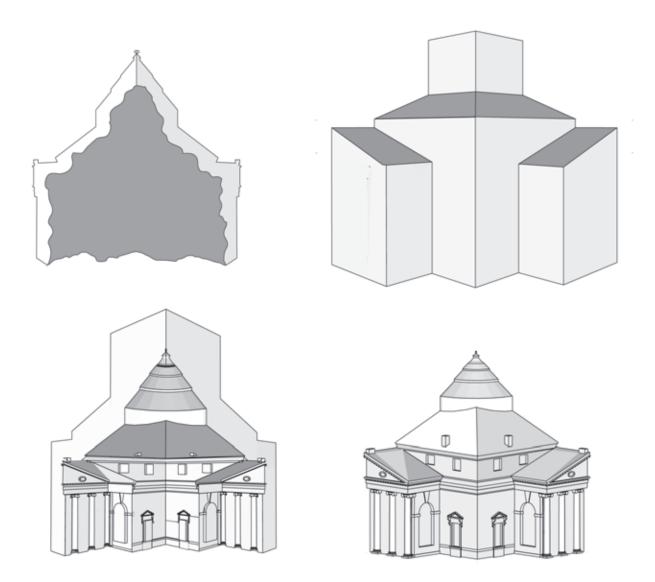


Fig. 11a Villa Rotunda Redux, mould and cast, interiors and exteriors

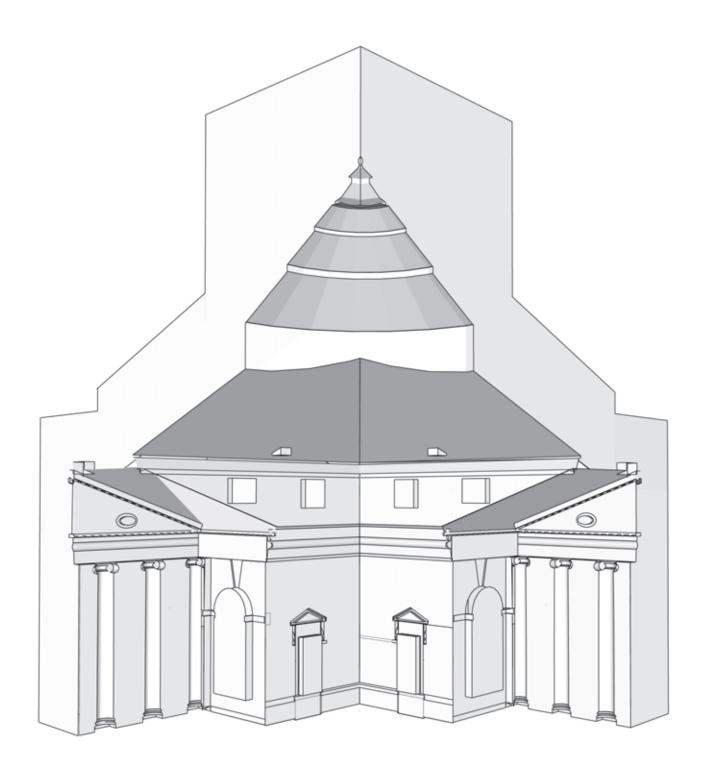


Fig.11b Villa Rotunda Redux, mould interior detail



Fig. 12a Interior of mould



Fig. 12b Interior of mould, columns subtracted



Fig. 12c Interior of mould, windows added



Fig. 13a Axial view showing steel frame supporting mould



Fig. 13b Diagonal view showing steel frame supporting mould and apex joint



Fig.13c Detail of steel frame



Fig.13d Apex joint from inside

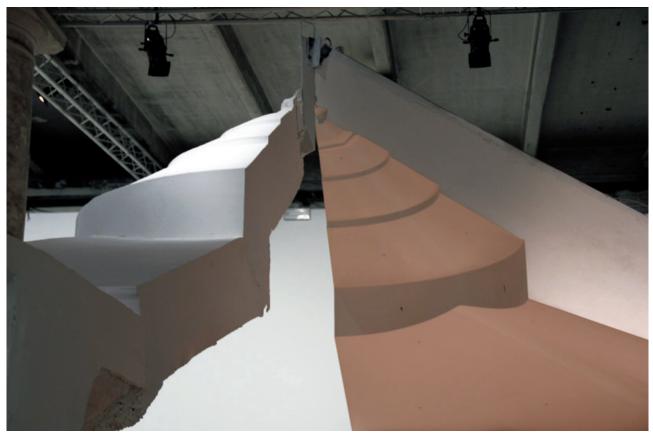


Fig. 13e Apex joint close-up



Fig. 14 Façade expressed as positive on outside of cast



Fig. 15 Façade expressed as negative on inside of mould



Fig. 16 View showing relationship between positive and negative facades

Villa Rotunda Redux

FAT for the 13th Architecture Biennale, Venice





On The Importance of Copying

Historically, copying was the means by which architecture disseminated language and culture into common use. Palladio's Four Books of Architecture (1570, Venice), for example, were explicit manuals published to be copied by other architects (while at the same time synthesising an architectural language by copying antique architecture). Yet the copy has also became characterised as the enemy of progress, an inauthentic, pastiched and faked dead end of invention.

The architectural copy can be schizophrenically characterised as the discipline's perfect and evil twin, at once fundamental to architecture's mode and its nemesis. Yet there are other, perhaps more productive, ways of understanding the copy.

Copying requires us to look closely at the subject we wish to replicate. The copy is a distillation of this information into material form, producing a physical object that embodies a specific form of understanding.

The manufacture of a copy is a project in and of itself, separate from its source. Its drive for fidelity often requires entirely new armatures and technologies to be invented. Equally, the desires that motivate the production of a copy rewrite the meaning of the object that is produced. Narratives of, say, love, pride, fear or joy become encoded into the substance of the replica. The copy can be both exactly the same as its original and radically different at one and the same time.

Copying is dangerously fertile. Controls of intellectual property may attempt to protect against reproduction but in doing so they alter the life and influence of their subjects. But law does not prevent copying, in the form of influence, combining unrelated genomes into previously unimaginable entities.

The architectural copy forces us to examine the world as it comes to us and to invent ways of manufacturing new versions of the world.







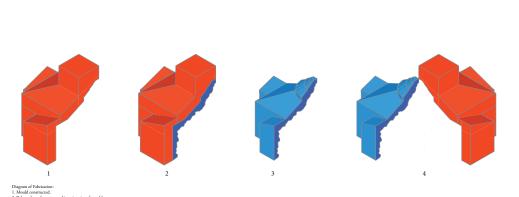


The Villa Rotunda & It's Copies

The Villa Rotunda is perhaps the Ur example of the architectural copy. It is a building composed out of copies - an assemblage of temple and Pantheon, arranged to produce a radically new architectural typology. It has been the subject of the subject of multiple exercises in replication across time and space, from Chiswick House (London), through Monticello (Charlotttesville) to contemporary examples including Beit Falasteen in the Palestinian Territories.

 $As both \ subject \ and \ object, \ the \ Villa \ Rotunda \ presents \ us \ with \ an \ unfolding \ narrative \ of \ architectural \ copying.$

On the occasion of the Venice Biennale, we feel it appropriate to return a version of the Rotunda back to Venice in a state resonant with the condition of the copy that Palladio helped to propagate.



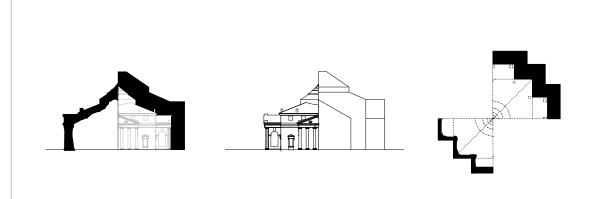
Villa Rotunda Redux

The Villa Rotunda Redux is an installation by FAT that fabricates a large facsimile of the Villa Rotunda. The installation comprises two parts. First a CNC'd mould of a quarter of the Villa from which a cast is then taken.

In keeping with the notion of the copy, the digital model of the Villa is taken from a shareware example on Google Warehouse. This is routed into polystyrene blocks and assembled to form the mould. The cast is taken by spraying into the mould with polyurethane foam, applied on site.

The cast and mould are arranged as an installation, displaying the process of fabrication at large scale. The qualities of positive and negative, of interior and exterior and the abstractions and fidelities of the original Villa are set one against the other.

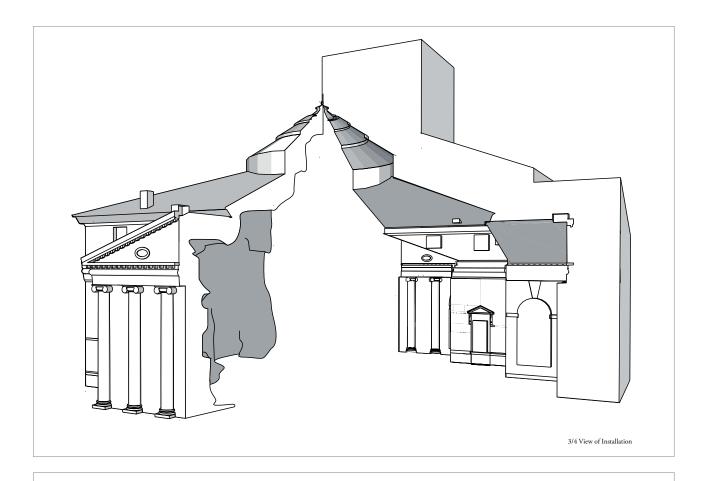


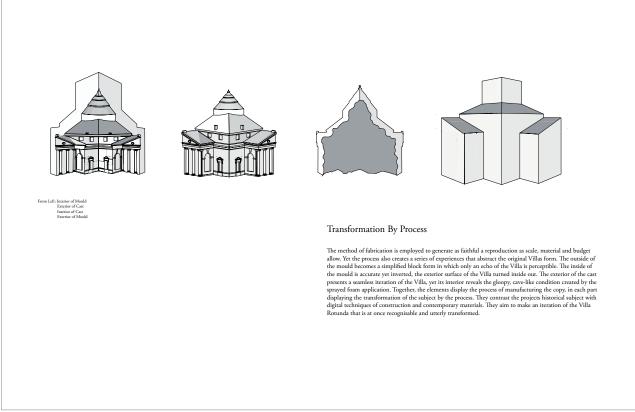


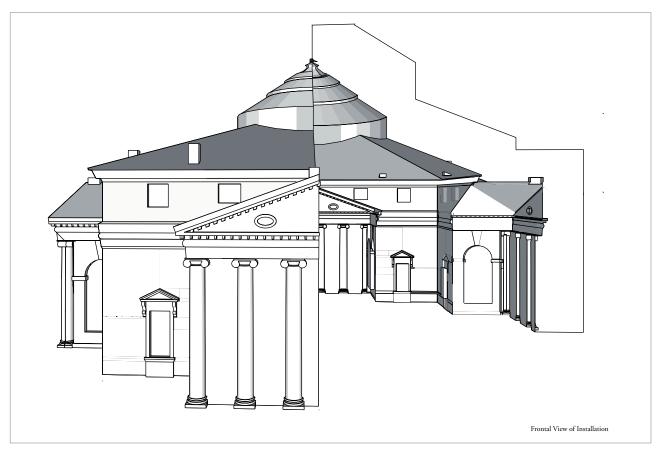
Symmetry & Asymmetry

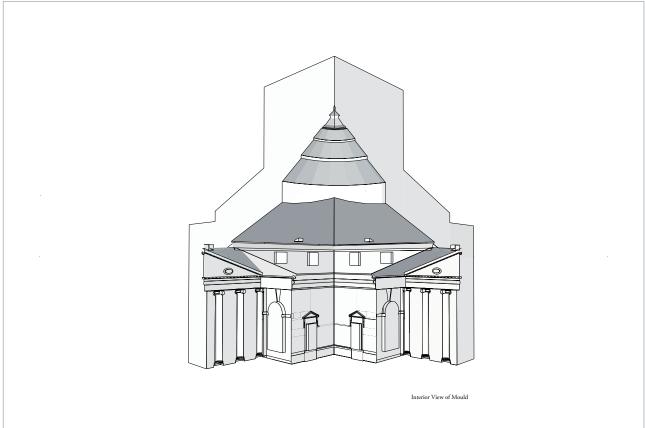
The original Villa is symmetrical on two axis. Across these axis, the Villa repeats itself. In addition, the elements of its architectural language operate repetitively. The Villa Rotunda Redux responds to this in-built copying through its reduction of the Villa to a quarter section. The quarter mould used in rotation could be used to produce full copies of the Villa. For Venice, the mould and cast are set in opposite quadrangles of the plan, touching at the tip of the cupola where positive meets negative.

In this arrangement, the incompleteness of the Villa is used to suggest the full form while allowing a view of the process of production. It sets the opposing qualities of mould and cast as asymmetrical reflections of each other: positive and negative, solid and void, interior and exterior reflected across a diagonal line of symmetry.

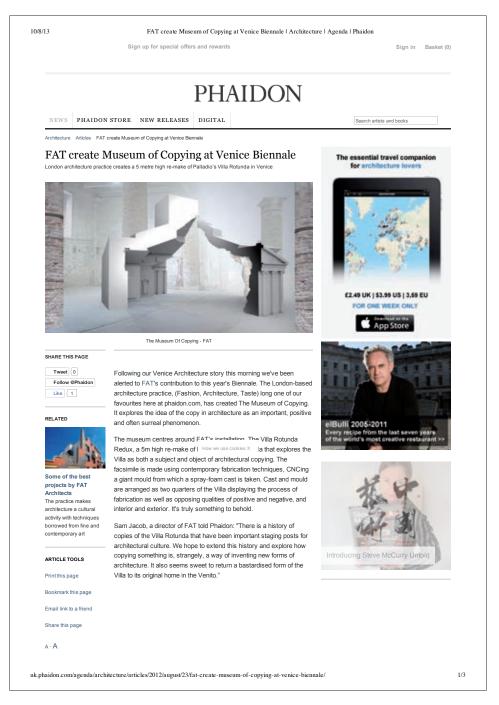


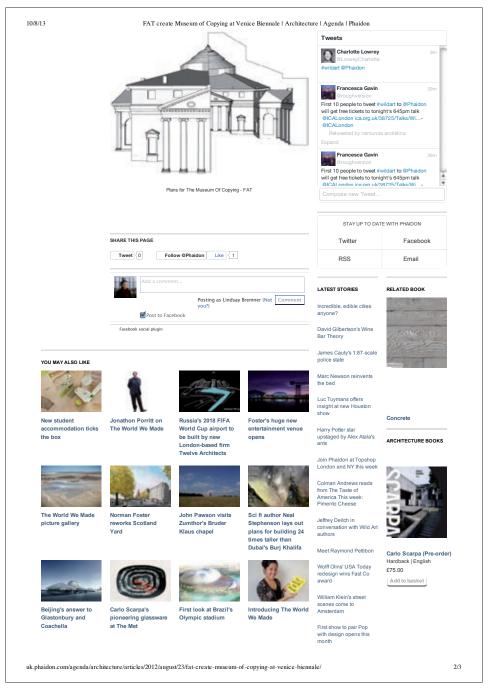




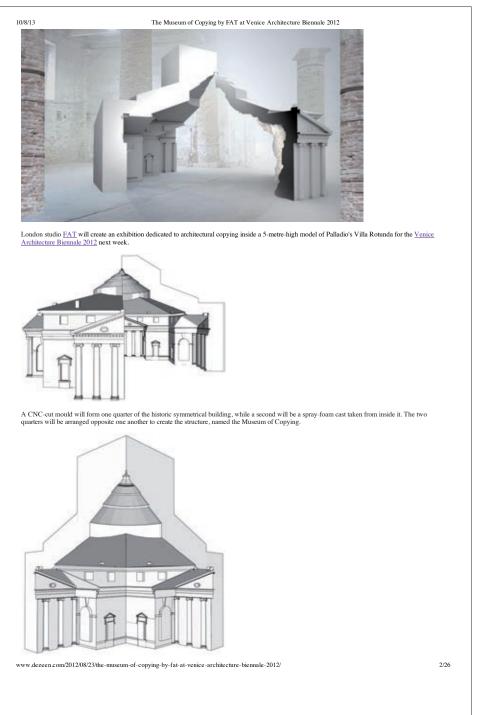


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The Museum of Copying by FAT at Venice Architecture Biennale 2012

"There is a history of copies of the Villa Rotunda that have been important staging posts for architectural culture," explains FAT director Sam Jacob. "We hope to extend this history and explore how copying something is, strangely, a way of inventing new forms of architecture."









and Jonathan Sergison will exhibit a book filled with photocopies as part of the







The installation will be on show as part of the Common Ground exhibition in the Arsenale from 28 August to 25 November. Watch director of the biennale <u>David Chipperfield</u> talk to Dezeen editor-in-chief Marcus Fairs about his theme and the current architecture scene in our movie interview.

See more stories about the Venice Architecture Biennale 2012 ». See more projects by FAT on Dezeen ».

FAT presents The Museum of Copying at the 13th Venice Architecture Biennale

Invited by David Chipperfield, director of the 13th International Architecture Biennale, FAT has contributed an exhibition to the Ansenale titled The Museum of Copying. Responding to the curator's theme of Common Ground, the Museum of Copying explores the idea of the copy in architecture as an important, positive and often surreal phenomenon.

The Villa Rotunda Redux

The museum centres around FAT's own installation, The Villa Rotunda Redux, a 5m high re-make of Palladio's Villa Rotunda that explores the Villa as both a subject and object of architectural copying. The facsimile is made using contemporary fabrication techniques, CNCing a giant mould from which a spays-foam cast is taken. Cast and mould are arranged as two quarters of the Villa displaying the process of fabrication as well as opposing qualities of positive and negative, and interior and exterior.

Sam Jacob, a director of FAT said "There is a history of copies of the Villa Rotunda that have been important staging posts for architectural culture. We hope to extend this history and explore how copying something is, strangely, a way of inventing new forms of architecture. It also seems sweet to return a bastandized from of the Villa to is original home in the Ventino."

Book of Copies

The Museum of Copying also includes a contribution by San Rocco titled The Book of Copies comprising a library of volumes prepared by invited architects each of whom have assembled photocopies relating to a thematic building typology. Visitors to the Biennale can assemble their own version of the Book of Copies by photocopying these photocopies into a unique Book of Copies. The 60 contributors include Andrea Branzi, Jan de Vylder, Ryue Nishizawa, Paul Robbrecht, Francois Roche, Denies Goot Brown and Jonathan Sergison.

Architectural Doppelgängers

10/8/13

The Museum of Copying by FAT at Venice Architecture Biennale 2012

Architectural Doppelgängers, investigates examples of architectural copies, fakes and replicas. Strange stories that surround Architectural Doppelgängers are told through examples that include a facsimile of the Villa Rotunda in the Palestinian Territories and a fake Austrian village in China.

Ines Weizman's "Repeat Yourself": Loos, Law and the Culture of the Copy researches the significance of copyright on architecture, using legal disputes around the ownership of Loos' archive and work as a test case.

See also:



Competition: five Torre David books to b...e won



ommunity In A Cube by FAT



Venice Architecture Biennale 2012 closes



hilean Pavilion at Venice Architecture ...Biennale 2012



he UK can "learn lessons from school-bu...ilding in Brazil" - Aberrant Architecture



A House for Essex by FAT and Grayson Per...ry

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10/8/13 FAT Architects: The fake and the authentic - ProQuest Basic Search Advanced Publications Browse Preferences English Help ProQuest | Full text Back to issue Previous Document 16 of 40 Next FAT Architects: The fake and the authentic The Architects' Journal (Aug 16, 2012). Abstract (summary) FAT's Museum of Copying explores the idea of the copy in relation to the Biennale theme of 'Common Ground', arguing that copying is a force that creates common architectural language and is simultaneously the site where radical reinvention occurs.\n Full text 'Copying and repetition are embedded in the way architecture is produced, yet the copy also threatens fundamental disciplinary concerns of originality' For some time FAT has been interested in the idea of the copy in architecture. The copy is a foundation of architectural culture, evidenced, for example, by the influence of the Grand Tour on the creation of the English Baroque. Copying and repetition are also embedded in the way architecture is produced, in modularity of components and the keystrokes of digital drawing. Yet the copy also threatens fundamental disciplinary concerns of originality, authorship and authenticity. It's the schizophrenic nature of the copy as the discipline's perfect and evil twin - at once fundamental to architecture and its nemesis - that fascinates us in our project, The Museum of Copying. Centrally placed in the Arsenale is FAT's large-scale facsimile of Palladio's Villa Rotunda, titled Villa Rotunda Redux. The Villa Rotunda is perhaps the Ur-example Centrally placed in the Arsenale is FAT's large-scale facsimile of Palladio's Villa Rotunda, titled Villa Rotunda Redux. The Villa Rotunda is perhaps the Ur-exam of the architectural copy. It is a building composed out of copies - an assemblage of temple and Pantheon - arranged to produce a radically new architectural typology. It has been the subject of multiple exercises in replication across time and space, from Chiswick House (London), through Monticello (Charlottesvill to contemporary examples including Beit Faliasteen in the Palestinian Territories. As both subject and object, the Villa Rotunda presents us with an unfolding narrative of architectural copying. On the occasion of the Venice Biennale, we feel it appropriate to return a version of the Rotunda back to Venice in a state resonant with the condition of the copy Palladio helped to propagate. The facsimile is fabricated by a process that places reproduction and repetition at its core. A quarter-section of the villa was produced by CNC-ing a large-scale mould. From this, a cast was taken by spraying into the mould with polyurethane foam. The cast and mould are arranged as an installation, displaying the process of fabrication as well as the qualities of positive and negative, of interior and exterior and the abstractions and fidelities of the original villa, set one against the other. Alongside this, FAT has currented four parallel projects. Architectural Doppelga?ngers explores buildings that might otherwise be described as copies, fakes or replicas. Here, original and double are presented side by side and the unusual stories behind the copy are drawn out. Ines Weizman explores the relationship of copyright to architecture in Repeat Yourself: Loos, Law and the Culture of the Copy. As Loos' copyright passed into public domain 75 years after his death, Weizman recalls his architectural imperative to 'repeat yourself'. The installation examines the place of copyright in architecture by proposing the construction of a facsimile of Loos' unbuilt House Baker (1928) together with a reconstruction of the legal disputes around the ownership of Loos' archive and work. Italian group San Rocco presents The Book of Copies, which addresses the idea of influence and recalls 18th century pattern books. The project comprises epared by invited architects, each of whom has assembled photocopies relating to a thematic building typology. Readers as: versions of the book. FAT's Museum of Copying explores the idea of the copy in relation to the Biennale theme of 'Common Ground', arguing that copying is a force that creates common architectural language and is simultaneously the site where radical reinvention occurs. 1 Copyright Emap Limited Aug 16, 2012 Indexing (details) Cite Subject Architecture; FAT Architects: The fake and the authentic Publication title The Architects' Journal Publication year Publication date Aug 16, 2012 Year 2012 Publisher Emap Limited Place of publication London Country of publication Publication subject Architecture, Building And Construction 00038466 search.proquest.com/docview/1033576789/140FE1B6EA84F29E74D/16?accountid=14987 1/2

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P.O4 Jacob, S. 'Venice preview: FAT Architects.' Architects Journal, 16 August 2012

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Villa Rotunda Redux & The New Originals

Strange Harvest

Architecture, Design, Culture

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Villa Rotunda Redux & The New Originals

Nigel: And then we looked at each other and says well we might as well join up you know

and uh.... David: So we became The Originals.

Nigel: Right.
David: And we had to change our name actually....

Nigel: Well there was, there was another group in the east end called The Originals and we had to rename ourselves.

David: The New Originals.

Nigel: The New Originals and then, uh, they became....

David: The Regulars, they changed their name back to The Regulars and we thought well, we could go back to The Originals but what's the point?

Spinal Tap

I'm posting this while assembling FAT's contribution to the Venice Biennale which centres around a piece called the Villa Rotunda Redux.









Left to Right: Villa Rotunda, Chiswick House, Monticello, Beit Falastin

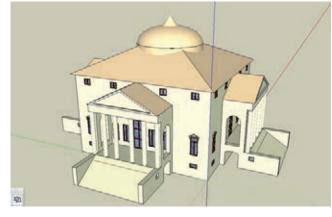
The Villa Rotunda Redux is a copy of Palladio's Villa Rotunda. But it's really an exploration of what happens when you try to make a copy that just happens to use the Villa Rotunda as its subject. Though of course, as a subject, the Villa is architecture steeped in the culture of the copy. So the Villa Redux subject, giant size and process are all attempts to exaggerate the copy-ness of the copy.

Auditing Authorship

In a copy-led design process, the project doesn't start with an original sketch. It starts instead with a thing, an already existing object. Our origin was not in Vicenza, not the 'original' Villa Rotunda but Google Warehouse. Here we found a bunch of Sketchup files of Palladio's Villa, each made, we imagine by amateur enthusiasts. These models range in detail from blocky approximations to texturewrapped detail.

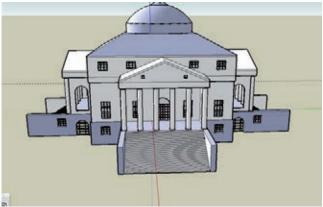
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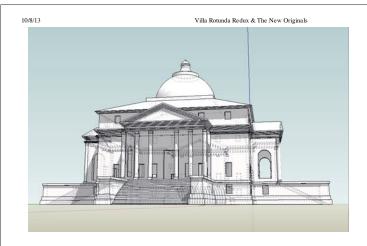
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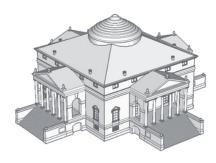


Villa Rotunda Redux & The New Originals

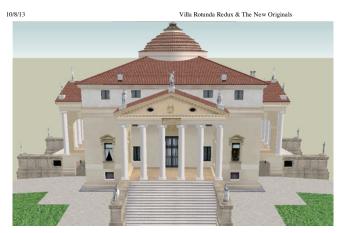
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This file, originally authored by Arrigo Silva was chosen because it occupied a sweet spot of detail and abstraction.

How many other copies of this file exist, how many downloads on to how many hard drives? As of now, the file has been downloaded 16728 times. What has happened to all of these copies of a copy of the Villa Rotunda?

In our case, after downloading, the file was edited: Statues and steps were deleted, other details simplified and so on.

This file was emailed to the fabricators, who in turn sent it to the mould making subcontractor who then converted the file to Rhino, and made other changes that

So we have at least 3 authors of the 3D file, and that's not counting Palladio, the original author: 1st. The Google Warehouse original copy; 2nd. My version, an edited original copy; 3rd, the mould makers iteration which I suppose is a re-make of an edited original copy.

Legally, I wonder who might be able to claim copyright of this work, or infringement of creative commons license in our appropriation of the file. In the artistic sense, we are the authors. But our authorship relies entirely on the work of an anonymous author. There are similarities to the argument that EL James's 50 Shades of Grey is a post-copyright novel.

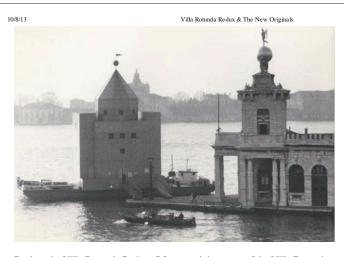
For the intents of contracts, insurance, exhibition captions and other artifacts that attempt to attribute authorship, FAT is the author. And if you should want to buy it, you should contact me. But equally, it couldn't have come into the world without multiple authors.

This might be an extreme form of the normal condition of architecture. Due to myths of authorship, and the medias desire to simplify and personalise the design process buildings are often attributed to a single person. The cast assembled for even the smallest of projects can be legion. Not only project architects, architects, assistants, interns, engineers and other design team members, contractors, subcontractors, authors of standard details, of code-compliant layouts and so on. All of this labour is folded into what appears to a single hand.

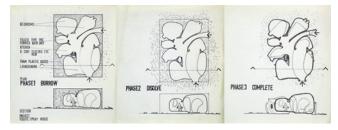
Copy Upon Copy (or the Presents of the Past)

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Back to the Villa Rotunda Redux. Of course, it is a copy of the Villa Rotunda, or at least a copy of someones copy of the Villa Rotunda. But it's also a copy of many other projects. Perhaps even, it copies these other projects even more than the Villa Rotunda. It is, for example a copy of – and these are only the ones that I am conscious of – Aldo Rossi's Teatro del Mondo (The abstract massing of the moulds exterior);



David Greene's Spray Plastic House (the polyurethane spraying into a negative, the synthetic cave of the interior of the cast);



Mario Bottas milled wooden section of San Carlino (the negative space of the building);

Ungers negative column from the Presence of the Past Venice Biennale (the inverted column, or rather the absence of a column, or column as the opposite of structure). There are elements of Venturi's Queen Anne front, Mary-Anne behind, but all mixed up so that front and back switchback between each other. The arrangement of cast and mould also presents a half-section, half-elevation view of the building that recalls Palladio's own drawings of the Villa, the impossible-eyed view of architecture that only drawings allow. And it's also got a lot in common with souvenir buildings, sharing something of their simplified monolithic quality, an entire building made out of one material, all blind windows and doors.

The Reproductive System

The chosen process of fabrication is intrinsically linked to the idea of the copy. The digital file originates the mould. The mould originates the cast. Each is a copy of the other, transformed by the process of fabrication. First, elements of the original Villa had to be altered to accommodate the casting process. No undercuts, porticos filled in and so on. The process of reproduction impacts what it is possible to reproduce.

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Nilla Rotunda Redux & The New Originals

Each stage of fabrication leaves its own mark on the thing that is produced. The size of the bit used in routing the mould differs from the abstract precision of the Rhino file. The sprayed foam introduces imperfections as it falls onto the surface of the mould. As the mould is prepared for the casting process, other interventions interrupt its surface. Drill bits puncture it providing air holes ready for casting. As the polyurethane is sprayed into the mould, it cures sometimes a little too fast for it to fully take up the space of the mould. Air bubbles get trapped. Seams at the joints between the sections of mould appear to interrupt surfaces in ways that contradict their architectural logic. While each step of the process tries to be faithful to the last inevitable transformations occur in transmission.

The process of reproduction also resonates with the multiple iterations of the Villa Rotunda across time and space – all those versions from Lord Burlington, Jefferson and so on. We could think of the Villas linage in that Biblical so-and-so begat so-and-so, who begat-so-and-so. It suggests there is a procreative relationship between copies. Mould as parent, cast as child.

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In fact, the idea of the copy as a form of fertility is suggested by the idea of Cornucopia. Its image of boundless plenty is derived from the mythical horn of the goat Amalthea that nurtured the infant Zeus. From its Latin root cornu copiae, the copy can be thought of a form of plenty, as an endless flow of nourishing goodness.

Black Mirror

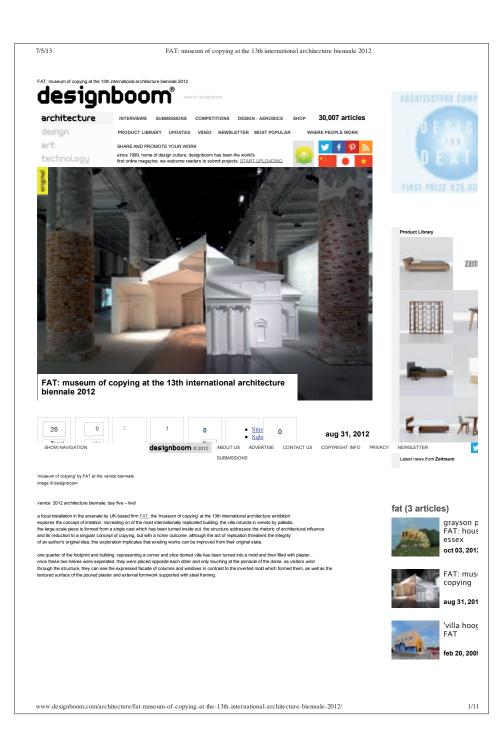


Corner Mirror With Coral / Robert Smithson

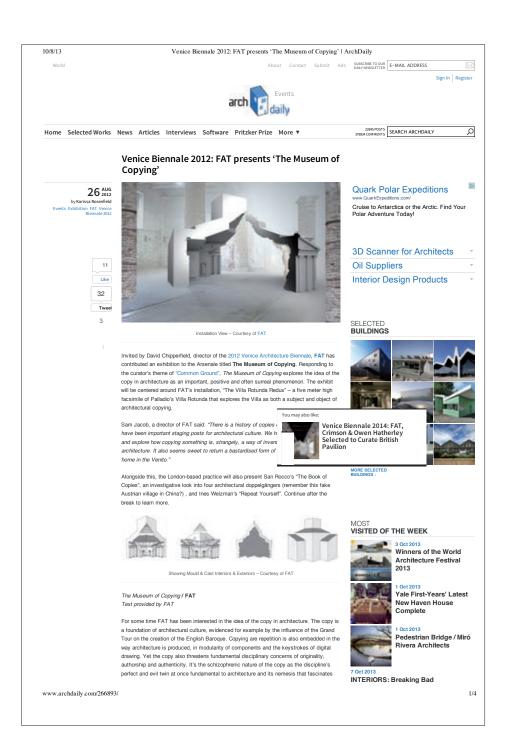
There is a relationship between the Villa's own logics of symmetries and the process of manufacturing this replica. We could read its bi-lateral symmetry as architecture reflecting itself, that the villa repeats a

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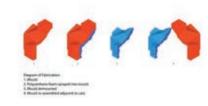
Titled *The Museum of Copying*, our project presents a series of projects that investigate the complicated relationship between architecture and copying.

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27 Sep 2013 Video: What the Sagrada Familia Will Look Like in 2026



Courtesy of FAT

Alongside this, FAT have curated four parallel projects. Architectural Doppelgängers expiores examples of buildings that might otherwise be described as copies, fakes or replicas. Here, the original and double are presented side by side and the unusual stories that motivate the copy are drawn out.

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